

2022 CANADIAN PENSION CLIMATE REPORT CARD

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Produced by

Shift Action for Pension Wealth and Planet Health

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ABOUT SHIFT

Shift Action for Pension Wealth and Planet Health is a charitable initiative that works to protect pensions and the climate by bringing together beneficiaries and their pension funds on the climate crisis. We help Canadians understand where their retirement wealth is invested by tracking pension fund investments and climate policies. We educate and empower Canadians on how to engage constructively with their pension funds. Now is the time for Canada's pension funds to shift their investment approach and invest in a prosperous zero-carbon future.



ABOUT MAKEWAY

Shift is a project on MakeWay's shared platform, which provides operational support, governance, and charitable expertise for changemakers. The shared platform enables more time and money to go towards achieving greater impact. MakeWay is a national charity that builds partnerships and solutions to help nature and communities thrive together.



ABOUT MELONTREE

Melontree Studios is a boutique design agency that, over the last 15 years, has specialized in branding, design and marketing for Canadian and international charity and non-profit organizations.

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EXECUTIVE SUMMARY

Canada's largest pension funds have an outsize role to play in protecting the retirement security of millions of Canadians from the financial risks of climate change and deploying pension capital to rapidly transform our energy systems and decarbonize the economy.

The climate crisis poses existential challenges for pension funds, from accelerating risks to individual investments and economic sectors to growing threats to the stability of the economic, ecological and financial systems on which retirement security depends. Meeting fiduciary obligations to invest responsibly over the long-term requires new and unprecedented changes to the way pension funds allocate capital, make investment decisions and manage assets. Financial institutions at every level are discovering just how steep the learning curve is for creating and implementing credible climate plans.

With this inaugural Canadian Pension Climate Report Card, Shift has established an independent benchmark for evaluating the quality, depth and credibility of pension fund climate policies based on the latest science and international best practice. Our goal is to educate pension managers, pension directors and trustees, plan members, sponsors and other stakeholders of progress to date, document specific challenges and shortcomings faced by individual funds and highlight best practices and emerging leadership. This report focuses on 11 of Canada's largest pension managers, including the so-called 'Maple 8', and includes examples of four international pensions for comparative purposes. This benchmark can be used to evaluate climate plans for all Canadian pension managers, which collectively manage over \$4 trillion.

This report independently builds on and complements the Canadian Pensions Dashboard for Responsible Investing¹ and Building Climate Resilience in Canada's Pension Funds² reports, which use a wide range of sustainable finance metrics to quantitatively and qualitatively assess the climate and responsible investing approaches of major Canadian pensions, as well as providing important recommendations for improvement.

Shift reviewed pension fund climate strategies using a range of quantitative and qualitative indicators. Quantitative indicators are included in the report to provide general information and context for the authors' assessments, but were not directly factored into assigned scores. The qualitative indicators used to evaluate pension fund climate strategies are the basis upon which letter grades were assigned. They include:

- · Credible Paris-aligned portfolio-level climate targets
- Ambitious and accountable interim climate targets
- The extent to which the pension manager is communicating the urgency and severity of the climate crisis
- The robustness of pension fund engagement programs, strategies and actions to align portfolio companies to climate targets
- The degree to which pension managers have integrated climate in investment strategy and decision-making across the organization
- Policies to exclude fossil fuels in recognition of financial risk and engagement limitations.



Pension Fund Climate Scores

For a detailed analysis of each fund and its scores, click on the fund's name in the table below. (Pension funds are ordered from best to worst score).

	OVERALL SCORE	Paris- Aligned Target	Interim Targets	Climate Urgency	Climate Engagement	Climate Integration	Fossil Fuel Exclusions
CANADIAN FUNDS							
CDPQ	B+	A	В	A	В-	В	В-
<u>OTPP</u>	В	A	В	A	B+	В-	F
<u>UPP</u>	В	A	В-	A	В	В-	D+
<u>IMCO</u>	B-	В	В-	B+	C+	C+	D+
<u>PSP</u>	C	F	В-	B+	C	C+	F
<u>CPPIB</u>	C-	С	F	В	C+	C+	F
<u>BCI</u>	D+	F	D+	C+	C	C+	F
<u>OMERS</u>	D+	C	C	C+	D-	D+	F
<u>OPTrust</u>	D+	C-	D	C+	D	D	F
HOOPP	D	C-	D	C	F	F	F
AIMCo	D-	F	F	D+	D-	D	F
INTERNATIONAL FUNDS							
Nest	A-	В-	C+	A +	A	A-	В
AP2	B+	A-	C+	A-	В-	В	A
NGS Super	В	В-	C	A	В+	В-	В
NYSCRF	В	В-	C	В	A	В-	C+

Key Findings

- Not yet climate-aligned. The climate plans of Canada's largest pension funds are not yet aligned with the path required to protect the retirement security of beneficiaries while ensuring a safe climate future.
- Signs of progress. The majority of Canada's largest pension funds have made measurable progress in recent years in developing investment strategies that address the risks and opportunities of the global climate crisis, but far more is needed.
- Significant variability. The degree of urgency, detail, transparency, rigour and ambition of approaches for managing climate-related risks and opportunities varies significantly.
- Lack of transparency. While disclosure of climate-related financial risks has improved over time, it remains impossible for beneficiaries and stakeholders to properly assess the degree to which beneficiaries are exposed to climate risks based on the information publicly disclosed by their pensions.
- Lack of interim targets. The majority of Canadian pension funds do not have meaningful interim emissions reduction targets.
- No absolute emissions targets. No Canadian pension fund has adopted portfolio-wide absolute emissions reduction plans.
- The black box of Scope 3 emissions. Just one
 Canadian fund has reported the scope 3 emissions
 associated with its oil and gas and mining assets;
 no other fund has reported any financed scope 3
 emissions.
- Engaging with low expectations, few consequences, and no timelines. Canadian pension strategies for climate engagement with owned companies lack the transparency, rigour, expectation-setting and escalatory measures required to align business models with a path to zero emissions and climate stability. This finding is particularly problematic in relation to Canadian pension funds' ongoing intention to engage with

- fossil fuel companies, for whom there are no credible pathways to decarbonization other than phase-out.
- Early signs of climate integration. Canadian pension funds are increasingly using sophisticated tools to ensure the management of climate risk is integrated across their investment decision-making and asset management processes, including 1.5°C-aligned scenario analysis and financed emissions measurement. Funds are also developing overlapping governance and portfolio management structures that infuse climate risk across the organization, and providing climate-related training and education for staff and directors/trustees. At least two funds have drawn a link between compensation and the achievement of climate targets, a practice that all Canadian funds should adopt.
- fuels lack credible climate-aligned pathways.

 A significant gap has emerged between Canadian pension funds and leading global institutional investors in their approach to fossil fuels. While climate-leading investors have explicitly recognized the urgent imperative of a rapid phase-out of fossil fuels, many Canadian pension sector leaders cling to an unfounded belief that ongoing investment in oil and gas is somehow part of the energy transition.
- Greenwashing is commonplace. Canadian pensions consistently tout their commitment to climate action and Paris-alignment without having made the investment, asset management and stewardship decisions necessary to follow through. For example, many pension managers frequently fail to consistently define and disclose what they consider to be "green assets" vs. "transition assets", thereby undermining their pledges to allocate capital to real climate solutions. Shift has assigned a bronze, silver, and gold "Greenwashing Award" to three Canadian pension funds for making investment activities appear to be more

environmentally friendly or less environmentally damaging than they really are. PSP Investments is awarded the Bronze Star, Ontario Teachers' Pension Plan the Silver Star, and CPP Investments the Gold Star for greenwashing.

 Lack of Indigenous rights and reconciliation frameworks. It appears that only a handful of pensions covered in this report have taken steps to develop an Indigenous rights and reconciliation framework in their investment processes, including transparent policies to respect the rights of Indigenous Peoples in investment decisions. The United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) explicitly requires Free, Prior and Informed Consent (FPIC) for activities that may affect Indigenous Peoples or their territories.

Recommendations

The full participation of financial institutions in climate action is inevitable, both to protect the funded status of pensions, and to prevent a worsening global catastrophe. There is no justification for further delaying action to develop and implement credible climate plans.

This report offers comprehensive recommendations for pension managers, trustees and directors to assess their own management of climate-related risks against best practices for setting short-, mediumand long-term Paris-aligned targets, communicating climate urgency, developing and implementing a robust climate engagement program, infusing the management of climate risks across the organization, and protecting beneficiaries from the unique financial risk profile of the fossil fuel industry. It also includes some recommendations and resources to assist pension funds in developing an Indigenous rights and reconciliation framework. Although comprehensive recommendations for the development of federal and provincial laws, regulations and policies to align Canada's financial institutions with a safe climate future is outside of the scope of this report, the inadequacy of pension fund climate strategies underscores the need for legislative and regulatory reform.

More action on board-level climate governance is also needed from pension fund sponsors and trustees. Climate-related expertise and experience should be a required competency for corporate directors, especially in the governance of pension funds, which have a long-term investment horizon and a fiduciary duty to invest in the best interests of plan members, young and old.

The fossil fuel entanglement of some pension boards is a growing concern, as it creates the potential for conflicts of interest in climate-related decision-making. Ongoing pension board entanglement with fossil fuel companies could delay or impede important decisions required to protect the fund from climate-related financial risks. Fossil fuel entanglements should be avoided for new director appointments.

Adopting credible climate plans is not easy. The climate crisis presents an unprecedented challenge for pensions. No pension fund climate plan will ever be perfect, but all funds must get started with Paris-aligned plans now. Institutions that develop internal expertise, capacity, experience and a culture of experimentation are likely to be rewarded in the long-term.



INTRODUCTION

The climate emergency poses unprecedented and existential risks for the global economy, the stability of the financial system, and the health and well-being of natural ecosystems and human societies in Canada and around the world. Canada's largest public pension managers are institutional investors and universal asset owners with trillions of dollars in assets under management (AUM). They have an outsize role to play in both protecting the retirement security of millions of Canadians from the financial risks of climate change and deploying capital in ways that rapidly transform our energy systems and decarbonize the real economy. Failure to achieve the Paris Agreement goal of limiting global heating to 1.5°C above pre-industrial levels could lead to catastrophic outcomes such as increasingly frequent extreme weather events, sea level rise that submerges coastal cities, widespread collapse of food production and distribution systems, mass migration of human populations, the breakdown of social, political and economic systems, and large swathes of the planet becoming uninhabitable for human societies.3

As long-term investors, pension managers have a legal fiduciary obligation to protect the retirement security of plan beneficiaries. A critical part of protecting retirement benefits includes mitigating climate-related financial risks by helping to ensure a safe climate future into which their members will retire. This obligation requires aligning their responsible investing policies, asset management and investment decisions with emissions pathways that aim to limit global temperature increase to 1.5°C. This report measures the progress made so far by eleven of Canada's largest public pension managers in their approach to climate risk and investment decisions as they relate to the climate crisis.

