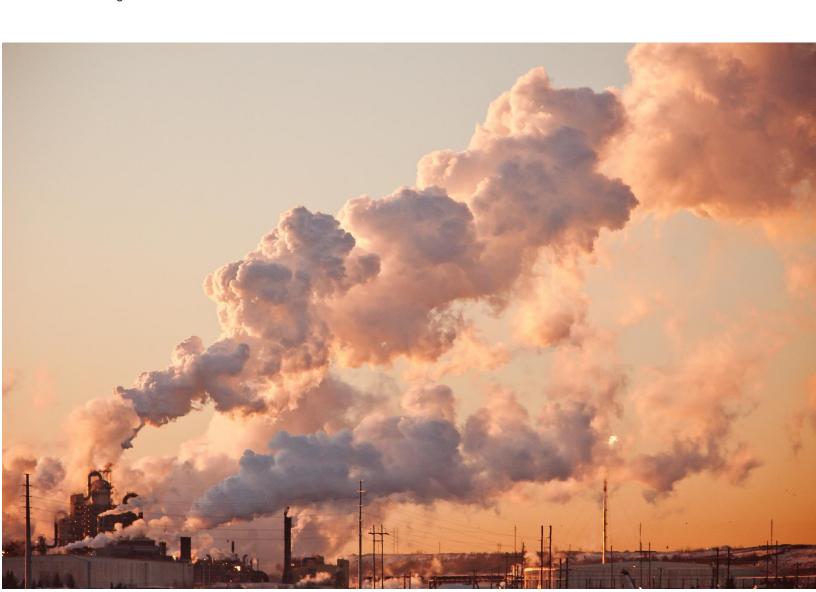


Political Risk Assessment

Canada's Investments in Fossil Fuels and Industry Shifts

Prepared by the Leadership & Democracy Lab, University of Western Ontario

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Abbreviations

BP British Petroleum

CDQP Caisse de dépôt et placement du Québec

CPP Canada Pension Plan

CPPIB Canada Pension Plan Investment Board

ESG Environment and social governance

FFD Fossil fuel divestment

GHG Greenhouse gas(es)

NRR Non-renewable resource revenue

TMX Trans-Mountain Pipeline

Executive Summary

As pressure increases on governments worldwide to move towards sustainable sources of energy, fossil fuel companies have two choices: to continue investing in their current business plans or to work towards implementing more sustainable practices into the business. Canada is in a unique position given the country's reliance on its energy sector.

This report explores how the decision of Canadian pension plan firms to divest from fossil fuel investments impact energy companies. Driven by Higher education Institutions in North America and the general public, the fossil fuel divestment (FFD) movement draws from climate change science to inform its calls for corporations, institutions, governments and individuals to divest their financial holdings from fossil fuel companies. In particular, this report analyses how the FFD in two of Canada's largest pension funds, Canada Pension Plan Fund (CPP) and the Caisse de dépôt et placement du Québec (CDQP) shapes and impacts public opinion and the long term decision of two carbon focused industry players, British Petroleum and TC Energy. In addition, a case study analysis is conducted on comparing the two companies by looking at their history, focuses, financial performance, and future plans. By comparing the responses of two major players in the fossil fuel industry, we will further analyse the importance of the role of leadership in both

companies, whether or not the pension firms' decisions to divest from fossil fuels has had a significant impact on the companies' sustainability initiatives, and potential risks for energy companies that depend or diverge from investments in fossil fuels.

The report comprises of the following sections:

1. Background

A look into provincial and federal policies, public opinion, and the impact of international treaties.

2. The Role of Pension Funds

To build an understanding of how the Canada Pension Plan Investment Board (CPPIB) and the Caisse de dépôt et placement du Québec (CDQP) function and their impacts on industry.

3. British Petroleum and TC Energy: A Comparative Case Study

Comparing and contrasting two energy companies and their different approaches to announcements of fossil fuel divestment.

4. Risks and Mitigations

Evaluating the different risks and mitigations both firms may encounter in the future.



Figure 1: Picture of an oil derrick

Background

Canadian Federal Policy: Net-Zero by 2050

During the Paris Climate Conference in 2015, Prime Minister Justin Trudeau announced that Canada would return to being a formidable leader on the international stage. At the conference, Canadian delegates were among many actors that advocated for the 1.5°C goals. Over twenty-three countries around the world are contributing to tackling the climate emergency in addition to public and civilian contributions globally. Prime Minister Trudeau continuously asserted that Canada would be positioned as a positive contributor to fighting climate change, contrasting Canada's usual image as a "petroleum superpower."

The Paris Agreement entered into force as of November 4, 2016, when Canada ratified the agreement to develop goals to reduce their greenhouse gas (GHG) emissions according to their nationally determined contributions (NDC).⁵ Outlined in the Pan-Canadian Framework on Clean Growth and Climate Change, agreed upon by the federal government and all provinces except Saskatchewan, the Government of Canada committed to reducing Canada's GHG emissions by 30% below 2005 levels by 2030.

Subsequent to the adoption of the Pan-Canadian Framework, under the June 29, 2021, Canadian Net-Zero Emissions Accountability Act, the federal government ensured transparency accountability for its commitment to exceeding the 2030 emissions reduction goal to attain net-zero emissions by 2050.6 Natural Resources Canada justified this decision by recognizing climate change as "one of the biggest threats to global security," and aims to support the decarbonization of heavy-emitting sectors and backs the use of clean technology that reduces emissions domestically and internationally. Since 2015, Canada has domestically invested over 100 billion in "clean growth" and is on track to set "an ambitious new" target this year of 40%-45% reductions, below 2005 by 2030. At the COP26 Summit, the Government of Canada committed to doubling its international climate finance from \$2.65 billion to \$5.3 billion to help developing countries transition to low-carbon, resilient economies in the next five years.⁷

Since the 2015 Paris Climate Conference, fossil fuel extraction in Canada has been increasing, while large-scale energy infrastructure, such as oil transportation pipelines, are halting development in tackling climate change and worsening Canadian and global climate situations.⁸ As the world's fifth-largest oil producer and holder of the third-largest oil reserves, Canada especially has a great responsibility in tackling global carbon emissions.⁹

Federal Response to Coal Emissions

Prime Minister Justin Trudeau announced in 2021 that Canada is working toward ending thermal coal exports by no later than 2030. Eliminating coal emissions are a crucial step in fighting climate change. Trudeau also announced up to \$1 billion for the Climate Investment Funds Accelerated Coal Transition Investment Program to help developing countries that have been affected by developed countries extracting their resources, "transition from coal-fired electricity to clean power as quickly as possible. In addition to the coal emissions policy, Trudeau has also set reaching net-zero by 2050.

