



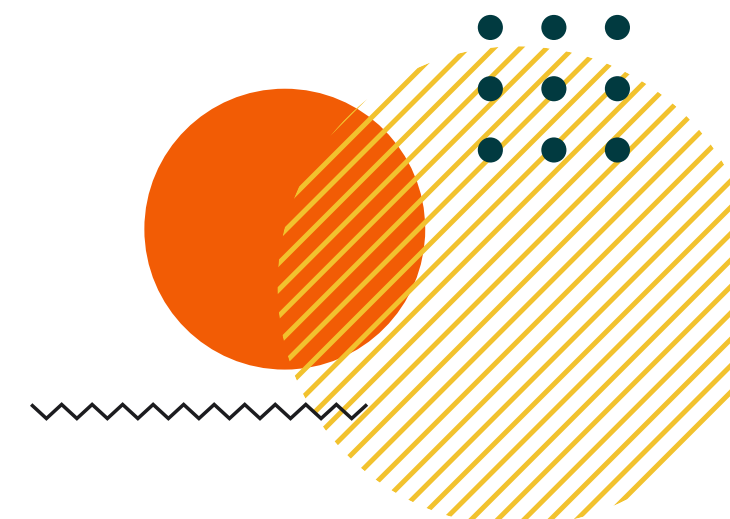
A Clear **Vision**

2022 Funded Status Report

The land where OPTrust operates in Toronto is on the traditional territory of many nations including the Mississaugas of the Credit, the Anishnabeg, the Chippewa, the Haudenosaunee and the Wendat peoples and is now home to many diverse First Nations, Inuit and Métis peoples. We acknowledge that Toronto is covered by Treaty 13 with the Mississaugas of the Credit.

We also acknowledge Aboriginal and Torres Strait Islander peoples as the traditional custodians of Australia, where OPTrust also operates. The Gadigal of the Eora Nation are the traditional custodians of what we now call Sydney, and we pay our respects to the Elders both past and present.

These acknowledgments remind us of our responsibilities to our relationships and the ancestral lands on which we learn, share and live.



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“Together, we have a clear vision to deliver peace of mind in retirement for our members, to invest sustainably for the long-term health of the Plan, and to create an inclusive and fulfilling work experience for our people.”

Peter Lindley
President and Chief Executive Officer

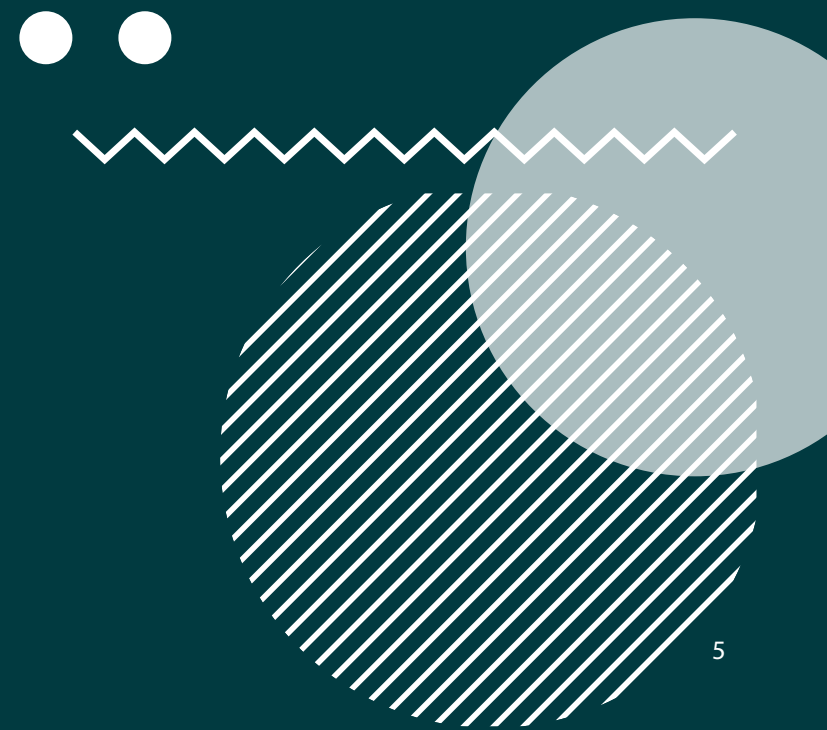


“It was important for me to buy back two years of service while I worked on contract with Service Ontario. I knew by increasing my years of pension service, I would increase my pension and could retire sooner.”