Objectives of this report

This report analyzes, assesses, and ranks the progress of eleven of Canada's largest public pension managers in integrating climate risks into their investment and asset management decisions. The objectives of this report are to:

 Enable plan members, sponsors and stakeholders to understand how their pension managers are managing the financial risks of climate change and investing their retirement savings while navigating a worsening global climate emergency;

- Identify key indicators, which can be easily understood by beneficiaries and the general public, to measure the progress being made by Canadian pension managers on climate risk;
- Identify specific challenges and shortcomings in Canada's pension sector, as well as other key issues that are not being adequately addressed, to improve the entire industry's approach to climate risk;
- Promote learning opportunities and highlight best practices among Canadian pension managers, as well as international leaders, to ensure that pension managers take more robust measures to protect Canadian retirement savings from climate risk while investing in a safe climate future;
- Identify gaps in climate risk management in the Canadian pension industry to highlight the need for more stringent sustainable finance laws, policies and regulations from the federal and provincial governments.

Why pension funds?

The central role of finance in a liveable, 1.5°C future is recognized in the Paris Agreement, which commits in Article 2.1(c) to "making finance flows consistent with a pathway towards low greenhouse gas emissions and climate-resilient development." The financial sector enables much of the economy's greenhouse gas (GHG) emissions, as well as climate solutions, through its financing, underwriting, credit, investment management and asset ownership activities. Pension funds in particular have a long-term investing horizon, as fiduciary duty requires them to protect the interests of an 85-year-old member who retired twenty years ago the same as a 25-year-old new plan member who cannot collect their pension until the second half of the 21st century.

In recent years, many of Canada's largest pension plans have acknowledged the Paris Agreement, increased their focus on the climate crisis, and taken escalating measures to assess and manage climate risks and opportunities. They have begun to massively scale up their investments in climate solutions, such as renewable energy, green buildings, clean transportation and sustainable agriculture,

while recognizing the need to transform highcarbon infrastructure, companies and assets to generate returns in a decarbonizing world. Yet the degree to which pension managers have integrated climate reality into their responsible investing policies, environmental, social and governance (ESG) integration, investor engagement programs and investment decisions is inconsistent and insufficient. Very few have set credible, science-based short-, medium- and long-term targets with clear pathways for decarbonizing their portfolios. The quality, ambition and urgency of pension managers' climate strategies varies significantly, with most demonstrating a failure to fully appreciate that stabilizing the global climate system is imperative to their ability to invest in the best financial interests and ensure the retirement security of their contributors and beneficiaries.

DOUBLE MATERIALITY

Because of their diversified global portfolios, pension funds face a crisis of double materiality when it comes to climate risk: they are exposed to climate risks while their investment decisions simultaneously influence the pace and scale of decarbonization and the transition away from fossil fuels, thereby contributing to how severe climate risks will become.⁵

As the owners of significant physical assets in the real economy (ports, airports, real estate, utilities, highways, bridges, telecommunications networks, etc.), Canadian pension funds are materially exposed to significant climate-related financial risks, particularly physical and transition risks. For example, a pension fund that owns ports faces material physical risks to these assets from growing damage and economic disruption caused by sea level rise, severe storms and climate-related supply chain breakdowns. Similarly, pension managers that own oil and gas exploration and production companies face material transition risks: a rapid shift to zero-GHG technologies such as electric vehicles, heat pumps and renewable energy will cause demand destruction and asset stranding; climate-related litigation will require polluters to pay for damages they have caused; and increasingly stringent government regulation will aim to reduce fossil fuel demand and supply in order to achieve emissions reduction targets.

At the same time, the investment decisions of pension managers can have significant implications for the pace of the transition away from fossil fuels and, ultimately, the severity of the climate crisis. For example, a pension manager that chooses to finance the construction of a gas-fired power plant is making an investment decision that incentivizes the extraction and combustion of fossil gas for at least another 30 years, thereby locking in decades of ongoing GHG

emissions, making the climate crisis worse. Similarly, a pension fund that buys a fossil gas distribution and transmission network is assuming that gas will continue to be extracted and transported through its pipelines for decades to come in order to earn a return on its investment, thereby incentivizing both the company and its owners to act to perpetuate and lock-in the use of gas.

THE FINANCIAL RISKS OF CLIMATE CHANGE

Physical Risk

The climate emergency is already leading to more frequent and severe weather events, such as hurricanes, wildfires, floods, heatwaves and droughts that are damaging the systems and infrastructure that underpin our economy, disrupting supply chains, impacting essential services, harming employee productivity and causing other risks that impact a company's ability to operate. For pension managers to better understand and prepare for climate change, more advanced tools, such as climate risk modeling and climate scenario analysis, must be developed, continuously updated and used on a regular basis to assess climate risks. Pension managers must also understand different scenarios of climate change at varying levels of GHG concentrations in the atmosphere, as well as their local, regional, national and global impacts.6

Transition Risk

The imperative of rapidly decarbonizing the global economy means that high-carbon sectors, particularly fossil fuels, face massive disruption as new, less polluting alternatives become cheaper and more available. Pension managers must not fail to anticipate the rapid transition away from fossil fuels and the subsequent risk of asset stranding of oil and gas companies and infrastructure, in particular.

Regulatory Risk

With countries around the world committed to the Paris Agreement, government policies, laws and regulations must become increasingly stringent to reduce emissions across the economy. This stringency might come in the form of incentives and regulations to rapidly deploy climate solutions (e.g. renewable energy subsidies or zero-emissions vehicle mandates) or cut the supply of and demand for fossil fuels (e.g. carbon pricing, bans on fossil gas hookups in new buildings or bans on oil and gas drilling). Pension investments in high-carbon companies and infrastructure face growing headwinds from government action to cut GHG emissions.

Legal Risk

A growing number of legal cases are being filed against polluting corporations in an attempt to hold them liable for the damages caused by their GHG emissions, their role in deceiving the public about the harm caused by their products, and their efforts to mislead investors and the public about the environmental impacts of their activities, 7 creating massive liabilities in particular for the oil and gas companies that are most responsible for the climate crisis. In some cases, pension funds themselves have faced legal action for failure to properly assess and manage climate risks.8

Systemic Risk

As discussed above, the climate crisis itself creates unprecedented and existential risks for the ability of pension managers to achieve their mandate. If the climate crisis spirals out of control, destabilizes the financial system and creates permanent headwinds to economic growth, pension managers will find it nearly impossible to generate returns to fulfill their obligation to protect the retirement security of their members.

PENSION FUNDS AS MARKET MOVERS

Canada's eleven largest public pension managers alone have over \$2.1 trillion in assets under management. They are universal asset owners with a long-term investment horizon whose portfolios are diversified across geography and economic sectors. They also have the patient capital and financial scale to systemically influence the pace of the energy transition, the strategic direction of companies in their portfolio, and the future of companies and industries that are most responsible for the climate crisis. The investment decisions of pension managers can send powerful signals to markets and determine whether companies build new gas plants, pipelines and airport expansions, or wind farms, heat pumps, energy efficiency technologies and electrified transport.

CLIMATE RISK AND FIDUCIARY DUTY

Pension administrators have a fiduciary duty to maximize returns for and invest in the best long-term interests of their beneficiaries. A legal opinion from McCarthy Tétrault LLP commissioned by the Canada Climate Law Initiative in 2021 confirmed that pension administrators' duties include adequately assessing and managing climate-related financial risks, reporting to beneficiaries and other stakeholders on how these risks are being managed, and taking decisive action to mitigate these risks.9 This legal obligation can extend to individual pension fund directors and trustees, and to people delegated to make investment decisions on behalf of pension fund clients, such as investment managers like the Alberta Investment Management Corporation (AIMCo), Investment Management Corporation of Ontario (IMCO) or British Columbia Investment Management Corporation (BCI).10 A 2021 legal backgrounder from lawyers at environmental legal charity Ecojustice concluded that the duties of pension administrators require pension administrators to manage climate risks prudently. This will likely include devising a robust, escalatory engagement programme that requires portfolio companies to adopt credible, science-based, Paris-aligned energy transition plans, or excluding companies that do not have credible plans from pension portfolios altogether.¹¹

ALIGNING WITH MEMBER VALUES

A large and growing number of pension beneficiaries are opposed to their pension funds investing in polluting companies that are most responsible for the climate crisis and that have a long and well-documented record of preventing government action to address the crisis. For example, Ontario teachers have questioned why the Ontario Teachers' Pension Plan (OTPP) is investing their retirement savings in oil, gas and pipeline companies that are jeopardizing the future of the students they teach. Similarly, health care workers are opposed to the Healthcare of Ontario Pension Plan (HOOPP) investing their pension savings in fossil fuel companies that are polluting the air, straining the healthcare system and creating an unprecedented global health crisis.

Canadian pension funds are beginning to recognize their members' escalating concerns about the climate crisis and opposition to their investments in fossil fuel companies. 14 But these pension managers have so far rejected calls to remove these companies from their portfolio or credibly demonstrate to beneficiaries how they expect these companies to remain profitable in a world that successfully avoids the worst impacts of climate change. Many public pension managers imply that they are careful to invest their members' savings in line with the values of their members.¹⁵ Some pension funds have restricted investments in other morally objectionable sectors such as tobacco and weapons on this basis, while touting the positive environmental and social attributes of major investments through press releases and reports. But Canadian pension funds have thus far failed to respond to beneficiary concerns about investments in fossil fuel companies and the climate crisis, in spite of overwhelming evidence of these companies' primary role in releasing climate pollution into the atmosphere¹⁶ and their aggressive lobbying and public relations activities aimed at blocking an adequate policy or public response.17

PENSION CAPITAL IN THE ENERGY TRANSITION

Public sector financing alone cannot meet the level of capital required for the zero-GHG transition. Leveraging private investment from financial institutions is also critical to reaching net-zero emissions by mid-century. However, Canadian pension managers, as patient allocators of long-term capital, are in an ideal position to finance the large-scale investments required to decarbonize the global economy.¹⁸

Investing in zero-carbon opportunities also provides exposure to rapidly growing industries already generating significant return on investment. Government climate policies in Canada and around the world have led to an exponentially increasing demand for zero-GHG technologies and infrastructure, shifting consumption and investment decisions towards climate solutions. As clean energy technologies such as renewable energy, battery storage, heat pumps, energy efficiency and electrified transportation have achieved economies of scale over the past decade, costs have plummeted, disrupting incumbent fossil fuel-dependent technologies. Investors that are already committed to zero-GHG economic sectors will also avoid costs associated with carbon pricing, climate regulations and climate litigation, providing a growing competitive advantage. These trends will intensify as the scope and stringency of climate policy accelerates across all levels of government.19

Estimates of government and private-sector investments needed to tackle the climate crisis could be in the order of hundreds of trillions of dollars.²⁰ The International Energy Agency and International Monetary Fund have found that, for a global transition to net-zero by 2050, a complete overhaul of the global energy system is needed. Total annual clean energy investments are needed of around US\$4-5 trillion per year by 2030, four times more than the investment levels of around US\$1.2 trillion per year witnessed on average between 2016 and 2020.21 Canada's own transition to a net-zero emissions economy by midcentury will require investments in the order of \$125-140 billion annually through 2050.22 As large, long-term investors in real assets with access to massive pools of capital, pension managers are well-placed to invest in the energy transition and help emissions-intensive industries with credible pathways to decarbonization align their business models with a safe climate future.