Climate Change and Canada's Economy

Reducing GHG emissions is not only an obligation for Canada under the Paris Agreement, but also crucial to mitigate the threat to both Canada's economy and financial system. The Financial System Review from the Bank of Canada stated that "the move to a low carbon economy involves complex structural adjustments, creating new opportunities as well as transition risks." With investor and consumer preferences shifting towards lower carbon sources and production, "transition costs will be felt most in carbonintensive sectors such as oil and gas."14 If some fossil fuel reserves remain unexploited, assets in this sector will lose much of their value while simultaneously, green technology and alternative sources to fossil fuels would likely benefit.15 Therefore, moving labour and capital from the carbon industry towards less carbon-intensive sectors will be costly and time-intensive, while the shift in global patterns may also shift as production costs and values of resources change. The adjustment to these changes is multi-faceted and pervasive, and would lead to an increase in various components to the financial system such as insurance companies are vulnerable to risks from climate change. Given that Canadian banks have loans and assets strongly tied to carbon-intensive upstream and downstream in supply chains inside and outside of Canada, long-term planning related to the energy sector is more critical than ever.¹⁶



Figure 2: Prime Minister Justin Trudeau at COP26

Fossil Fuel Divestments and Public Opinion

Driven by higher education institutions in North America and the general public, the broader climate change movement has seen FFD since 2009. FFD draws from climate change science to inform its calls for corporations, institutions, governments and individuals to divest their financial holdings from fossil fuel companies. The FFD movement has evolved to highlight the "moral and political obligation" of institutions to (1) "freeze any new fossil fuel investments in fossil fuel companies", and (2) "divest from direct ownership and any commingled funds that include fossil-fuel public equities and corporate bonds within 5 years".¹⁷

In 2020, Positive Energy, an energy research program at the University of Ottawa, explored the general public opinion on the present and future of oil and gas in Canada, the role of federal and provincial governments in energy and climate, and how party affiliation, ideology, region, gender, and age may influence opinions on these topics. Canadians are

"generally optimistic" that Canada can "align" climate action with oil and gas development through climate policies, increased corporate social responsibility towards climate change, and a strong export market that reduces emissions abroad. In addition to that, Canadians want the federal government to take the lead in developing Canada's long-term energy and climate vision while leaving provinces "to implement their own climate strategies.

Alberta and the Calgary Oil Patch

Alberta is home to a large portion of Canada's energy sector, in particular, the oil and gas sector. However, recent fluctuations in energy prices have greatly impacted the province as oil and gas industries are looking to shift to sustainable and renewable energy sources. With the government also making increasing amounts of investment in alternative energy sources, companies are being influenced to shift to extracting renewable sources of energy. This is giving incentive for companies to improve their economic and reputational resilience.¹⁸

The cultural divide between Alberta and the rest of Canada dates back to early Confederation; in modern day, Albertans may feel that they have yet to be able to find a voice in Parliament. Alberta only has 10% of the seats in the House of Commons, but their oil production contributes to approximately 17% of Canada's GDP. The country offers equalization payments, cash payments made in some federal systems of government from the federal government to subnational governments with the objective of offsetting differences in available revenue or in the cost of providing services. However, Alberta has yet to receive a payment since 1965. Between 2014-2016, an overabundance of supply caused the worldwide price of oil to plummet, which led to the loss of more than 100,000 jobs in the province and a full-on recession. The Albertan economy has been fragile ever since, but the federal government's lack of acceptable actions has left the province's inhabitants feeling used and ignored. 19

Climate change has been one of the top concerns for the past two elections in both Canada and the US. Trudeau once said he'd like to "phase out" oil sands and promised to decrease emissions to zero by 2050. Although oil sands are the source of most climate problems, they are the lifeline of Alberta as a whole.

The Alberta government relies on non-renewable resource revenue (NRR) in its provincial budgets. NRR has been a source of fiscal volatility, as it has peaked at being 77.4% of provincial revenue in 1979-1980, but has also been as low as 6.5% in 2015/16.²⁰ The government relies on NRR to finance spending increases, which thus supports the energy industry's endeavors.²¹ For example, Premier Jason Kenney committed the government to taking a \$1.5 billion equity stake in the proposed Keystone XL Pipeline. However, the project was cancelled, resulting in the province losing approximately \$1.3 billion.²²

Alberta's economic recession

GDP growth in Alberta vs Canada

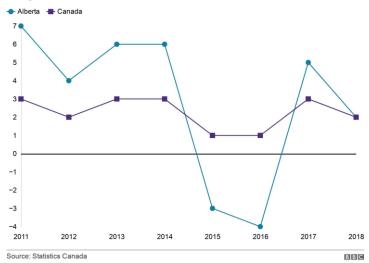


Figure 3: Comparison of GDP growth in Alberta versus Canada

Canada is home to the fourth-largest oil reserve in the world with Alberta holding 170 billion barrels of bitumen.²³ Prime Minister Justin Trudeau committed to spending more than \$12.5 billion to expand the Trans Mountain pipeline which would carry crude oil from the oil sands to Canada's west coast and allow companies access to the growing markets in Asia.²⁴ Canadian companies that are looking to access international markets benefit from "Canada's healthy relationships with other countries."²⁵ The federal government's focus

on energy infrastructure development aims for Canadian companies to break out of the North American market constraints. ²⁶ This goal is reflected in the "regulatory reform around major resource projects, it called Responsible Resource Development (RRD)," which allowed for provincial reviews of projects to dispel the need for a federal one when the "processes are deemed equivalent."²⁷

As of 2017, major oil companies such as Royal Dutch Shell PLC, ConocoPhillips and Total SA began selling their Canadian assets due to pressure from investors and environmentalists.²⁸ Of particular note is that Caisse de dépôt et placement du Québec (CDPQ), one of Canada's largest pension funds, announced it will divest itself of oil company stocks including those of Canadian companies by the end of 2022 to reduce the emissions from their investments.²⁹

Environmental, Social and Governance Reporting in the Canadian Energy Sector

In 2019, 61.8% of the Canadian investment industry consisted of sustainable fund flows.³⁰ As a result, parts of the Canadian energy sector have adopted environmental, social and governance (ESG) reporting with the intention of driving financial investment. As per the findings from the Canada West Foundation, the largest oil and gas and electric utility companies created ESG reports, however smaller companies have not.³¹ However, the lack of a standardized ESG reporting guideline results in companies presenting different metrics, with key sustainability performance metrics being inconsistently reported.³² Thus, it is hard to compare ESG impacts of different companies as the reports between companies vary greatly.