Vashtie Ramnarain
Program Assistant, Centre East Health Care Team
Ministry of Labour, Immigration, Training and Skills Development

“Once I retired and the pension kicked in, I felt the power of the benefit. I would’ve been in a completely different life situation if I didn’t have this benefit. Having a pension gives me healthy confidence, security and independence as a senior.”

Meiko Bae
OPTrust Retiree
Ontario Science Centre



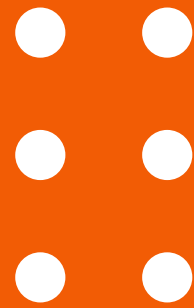
“It means so much to me to be a member of OPTrust Select. I was so happy when I learned that my employer joined the Plan, and that I would receive the benefits of having a pension once I retire. It’s something that I’ve always dreamt of having.”

Olajumoke (Ola) Adenigba
Manager, Program Services
North York Harvest Food Bank



“The retirement process was seamless from start to finish – from my last pay cheque to my first pension payment. The communications that I receive from the team at OPTrust continues to keep me well informed about my pension.”

Gordon Johnson
OPTrust Retiree
Ministry of Transportation



2022 Highlights



OPTrust remains **fully funded** for the **14th consecutive year**



Laid out our direction for the next five years with a strategic plan that will enhance the Plan's sustainability, invest in our people and strengthen our operational capabilities



5.00%
nominal discount rate



-2.2%
one-year net investment return



Member service rating of **8.7/10**



7.8%
10-year average net investment return (2013-2022)

Funding Highlights¹

At December 31 (\$ millions)

	2022 VALUATION	2021 VALUATION
Net assets available for benefits	\$24,643	\$25,913
Actuarial smoothing adjustment	(349)	(2,461)
Actuarial Value of Assets	24,294	23,452
Liabilities	(24,122)	(23,288)
Surplus	\$172	\$164

¹The difference between funding and financial statement valuations are described on page 21.



almost **\$25 billion** in net assets



Implemented the first year of the **three-year IDE strategy**



Welcomed our employees back to the office in a **flexible hybrid work model**



Released our **enhanced climate change strategy**

Message from the Chair and Vice-Chair

OPTrust is well positioned to deliver pensions today and for generations to come, despite market challenges and global events experienced throughout 2022. Like many other investors and pension plans, we experienced a one-year negative return in 2022. Nevertheless, the Plan remains fully funded. The overall effect of higher interest rates on the Plan's asset and liability mix means the margin to protect against negative experiences is improving.

For over two decades, serving our members as they work towards retirement security has always come first at OPTrust. In 2022, the team worked hard and demonstrated this collective commitment while navigating a tough investment environment, delivering many notable accomplishments and, most importantly, maintaining the Plan's fully funded status.

Plan Sustainability

As the global economy evolves and is impacted by long-term issues such as climate change, continuous evolution for the Board and organization is essential to OPTrust's growth and sustainability. During 2022, the Board actively engaged in, and approved, two essential strategies designed to keep the Plan on solid footing over the long term: an enhanced climate change strategy and a new five-year strategic plan (2023-2027).

This year, the Board approved OPTrust's new five-year strategic plan, taking effect in January 2023. It outlines priorities and initiatives that will enhance the Plan's sustainability of members' pensions, invest in our people and strengthen operational capabilities to build a better future for our members, employees and the communities where we live and work.

OPTrust's released its enhanced climate change strategy in October 2022. The strategy outlines how OPTrust will manage risks and opportunities from a transitioning economy and declares OPTrust's ambition to align its portfolio with the global transition to net-zero emissions by 2050.

Purpose-Driven Culture

Every team member plays a role in delivering OPTrust's mission to pay pensions today, preserve pensions for tomorrow. At the core of the organization's culture is a team motivated by this meaningful mission and an inclusive, diverse and equitable workplace to serve our over 100,000 members. Under the leadership of Peter Lindley and the Executive Team, the organization expanded retirement security and growth in OPTrust Select to more Ontarians and delivered impactful inclusion, diversity and equity programming that supports an inclusive work environment.

Board Appointments

In November 2022, Sharon Pel concluded her two-year term as Board Chair, and we thank her for her unwavering leadership to uphold the principles of good governance in this capacity. Sharon has been reappointed to the Board as a Trustee. Lindsey Burzese, who has served as Vice-Chair since 2020, assumed the role of Chair and Richard Nesbitt has become Vice-Chair.