The worsening impacts of the climate crisis and the opportunity of climate solutions has led to a shift in thinking in the international finance community. A growing number of financial institutions, including banks, pensions and insurance companies, have centred climate risk in their investment, lending and advisory services, and committed to net-zero emissions by 2050 or sooner. As of November 2022, institutional investors have committed over US\$40 trillion to investment strategies that exclude at least some fossil fuels from their portfolio,²³ concluding that remaining exposed to oil, gas and coal is not in the best interests of their beneficiaries.

Despite some examples of climate leadership, most Canadian pension funds are lagging behind leading international funds that have acted decisively to protect their beneficiaries from climate-related financial risks and align their portfolios with a safe climate future.



Methodology

SOURCES

The pension fund assessments included in this report are based on publicly available information collected over the course of 2022 from the public websites, annual reports, ESG/sustainable/responsible investing reports, climate plans and strategies, regulatory filings, press releases and other publications of pension funds, as well as news articles, briefing notes and reports from academics and civil society organizations. All sources are listed in the report's references and endnotes, and include up to date information to the best of the authors' knowledge. Shift has also included analysis of pension funds in other jurisdictions that are positioned as climate leaders in the industry for comparative purposes, using the same indicators and methodology as was used for Canadian funds.

It is possible that our data and analysis is incomplete based on the public information that is available. Any errors or omissions are the responsibility of Shift. While significant effort has been made to verify information in this report from public sources, it does not constitute legal, investment or financial advice. The authors welcome input, feedback and corrections from readers, companies and pension fund staff, board members and stakeholders.

QUANTITATIVE INDICATORS

The authors of this report used both quantitative and qualitative data to inform their assessment of pension

fund climate strategies. Quantitative indicators are included in the analysis to provide general information about the pension funds to the reader and to provide context for the authors' assessments. In some cases, comparison of quantitative data is challenging or impossible due to differences in pension fund reporting practices, underscoring a lack of transparency, disclosure and consistency on the part of pension managers and an absence of pension industry reporting standards required by governments. For this reason, the quantitative indicators covered in this report were not directly factored into the scores assigned to pension managers. The quantitative indicators covered in this report include:

- Pension fund assets under management (AUM);
- Percentage of pension portfolios allocated to "sustainable solutions";
- Percentage of pension portfolios allocated to fossil fuels;
- Memberships in climate-focused investor groups and coalitions;
- Notable fossil fuel investments.

QUALITATIVE INDICATORS

Shift assessed pension managers based on a number of qualitative categories. These qualitative indicators are the basis upon which letter grades were assigned to pension managers.

QUALITATIVE INDICATORS

Paris-aligned Target

Whether or not the pension manager has a clearly-defined portfolio-level target to align its portfolio with the goal of limiting global temperature increase to 1.5°C by mid-century, as outlined in Article 2.1(c) of the Paris Agreement.²⁴ This entails the extent to which the pension manager is committed to reducing the absolute emissions of its portfolio to net-zero by 2050 or sooner, while accounting for scope 3 emissions, the role of offsets, and reducing real-world emissions, as well as membership in a credible and accountable international body defining Paris-aligned pathways for institutional investors, such as the Net-Zero Asset Owner Alliance (NZAOA) or the Paris Aligned Investment Initiative (PAII).

Interim Climate Targets

Whether or not the pension manager has short- and medium-term targets for achieving net-zero emissions, as well as the stringency of these interim targets, including percentage of portfolio covered, inclusion of scope 1, 2 and 3 emissions, and absolute vs. intensity-based targets. Other relevant climate-related interim targets were also considered, for example for increased investments in climate solutions and percent of portfolios intended to be covered by a credible net-zero pathway.

Climate Urgency

The extent to which the pension manager is communicating the urgency and severity of the climate crisis to beneficiaries, stakeholders and the public, and the extent to which the pension manager's language reflects an understanding of the urgency and severity of the climate crisis, its potential impacts on the fund's assets, the financial and climate-related implications of its investment decisions, and the pension manager's role in averting the worst outcomes of the climate crisis.

Climate Engagement

With Canadian pension managers frequently asserting their "engagement over divestment" approach, Shift analyzed the robustness of pension fund engagement programs, including:

- Existence of clear climate-related expectations in plan documents (such as sustainable/ responsible investing policies, proxy voting guidelines for climate-related shareholder resolutions, guidelines and expectations of external managers);
- Clear climate-related expectations for portfolio companies (such as commitment to net-zero emissions, prohibition of lobbying against climate action, tying executive compensation to emissions reductions, ending capital expenditures on fossil fuel expansion);
- Establishment of time limits for companies and external managers to meet climate-related expectations, and communication of escalatory consequences for falling short of these expectations;
- Examples or evidence of collaborative engagement on climate.

Climate Integration

A range of indicators which demonstrate the degree to which the pension manager has understood and embedded climate risks across the organization, including:

- · Disclosure of high-carbon exposure
- Quality and disclosure of climate scenario analysis
- Carbon footprinting and Task Force on Climate-Related Financial Disclosures (TCFD) reporting
- Board level climate expertise
- · Board level fossil fuel entanglement
- Detail and contemporaneity of climate plan/strategy
- Compensation structure linked to climate targets
- Membership in a credible and accountable net-zero investor body such as NZAOA or PAII.

Fossil Fuel Exclusions

The existence of pension fund investment exclusions on high-risk fossil fuel companies, including oil, gas, coal, and related infrastructure.

The authors recognize that the qualitative indicators used to analyze, assess and rank pension managers in this report entail a certain degree of subjectivity. Through this process, we hope to highlight best practices, challenges and shortcomings, and facilitate a dialogue with pension managers, beneficiaries, stakeholders, sponsors and governments. A comprehensive methodology and scoring rubric for this report can be found in the **Appendices**.

Finally, the authors assessed Canadian pension managers in two other categories, which did not contribute to their scores but provide further context in how pension managers are managing climate-related financial risks and responsible investing concerns:

Indigenous Rights and Reconciliation

Shift analyzed the extent to which Indigenous rights have been considered by pension managers in the investment process, including the existence of an Indigenous rights policy aligned with the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) and the right to Free, Prior and Informed Consent (FPIC).

Greenwashing Awards

Shift has assigned a bronze, silver, and gold "Greenwashing Award" to three Canadian pension managers for making specific investment activities appear to be more environmentally friendly or less environmentally damaging than they really are. The recipients of the Greenwashing Awards are described in the **Appendices**.

In assessing how well Canadian pension managers are integrating climate considerations across their organizations, Shift recognizes that this report is comparing portfolios at different scales, from the University Pension Plan with AUM of \$11.8 billion to the Canada Pension Plan Investment Board with over a half-trillion dollars in AUM. Different organizations have different levels of capacity and resources to take on the complex task of managing climate risks in the midst of an accelerating global crisis.

The funds and investment managers analyzed in this report are:

Canada:

- Alberta Investment Management Corporation (AIMCo)
- British Columbia Investment Management Corporation (BCI)
- Caisse de dépôt et placement du Québec (CDPQ)
- Canada Pension Plan Investment Board (CPPIB)
- Healthcare of Ontario Pension Plan (HOOPP)
- Investment Management Corporation of Ontario (IMCO)
- Ontario Municipal Employees Retirement System (OMERS)
- OPSEU Pension Trust (OPTrust)
- Ontario Teachers' Pension Plan (OTPP)
- Public Sector Pension Investment Board (PSP)
- University Pension Plan (UPP)

International:

- AP2 (Sweden)
- National Employment Savings Trust (Nest) (UK)
- New York State Common Retirement Fund (NYSCRF) (US)
- NGS Super (Australia)

Pension Fund Climate Scores

For a detailed analysis of each fund and its scores, click on the fund's name in the table below. (Pension funds are ordered from best to worst score).

	OVERALL SCORE	Paris- Aligned Target	Interim Targets	Climate Urgency	Climate Engagement	Climate Integration	Fossil Fuel Exclusions
CANADIAN FUNDS							
CDPQ	B+	A-	В	A	В-	В	В-
ОТРР	В	A	В	A	B+	В-	F
<u>UPP</u>	В	A	В-	A	В	В-	D+
<u>IMCO</u>	B-	В	В-	B+	C+	C+	D+
<u>PSP</u>	C	F	В-	B+	C	C+	F
<u>CPPIB</u>	C-	С	F	В	C+	C+	F
<u>BCI</u>	D+	F	D+	C+	C	C+	F
<u>OMERS</u>	D+	C	C	C+	D-	D+	F
<u>OPTrust</u>	D+	C-	D	C+	D	D	F
HOOPP	D	C-	D	C	F	F	F
AIMCo	D-	F	F	D+	D-	D	F
INTERNATIONAL FUNDS							
Nest	A -	В-	C+	A +	A	A-	В
AP2	B+	A-	C+	A -	В-	В	A
NGS Super	В	В-	С	A	B+	В-	В
NYSCRF	В	В-	C	В	A	В-	C+

Key Findings

- Not yet climate-aligned. The climate plans of Canada's largest pension funds are not yet aligned with the path required to protect the retirement security of beneficiaries while ensuring a safe climate future.
- **Signs of progress.** The majority of Canada's largest pension funds have made measurable progress in recent years in developing investment strategies that address the risks and opportunities of the global climate crisis, but far more is needed.
- Significant variability. The degree of urgency, detail, transparency, rigour and ambition of approaches for managing climate-related risks and opportunities varies significantly.
- Lack of transparency. While disclosure of climate-related financial risks has improved over time, it remains impossible for beneficiaries and stakeholders to properly assess the degree to which beneficiaries are exposed to climate risks based on the information publicly disclosed by their pensions.
- Lack of interim targets. The majority of Canadian pension funds do not have meaningful interim emissions reduction targets.
- No absolute emissions targets. No Canadian pension fund has adopted portfolio-wide absolute emissions reduction plans.
- The black box of Scope 3 emissions. Just one
 Canadian fund has reported the scope 3 emissions
 associated with its oil and gas and mining assets;
 no other fund has reported any financed scope 3
 emissions.
- Engaging with low expectations, few consequences, and no timelines. Canadian pension strategies for climate engagement with owned companies lack the transparency, rigour, expectation-setting and escalatory measures required to align business models with a path to zero emissions and climate stability. This finding is particularly problematic in relation to Canadian pension funds' ongoing intention to engage with fossil fuel companies, for whom there are no credible pathways to decarbonization other than phase-out.

- Early signs of climate integration. Canadian pension funds are increasingly using sophisticated tools to ensure the management of climate risk is integrated across their investment decision-making and asset management processes, including 1.5°C-aligned scenario analysis and financed emissions measurement. Funds are also developing overlapping governance and portfolio management structures that infuse climate risk across the organization, and providing climate-related training and education for staff and directors/trustees. At least two funds have drawn a link between compensation and the achievement of climate targets, a practice that all Canadian funds should adopt.
- fuels lack credible climate-aligned pathways.