The Role of Pension Funds

The Canadian Pension Plan Investment Board (CPPIB) came into effect in 1966 and began as benefits were paid out of the contributions made by current employees.³³ Currently, CPPIB holds \$497.2 billion in assets and manages the largest pool of pension capital in Canada.34 In 2018, CPPIB introduced its Climate Change Program, which introduced climate risk assessment into CPPIB's investment practice, but did not clarify how and to what extent climate change factors into investment decisions.35 CPPIB also committed to increasing its renewable energy investments and was the first pension manager to issue its green bond to fund further renewable energy investments.³⁶ Even with its commitments to renewable energy investment, CPPIB has indicated its intent to continue with oil and gas investments into the future.³⁷

Alongside CPPIB, the British Columbia Investment Management Corporation (BCIMC), the Ontario Teachers' Pension Plan (OTPP), and CDQP report that their boards of directors oversee the climate-related risks and opportunities through approvals of the funds' climate change plans and receiving status updates from senior management.³⁸ The BCIMC's management, for instance, reports to the board on climate change strategy, risk assessments, and any

changes to the fund's overall approach to climate change.³⁹

The importance of pension funds leadership is that they can play an instrumental role by demanding that index providers develop low-carbon indices aligned with future low-carbon scenarios. 40 The lack of climaterelated disclosure by companies poses significant challenges for pension funds, which ultimately rely on investee companies for information so that they can assess and manage the impact of climate change on their portfolios.41 The OTPP maintains that while the climate change risks to its portfolio are real, it believes that "engagement with companies is a more effective tool for managing climate change than divestment."42 Canadian pension funds do not screen or exclude any investments based solely on ESG factors. If a company's business is lawful, it is deemed an eligible investment opportunity, even though it presents significant ESG risks to the portfolio.⁴³ This approach is grounded in the belief that if a pension fund divests from a company because of its poor ESG profile, others will step in and acquire its holdings.44 In this scenario, the funds lose lucrative returns and lose their power since shareholders can no longer exercise a positive influence over a company's affairs. Divestment is also seen as inconsistent with the pension funds'

Canada pension fund investments in oil sands

Four of Canada's top five pension funds increased their holdings of U.S.-listed shares of major oil sands producers in the first quarter of 2021 compared with the previous year.



Note: Oil sand producers included are Suncor Energy, Imperial Oil, Canadian Natural Resources Ltd, Cenovus

Figure 4: Canada pension fund investments in oil sands

"investment-only" mandate, which requires them to earn maximum financial returns for their beneficiaries. The complexities of pension fund leadership interwoven with divesting from fossil fuels mean that accountability on all levels is required for meaningful change to be made.

CPP and CDPQ account for a combined net worth of \$939.4 billion in Canadian assets within and outside of Canada. Both CPP and CDPQ are subject to the Canadian Pension Laws which expect pension plan administrators to abide by fiduciary duties and place an

expectation of incorporating Environmental, Social and Governance (ESG) factors. However, CPP and CDPQ have contrasting responses towards fossil fuel divestment. On one hand, the CPPIB has increased its fossil fuel investments by 7.7% since 2016. 4647 On the other hand, the CDPQ, with a net worth of 419.8 billion as of December 31, 2021, has reduced its investments in fossil fuels stocks by 14% between 2016 and 2020. 4849 This raises the question of how major players in the carbon-intensive industry would react to the recent push towards fossil fuel divestment.



Figure 5: Oilsands near Fort McMurray, Alberta

British Petroleum and TC Energy: A Comparative Case Study

The British Petroleum (BP) brand was originally created by a German firm as a way of marketing its products in Britain. During the war, the British government seized the company's assets, and the Public Trustee sold them to Anglo-Persian in 1917. Having made it through several bankruptcies and climbing back from the profit in wars, gas and electricity ended up largely replacing kerosene for home heating. gasoline-fuelled delivery vehicles challenged the railways for freight, and the age of the automobile began. These social changes opened a door to Anglo-Persian which allowed them to expand their sales both in Britain and in mainland Europe. With the new millennium came a new focus for the company – within the first five years it had changed its name to BP, set its sights on newer assets and established an alternative and low carbon energy business.50

In contrast to BP, Calgary's Oilpatch is a collection of seven hundred oil and gas companies based in Alberta. In the 1970s, Alberta was hit by a modern-day gold rush. Oil prices soared and adventurers flooded into the province in a frenzied hunt in hopes of becoming a millionaire.51 This paper will conduct a case study on one of Alberta's major oil companies, TC Energy, by looking at their history, focuses, financial performance, and future plans. By comparing the two companies, there are apparent differences that can be seen in their efforts to minimizes financial losses as governments move away from a reliance on fossil fuels. In recent years, the oil industry has faced criticism from environmentalists and average citizens for the industry's contribution to climate change. The expectations for oil companies to adopt sustainable practices will determine if the oil industry can survive in the future.

British Petroleum

Founded in the early 1900s, the British Petroleum company gained success in the postwar world. BP expanded its search for oil extraction in the 1960s and focused on oil reservoirs throughout North

America.⁵² The 1970s were a turbulent decade for oil companies and the oil industry. Oil-producing countries fought for the protection of their resources and the nationalization of oil.⁵³ By the early 2000s, BP had acquired US-based oil and gas companies and officially launched the B.P. Group.⁵⁴ After the 2005 Texas City Refinery explosion that killed fifteen workers and injured 170 people, BP took accountability and began to conduct risk assessments.⁵⁵ Overall, BP has contributed immensely to the oil industry and is currently on its way to forge leadership as a sustainable energy company—according to the company's projections.



Figure 6: BP Sign

BP Response to Pension Fund Divestments

After the CDPQ invested \$65 million in BP, the pension fund says it will divest all its oil investments by next year. ⁵⁶ This is part of the CDPQ's plan to help combat climate change by cutting its carbon footprint in half by 2030, with CEO Charles Emond reporting that "the climate situation affects everyone, and we can no longer address it with the same methods used a few years ago." ⁵⁷ CDPQ owns smaller stakes in several oil companies and has large stakes in the pipeline and natural gas companies, and has around \$390 billion worth of assets tied up in oil-related investments. ⁵⁸⁵⁹ As a public pension fund, the CDPQ receives increased pressure to use its financial power to influence climate policy by investing in sustainable companies.

In response to public pressures. the CDPQ has promised to invest up to \$54 billion in "green assets" by 2025 and allocated \$10 billion to transition investments to companies that are trying to become more sustainable. 60 The CEO insists that taking a leadership role will be positive for other pension funds and investors to follow, saying that they "believe this is in the interests of our depositors, our portfolio companies, and the communities we invest in."61 As governments, investors, and the public are calling for a transformation of the global economy, which currently relies on fossil fuels for 80% of its power, Big Oil industries are facing the question of whether these renewable targets can be met.⁶² The concern for the oil industry is profitability, and shareholders are pressuring oil companies to ensure their business plans survive the shift from oil.63 For instance, Shell has invested in electric vehicle charging stations.64 Another challenge is the approaches by American and European oil companies. Europeans promised a strategic pivot that would upend their core business model while the Americans are placing bets on the power of technology to preserve their current business model — heavily emphasizing carbon capture in their plans.⁶⁵

BP's Leadership Response to Climate Change Policies

BP has placed stakes on a pivot from oil to renewable power. Recently, BP invested in a pipeline of nine gigawatts of solar projects in the United States. 66 BP Chief Executive Bernard Looney, who took office in February 2020, is at the forefront of B.P.'s clean-energy transition policies. 67 Looney became the first significant CEO of an oil company to announce that they would cut future production and aims to slash BP's output by 40%. BP has also pledged to increase its capacity to generate electricity from renewable sources to 50 gigawatts—equivalent to the power produced by 50 U.S. nuclear plants. 68