Conclusion

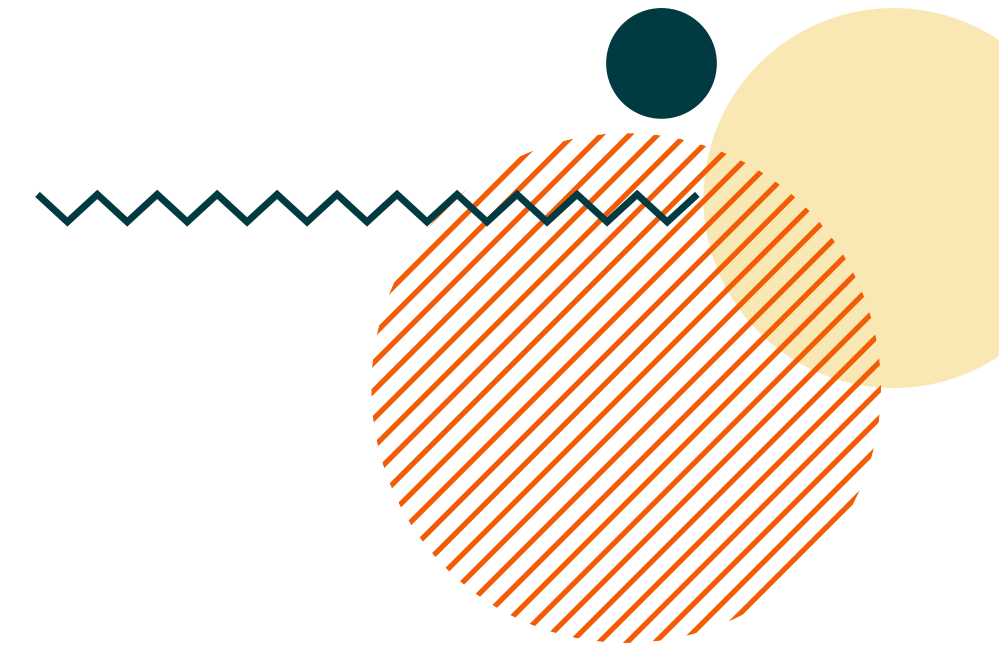
We thank our fellow Trustees and every member of the OPTrust team for their ongoing commitment to deliver sustainable pensions and security for our members as they worked through the COVID-19 pandemic and transitioned to a flexible, hybrid work model. For our members, looking ahead to 2023, OPTrust is continuing to build and implement strategies within administration, climate change, and investments to enhance sustainable pensions for our members for years to come.



Lindsey Burzese
Chair



Richard Nesbitt
Vice-Chair



Message from the President and Chief Executive Officer

The past year was among the most difficult years for markets in decades, driven by challenges such as the ongoing COVID-19 pandemic, Russia's invasion of Ukraine, extreme weather events, high levels of inflation and rapidly increasing interest rates. Many investors, including pension plans, experienced negative returns. Equity and fixed-income assets both posted double-digit declines. In this context, OPTrust posted a one-year return of -2.2 per cent in 2022. This follows 2021's one-year net investment return of 15.3 per cent, bringing OPTrust's 10-year net investment return to 7.8 per cent.

During a challenging year, our investment strategy and Investment Team's exceptional skill and ability helped mitigate the effects of the markets' performance. A particular highlight of the team's efforts is the very strong returns in illiquid assets such as infrastructure, real estate and private equity.

OPTrust is fully funded for the 14th consecutive year, which enables us to deliver on our mission to pay pensions today and preserve pensions for tomorrow. Funding is the single-most important success metric and despite this year's market challenges, our funded position has remained essentially unchanged and the Plan has never been more sustainable than it is now.

Peace of Mind in Retirement

Our members look to OPTrust for a predictable income in retirement and the peace of mind that comes with a DB pension. They tell us the knowledge of a secure retirement income is especially important to them as they plan and prepare for various life events through different stages of their careers and retirement.

We pride ourselves in offering excellent service to our members through every channel so they can retire in confidence. In 2022, they rated OPTrust 8.7 out of 10 for member service. Members' expectations for how they consume information about their pensions and financial future have evolved. We have also evolved the way we provide a sophisticated, modern digital experience on our website and through other channels.

Membership in OPTrust Select has grown from 1,700 in 2021 to more than 3,200 at year end. These members come from 60 employers in the nonprofit and broader public service sectors right across the province.