 A significant gap has emerged between Canadian pension funds and leading global institutional investors in their approach to fossil fuels. While climate-leading investors have explicitly recognized the urgent imperative of a rapid phase-out of fossil fuels, many Canadian pension sector leaders cling to an unfounded belief that ongoing investment in oil and gas is somehow part of the energy transition.
- **Greenwashing is commonplace.** Canadian pensions consistently tout their commitment to climate action and Paris-alignment without having made the investment, asset management and stewardship decisions necessary to follow through. For example, many pension managers frequently fail to consistently define and disclose what they consider to be "green assets" vs. "transition assets", thereby undermining their pledges to allocate capital to real climate solutions. Because of routine evidence of greenwashing in the Canadian pension sector, Shift has assigned a bronze, silver, and gold "Greenwashing Award" to three Canadian pension funds for making investment activities appear to be more environmentally friendly or less environmentally damaging than they really are. The Greenwashing Awards can be found in the **Appendices** and have been awarded to:

- Bronze Star: PSP, for its purchase of Alaskan fossil gas assets a month after releasing its inaugural climate strategy, failure to disclose how its own assets fit into its Green Asset Taxonomy, and risky investments in questionable carbon offset markets.
- Silver Star: OTPP, for overstating the realistic potential for fossil gas distribution pipelines it owns to be repurposed to transport hydrogen and inaccurate claims about its "net-zero" or "carbon-neutral" airports.
- Gold Star: CPPIB, for its alarming and ongoing pattern of communications, investment decisions and stewardship approaches that misrepresent the potential for the oil and gas industry to align with CPPIB's stated climate obligations. This includes the obfuscation of its investments in fossil fuels and climate solutions, the actions of its privately-owned companies to greenwash their operations and prolong the use of fossil fuels, and an over-reliance on unrealistic assumptions for carbon capture utilization and storage (CCUS) and offsets in achieving climate objectives.
- Lack of Indigenous rights and reconciliation frameworks. It appears that only a handful of pensions covered in this report have taken steps to develop an Indigenous rights and reconciliation framework in their investment processes, including transparent policies to respect the rights of Indigenous Peoples in investment decisions.
 The United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) explicitly requires
 Free, Prior and Informed Consent (FPIC) for activities that may affect Indigenous Peoples or their territories.

Analysis

PARIS-ALIGNED TARGETS

Portfolio-Level Net-Zero Emissions Commitment

A majority of the largest Canadian pension managers have now signaled to their portfolio companies and public markets that they expect them to align their businesses with the goals of the Paris Agreement by committing their own portfolios to reach net-zero by 2050 or sooner. This includes CDPQ, CPPIB, HOOPP, IMCO, OMERS, OPTrust, OTPP and UPP. But the details and credibility of these net-zero commitments varies considerably.

No Portfolio-Level Net-Zero Emissions Commitment
AIMCo, BCI and PSP have so far failed to commit
their portfolios to a science-based climate goal,
demonstrating a lack of leadership in confronting the
climate crisis.

Net-Zero Commitment with an Emerging Plan to Achieve it In some cases, such as CDPQ, OTPP and UPP, the investment managers have made clear efforts to define and commit to net-zero emissions by 2050 or sooner, set ambitious interim targets, and develop an emerging plan to get to net-zero. CPPIB has explicitly said that its net-zero commitment includes all scopes of emissions, including scope 3, while UPP is the only fund to disclose that it sees a limited role for carbon offsets.

Net-Zero Commitment with no Plan

In other cases, like that of HOOPP and OMERS, the pension fund's stand-alone net-zero commitment does not yet have a meaningful plan or strategy to back it.

Contributing to Reducing Emissions in the Real Economy

Some funds, such as CPPIB, PSP, BCI, AIMCo and HOOPP
have given lip service to the goal of bringing down
emissions in the real-world economy with little evidence
that their investment strategy is achieving this goal.
Other funds have set hard targets for the emissions
reductions their portfolios must achieve (CDPQ, OTPP)
and the net-zero pathways that companies must follow
(OTPP). Some pension managers, particularly OTPP and
CPPIB, have begun to map out position papers exploring
what it will take to decarbonize the real economy, and
the role they are going to play in getting there.

Credible and Accountable Net-Zero Groups

CDPQ, IMCO and UPP have confirmed the seriousness of their net-zero commitments by joining credible and accountable international investor groups with rigorous frameworks for achieving Paris alignment (NZAOA, PAII). These investor groups also require signatories to set interim emissions reduction targets and account for scope 3 emissions.

INTERIM TARGETS

Short- and Medium-Term Emissions Reduction Targets

When it comes to acting with the decisiveness and urgency that the climate crisis demands, short- and mid-term financed emissions reduction targets are still lacking from the majority of Canada's largest pension managers. Maintaining a safe climate future requires halving absolute global emissions by 2030,²⁵ but this level of ambition is largely missing from the Canadian pension sector.

CDPQ, OTPP and UPP have strong 2025 and 2030 emissions intensity reduction targets. BCI and PSP have set relatively weak 2025 targets in the absence of net-zero commitments. Other pension managers have neglected to set any portfolio-wide interim targets at all. CPPIB has failed to set interim targets, making it impossible for anyone to hold Canada's national pension manager accountable for making progress on its net-zero commitment. While intensity targets are useful in the short-term, pension funds must pair these with absolute targets to ensure they are on track to achieving net-zero promises.

Interim Targets for Investments in Climate Solutions

Some pension funds, such as OTPP, CDPQ, CPPIB and PSP, have stated interim targets for investments in sustainable solutions. But funds' definitions of such solutions are largely unclear and inconsistent, making it difficult for beneficiaries to distinguish Paris-aligned ambition from greenwashing. Furthermore, while some funds have announced goals to increase the total dollars invested in solutions, it is unclear if any of these goals represent an increase in the percentage of AUM directed to climate solutions. IMCO stands out as a leader in this category, having committed in November 2022 to invest 20% of its portfolio in clearly-defined climate solutions by 2030.

ABSOLUTE EMISSIONS VS. EMISSIONS INTENSITY

No Canadian pension fund has set total portfolio targets for reductions in <u>absolute emissions</u>, a critical shortcoming for climate-alignment. Pension fund emissions reduction targets tend to be <u>emissions intensity</u> targets, typically measured as the carbon intensity of the portfolio per million dollars invested, using standardized methodologies based on shares held in public and private companies and derivative positions in other asset classes.

Focusing only on emissions intensity means that it is possible for a fund's absolute emissions to grow even if its emissions intensity decreases, as all pension funds work to increase the value of their total assets under management over time. Achieving net-zero objectives requires rapid decreases in both absolute emissions and emissions intensity.

There are some cases where it might make sense for a pension fund's emissions intensity and absolute emissions to increase temporarily, such as if the fund acquires a high-carbon asset with a credible plan to decarbonize. For example, a pension fund might acquire a stake in an electrical utility which operates gas- and coal-fired power plants. Such an acquisition would result in an immediate increase in the pension fund's reported emissions, however it could still fit within a credible net-zero pathway, provided the fund has a credible and timebound plan to phase out the fossil-fuelled power generation and invest in energy efficiency and conservation, energy storage and wind and solar power. This emissions accounting issue underscores the need for clear and credible definitions for which activities are labeled as so-called "transition finance", to ensure that pensions are only making investments in companies and sectors that have credible, science-based pathways to decarbonization.

To demonstrate that they are adequately managing climate risks and aligning their portfolios with their net-zero commitments, pension funds should measure and report both emissions intensity and absolute emissions, and set short-, medium- and long-term emissions reduction targets that include scope 3 emissions.

TABLE	1: EMISSIONS R	EDUCTION AN	D ADDITIO	ONAL CLIMATE TARGETS			
	Total Portfolio Emissions Reduction Targets (Scopes 1 and 2 only unless otherwise specified)						
	2025 (except PSP)	2030	2050 (except UPP)	Other Climate-Related Targets			
AIMCo	none	none	none	none			
BCI	none	none	none	 by 2025: 30% reduction in emissions intensity in public equities portfolio (30.5% of AUM) below 2019 levels. by 2025: \$5 billion invested in sustainable bonds. by 2030: 80% of "carbon-intensive investments" to have "set mature net-zero aligned commitments or are the subject of direct or collaborative climate engagement by BCI." real estate: real estate portfolio (independently managed by QuadReal) to achieve net-zero by 2050 and to reduce emissions 50% by 2030. QuadReal's webpage <i>Our Net Zero Commitment</i> does not specify baseline year or whether interim target is absolute or intensity-based. 			
CDPQ	none	60% reduction in emissions intensity below 2017 levels**	net-zero	 by 2025: \$54 billion invested in low-carbon assets (using Climate Bonds Initiative criteria). by end of 2022: exit investments in oil production and in the construction of oil pipelines. \$10 billion transition envelope to decarbonize the heaviest carbon-emitting sectors (no target date). 			
СРРІВ	none	none	net-zero "across all scopes"	• by 2030: \$130 billion invested in "green and transition assets".			
НООРР	none	none	net-zero	• by 2030: 50% reduction in absolute emissions in real estate assets over which HOOPP has operational control (% of AUM not disclosed), below 2019 levels.			
IMCO	none	50% reduction in emissions intensity below 2019 levels*	net-zero	• by 2030: 20% of AUM invested in climate solutions (using International Capital Markets Association Green Bond Principles).			
OMERS	25% reduction in emissions intensity below 2019 levels	none	net-zero	 committed to set interim emissions reduction targets at five year intervals; 2030 target expected by 2025: Oxford Properties (real estate subsidiary): reduce the real estate portfolio's (16% of OMERS' AUM) Scope 1 and 2 emissions intensity (per square foot) by 30% below 2015 levels. 			
OPTrust	none	none	net-zero	• 2021 TCFD Report indicates that targets will be announced in 2023.			
ОТРР	45% reduction in emissions intensity below 2019 levels	67% reduction in emissions intensity below 2019 levels	net-zero	 by 2025: two-thirds of the portfolio's carbon emissions covered by credible, science-based net-zero plans and targets (including scope 3 when material). by 2030: 90% of the portfolio's carbon emissions covered by credible, science-based net-zero plans and targets (including scope 3 when material). increase "green investments" to \$50 billion (no target date). \$5 billion in "high carbon transition assets" with the intention of accelerating their path to decarbonization (no target date). 			
PSP	by 2026: 20-25% reduction in emissions intensity below 2021 levels	none	none	 by 2026: assets representing 50% of portfolio's footprint covered by a mature science-based transition plan. by 2026: \$70 billion in "green assets". by 2026: \$7.5 billion in "transition assets". by 2026: reduce exposure to "carbon-intensive assets" by 50% (from \$7.8 billion to \$3.9 billion. by 2026: obtain GHG data for 80% of in-scope portfolio, with intention to add Scope 3 data. by 2026: commit 10% of long-term debt financing to sustainable bonds. commitment to develop additional targets for 2027-2050. 			
UPP	16.5% reduction in emissions intensity below 2021 levels**	60% reduction in emissions intensity below 2021 levels**	by 2040: net-zero	 commitment to set target for investment in climate solutions. target to engage 20 highest emitting companies is its portfolio on climate. 			