Looney has sold projects worth about \$15 billion and unloaded oil and gas fields in Alaska and the North Sea and BP is incurring a significant loss in profit to reach its sustainability targets. ⁶⁹ BP has acknowledged that its rapid transition to clean energy will continue to lose money and they do not expect profits to return until 2025 at the earliest. ⁷⁰ Since launching the sustainable transition, BP has slashed jobs and cut 10,000

employees.⁷¹ The company's stock share price has also fallen 39% since Looney became the CEO, being the worst performance by any big oil company.⁷² BP's Chief Financial Officer Murray Auchincloss dismissed the importance of B.P.'s share decline and stated that B.P. and its investors could survive the sustainable transition.⁷³

However, BP's executives express concern that Looney is moving too quickly with trading high-quality oil assets for more speculative renewable-energy investments.74 A former senior BP executive expressed that Looney may have made a mistake in setting a specific target for renewable-power capacity as the targets will be challenging to meet.75 The challenge of convincing shareholders according to Russ Mould, the investment director for A.J. Bell, one of the U.K.'s largest investing platforms stated, "BP is still looking to sell assets, at a time when demand for them is not great, and recycle that cash into renewable-energy assets, where competition for them is fierce."76 Overall, as BP's fossil fuel footprint attempts to shrink, the company will continue to face an uphill challenge in filling the financial void with profits from clean-energy investments. According to oil-and-gas analysts, BP's rapid transformation does not go far enough in reducing climate change. The company's earnings from renewables and low-carbon businesses is expected to represent ten to fifteen per cent of total earnings by 2030.77

The Gulf of Mexico 2010 Oil Spill and Financial Impacts

On April 20, 2010, an explosion on the semisubmersible oil rig, the Deepwater Horizon, set off a chain of catastrophic events that killed eleven crew members and resulted in the worst environmental disaster in recent years. Experts struggled and failed to shut the blown-out well while thousands of barrels of crude oil flooded into the waters of the Gulf of Mexico for 86 days until the oil well was sealed. After the oil was finally contained, an estimated 4.9 million barrels of oil had already been dumped into the Gulf. The cause of the disaster was concluded to be from faulty cementing and casing as the cause of the blowout and the failure of the blowout preventer, a crucial piece of safety equipment, was responsible for the magnitude of the spill after it failed to contain the well.

Deepwater Horizon was leased to BP, thus BP claimed responsibility for the disaster and pledged to pay for the damages sustained to the environment and local wildlife.⁸² BP has fulfilled its monetary obligations, however, the environmental impacts of this oil spill will last for decades to come and is representative of the role oil companies have played in their contributions to climate change.



Figure 7: Deepwater Horizon Oil Spill

The implications of the Gulf of Mexico oil spill starting in 2010 have affected years of shareholder investments and profit for BP. In 2010, the financial cost of the oil spill was \$40.9 billion pre-taxes.83 The implications on shareholders during 2010 were immense as money investors and shareholders lost around \$88 billion.84 Shareholders and investors felt immense implications as B.P. announced that it would suspend paying dividends for the rest of 2010 and establish a \$20 billion fund to pay for claims arising from the spill.85 The most significant shareholders in BP have stayed loyal to the company, namely BlackRock, the money management firm that is BP's largest shareholder.86 Governments were also affected dramatically throughout 2010.87 The Norwegian government pension fund, a long-term B.P. investor, held \$336.5 million shares; the Kuwait Investment Authority owned nearly that much, and China and Singapore owned about 200 million shares apiece.88 Pension funds in the U.S. reviewed their BP investments as well. The State of Wisconsin Investment Board held \$30 million in B.P. stock.89 Meanwhile, the CPPIB approached a monitoring approach and did not initially act.90 However, many investors panicked and

sold their shares within weeks. The Teacher Retirement System of Texas sold several million shares in recent weeks, bringing its B.P. holdings to an estimated 14 million shares.⁹¹ Tim Hoyle, Vice President for Research at Haverford Investments, said his firm sold its shares in BP in early May of 2010 when the spill was still relatively young, stating "we did not believe the risks were worth it ... we saw an unquantifiable liability at that time, and we could not put our client's assets at risk."⁹²

The significance of the oil industry after 2010 led to shareholders calling for increased disclosure from oil companies regarding risks and safety measures.93 In Exxon Mobil's annual shareholders' meeting on May 26, 2010, shareholders demanded increased disclosure about the risks involved in its oil sands projects.94 Investors called for more information on the social, environmental, and legal challenges associated with the projects. Following the BP oil spill, investors became more concerned about dangerous production projects.95 United States Senator Robert Byrd even proposed an amendment to a financial regulatory reform bill that would require companies with "risky workplaces", such as coal mining and oil rig companies, to disclose the significant health and safety conditions that might affect the company's operating results. 96 The oil and gas industry did not suffer negative returns following the BP spill, but those firms with offshore operations in the United States experienced significant negative returns.97 The response of shareholders revealed that shareholders who have the most to lose will be highly cautious before abandoning their shares and association with a significant company. The positive outcome from 2010 was a reform to hold safety standards to better standards as an attempt to stop another oil spill.

By 2013, after a few years of shareholders disposing of their shares and frequent backlash regarding the dividend disposal, BP began to stabilize. 2013 was an important year for BP because the financial consequences of the oil spill were finally being realized. On Tuesday, July 30, 2013, BP admitted that the Deepwater Horizon Oil Spill Trust fund had almost run out of money. 98 This led the company to increasing its estimate on the amount of cash needed to compensate individuals and businesses from \$8.2 billion to \$9.6 billion. Shareholders and investors saw

more returns in 2013, but their confidence still was wavering as BP was working through financing the rest of the oil spill.

However, by 2015, five years since the oil spill, BP had recovered most of the \$40 billion market value that was lost. Shareholders focused more on BP's profitable exploration and production business, allowing for shareholders to gain more confidence. ⁹⁹ Regarding the legal proceedings, in 2014, BP appealed to a ruling by the U.S. District Court for the Eastern District of Louisiana which found BP guilty of "gross negligence" and levied a fine of \$18.5 billion. ¹⁰⁰ In 2014, the company had \$358.7 billion in revenue, down 9% from 2013, but 16% higher than the same year as the accident. ¹⁰¹ Overall, in 2015 BP, proved that legal issues and negative social backlash were unlikely to affect the long-term outlooks as shareholders regained their confidence.