Investing Sustainably for the Long-Term Health of the Plan

Our investment team continues to deliver the long-term returns necessary to sustain the Plan, with more than 70 per cent of pension benefits funded by returns. OPTrust's Member-Driven Investing strategy and diversified portfolio helped to preserve the funded status through a difficult environment. Our long-term investment horizon means we are well positioned to weather short-term volatility and instability as we continue to capitalize on long-term trends and opportunities.

As climate change impacts every geography, sector and business in which we invest and the world accelerates the transition to a low-carbon economy, we released an enhanced climate change strategy. Centred on 10 commitments, the strategy integrates climate considerations across our investment processes, supporting the fund's resiliency and adaptability on the path to net zero.

OPTrust has a long-standing commitment to integrating environmental, social and governance (ESG) factors in our investments. Highlights of our responsible investing activities have long been disclosed in this report. For the first time, we have moved away from a standalone annual *Responsible Investing Report* to expanded content herein recognizing a growing interest in ESG matters among our members and stakeholders and the RI program's prominence as a core function at OPTrust.

An Inclusive and Fulfilling Work Experience

In 2022, our team continued to exemplify the values distinct to our culture. We advanced progress of inclusion, diversity and equity (IDE) in our workplace during the first of a three-year strategy because we know organizations with diverse workforces outperform those that are less diverse.

During the year, we introduced employee resource groups, shared unconscious bias training for the entire organization, collaborated with a leading academic to explore the behavioural science of inclusion and built stronger relationships with diverse organizations, while bearing in mind our work in IDE is far from complete.

2023 – 2027 Strategic Plan



Our strategy has three priorities which we will achieve through a set of ambitious initiatives designed to advance our long-term goals.

Over the next five years we will **enhance the Plan's sustainability, invest in our people and strengthen our operational capabilities** to create an OPTrust that is ready to meet the challenges of the future.

Looking Ahead

The entire OPTrust team works together, demonstrating its commitment to over 100,000 members. We have a clear vision to deliver peace of mind in retirement for our members, to invest sustainably for the long-term health of the Plan, and to create an inclusive and fulfilling work experience.

I want to thank the Plan's Sponsors and Trustees for their partnership and counsel. Our Trustees are committed individuals who devote their time and expertise to support the organization and our members. I am deeply appreciative of the Executive Team and our employees for all their efforts and achievements in 2022. They have made us a stronger, more resilient organization this year and throughout the pandemic.

As we move into 2023, we laid out our direction for the next five years with a strategic plan that will build a better future for our members, our people and the communities where we live and work. We are honoured by the confidence members have in us and we strive to deliver outstanding service to them and provide secure pensions in retirement. I look forward to all that we will accomplish with a clear vision.



Peter Lindley
President and Chief Executive Officer

Our Culture

At OPTrust, we rely on the strength of our people — a team of smart, talented and diverse employees — who fuel our success with a passion for pensions. In London, Sydney and Toronto, our team goes beyond to meet our members' expectations and deliver a secure, predictable pension in retirement.

Our unique inclusive culture is rooted in the values we live across the entire organization each day. They are important building blocks to creating an inclusive and fulfilling place to work for everyone. Our people are crucial to OPTrust's success and our greatest asset, too. As such, we recruit, develop and retain exceptional, diverse talent and help them reach their full potential and in turn enable OPTrust to grow. Through professional development and learning opportunities, we offer programs such as tuition reimbursement, mentorship and training to support employees, inclusion, diversity and equity.

We care about the health and well-being of our employees and foster an environment where they feel seen and have a strong sense of belonging. OPTrust's flexible, hybrid work model balances the benefits of working from home and in the office.

OPTrust's membership includes its employees. Like the members we serve, employees have access to our valuable defined benefit (DB) pension plan and are secure in the knowledge that OPTrust is their pension plan too. As beneficiaries of the OPSEU Pension Plan (the Plan), they come to work every day with first-hand knowledge of the benefits that come with this membership and believe more people deserve workplace DB pensions and retirement security.

We recognize the need for greater transparency and commitment to manage material environmental, social and governance (ESG) considerations in OPTrust's operations. In 2022, we introduced an ESG committee to advance our corporate ESG program, including initiating a strategy to manage our own environmental footprint.

Our Values

We remain focused on ensuring OPTrust is a great place to work for our team. Together we are united by a shared set of values that define the way we work and hold each other accountable.