NOTES:

- * IMCO has not yet accounted for Scope 3 emissions. IMCO's membership in PAII commits IMCO to including Scopes 1, 2, and 3 in its interim emissions reduction target. See https://www.parisalignedinvestment.org/media/2021/03/PAII-Net-Zero-Asset-Owner-Commitment-Statement.pdf.
- ** To date, CDPQ is not measuring Scope 3 emissions. UPP's 2021 baseline does not include Scope 3 emissions, but UPP is reporting scope 3 emissions for energy (oil and gas) and mining investments separately. CDPQ and UPP are members of NZAOA. NZAOA guidance is to include Scope 3 emissions in sector targets where possible, and that Scope 3 be tracked in subportfolio targets. See https://www.unepfi.org/net-zero-alliance/resources/target-setting-protocol-second-edition/.

CLIMATE URGENCY

Canadian pension managers have made progress over the past four years. In some cases, pension managers went from merely stating that climate change poses risks and opportunities to clearly articulating the urgency of the climate crisis, acknowledging that it poses systemic risks which could destabilize the economic and financial systems upon which retirement security depends, and positioning themselves as proactive agents that can influence the trajectory of the crisis and pathway of companies to decarbonization. Some funds now explicitly mention the Intergovernmental Panel on Climate Change (IPCC), International Energy Agency (IEA), Paris Agreement, and the need for a rapid energy transition.

However, other funds have not progressed past the "climate change poses risks and opportunities" phase and continue to operate in a business-as-usual way that puts the retirement security of their own members at risk. CDPQ, the OTPP and UPP stand out as Canadian leaders in this category, while AIMCo and HOOPP lag behind.

CLIMATE ENGAGEMENT

Expectations and Escalation

Canadian pension managers have stated their clear and ongoing preference for engagement over divestment as a tool to manage climate risks. However, only a few funds have disclosed the existence of an

ROBUST CLIMATE ENGAGEMENT

An engagement strategy is essential for asset owners to achieve climate goals. To be effective, asset owners should ensure their strategies include the following elements:

- Screening: Before allocating capital or engaging, evaluate the potential for investor influence and realistic pathways for engagement (i.e. can this company profitably meet climate objectives on the appropriate timeline?).
- Set clear expectations: Clearly communicate climate-related expectations for all held companies (i.e. companies must adopt credible net-zero commitments and create pathways for achieving them).
- Establish timelines: Establish deadlines for when primary expectations will be met (i.e. dates for achieving interim emissions targets, capital spending levels).
- Escalation plans: Develop and communicate
 what actions will be taken if climate expectations
 are not met on the agreed timeline (i.e.
 shareholder resolutions, voting against directors,
 divestment).
- Shareholder resolutions: Publish transparent proxy voting guidelines that align fully with climate commitments, and collaborate with other

- asset owners to amplify shareholder power (i.e. "will" [not "may"] vote to require companies to align their business model with Paris climate goals).
- Voting out / replacing directors: As part of escalation plans, funds should act to replace corporate directors to achieve stated climaterelated corporate expectations.
- Divestment: In line with a fund's fiduciary responsibility to invest in the best long-term interests of its beneficiaries, funds should not allocate capital to companies that fail to align with their stated climate and risk mitigation objectives.
- Advocacy for climate risk disclosure and climate action: One of the bright spots in this assessment of the Canadian pension sector is the overall support amongst pension managers for company reporting in line with the TCFD and public statements in support of increased disclosure and regulation of climate risks.²⁶ Pension managers should go beyond publicly advocating for enhanced voluntary climate risk disclosure and proactively support new regulations, policies and initiatives that call for ambitious climate action and the acceleration of the transition away from fossil fuels.

escalatory climate engagement framework. With the exceptions of BCI, CDPQ, IMCO, OTPP and PSP, pension managers have not set the expectation that companies have credible, science-based net-zero targets (although some have at least included mention of 1.5°C aligned targets in their proxy voting guidelines - see below). No pension manager has presented a comprehensive and detailed strategy, up to and including divestment, for dealing with companies that are not responsive to engagement tactics, although a number of funds specify that they will vote against directors for failure to manage climate-related risks.

How long should engagement continue before it's deemed unsuccessful? What would it take for a pension manager to remove a company from its portfolio due to a lack of progress? Unlike leading international funds, most Canadian pension managers have failed to properly communicate timebound climate-related expectations for risky, carbon-intensive assets, particularly fossil fuel companies, and have not required them to align their business models with climate safety nor indicated that pension capital will be withdrawn if sustained engagement fails to achieve Paris alignment. Continuing to own companies exposed to unacceptable levels of climate-related financial risk is not in line with pension managers' fiduciary responsibilities.

Proxy Voting Guidelines

Over the last 18 months, most funds in this analysis, including AIMCo, BCI, CDPQ, CPPIB, HOOPP, IMCO, OMERS, OPTrust, OTPP and UPP, strengthened their proxy voting guidelines as they relate to climate change. Some merely added a mention of climate (HOOPP), whereas others gave climate a standalone section and also started to include management of climate-related risk in their governance expectations. Some funds, such as CPPIB and OTPP, stated that they would vote against corporate directors if climate risks were not managed adequately. BCI says it will now vote against directors for a lack of climate disclosure or poor climate risk performance; OMERS will consider withholding votes from directors if a company is not taking "appropriate steps" to mitigate risks from climate change or not disclosing relevant information; UPP will not support director re-elections if climate oversight or disclosure is inadequate. IMCO went so far as to specify in its proxy voting guidelines what should be included in a credible company climate plan and may bring forward shareholder proposals to demand the development of such a plan. UPP will support proposals calling for Paris-aligned targets. PSP's Proxy Voting Principles were last updated in 2020 and need to be strengthened to signal strong expectations for climate targets.

THE LIMITS OF ENGAGEMENT FOR FOSSIL FUELS

An analysis released in May 2022 by ShareAction concludes that, after five years of focused engagement, there is little evidence that Climate Action 100+ (CA100+), the world's largest investor engagement initiative on climate change, has influenced companies to effectively reduce GHG emissions in line with the goals of the Paris Agreement. The analysis found that not a single CA100+ focus company has fully aligned their capital expenditure with a 1.5°C future or produced financial statements that reflect climate risks, while every single oil and gas focus company is planning expenditures on expansion projects that are inconsistent with the goals of the Paris Agreement.²⁷ CA100+ itself acknowledged in March 2022 that the vast majority of its focus companies failed to set medium-term emissions reduction targets aligned with 1.5°C or fully align their future capital expenditures

with the goals of the Paris Agreement, despite the increase in corporate net-zero commitments. Only 5% of focus companies explicitly committed to align their capital expenditure plans with their long-term GHG reduction targets.²⁸

For companies whose core business model is exploring for, producing, refining and transporting oil, gas and coal, there is little evidence of credible or profitable pathways to decarbonization. Limiting global heating to 1.5°C or less requires the vast majority of fossil fuels to remain in the ground²⁹ and the early retirement of existing fossil fuel production assets.³⁰ Investors cannot "engage" oil and gas companies out of this stark reality.

 An April 2022 analysis by Investors for Paris Compliance shows that six Canadian companies who were focus engagement companies for CA100+ (CNRL, Enbridge, Imperial Oil, Suncor, TC Energy and Teck) are failing across the board on aligning their businesses with the goals of the Paris Agreement.³¹

- A May 2022 analysis by Oil Change International of the climate commitments of major American and European oil and gas companies concludes that they fail to meet even the bare minimum for alignment with the Paris Agreement. The climate commitments of all eight oil and gas companies analyzed in the report are "grossly insufficient", with these companies involved in over 200 fossil fuel expansion projects on track for approval between 2022 and 2025.³²
- Similarly, a November 2021 analysis by Oil Change International and Environmental Defence of Canadian oil and gas producers found their climate plans to be "grossly insufficient" against metrics of Paris-aligned ambition, integrity and transition planning, with all companies planning to increase oil and gas production in Canada.³³
- While credible transitions have occurred in other high-carbon industries, there are no ready examples of fossil fuel exploration and production companies undertaking credible transition pathways without selling fossil assets and changing business models entirely.³⁴ Investment in upstream emissions abatement technologies such as CCUS cannot meaningfully address the lifecycle emissions of coal, gas or oil and can therefore only serve to lock-in climate pollution.³⁵
- Transition finance cannot be applied to fossil fuel companies. There are existing, credible, profitable, scalable carbon-free alternatives to fossil fuels including renewable energy, electric vehicles, and heat pump technologies.³⁶ The latest IEA World Energy Outlook forecasts that peak demand for all fossil fuels will occur before 2030.³⁷ Capital should be allocated to solutions to decarbonize heating and transportation, rather than providing ongoing and perverse financing for fossil fuels under a "transition" label, which would only serve to slow the transition to deployable, scalable alternatives.

Europe's largest pension fund, the Netherlands' ABP, which committed to divest its €15 billion in fossil fuel producers by 2023, acknowledged the limited potential for engagement to transform the fossil fuel industry, concluding that "[it] see[s] insufficient opportunity as a shareholder to push for the necessary, significant acceleration of the energy transition at these companies."38 Similarly, the United Kingdom's Nest concluded that "there are some business activities that we do not believe can be aligned with the goals of the Paris Agreement. These activities include thermal coal production and power generation, oil sands and Arctic drilling for oil or gas."39 Denmark's AkademikerPension found that its engagement of fossil fuel companies showed little to no progress and that it was finally taken seriously by fossil fuel companies once it committed to divestment.40

In line with their duties to prudently manage climate risk, when engagement tactics can't get results pension managers must be prepared to sell holdings. Indeed, this is common practice. All pension managers regularly divest from assets that fail to meet investment objectives or carry unacceptable levels of risk. The fact that some Canadian pension managers continue to say they "don't believe in divestment" in reference to managing the extraordinary climate and financial risks posed by fossil fuels suggests a political hang-up, not a financial one. Pension managers may have an interest in helping high-carbon companies to decarbonize, but this must be superseded by their fiduciary duty to generate long-term returns and protect beneficiaries from the growing financial risks of fossil fuel exposure.

At the industry level, divestment affects fossil fuel companies' activities by depressing fossil fuel company share prices⁴² and raising the cost of capital for oil and gas expansion projects that lock-in more carbon pollution.⁴³ Fossil fuel companies openly acknowledge divestment is a threat to their growth plans.⁴⁴

At the portfolio level, fossil fuel divestment lowers risks⁴⁵ and has a neutral⁴⁶ or even positive impact on returns over the long-term,⁴⁷ the recent spike in oil and gas prices notwithstanding.⁴⁸ That's why investors who have already divested almost uniformly report not regretting their decision.⁴⁹

CLIMATE INTEGRATION

Scenario Analysis

Most of these pension managers have committed to begin stress testing their portfolios using a 1.5°C global heating outlook. But it is worrying that many of those same funds are creating elaborate internal outlooks for temperature increases of 3°C and 4°C and continuing to model their portfolios assuming a global failure to achieve safe emissions trajectories. In some cases pension managers have implied that their portfolios would fare better under catastrophic climate scenarios than under rapid energy transition outlooks. This is a sign that the outlooks chosen for scenario analysis grossly underestimate the economic, financial and human costs of runaway global heating, and that fund staff have not been set up with adequate climate expertise and training and are failing to adopt the precautionary approach that the catastrophic nature of the climate crisis demands.50 Furthermore, disclosure from funds is guite limited when it comes to the details of scenarios used, the resulting analyses, and how the fund is incorporating its learnings into fund strategy.