More recently, from 2019-to 2021, BP saw more significant losses in 2019 than in 2018, and the company revealed a dividend-cut amidst the height of the pandemic in 2020. In 2020, BP faced staggering financial losses of \$20.3 billion compared with a profit of \$4.0 billion in 2019. The result of financial losses was due to lower oil and gas prices, significant exploration cancellations, lower refining margins, and low demand.¹⁰³ 2020 was a pivotal year for BP because it demonstrated that the company had lost immense support from investors and shareholders and by failing to protect them during the pandemic. In the summer of 2020, BP cut its dividend payments along with many companies. 104 Longstanding shareholders were upset that BP decided to halve its dividend payment to 5.25 cents a share—the first dividend cut since the 2010 oil spill. 105 Furthermore, the collapse in oil demand throughout 2020 resulted in BP slashing the value of its oil and gas assets by \$20 billion. 106

By 2021, BP had regained its morale due to the focus on sustainability projects that had been planned to launch starting in 2021. They became the latest energy group to tempt back investors as an upswing in crude prices boosted second-quarter results, leading to dividend raises and a \$1.4 billion share buyback program. BP said its higher earnings were driven by more substantial crude prices and margins, but had been offset to a degree by lower results in gas marketing and trading. 108

The financial review from 2010 to 2021 represents how shareholders lost their confidence quickly in BP when the company became less profitable. This is an indication of how BP will weather its endeavours into sustainability. Despite the loss of profit, BP has displayed that the company will adhere to its obligation, however, only the bare minimum. Throughout the year, BP was embroiled in social backlash and legal turmoil, and the company failed to regain its former status in big oil.



Figure 8: Brown pelican covered in oil from Deepwater Horizon

BP's Pledge to Tackling Climate Change

BP's sustainability targets are centred around a gradual transition to relying less on fossil fuels and turning to wind and solar energy and carbon-capture technologies. The net-zero aims by 2020 focus on reducing greenhouse gas emissions, investing in low carbon activities, and investing \$412 million into environmental projects.¹⁰⁹

Before meeting these targets, BP had to face the implications of its oil spills and admit the future actions that will be continued to be taken to warn other companies of the dangers of oil spills and attempt to prevent further cataclysmic disasters. The sharp increase in pipeline ruptures and oil spills has been increasing as pipelines are aging and not adequately maintained. 110 After the oil spill in 2010, experts were able to conclude that BP underplayed the actual effects of the oil spill as the 800 tons a day quoted by BP was a severe understatement. 111 The implications of the 2010 oil well blowout resulted in marine pollution due to high hydrocarbon discharge rates that spread into the sea, released gas, and led to marine pollution and catastrophe. Previous oil spills have been quantified in the discharged liquid oil and have generally ignored gas.¹¹² The fate of plume hydrocarbons from the BP discharge and the impact on the oxygen budget of deep oceanic waters cannot be deduced thus far.¹¹³ By 2022, the only solution to containing oil spills is to cease reliance on oil. BP was one of many companies that were negligent in its safety standards and careless about the implications of the spill. Whether BP has truly felt the full effects of its industries' contributions to catastrophic environmental disasters is unknown.

BP's sustainability initiatives include plans to engage investors and shareholders to build relationships that will assist the company in reaching its targets. BP intends to advocate for policies that support net-zero targets, including carbon pricing, and over time, aims to increase its investment in non-oil and gas businesses. BP wants to be transparent with other companies that it is prepared to leave other companies that do not align with global climate targets. Being acknowledged as an industry leader and transparent in industrial relations is essential in BP's sustainability goals.

The media and public response of BP's sustainability targets are mixed as the company is being respected for championing sustainability in the energy sector rather than conforming to further unsustainable practices. BP is placing high stakes if the company inflicts further damage to the planet's climate and fails to act. 116 After years of trying to impress investors by building more extensive oil and gas reserves, BP stated that it would stop looking for oil and gas in new areas and would slash oil and gas output by 40 percent. 117 The other challenge that BP faces as it tries to reinvent itself is competition in areas where other companies have more experience. 118 BP's annual outlook paper puts forward three widely divergent scenarios for oil and gas consumption. Looney says in the report that "the world is on an unsustainable path, and its carbon budget is running out."119 If BP adheres to its targets, it will be the industry leader that it aims to be.

TC Energy History of TC Energy

During the 1950s, there was an energy shortage in Canada and Prime Minister Diefenbaker adopted plans to harvest Alberta's deposits of natural gas. 120 TC Energy was founded in 1951, under its previous name TransCanada Corporation, and its primary objective

was to develop the TransCanada Pipeline. 121 Throughout the 1960s, TC Energy began operations in the chemical industry through establishing gas-extraction plants. 122 Due to some favorable regulatory decisions throughout the 1990s, TC Energy began delivering gas to northeastern United States, expanded its Great Lakes gas transmission and mainline systems, sold to the Californian market, and obtained a license to export natural gas to Michigan. 123

In 1998, TC Energy and NOVA Corp's pipeline operations completed a \$14 billion merger, to create the fourth largest gas pipeline in North America.123 The merger was meant to make Canada a global competitor since NOVA's pipeline network was focused in Alberta while TC Energy's stretched from Alberta to Quebec and connected to the United States.¹²⁴

In 2016, TC Energy announced it would buy Columbia Pipeline Group, a Texas based natural gas pipeline company, for \$13 billion. 125 As a result of the acquisition, TC energy gained a pipeline network in Pennsylvania and other nearby states. 126 Overall, TC Energy's history is indicative of its goal of being an international competitor in the natural gas pipeline market.

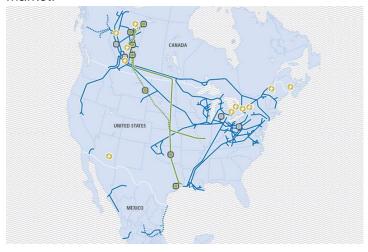


Figure 9: TC Energy pipelines

TC Energy Today and the Canadian Pension Plan

As of 2021, the CPPIB has \$329.90 million invested in TC Energy. The company was previously known as TransCanada and is a Canadian pipeline company with three streams of business: natural gas pipelines, liquid pipelines, and power and storage. TC Energy supplies 25% of North American demand through its pipelines, has delivered over 3 billion barrels

through its liquid pipelines, and powered 4 million homes. TC Energy views itself as being "more than a pipeline company," and positions itself as being an essential service, necessary for the operation of modern life. 130

Historical Performance: Sustainability

TC Energy's Scope 1 GHG emissions are primarily from its stationary combustion sources and has seen a slight decrease from 16 118 thousand tonnes CO2e in 2016, to 15 811 thousand tonnes CO2e in 2020. Emissions peaked at 16 198 thousand tonnes CO2e in 2019.¹³¹

Scope 2 emissions are related to TC Energy's emissions at its storage assets and due to increased storage demand the emissions have increased from 350 thousand tonnes CO2e in 2016 to 2050 thousand tonnes CO2e in 2020. Between 2017 and 2018 Scope 2 emissions increased by more than six times, jumping from 344 thousand tonnes CO2e to 2343 thousand tonnes CO2e.¹³²

Scope 3 emissions are comprised of fuel and energy related activities, business travel, waste generated in operations and upstream leased assets. It is important to note that Scope 3 GHG emissions covers 15 categories, but TC Energy's sustainability report only reports on the four aforementioned categories. As well, data for Scope 3 emissions only has been reported from 2018, whereas Scope 1 and 2 emissions had data going back until 2016. Since 2018, Scope 3 emissions have decreased from 3026 thousand tonnes CO2e, to 2703 thousand tonnes CO2e in 2020.¹³³

TC Energy also reports on air quality metrics, however it is difficult to discern a pattern because prior to 2018, only its Canadian operations reported on nitrogen oxide, sulfur oxides, volatile organic compounds and particulate matter 10 micrometers. 134 As of 2019, both the US and Mexico operations have been included in its reporting, with very little changes between 2019 and 2020 occurring. TC Energy only began reporting on biodiversity, land capability and hazardous waste metrics as of 2020 which also makes it difficult to recognize any trends. 135

Historical Performance: Financial Prior to Keystone XL Pipeline Cancellation

TC Energy prides itself on its strong financial performance as it has averaged a 12% average annual shareholder return since 2000 and expects future dividend growth of 3 to 5%. 136 Revenues were on a slight decline in the past three years going from \$13 679 million in 2018, to \$12 999 million in 2020. 137 Net income attributable to common increased, going from \$3 976 million in 2019, to \$4 457 million in 2020, representing that the company had been managing expenses effectively or improving their cost structures. 138 Despite the revenue decline, the net income increases represented why TC Energy would be viewed as a favourable investment.