- Collaboration and Teamwork
- Integrity
- Respect
- Flexibility
- Excellence and Continuous Improvement

Giving Back to the Community

The OPTrust team gives back to the community through OPTrust Cares, a grassroots employee-led charitable giving program that raises funds for nonprofits as well as supports organizations that are meaningful to them and to our communities.



Anishnawbe Health Foundation

In 2022, OPTrust Cares supported a local Indigenous organization focused on improving the health and well-being of the Indigenous community in Toronto. The team held several fundraising and educational events with broad participation to learn more about the truth and reconciliation process and 94 Calls to Action, land rights, traditional healing practices and the experiences of Indigenous Elders. During another campaign, the team raised awareness about men's health and suicide prevention supporting a foundation with projects around the world.



"As a young person seeking to better understand how investments work, I am very privileged to work with experienced investment professionals who are passionate about delivering pensions to our more than 100,000 members."

Tomiwa Oladapo
Senior Analyst, Office of the Chief Investment Officer, OPTrust



"I am proud to work at OPTrust because of the culture we have. From the top-down, I would describe the people I work with as inclusive, hardworking, professional and considerate."

Laura Chow
Technology Specialist, OPTrust

"I consider myself extremely lucky to be a member of a defined benefit pension plan. My parents sacrificed a lot so that I could have better opportunities and working for an organization that provides a pension is definitely one of them."

Sozanny Chea
Digital Media Advisor, OPTrust



"I'm proud to be part of a team that provides peace of mind to our members. We answer thousands of phone calls and process thousands of transactions centred around members' life events."

Yaseen Karmali
Manager, Member Services



"I am part of a talented and diverse team that goes above and beyond for each other every day. Our positive workplace culture is one of the many reasons why I enjoy working at OPTrust."

Chantelle Twomey
Human Resources Administrator, OPTrust



"I enjoy working towards our mission of paying pensions today and preserving pensions for tomorrow. It shows we have a near and long-term commitment to our members. It is a commitment that helps our members live with dignity in retirement."

Peter Preradovic
Senior Project Leader, OPTrust

"I am fortunate enough to work with OPTrust's top-notch investment team on a day-to-day basis and know that my pension is in good hands. I appreciate the value of having a defined benefit pension and the security that comes with it."

Kenny Cheng
Director of Investment Operations, OPTrust



"I'm happy to be part of the actuarial team that provides technical financial advice and support to the organization. My team helps to ensure that the Plan maintains its fully funded status."

Queenie Li
Senior Actuarial Advisor, OPTrust



Inclusion, Diversity and Equity

At OPTrust, our values are reflected in the way we work together and in the way we serve members. In order to realize our values, we respect one another's diverse backgrounds and points of view. Our values depend on inclusion, diversity and equity (IDE), which supports OPTrust's vision to create an inclusive and fulfilling work experience. We have implemented the first year of the three-year IDE strategy launched in October 2021 and continue to focus on three pillars:

Aligning

Building Inclusion

To strengthen the ability to make everyone feel welcomed and that they belong, a top-down unconscious and affinity bias training program began with the Board at the start of 2022 and will be completed by the entire organization in the second quarter of 2023.

Building Perspectives

Employees participated regularly in speaker series events to share and learn from the experiences and worldviews of diverse communities. These events featured external experts in IDE subjects, film viewings, communication campaigns and volunteer community events covering topics such as gender diversity, equity and the experiences of historically marginalized communities. Along with providing valuable insights to our employees, these events contributed to an increase in membership of employee resource groups (ERGs).

Improving

Talent Practices

OPTrust updated its talent systems by partnering with community-based organizations — posting on partner sites such as Women in Capital Markets (WCM), the Black Professionals in Tech Network (BPTN) and attending job fair events with groups like Canadian National Institute for the Blind (CNIB).

Gender equity at OPTrust grew by nine per cent during 2022 compared to the end of 2021. The number of women hired and promoted increased by 68 per cent.

Internally, OPTrust restructured the People Team to ensure learning, performance, engagement practices, and focused leadership training on OPTrust's values to uphold inclusive behaviours and culture are strategically managed directly through the IDE program area.

People Participation

To increase support, visibility and governance of employee-led groups, three ERGs launched in 2022 for Black employees, women and LGBTQ2S+ community members and their allies with strong participation and executive sponsors.

Sustaining

External Partnerships

We have a strong working partnership with WCM, BPTN, CNIB, Catalyst, Canadian Council of Aboriginal Business (CCAB) and Canadian Council on Rehabilitation and Work (CCRW) to provide support and subject matter expertise in specific diversity domains.