Financed Emissions and Scope 3 Emissions

Although most Canadian pension managers assessed in this report are now measuring and disclosing the carbon footprint or financed emissions of their portfolios, the coverage of these carbon footprinting efforts vary. Problematically, only a few funds have committed to begin disclosing scope 3 emissions. UPP has demonstrated leadership in this regard by disclosing the scope 3 emissions associated with the oil, gas and mining investments in its portfolio.51 UPP and CDPQ, as members of NZAOA, are committed to track scope 3 and to include scope 3 in sector targets where possible. IMCO's membership in PAII explicitly commits it to include scope 3 in its interim emissions reduction targets. Notably, CPPIB's net-zero commitment also includes "all scopes," although CPPIB has neglected to measure scope 3 emissions or set interim emissions reduction targets. All Canadian pension funds cite methodological challenges in measuring and reporting scope 3 emissions. While there are currently data challenges with scope 3 emissions reporting, there is a growing body of guidance documents with best practices for reporting.⁵² Furthermore, scope 3

emissions are one of the strongest indicators of climate risk, and data gaps and reporting challenges can no longer be an excuse for delay as the climate crisis worsens.

Tying Compensation to Emissions Reductions

Compensation is a major gap in climate integration for most pension funds assessed. The exception is CDPO, which in 2018 became one of the first institutional investors to link the variable compensation packages of employees to the achievement of climate targets. CDPQ sets carbon budgets for each portfolio every year and requires investment teams to achieve their goals using levers such as investing in clean technologies or best-in-class companies that are reducing their carbon intensity, and/or selling companies that aren't meeting ESG performance expectations.53 OTPP also links compensation for all employees to climate, with management preparing a scorecard containing goals and metrics for climaterelated objectives alongside other investment performance criteria to determine compensation.54

Fossil Fuel Entanglements at the Board Level

As of March 31, 2022, seven of Canada's ten largest public pension managers had at least one director who also sits on the board of a fossil fuel company.55 This deep entanglement between Canada's pension funds and vested fossil fuel interests raises critical questions about how pension administrators and investment managers are meeting their fiduciary duty and managing potential conflicts of interest over responsible investing policies and climate-related investment decisions. It also creates concerns for beneficiaries about how the corporate power of the fossil fuel industry could supersede the mandate of pension funds to provide retirement security for millions of Canadians. AIMCo (two directors making up 18% of its board) and CPPIB (four directors making up one-third of its board) in particular have a disproportionate number of directors who currently serve on the boards of fossil fuel companies.

Climate Risk Skills, Training and Education at the Board Level

In spite of a clear fiduciary obligation to manage climate-related financial risks, transparency around

climate skills and training at the director level is lacking. We expect that most major Canadian pension funds have offered at least some climate-related training to directors and senior staff, however the type or quality of such training is rarely disclosed. To Shift's knowledge, OTPP is the only Canadian fund to specifically list climate expertise as a desired competency for its directors and to name which directors have this expertise.

Membership in Credible and Accountable Net-Zero Financial Bodies

Only three of the Canadian pension managers assessed in this report have joined an international investor body with a credible and accountable framework for aligning portfolios with climate safety. IMCO joined the Paris Aligned Investment Initiative (PAII) in 2021, and UPP and CDPQ are members of the UN-convened Net-Zero Asset Owner Alliance (NZAOA). While these international frameworks provide an additional layer of accountability and credibility to the climate plans of member organizations, pension funds should also ensure their plans align with the recommendations of the United Nations High-Level Expert Group on the Net-Zero Commitments of Non-State Entities.⁵⁶

FOSSIL FUEL EXCLUSIONS

CDPQ has remained steadfast in its commitment to exit investments in oil producers by the end of 2022. UPP has a weak exclusion policy for thermal coal mining and power generation. And IMCO has "climate guardrails" that include unclear and confusing language to phase out or limit its exposure to "unabated fossil fuel assets", thermal coal mining and arctic drilling. But all other Canadian pension managers have so far rejected placing restrictions on investing in the primary cause of the climate crisisfossil fuels. This marks a point of divergence between the Canadian pension sector and the growing number of investment managers around the world that have recognized the significant risks of fossil fuel holdings and taken a strong stand against investing in a sector facing inevitable, rapid, terminal decline if the world is to avert catastrophic climate change.

GREEN BOND FRAMEWORKS

The failure of Canadian pension managers to consider fossil fuel exclusions across their portfolios is perplexing given that many of these same funds, including CDPQ,⁵⁷ CPPIB,⁵⁸ OMERS,⁵⁹ OTPP⁶⁰ and PSP,⁶¹ have already taken the climate-aligned step of developing green bond frameworks that explicitly exclude fossil fuels.

CDPQ's Green Bond Framework excludes fossil fuels "due to their potentially controversial or negative environmental and/or social impact." CPPIB's Green Bond Framework does "not include any direct investments in fossil fuels or power generated by fossil fuels". OMERS' Sustainable Bond Framework states "all investments related to the exploration, production and transportation of fossil fuels will be ineligible for inclusion... even where such investments are intended to support the sector's transition." OTPP's *Green Bond Framework* stipulates that "any investment that increases the use of fossil fuels would not support a transition to a low carbon economy" and notes "the potential lock-in effects of fossil fuel-based assets." PSP's Green Bond Framework states that investments that increase the use of fossil fuels will not be considered and "PSP will also ensure selected investments do not increase the use of fossil fuels but are on a pathway to reduce dependency of fossil fuels over time."

These pension managers are beginning to recognize that fossil fuel investment does not belong in a Parisaligned portfolio. Indeed, in November 2022, the UN High-Level Expert Group on the Net-Zero Emissions Commitments of Non-State Entities explicitly noted that phasing out fossil fuels and scaling up renewable energy is a requirement for credible, science-based net-zero plans.⁶² Rather than limit this Paris-aligned fossil fuel exclusion to the green bond framework, pension managers must extend this exclusion to their entire portfolio, particularly when these funds have portfolio-wide net-zero commitments. Of the five pension managers with green bond frameworks that explicitly exclude fossil fuels, to date only CDPQ has a portfolio-wide exclusion on investments in oil producers and new crude oil pipelines.

INDIGENOUS RIGHTS AND RECONCILIATION

As Canadians grapple with our country's ongoing legacy of violently dispossessing Indigenous peoples of their lands and waters to make way for resource extraction, Canada's largest pension funds have a clear role to play in the process of reconciliation. It appears that only a handful of pensions covered in this report have taken steps to develop an Indigenous rights and reconciliation framework in their investment processes. This is particularly troubling for pension managers that are Crown corporations in jurisdictions that have enacted in law a commitment to implement the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP), such as Canada and British Columbia. AIMCo, CDPQ, CPPIB, HOOPP, OMERS and OTPP have said virtually nothing about Indigenous rights and reconciliation, while IMCO, OPTrust, PSP and UPP appear to be putting the building blocks in place for a commitment to UNDRIP. BCI has noted that reconciliation and Indigenous inclusion and engagement were learning priorities for its Board in 2021.63

Pension funds should adopt a transparent policy to respect the rights of Indigenous Peoples in investment decisions. UNDRIP explicitly requires Free, Prior and Informed Consent (FPIC) for activities that may affect Indigenous Peoples or their territories. ⁶⁴ Furthermore, the Truth and Reconciliation Commission (TRC) Calls to Action require Canadian investors and businesses to respect Indigenous governance and the rights of Indigenous Peoples to provide– or deny– consent. ⁶⁵ This is particularly relevant for resource extraction and land-use projects, as projects financed by pension funds can negatively impact Indigenous peoples' lands and waters.

In some cases, pension fund assets are directly removing Indigenous Peoples from their lands and ignoring the right to FPIC under UNDRIP. Shift is particularly concerned by the example of AIMCo, the co-owner of the Coastal GasLink project, 66 which lacks the consent of the Wet'suwet'en Hereditary Chiefs to build a fracked gas pipeline through their unceded territory. Coastal GasLink and its owners have failed to recognize Indigenous opposition and moved forward with pipeline construction while armed police harass, intimidate, arrest and violently remove the

Wet'suwet'en from the land on which they have lived for thousands of years.⁶⁷ AIMCo's former CIO called Coastal GasLink "a very promising investment that we're very proud to make", which is "unusual that it has such widespread support from community, government and First Nations."⁶⁸ AIMCo has no clear policy on how it integrates Indigenous rights into its investment framework.⁶⁹

While we have not identified any Canadian pension fund with a full commitment to the principles of UNDRIP, UPP, IMCO, OPTrust and PSP appear to be moving in the right direction:

- UPP states it is "committed to taking action respectfully and intentionally as outlined in Call to Action #92 from the Truth and Reconciliation Commission of Canada" and that through its partnership with the Shareholder Association for Research and Education (SHARE), "companies in UPP's investment portfolio are being engaged in outcome-focused dialogues to make tangible commitments to reconciliation, including the adoption of Indigenous rights policies, employment targets and procurement from Indigenous-owned businesses."
- IMCO's largest client, the Ontario Pension Board, states in its 2021 Annual Report: "We also support a transition to a net-zero economy informed by Indigenous perspectives that supports Indigenous economic opportunities and encourages business practices that align with the principles of the United Nations Declaration on the Rights of Indigenous Peoples."⁷¹
- OPTrust's Proxy Voting Guidelines state it supports the "spirit and intent" of UNDRIP.⁷²
- PSP's 2022 Annual Report states that going forward, the investment manager "will support shareholder proposals requesting that a company uphold the UN Declaration on the Rights of Indigenous Peoples or create a policy or program to do so. We will also support proposals that ask companies to obtain and maintain free, prior and informed consent of Indigenous people (FPIC); develop, strengthen or implement an FPIC policy or guideline; or assess and report on the adoption of FPIC policies."⁷³

Recommendations

Pension managers must rapidly take steps to improve their climate policies, management of climate risks, and approach to fossil fuel assets in order to protect the retirement security of beneficiaries. They must ensure their assets continue to generate returns during the imperative and inevitable transition away from fossil fuels, while leveraging their capital, engagement efforts and ownership of companies and assets to decarbonize the real economy. The potential for pension plan members to enjoy retirement security is dependent on a stable climate and it is therefore incumbent on pension managers to manage their assets in a way that avoids catastrophic global heating scenarios. Pension funds would be greatly assisted in this regard with government laws, regulations and policies to support climate alignment, for which Shift and our partners have provided a thorough set of recommendations at the federal level in the report Roadmap to a Sustainable Financial System in Canada: Achieving Alignment Through Credible Climate Plans.74 Shift also supports the recommendations for provincial and federal legislative and regulatory reform published in the Canadian Pensions Dashboard for Responsible Investing.75

We urge all Canadian pension managers, trustees and directors to assess their own management of climate-related risks against the recommendations and best practices provided below.