There were 4 pipelines under construction in Canada and the US, with three of them being expansion projects. In Mexico, TC Energy is currently constructing 2 new pipelines. Seemingly, the financial report does not take into account the outlined sustainability initiatives. It is also unclear how TC Energy will be able to invest into more sustainable technology or into research and development while also continuing to deliver on its shareholder growth. To deliver on promises of dividend growth in the case of a declining revenue trend, TC Energy would likely have to decrease spending instead of increasing.

Keystone XL Pipeline

Since 2010, TC Energy promoted its Keystone XL pipeline expansion project to investors as the next phase of its U.S. project because it would allow TC Energy to deliver crude oil from landlocked Alberta to markets in the U.S. Gulf Coast. 141 The expansion was expected to increase the pipeline's capacity from 500 000 Bbl/d to 1 100 000 Bbl/d. 142 The construction of the pipeline was controversial since it was expected to emit more GHG because the pipeline would carry bitumen. Bitumen requires more processing, and its access means that Alberta's boreal forests are destroyed. 143 Environmentalists, a coalition of local Indigenous leaders, and local ranchers opposed the pipeline's construction. Supporters of the pipeline argued it would bring "thousands of good-paying American jobs." 144

However, the project was cancelled in June 2021 when the U.S President, Joe Biden, revoked a cross-border presidential permit which was required to

build the pipeline. As of November 2021, TC Energy filed a notice of intent to seek compensation through a North American Free Trade Agreement legacy claim under the Canada-United States-Mexico Agreement. The company cited its responsibility to its shareholders to recoup losses from the revocation of the permit which ultimately led to the cancellation of the project.



Figure 10: Proposed route for Keystone XL

Keystone XL Pipeline Financial Impact

The revenues of 2021 increased to \$13 387 million with the segment primarily responsible for the \$388 million increase being power and storage. This growth represents TC Energy's resiliency in the face of crisis and its diversified revenue streams, furthering its depiction as a lucrative investment.

Net income attributable to common shares decreased drastically to \$1 815 million and on a per common share basis went from \$4.24 in 2020 to \$1.87. TC Energy cited the \$2.1 billion after-tax asset impairment of the Keystone XL pipeline project as the driving factor for this decrease. However, TC Energy promoted to shareholders that its comparable earnings were \$4 153 net income. Comparable earnings were calculated by adjusting for the impairment loss from the Keystone XL Pipeline, and puts the earnings in a scenario where the loss did not occur since it is a one time loss. The comparable earnings per share depicts an increase from the adjusted 2020 level of \$4.20 to \$4.27 and furthers the image that TC Energy is a reliable company to invest in.

Despite the cancellation of the Keystone XL Pipeline, the TC Energy stock received a vote of confidence from the Bank of Montreal (BMO), since it made BMO's Chief investment Strategist's list of stocks that "outperform." As such, it seems that the cancellation of the project did not have any immediate financial impacts for TC Energy.

TC Energy's Sustainability Initiatives

In the message from TC Energy's leaders, within the 2021 annual report, the company's strong focus on ESG was emphasized. TC energy outlined two main goals through its ESG report: 1) "targeting to reduce GHG emissions intensity 30% by 2030," 2) "positioning to achieve net zero emissions by 2050". 150 TC Energy found 71% of its emissions were produced from the combustion of natural gas to operate pipelines, 11% were produced by its electricity consumption to power primarily its liquids pipelines, 10% were unintentional emissions or leaks, and 8% were vented emissions. 151 TC Energy released a "Roadmap to 2050" which highlighted 5 focuses the organization would take on to achieve its goals.

The first focus is to modernize current systems and assets, however, the focus of this step is on unintentional emissions or leaks which only account for 10% of their emissions. The primary action that TC committed itself to was enhancing its leak detection and repair programs, and working with other groups such as the Interstate Natural Gas Association of America, the US Environmental Protection Agency Natural Gas STAR program and the Canadian Energy Partnership for Environmental Innovation to collaborate on emissions solutions. TC Energy will also be piloting new technologies that can capture the vented emissions. The secondary item TC Energy committed to was installing waste heat recovery units on compressors. 152 However, it is unclear if this would reduce combustion emissions since there is only a "potential" for the heat "to be converted into electricity and generate zerocarbon power."153

The second focus TC Energy outlined in its roadmap was decarbonizing its own energy consumption. TC Energy looks to reduce its combustion emissions by converting gas compressor stations to electric motor drives where it is feasible to do so.¹⁵⁴ The plan however fails to specify how much of TC Energy's

compressor fleet would be impacted. Furthermore, it proposed installing dual-drive compressor motors in strategic facilities and in facilities where the motors are outdated. The project would result in a reduction of over 27 000 tCO2e per year. 155 TC Energy has already acted on this step through it proposing the Virginia Electrification Project, which would reduce its net emissions.

The third focus is to invest in low carbon energy and infrastructure. TC Energy will do so by investing in renewable energy, growing its renewable natural gas receipts, continuing its investment into Bruce nuclear, and assessing the opportunity that hydrogen poses as well as carbon capture, utilization and storage poses. The Roadmaps do not clarify how much money will be invested into renewable energy projects. As well, due to TC Energy essentially committing to conducting its due diligence on technology, it fails to give an estimate on how much this step could potentially reduce its emissions by.

The fourth focus is to drive digital solutions and technologies. The plan mentioned deliverables such as using artificial intelligence (AI) and machine learning for decision making, but no clear link was drawn as to how this would reduce emissions or if there has been any success through such an investment. ¹⁵⁷ Essentially, the step is to further TC Energy's investment into research and development.

The fifth focus is to leverage carbon credits and offsets by engaging in voluntary markets and participating in compliance markets. ¹⁵⁸ It looks to invest into carbon offsets but at this point has only committed to investigating the opportunity. It is important to note that this Roadmap was only released recently and TC Energy's commitment to these deliverables remains to be seen.