Inclusion, Diversity and Equity Highlights



Partnership with the CCAB provided insight into the economic footprint of Canada's Indigenous business community and allowed us to pilot a new supplier diversity program and **equip OPTrust to create a reconciliation plan to improve our ability to support the Indigenous community.**



Participation in Employee Resource Groups include 29 members for the Black Employees and Allies Network, 28 members for Women and Allies for Gender Equality and 16 members for the LGBTQ2S+ community.



Our inaugural community outreach in the **2022 Pride Toronto Street Fair with over 30 employees, including majority of the Executive Team**, raised awareness about OPTrust Select and promoted being an employer of choice with the LGBTQ2S+ community and allies.



Workshops with CCRW and CNIB provided **awareness and skills training for our Member Experience Team to meet the changing needs of our members.**

Pension Funding

Plan Sustainability

The Plan is sustainable if it continues to deliver a valuable benefit within an acceptable range of contributions in the short, medium and long terms. That means members' contribution levels will remain relatively steady through the years they are making those contributions to the Plan, and they will be paid their pensions when they retire. As of December 31, 2022, the Plan has been fully funded for 14 consecutive years, yet ongoing challenges remain, including: the investment environment, high inflation, plan maturity and longevity risk.

Under the primary schedule, pensions that are being paid and deferred pensions are granted automatic annual cost-of-living adjustments (COLA) based on inflation. Under OPTrust Select, on an annual basis at the discretion of the Board, pensions that are being paid may be granted COLA, and active members may be granted accrued benefit upgrades to adjust for inflation. The inflation assumption used for Plan valuations is based on long-term expectations. If the actual rate granted to members for COLA and benefit upgrades is higher than the Plan's assumption, an experience liability loss occurs, and vice versa. In 2022, we saw inflation rates rise to their highest levels in almost 40 years. As a result, we have adjusted our COLA assumption for the 2022 valuation to incorporate what we expect to be short-term increases in inflation.

The investment environment continues to be tumultuous with a challenging macroeconomic and market environment. We note that a sustained period of high inflation with low economic growth would put pressure on the Plan's funded status.

The demographics of the Plan are challenging because the proportion of inactive members relative to active contributing members remains high. This situation means funding risk is borne by a smaller group of contributing members, which constrains the amount of risk the Plan can bear.

There are several methods to help maintain the funded status: our Member-Driven Investing strategy, the risk tolerance specified in our *Risk Appetite Statement* and our funding tools. As challenges continue for longer periods of time, the tools at our disposal are applied differently. This includes the way we use risk within the MDI strategy. Plan sustainability is directly influenced by how we manage challenges and the amount of risk we are willing to assume. For instance, the discount rate includes a margin to protect the Plan from future adverse events. The level of margin in our discount rate at the end of 2022 has increased. The significant rise in yields during 2022 has reduced the strain on the discount rate used to value the Plan's obligations.

In 2022, we conducted an experience study to review the Plan's demographic assumptions. This is another tool we employ to help maintain our funded status by ensuring our valuation assumptions remain appropriate. Based on the results of the study and expectations of future trends, several of the demographic assumptions have been updated including retirement and termination rates. The main findings of the study revealed that there is a higher incidence of termination for younger members and that members are generally delaying their retirement.

In addition, we are always looking into the future so we can attempt to foresee any upcoming challenges that could potentially affect our sustainability. We perform projections under varying economic environments, such as high inflation and low economic growth, or market collapses and rebounds, to help prepare for outcomes that may affect the level of future contributions and/or benefits.

Funding Pensions

The pension commitment spans many decades. In keeping with that long-term time horizon, short-term market events, whether positive or negative, should not lead to contribution and/or benefit changes. Contributions and/or benefits should only be changed when economic conditions or member demographics and/or behaviours change the long-term expected cost of the benefit. In setting the funding policy, we seek to maintain a balance between four different goals: benefit security, contribution rate stability, fairness between the two schedules of benefits and intergenerational equity. Intergenerational equity means that every generation of members will pay a fair amount for the benefits they receive — not that every generation should pay the same contributions for the same benefit. Of all these goals, the security of accrued benefits is the most important, which is why we strive to keep our commitment to members that they will receive their accrued benefits.