Set a Paris-Aligned Target

- Commit to aligning the portfolio's financed emissions, including scope 3 emissions, with netzero by 2050 at the latest.
- Define what "net-zero emissions" means for the pension fund and for the real economy, using the latest climate science and tools like the IEA 1.5°C Net Zero Energy scenario, and the UN High Level Expert Group report on the Net-Zero Emissions Commitments of Non-State Entities. 76,77
- Minimize or prohibit the role of offsets in achieving net-zero. To start, pension managers should identify what role offsets will play, if any.
- Commit to a credible and accountable Paris-aligned body with a rigorous framework, e.g. NZAOA or PAII

AP2, in Sweden, provides an example of a clearly-defined Paris-aligned target. AP2 is committed to a zero-emissions portfolio by 2045, its NZAOA membership will require some accounting of scope 3 emissions, and AP2 provides a definition of netzero and discussion of offsets.

In Canada, CDPQ, OTPP and UPP provide good examples of Paris-aligned targets, although all funds need to clarify the role of offsets and account for scope 3 emissions, and OTPP has not yet joined a credible and accountable Paris-aligned body.

Set Comprehensive Interim Targets

- Set Paris-aligned targets for 2025 and 2030 to reduce emissions intensity and absolute emissions. Targets should cover 100% of the portfolio and scopes 1, 2 and 3 emissions.
- Set timebound targets for 100% of the portfolio to be covered by a credible science-based emissions target.
- Set additional targets that make sense in the context of the portfolio, e.g.
 - For investment in clearly defined credible climate solutions
 - · For climate-related engagement outcomes
 - For reducing exposure to risky high-carbon assets, particularly fossil fuels
 - For moving clearly-defined "transition assets" along a credible transition pathway.
- Provide clear definitions of "green" and "transition" assets and disclose which assets are classified under these definitions.

In Canada, the OTPP and CDPQ offer examples of strong interim targets to reduce emissions intensity, but neither has set interim targets to reduce absolute emissions. OTPP has committed to reduce the emissions intensity of its portfolio by 45% below 2019 levels by 2025, and 67% by 2030. CDPQ has committed to reduce the emissions intensity of its portfolio by 60% below 2017 levels by 2030.

Both funds have also set additional climaterelated targets: the OTPP has targets to increase the percentage of portfolio emissions covered by credible science-based targets and for increasing green investments, and is allocating \$5 billion to decarbonization pathways for "High Carbon Transition Assets" (HCTAs), "with a primary focus on power generation, heavy industry, mining and transportation." The OTPP defines HCTAs as "very high-emitting companies with credible decarbonization plans that we believe we can accelerate through our capital and expertise." The OTPP rightly did not include fossil fuel production and transportation as a primary focus sector for its HCTA allocation.

CDPQ has set goals for investment in low-carbon assets and exiting oil production; CDPQ also has a \$10 billion transition envelope to decarbonize high emitting sectors, which it calls "Sectors that are essential to the transition but need to reduce their greenhouse gas emissions." CDPQ sets specific decarbonization criteria for these investments and names raw materials production, transportation and agriculture. The Quebec pension manager does not yet have a target for a percentage of AUM covered by a science-based decarbonization target, although it is tracking this metric.

Communicate Climate Urgency

- Acknowledge that limiting global temperature increase to 1.5°C is in the best interests of the portfolio and pension plan members.
- Acknowledge double materiality: not only is the portfolio exposed to risks and opportunities, but how the portfolio is invested also impacts the speed and scale of the energy transition (or, conversely, of the intensifying climate crisis).
- Place climate strategy at the heart of the fund's investment approach.
- Regularly and transparently communicate climate strategies, risks and achievements with beneficiaries and stakeholders, including in messages from the President and Board Chair. Seeking broad buy-in from beneficiaries and other stakeholders will help manage expectations during periods of elevated systemic change.

CDPQ, OTPP and, internationally, Nest and NGS Super provide some of the strongest statements

on climate urgency of those funds examined in this report.

For example, Nest's Climate Change Risk Policy reads:

"Climate change is one of the world's biggest challenges, posing a significant threat not just to the environment but to social and economic stability. Scientists agree that the world faces an existential threat if global warming continues on its current trajectory. If we do not change course now, humanity risks missing the point where we can avoid runaway climate change, with disastrous consequences for the world's people and economies as well as all the natural systems that sustain us. Nest Corporation supports this view of the risks and threat of climate change and believes that limiting global warming to 1.5°C could help curb the catastrophic consequences of climate change. Our ambition is to align our whole investment portfolio with limiting global warming to 1.5°C above pre-industrial levels by reaching net zero carbon emissions by 2050 or earlier. We expect that emissions in our portfolio will have to halve by 2030 in order to be on course to meet this ambition."80

Further, Nest is educating and bringing along its beneficiaries:

"Nearly 60% of Britons want the government to prioritise climate change as we rebuild our economy. Rather than waiting for policies to be debated, we're taking the initiative to stop funding the most harmful fossil fuels, push companies to align with the Paris Agreement and much more. Climate change could make businesses and our economy less profitable, in turn shrinking your pension pot. You could also retire into a vastly different world, facing higher food costs, extreme natural disasters and pollution-related health issues. By acting now, we hope to safeguard your future."⁸¹

Climate Engagement

Expectations, escalation and proxy voting

- Clearly and publicly state expectations for owned companies and capital markets, including:
 - TCFD disclosure as a bare minimum
 - Credible, science-based emissions reduction targets aligned with 1.5°C, including interim

- targets and scope 3 emissions
- Executive and staff compensation tied to climate targets
- Climate expertise on company boards
- No lobbying or public relations activities (individually or through industry associations) against climate action
- No capital expenditure toward fossil fuel expansion
- Company emissions reduction targets should be verified by credible third-party global initiatives
- Policy on Indigenous rights and reconciliation, including respect for FPIC.
- Establish timelines by which companies must meet expectations.
- Establish consequences when companies fail to meet expectations, including voting against directors and escalating to divestment within a specified timeframe.

Proxy voting

- Publicly disclose proxy voting record and rationale before or immediately after shareholder meetings.
- Publicly disclose, at least annually, a summary of how the fund voted on climate proposals and its climate-related votes against directors.
- Include climate in proxy voting guidelines, specifically:
 - · Expectations for TCFD disclosure
 - Expectations for credible, science-based climate plans
 - · Expectations for climate-literate boards
 - Expectations for compensation to be tied to climate targets
 - Expectations for disclosure of lobbying and trade associations and expectation that such lobbying or memberships do not delay, weaken, block or water down government climate action
 - A timebound commitment to escalate to votes against individual directors, committees, or the Board as a whole
 - A timebound commitment to escalate to divestment if the company does not meet expectations within a specified time period.

- Bring forward shareholder proposals aligned with the expectations outlined in the proxy voting guidelines, and vote in collaboration with other institutional investors on key proposals.
- Include Indigenous rights and reconciliation in proxy voting guidelines, specifically expectations that companies develop an Indigenous rights and reconciliation policy and respect FPIC.

A number of funds strengthened their proxy voting guidelines on climate in the last 18 months. Proxy voting guidelines from IMCO and the OTPP stand out, while internationally Nest's are the strongest.

Nest's Global Voting Guidelines82 state that TCFD disclosure should include an explanation of how the business model is aligned with the goals of the Paris Agreement. Nest will not vote to accept the annual statements and will vote against the Chair if scope 1 and 2 emissions are not reported. Nest will vote against directors if progress is not made toward a "coherent and robust strategy on climate risk mitigation"; if this does not have the desired result Nest may escalate to filing a shareholder resolution or divesting. Nest clearly states its goal of engagement with fossil fuel companies: "We will engage with companies in carbon intensive industries with the goal of having them commit to stop developing new oil and gas fields that do not fall within the IEA's net zero by 2050 scenario." Nest also encourages the linking of climate targets to executives' variable compensation and will vote against remuneration-related proposals when "concerned that companies are failing to appropriately incentivise their executives to meet their climate change goals". Nest states an expectation that company's lobbying activities and industry associations align with their public position on climate, and may vote against directors if they believe such activities to be misaligned. Finally, Nest expects auditors to take into account material climate risks and opportunities in their review of the financial statements, and may vote against the re-appointment of auditors if this is not the case. Nest's *Voting and Engagement* Standards - UK specifies further that banks should align all financing activities with the goal of achieving net zero emissions by 2050 or sooner, and says that Nest will vote against re-election of

directors should banks finance new coal, oil sands or Arctic drilling projects.⁸³

IMCO's Proxy Voting Guideline84 sets expectations that management proposals on climate change include TCFD disclosure, a commitment to a net-zero target by 2050 or sooner, the setting of science-based interim reduction targets, and a commitment to report progress on targets. IMCO will generally vote for shareholder proposals calling for climate-related disclosure, the adoption of GHG reduction targets, development of climate scenario analysis, and disclosure of lobbying activities. If IMCO's expectations are not met, it "may" vote against or abstain from voting on management proposals, and "may" vote against or withhold votes from the Chair or the relevant committee, committee members, or the Board chair. IMCO may also consider co-filing climaterelated shareholder proposals.

The OTPP's 2022 Proxy Voting Guidelines85 express that companies should understand their contribution to climate change, aim toward netzero greenhouse gas emissions by 2050 or sooner, and set interim short-, medium- and long-term goals to achieve this (p.11). In addition to expecting disclosure aligned with the TCFD (including metrics, targets, and performance) and credible scenario analysis (including a net-zero aligned scenario), the OTPP specifies that company boards should have a "readily evident and easily understood" role in oversight of climate risk (2022 Proxy Voting Guidelines, p. 10-11). The fund expressed a willingness to "consider" withholding support from individual directors, chairs, or committees if in the fund's view the board "has not taken appropriate action to effectively oversee a company's relevant climate change related risks" (p.13).

The OTPP provides examples of climate-related shareholder proposals it "may" support, including "additional action by the company to better align their business with the transition to a low-carbon economy aligned with the Paris Agreement including net zero initiatives," improved climate change governance, completion of a materiality assessment for the purposes of understanding climate exposure and climate risk, stronger climate-related disclosure, and TCFD alignment

(p.29). The OTPP's *Proxy Voting Guidelines* additionally address corporate political activities and participation in trade associations, noting that "If there is a misalignment between the company's actions and their commitments, we expect a cogent explanation as to why the misalignment exists and the plan for remedying the contradiction" (p.30). OTPP could strengthen this guideline by escalating with a vote against directors if political and lobbying activities are misaligned on climate.

Collaborative engagement

- Set clear goals and timelines for climate engagements.
- Establish consequences up to and including divestment when engagement is unsuccessful.
- Share goals, timelines and results of engagement with stakeholders, at least annually.