Comparisons between BP and TC Energy

When analysing TC Energy and BP's position on oil, it is apparent that TC Energy, specifically looking at Canada's oil industry, is dependent on the financial backing of oil investments. Around 5 percent of the country's GDP is dependent on oil, therefore, demonstrating diverging leadership opinions of oil firms between Canada and the UK. In addition to the GDP dependency on the oil industry, both TC Energy and BP

have demonstrated diverging perspectives on climate change. For instance, TC Energy has stated in the past that they are unwilling to disclose emission from its production of oil and gas products. This perspective demonstrates the reliance and dependence on oil within Canada. This leadership positioning showcases TC Energy's solidified stance on oil and its unwillingness to comply with current climate change standards. In contrast, BP's leadership position has had strong convictions to conform to proper climate change standards. For example, BP has committed several to governments and cooperation to handle property climate change protocols. From this comparison, it is evident that Canada's stance on oil is quite firm, and they are unwilling to make changes. This leadership style demonstrates the dependency on oil. This is very diverging from BP's position as they are willing to transition to better sustainability practices. From a financial perspective, the UK's oil industry does not play a large role within its GDP compared to Canada. This is where Canada demonstrates their forceful leadership dynamic, while the UK's leadership is more adaptable to the climate change standards.



Figure 11: Protestors against Keystone XL in Washington D.C.

Risks and Mitigation Strategies

Risk 1:

When pension firms follow the Canadian government's and energy firms' lead, they may make the same optimistic and ambiguous goals. They fail to execute due diligence with policies to ensure these goals can be achievable in reality.

Mitigation 1:

The common theme in new policies and actions by energy organizations such as BP, Trans Canada, and the Canadian government is the lack of specific goals and concrete consistent steps to improvement. On December 9th, 2021, the Canada Energy Regulator (CER) published their Canada Energy Future 2021 report which revealed key insights into these issues of implementation. Based on the Evolving Policies Scenario presented in this report, fossil emissions are expected to decrease, however they make these predictions according to policy assumptions based on "existing global and domestic policies at a pace consistent with recent trends." This is a very ambiguous and optimistic statement as we know policies take a long time to pass and struggle with agreement across provinces and even more globally. This means, that the policy assumptions are too optimistic resulting in these measurements as well. The report notes that more longterm change steps are needed to even achieve the Canadian government's net-zero targets by 2050. Political and government policy cannot be the only improvement it needs to complement consistent plans of sustainable technology investments and consumer behaviour and preferences.

The International Institute for Sustainable Development criticizes the CER report even further. They criticize that all their calculations are from policy assumptions, they do not provide the critical information to provide guidance to policymakers and businesses (ex: pension firms) interested in making a meaningful impact, not just unattainable ambitions. For example, A specific model in depth is not provided to public or private stakeholders to even achieve Canada's ambitious targets for the Paris Agreement to slash emissions by 40-45%. This leaves them unable to make economic decisions aligned with these targets.

Unfortunately, the "Evolving Policies Scenario" does indicate the "fossil fuels will still make up the majority of Canada's energy mix in 2050" out of line with net-zero emission goals. There is only short-term guidance to operations, not sufficient to mitigate policy or financial risks for this large timeline to 2050. Economic diversification takes much consideration federally, and for each province especially Alberta if we are asking to decrease public investing in fossil fuels to meet pledges made on the global stage. Even the International Energy Agency (IEA) does not communicate the urgency of divesting from fossil fuels or clearly educates new energy efficiency options to replace them. Canada and the international community need advice that considers all targets their country has committed to and uses aligned oil prices across reports. Energy companies like BP and TC energy play a significant role in achieving these climate change goals and influencing pension firms to invest or divest from the fossil fuel industry. Therefore it is imperative for these companies to move forward with policy guidance on what are the specific steps for communities and their workers to make these decarbonization commitments tangible. Pension firms realize they have a fiduciary duty to their contributors to address a pressing threat that will only increase in importance and effect on the economy. They should not follow the footstep of ambitious unachievable goals or the "Greenwashing" trends in government.



Figure 12: Protestors for climate action in Toronto, Canada..

Canada is behind its global peers and should listen to how those globally are acting for immediate

change rather than practicing company greenwashing. For example, the Netherlands' ABP is a good pension firm leader as they are divesting from fossil fuels and investing in auto or aviation sectors. This is a pivotal strategy different from what has been discussed in the case studies. Integrating new ESG assessments into many large companies' strategies could benefit many stakeholders as they are finding other growing industries that would help growth economically and climate change goals. As well, the negative externalities produced by investing in fossil fuels can be altered to positive externalities by supporting a profitable industry that is providing a solution to the global climate change emergency.

As well, pension firm leadership boards can hold themselves accountable to be transparent and offer full disclosure of the names, processes, and dollar amounts they are allocating to their commitment to addressing the climate emergency. Currently, there is no set ESG reporting guideline, resulting in inconsistent reporting and many different firms able to construct the "ideal" public perception of their commitment to the global climate emergency even when it might "Greenwashing." Greenwashing means that politicians are pretending to put in real action to climate change but not actually reducing the climate change it's not only the energy organizations doing this. For example, CPPIB and CDPQ as of December 31st, 2020 invest \$329 mill and \$344 mill in just TC Energy alone, not including the hundreds of millions invested in other fossil fuels companies. However, Frank Switzer, CPPIB's board managing director said that they are holding accountability by votes and influence, and that they voted against "44 directors whose companies we determined did not show an appropriate plan to address climate change." CDPQ's defence was it invests in "green investments real estate" for wind and solar international projects. Canadians deserve to get the "full picture of how their pension funds are being invested" and reports do not offer full disclosure of names, dollar amounts, or timelines to withdrawal from fossil fuels

Unfortunately, Canada's response to climate change represents the interests of the industry rather than the Canadians they serve. There has been a lot of greenwashing, in the political parties as they can influence the ideological differences between Canadians on which party has the better environmental policy. Experts are critical of both the Conservative and

Liberal's propositions, but the fact remains that Canada is the only G7 nation to actually increase emissions since Trudeau signed the 2016 Paris agreement. Many Canadians agree there needs to be more done, but skeptical real emissions reductions will be made. A report from Ipsos shows that 71% "believe the country needs to take the lead globally on the fight against climate change." They are also concerned from 58% of respondents believe any" solutions will cause economic hardship." Increasingly, climate change has been a critical influence on their ballot decisions and what made many not vote Conservative as they felt there was not a large enough influence of the environment and their policies "aims to do too little, too slowly." However, misaligned with this is 64% "believed Canada should capitalize on the global need for fossil fuels", with Albertans most likely to agree. Pension firms can take a lead on addressing the misconception of climate change action causing economic hardship and stop Greenwashing. ESG investment plans and policies from pension firms is better for the long term and can bring more return for stakeholders.

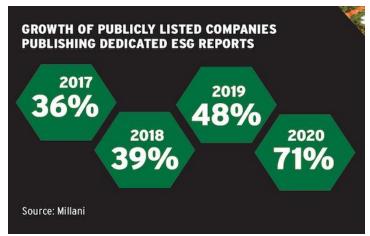


Figure 13: Increase in percentage of companies posting ESG Reports

Risk 2:

Pension firms have a critical responsibility to make financial returns to their shareholders. This makes an ESG transformation challenging, as investment policies will need to change which may leave financial voids or a decrease in financial returns.