The funding valuation is used to determine the adequacy of the contribution rate and the funded position of the Plan and is filed with regulators at least once every three years, as per regulatory requirements. The financial statements valuation is used for disclosure for the purpose of this report. Both actuarial valuations require many different assumptions about future economic conditions and events. "Best estimate" assumptions are unbiased and are based on Plan experience and the consideration of potential future outcomes.

Funding Valuations

A funding valuation presents the Plan's financial information in a manner approved by OPTrust's Board and in accordance with standards and regulations. It determines whether the Plan's assets, together with expected investment income and projected future contributions in respect of current members, are sufficient to fund members' expected benefits. This valuation approach is known as the modified aggregate method. It identifies any gains and losses that have occurred since the last funding valuation and confirms the overall contribution requirements until the next valuation. The funding valuation uses best estimate assumptions with the exception of the discount rate, which includes a margin of conservatism, which helps the Plan meet its funding goals. Please see Note 5 to the financial statements on page 77 for further discussion.

Financial Statements Valuations

OPTrust's financial statements rely on an actuarial valuation prepared in accordance with Canadian accounting standards for pension plans. The financial statements valuation is prepared using our best estimate assumptions. The valuation recognizes the increase in value of future obligations over time, and pension-related receipts and disbursements. Experience gains or losses (i.e. when actual experience differs from what we assumed) are recognized in the year incurred.

2022 Funding Valuation

OPTrust engages independent actuaries to perform regular valuations of the Plan to ensure there are enough assets to meet the projected cost of members' lifetime pensions. OPTrust's 2022 valuation shows the Plan remained fully funded as of December 31, 2022. The funding valuation also showed deferred (or smoothed) investment gains of \$349 million, which will be recognized over the next four years, further supporting the Plan's funded status in the years to come. The Plan's real discount rate for the 2022 funding valuation was increased to 3.00 per cent, net of inflation, up from 2.85 per cent in 2021. The effect of this change decreased the total fund liabilities by \$709 million. The effect of the change in the COLA assumption increased the total fund liabilities by \$615 million, and the effect of changes to the demographic assumptions based on the experience study performed in 2022 decreased the total fund liabilities by \$194 million. Changes in the Plan's actuarial assumptions can have a major impact on the projected cost of members' pensions and the Plan's funded status.

Funding Valuation Assumptions

	2022 VALUATION	2021 VALUATION
Inflation rate	2.00% ¹	2.00%
Discount rate (real)	3.00%	2.85%
Discount rate (nominal)	5.00%	4.85%
Salary increases (nominal) ²	2.75%	2.75%

¹ COLA for pensions under the primary schedule assumed to be 5.00% and 3.50% for 2023 and 2024, respectively.

² Plus an allowance for promotion, based on long-term scale.

The table below shows the impact of a 0.5 per cent change in certain key assumptions on the Plan's funded status.

Sensitivity to Actuarial Assumption Changes

(\$ millions)

	+0.5%	-0.5%
Impact of change in inflation-linked assumptions ¹	323	(330)
Impact of change in funding discount rate assumption ²	2,144	(2,498)
Impact of change in assumed increase in salaries	(717)	626

¹ Assumes equivalent change in economic assumptions that are dependent on inflation excluding the COLA assumption for pensions under the primary schedule for 2023 and 2024.

² Assumes all other assumptions remain unchanged.

Serving Our Members

Delivering Retirement Peace of Mind

Our members tell us they appreciate the service they receive from OPTrust, giving us a service rating of 8.7 out of 10 in 2022. They contact us for information and guidance about their pensions throughout their membership and the considerations are different depending on whether they are new to the Plan, taking a leave of absence or readying themselves for retirement. We help members understand their options and the implications of each choice, to deliver peace of mind for retirement.

We conduct feedback surveys and benchmark our work against other defined benefit pension peers to help us better understand how our service delivery compares to other similar organizations. We are recognized among the top 10 globally for service among leading pension plans according to CEM Benchmarking Inc.

Members appreciate having the information they need at their fingertips for quick and easy reference at any time. Expanded digital support for members means they will get the results they need as they run pension estimates and update their address or beneficiary information using their online services account. This year, our Member Experience Team has new tools to better help members navigate online transactions.

Whether members are transitioning to new hybrid work environments or transitioning into retirement, many have shown strong interest in attending pension webinars in both live and recorded formats.

They appreciate attending these sessions from the comfort of their homes when it is most convenient for them.