Nest pairs high expectations, as stated in its *Global Voting Guidelines*⁸⁶, with examples of engagement in its *Responsible Investment Outcomes Report 2020/2021*,⁸⁷ providing its goals for engagement, the process of engagement, the result and Nest's analysis. Nest backs its engagement expectations with the potential for divestment as articulated in its *Climate Change Risk Policy*: by 2025, all companies with any involvement in thermal coal, oil sands or Arctic drilling will be divested unless they have a commitment to fully phase-out those activities by 2030.⁸⁸

NYSCRF publicly calls on companies and shareholders to address climate change, signals its expectations to portfolio companies via its own net-zero emissions by 2040 target, files climate-related shareholder resolutions, and communicates key climate-related proxy votes loudly. NYSCRF has also undertaken a series of reviews of fossil fuel investments to determine "if they are prepared for the transition to a low-carbon economy"; as of August 2022 these reviews had resulted in NYSCRF publicly divesting from 55 shale oil and gas, oil sands and coal companies.⁸⁹

While BCI's engagement framework is lacking in setting timebound expectations with escalation up to and including divestment, the pension manager's 2021 ESG Report provided more

disclosure than most Canadian funds regarding its engagements, including select details of engagements it led through Climate Action 100+, and a list of all companies engaged, by sector, and if the engagement was related to environment, social, or governance factors.

Direction given to external managers

- Require external managers to have adequate climate risk expertise, stringent climate risk policies, and a credible, science-based net-zero commitment.
- Provide specific direction to external managers on handling climate-related risks and aligning investments with net-zero pathways.

Nest's Climate Change Risk Policy demonstrates the strongest guidance for external managers identified in this analysis.90 This includes an expectation that all fund managers work toward aligning the portfolio to meeting the goal of limiting global heating to 1.5°C, with this being a "requirement" for all new mandates from July 2020. Existing managers must demonstrate by 2030 "meaningful progress against defined benchmarks." Managers must also by 2023 prepare an analysis of how they could halve their managed portfolio's emissions by 2030, and report on the portfolio's carbon intensity and climate scenario analysis. Nest is clear that these expectations are not a matter of "encouragement" nor are managers being given unlimited timeframes to implement these directions: "These expectations have become a requirement of our standard tender process for new mandates, and managers that cannot demonstrate their commitment to meeting these expectations will not be selected. We expect all incumbent managers to deliver on our expectations by the end of 2023."

Climate Integration

- Ensure climate expertise on the fund's board of directors/trustees. Publicly identify directors with climate expertise.
- Provide regular training to pension directors, trustees, executives and staff, including from climate scientists, NGOs and academics.
- Prohibit the fund's directors from simultaneously holding directorships on the boards of fossil fuel companies.

For any new director, set a limit such that a
certain amount of time must have elapsed since
the director last held a fossil fuel directorship or
executive position, as is recommended in Bill S-243
the Climate Aligned Finance Act. ⁹¹

- Ensure all actuaries, consultants, accountants, and external managers hired by pension managers have adequate climate expertise and stringent climate risk policies.
- Disclose the fund's high-carbon assets and exposure and its plan to mitigate that exposure.
- Complete and disclose a total portfolio carbon footprint, including scope 1, 2 and 3 emissions. Scope 3 emissions associated with the total portfolio are a leading indicator of exposure to climate-related transition risk.
- Climate data may be imperfect, but imperfection is not an excuse for inaction. Funds should disclose data gaps where possible and work to improve data and risk management processes over time, particularly around scope 3 emissions.
- Assess the portfolio using a 1.5°C climate scenario analysis and disclose assumptions and findings. Disclose how the fund will move into alignment with 1.5°C and how the fund will increase the likelihood that the world achieves 1.5°C.
- Publish a comprehensive climate strategy and annually report on progress and update the strategy.
- Link the fund's compensation structure for all staff and directors to the achievement of climate targets.

For examples of these recommendations in action, see the following funds:

- The OTPP identifies in its 2021 Annual Report Board Skills Matrix the directors it has determined to have climate expertise.
- BCI disclosed in its 2021 ESG Report examples of specific climate training topics and certificates that team members had achieved. Disclosure of the specific training provided to Board members is absent, however.
- No fund to our knowledge has yet to issue specific guidance to avoid conflicts of interest by prohibiting directors/trustees from

- simultaneously acting as a director of fossil fuel companies.
- No fund, to our knowledge, has set limits on the amount of time that must elapse between a director last holding a fossil fuel directorship or executive position.
- Nest states in its Global Voting Guidelines that it expects auditors to take into account material climate risks and opportunities in their review of the financial statements, and may vote against the re-appointment of auditors if this is not the case; Nest's Climate Change Risk Policy also sets out stringent expectations for external managers.
- AP2's 2021 Sustainability Report provides a
 detailed account of its exposure to fossil fuels
 in public equities, specifying the number of
 companies it holds with coal reserves, the
 number of companies it holds with oil and gas
 reserves, AP2's shares of the holdings' reserves
 and AP2's shares of the holdings' reserves'
 potential CO2 emissions.
- NGS Super provides full disclosure of its assets (listed and unlisted) on its website, including its high-carbon exposure, and announces companies that have moved onto its exclusions list.
- While no fund has complete scope 3 emissions data, many funds are working towards including it. Nest has reported or estimated scope 3 data for 68% of holdings. AP2 and UPP are reporting scope 3 data for oil, gas and mining.
- NGS Super's 2022 TCFD Report provides an exceptionally detailed scenario analysis.
- The OTPP and CDPQ publish annual updates to their climate strategy. PSP and UPP appear to be developing regular and detailed reporting on their climate plans.
- The OTPP and CDPQ link staff and executive compensation to the achievement of climate targets, although few details are provided.

Fossil Fuel Exclusions

- Immediately prohibit any new investments in coal, oil, gas or related infrastructure.
- Set a timeline by which existing investments in coal, oil, gas or related infrastructure assets will be

phased out of the portfolio. While investment in "transition assets" is needed in many high-carbon sectors to finance a pathway to zero emissions, applying the "transition" label to finance for fossil fuel production is inappropriate given the lack of credible, profitable pathways for lifecycle decarbonization and the existence of viable, scalable replacements for fossil fuels (e.g. vehicle electrification, heat pumps, renewable energy). Ongoing fossil fuel investment exposes pension portfolios to unacceptable levels of transition risk as energy market disruption accelerates and emissions regulations become more stringent. Finance that delays the transition away from fossil fuels also contributes to deepening financial system risks and significant global harms from a worsening climate crisis.

- Immediately disclose how fossil fuel and other high-carbon assets privately owned by pension funds have credible, science-based plans to achieve net-zero emissions by 2050 or sooner. False climate solutions such as CCUS, offsets and gasto-hydrogen pipeline conversions should not be permitted.
- If managing the wind-down of owned fossil fuel assets, publicly state by when and how the asset will be wound down, and the financial implications for the fund and its beneficiaries.

AP2 has aligned its internally managed global equities and corporate bonds portfolios (53% of AUM) to the EU Paris-Aligned Benchmark. These portfolios exclude investment in companies that receive more than 1% of revenue from coal, more than 10% of revenue from oil, or more than 50% of revenue from gas. As of 2021, these exclusions had resulted in the divestment of 250 coal, oil, gas and utility companies.⁹²

Nest divested as of the end of 2020 from all companies with more than 20% of revenues from thermal coal, oil sands and Arctic drilling, and continues to exclude all companies making new developments in those areas. The 20% revenue threshold will be lowered to 10% in 2023. By 2025, all companies with any involvement in those areas will be divested unless they have a commitment to fully phase-out those activities by 2030.⁹³

Indigenous Rights and Reconciliation

- Develop an Indigenous rights and reconciliation policy informed by the UN Declaration on the Rights of Indigenous Peoples and the Truth and Reconciliation Commission's calls to action.
- Require portfolio companies to develop an Indigenous rights and reconciliation policy and exit investments in companies that refuse.
- Specify in proxy voting guidelines that the fund will vote in favour of proposals requiring companies to demonstrate the Free, Prior and Informed Consent of Indigenous Peoples for projects that affect their traditional lands and waters.
- Bring forward shareholder proposals aligned with the Indigenous rights and reconciliation expectations outlined in the proxy voting guidelines.

Resources from the Shareholder Association for Research & Education (SHARE) and Reconciliation & Responsible Investment Initiative (RRII, a partnership between SHARE and the National Aboriginal Trust Officers Association) can help guide the development of a rights and reconciliation investment framework, associated policies and proxy voting guidelines. See, for example, RRII's report All Hands On Deck: Opportunities for Investment Management Firms to Advance Reconciliation94 and SHARE's Model *Proxy Voting Guidelines 2022.* 95 For an examination of financial institutions paying lip service to Indigenous rights and reconciliation while failing to fully implement UNDRIP, see the Yellowhead Institute's Special Report Redwashing Extraction: Indigenous Relations at Canada's Big Five Banks.⁹⁶



Conclusions

The worst outcomes of the climate crisis will not be averted unless immediate, transformative action is taken and global GHG emissions are rapidly reduced. Pension managers still sitting on the fence must recognize that the full participation of their institutions in climate action is inevitable, both to protect the funded status of the pension, and to prevent a worsening global catastrophe. There is no justification for further delaying action to develop and implement credible climate plans.

This report offers comprehensive recommendations for pension managers, trustees and directors to assess their own management of climate-related risks against best practices for setting short-, medium- and longterm Paris-aligned targets, communicating climate urgency, developing and implementing a robust climate engagement program, infusing the management of climate risks across the organization, and thus protecting beneficiaries from the unique financial risk profile of the fossil fuel industry. It also includes some recommendations and resources to assist pension funds in developing an Indigenous rights and reconciliation framework. While this report evaluates the climate approach of Canada's largest public pension plans, the benchmark can be used to evaluate climate plans for all Canadian pension managers, which collectively manage over \$4 trillion.

More action on board-level climate governance is also needed from pension fund sponsors and trustees. Climate-related expertise and experience should be a required competency for corporate directors, especially in the governance of pension funds, which have a long-term investment horizon and a fiduciary duty to invest in the best interests of plan members, young and old.

The fossil fuel entanglement of some pension boards is a growing concern, as it creates the potential for

conflicts of interest in climate-related decision-making. Ongoing pension board entanglement with fossil fuel companies could delay or impede important decisions required to protect the fund from climate-related financial risks. Fossil fuel entanglements should be avoided for new director appointments.

The voluntary actions outlined in this report are essential, but also inadequate to achieve Canada's domestic and international climate commitments without clear standards, rules and enforcement to level the playing field and improve transparency for plan members and stakeholders. New regulations are also needed immediately to align Canada's financial flows with its climate goals. A path forward for regulation is explored in our recent report released in partnership with Ecojustice and Environmental Defence: Roadmap to a Sustainable Financial System in Canada: Achieving Alignment Through Credible Climate Plans. 97 Shift also supports the recommendations for provincial and federal legislative and regulatory reform published in the Canadian Pensions Dashboard for Responsible Investing.98

The climate crisis presents an enormous challenge. No climate plan will ever be perfect. The process of developing and implementing credible climate plans is one of setting science-based objectives and learning by doing over time. Institutions that develop internal expertise, capacity, experience and a culture of experimentation are likely to be rewarded with first mover advantages in the market, international recognition for climate leadership, and most importantly - lower portfolio risk.

Shift looks forward to seeing all of the funds included in this report improving their ranking in the future.

ENDNOTES

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