Mitigation 2:

Pension firms have a commitment to "help create retirement security for generations of Canadians." They can invest key assets that are not currently needed to pay benefits to Canadian citizens

and invest their assets in other areas that will have financial returns to maintain the longevity of the security they provide to Canadians. Under this current strategy, stakeholders see quick financial gains and have the perception that the fossil fuel industry and energy firms are where they can invest their money with confidence. There has been a public misconception that doing a sustainability transformation would not be feasible for pension firms as they have to offer their stakeholders financial returns and other industries will decrease this financial gain. With stakeholders having this lack of patience with returns, and the climate emergency as a time-sensitive issue, this does not help resolve the issue. There needs to be a new strategy implemented. First, there is an option to lead a conversation about transformation with how jobs and capital will only grow in the renewable energy sector in the long term. In 2018, the International Labour Organization reported there will be 24 million green energy jobs created and only 6 million job losses by the end of the century to maintain levels of global warming, but important to note, this is only if the right policies are put in place promoting green industries and workers protection for this transition. Green energy and production are "more intensive than the fossil fuel energy sector," with new job programs and job training and prioritization of workers over major global companies (human over GDP growth). The IMF has warned against the dependence on subsidies as Canada in 2019 invested 60 billion in oil subsidies, but most of that money goes to global contractors, not Canadian workers. The fact that these fossil fuel companies need subsidies to survive results in a lack of confidence that they are as "lucrative as it claims to be" long-term for pension firm stakeholders and these subsidies do not even include the negative effects that fossil fuel extraction has on healthcare systems. Even for the jobs that depend on fossil fuel reserves, green technology can still help access this value and develop a sustainable plan for extraction. Stakeholders also have a lack of patience to see this turn into money, but the climate emergency doesn't wait and will long-term be more sustainable. Research shows that ESG investments actually did better in COVID-19 as they are more resilient and the younger generation is focusing more on ESG metrics. Combating the misconception of thinking ESG gets lower returns, RBC Wealth Management says - "Portfolio managers that embrace

sustainability investment factors have significantly outperformed their peers." and "some investment fads come and go, the trends driving the need for sustainable business practices are here for the long-term" and it prepares portfolios for the changes in the global economy. Investors are increasingly asking for more called for information on the non-financial metrics of projects and pension firms should start to make these investment changes now.

Risk 3:

Divestment from the fossil fuel industry completely is not possible for all firms, so how do we ensure pension firms invest in energy firms that are showing tangible steps to decreasing their carbon footprint? For instance, Alberta is more economically dependent on the fossil fuel industry than other parts of Canada.

Mitigation 3:

As the two case studies analyze, especially with the Gulf of Mexico oil spill, climate disasters cost money and result in economic consequences for citizens and investors. As well, shareholders are now hesitant with their trust in the company as we saw with BP. Costs from these climate disasters translate into billions of dollars paid even 10 years later. Even though this is understood, provinces like Alberts with a high reliance on NRR for government increased public spending makes the province's fiscal position very volatile. This dependence can cause public money and public programs to potentially be at the control of a pipeline project being successful or getting cancelled. Canadians' right to other public goods and institutions provided by the government should not be at risk because of their risky decisions on NRR as the projections are decreasing. NRR is sensitive to other factors such as market conditions and production costs, and cannot be a province's dependent revenue for public spending. Even worse, fossil fuel income cannot be depended on to save for a green transition, even though that's what some Canadians and Albertans desire. It should be disclosed when governments or Pension firms are using Non-reliable resource revenue as a reliable investment for financial gain. This can help the public and Canadian citizens gain a greater understanding of how volatile this revenue is and how it

effects the security and longevity of their pension programs.

FIGURE 5

Five lenses for climate action



Figure 14: Climate action lenses by Deloitte

To ensure fossil fuel companies are making real steps to sustainable infrastructure governments can do their part and encourage R&D sharing across organizations. As well, The Oxford Review of Economic Policy included experts illustrating five areas of economic stimulus to help transform from fossil fuel-intensive economy. Most important is education and research. There needs to be more education and training in post-secondary green tech not cutting of these funds. There needs to be more R&D in clean solutions not more in oil investments and there be

education that there are financial gains in other industries or more sustainable practices to extract oil. The problem is governments rely too heavily on new "clean technology" yet it does not exist yet if companies do not have the capabilities to develop it. The government investing in companies' R&D and sharing information rather than trusting firms to make sustainable choices on their own is more proactive. Without a clear green recovery plan, the needs and wants of climate action from Canadians will not be turned into real action from energy firms or smarter investments of pension firms, no matter which politician they elect.

In Canada, it will always be a challenge when federal goals are made and specific provinces have different agendas- this is why more collaboration needs to be made. As mentioned Alberta's oil production is 17% of Canadas's GDP so it's challenging to say divest from them without providing another option. The government should be clear that a removal of the reliance on fossil fuels will happen. Clear expectations and guidelines for tools available to measure carbon footprints and responsible investing and transparency policies should be clearly communicated by the federal and provincial governments to pension firms and energy firms. Potentially some progress can be made, as it is progress TC energy has 4 focuses of improvement but it is not clear how they have enough revenue to do so and how they are motivated to do so rather than keeping their shareholders happy with dividend growth.

Conclusion: Did Pension Firms' Fossil Fuel Divestments Impact the Industry?

The roles that the pension firms are taking are often performative in order to stay on trend with new investor interests and have the public reputation they care about environmental practices and the global climate emergency. They recognize that their contributors care about these topics as the fight against climate change is influencing political ballot decisions and overall public opinion. However, the case studies and risk section show that even though ESG metrics are becoming popular, many pension firms (ex: CPPIB), have an investment-only mandate. This can cause performative environmental policies or metrics to not be fully executed, In reality, hundreds of millions of dollars are still invested in the fossil fuel industry. They can present to the public various innovative tactics that include technology with Al or decarbonization efforts with new infrastructure but commitment or real evidence of progress is not as openly disclosed to the public. If progress was continuously recorded and disclosed to the public, this action could be deemed more as corporate social responsibility (CSR) measures. For example, BP is having a huge transformation that is

affecting their share price, but believe their sustainable transition will be worth it long term for their stakeholders. They are sacrificing their financial returns to make an urgent sustainable transformation as they recognize the time-sensitivity of climate emergencies. They are being more proactive because of the devastating effects they had to deal with after the Gulf Oil spill, but other energy firms and pension firms should follow their lead. Pension firms remain not ready to make these large steps as they still want to keep all their stakeholders happy, which translates into trying to invest in small amounts of greener technology or being more cautious picking companies but still dominantly investing in fossil fuels. These half-way or small investments. unfortunately, have no impact and they need to make better decisions that may not have an immediate financial gain, but something that is critical to understand for the long-term. The concern for pension firms is profitability and securing pensions for Canadians, but their business plans need to integrate real CSR actions and maintain relationships with the right shareholders who share this view.



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