Preparing for the Long Term

Members can now receive a variety of digital forms instead of relying on paper, making the exchange of information much easier for them. Forms can be signed electronically without the need to print and mail these documents. Digital delivery of documents, application forms and online education sessions are convenient and they reduce our carbon footprint.

We have refined the way we work so members can directly access someone who has worked on their inquiry or application and can provide support with knowledge about specific needs, saving members time. We have optimized many of our processes this year to allow for a more streamlined experience for members, giving our team more time to spend guiding members as they educate themselves on important decisions about their pension and retirement.

Retirement requires thoughtful planning. OPTrust's online pension estimate tool provides up-to-date estimates and allows members to consider different retirement dates and scenarios. Closer to their earliest retirement date, members are reminded they have access to webinars to help understand benefits such as eligibility for post-retirement insured benefits, survivor benefits and other available options. There are many considerations, and we care about guiding members through this very important journey.

Highlights for the year



OPTrust remains **fully funded** for the **14th** consecutive year



Member service rating of **8.7/10**



Top 10 CEM Benchmarking Inc. global ranking



10 new employers in OPTrust Select, growing membership to **over 3,200**



Over **123,000** online transactions and electronic communications



Supported members through approximately **48,000** life events



Over **1,500** members attended online pension information sessions



Over **\$1.2 billion** total entitlements paid



Supported members through more than **45,500** telephone counselling events



140% increase in digital correspondence

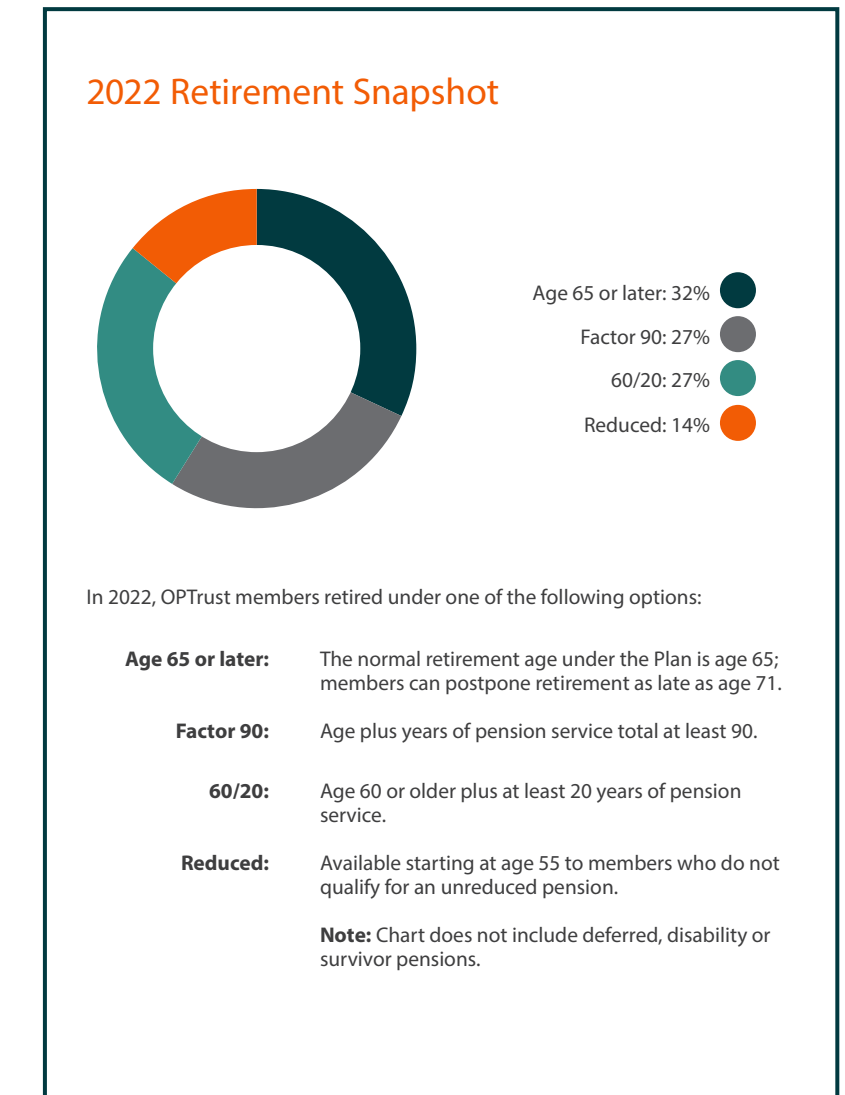
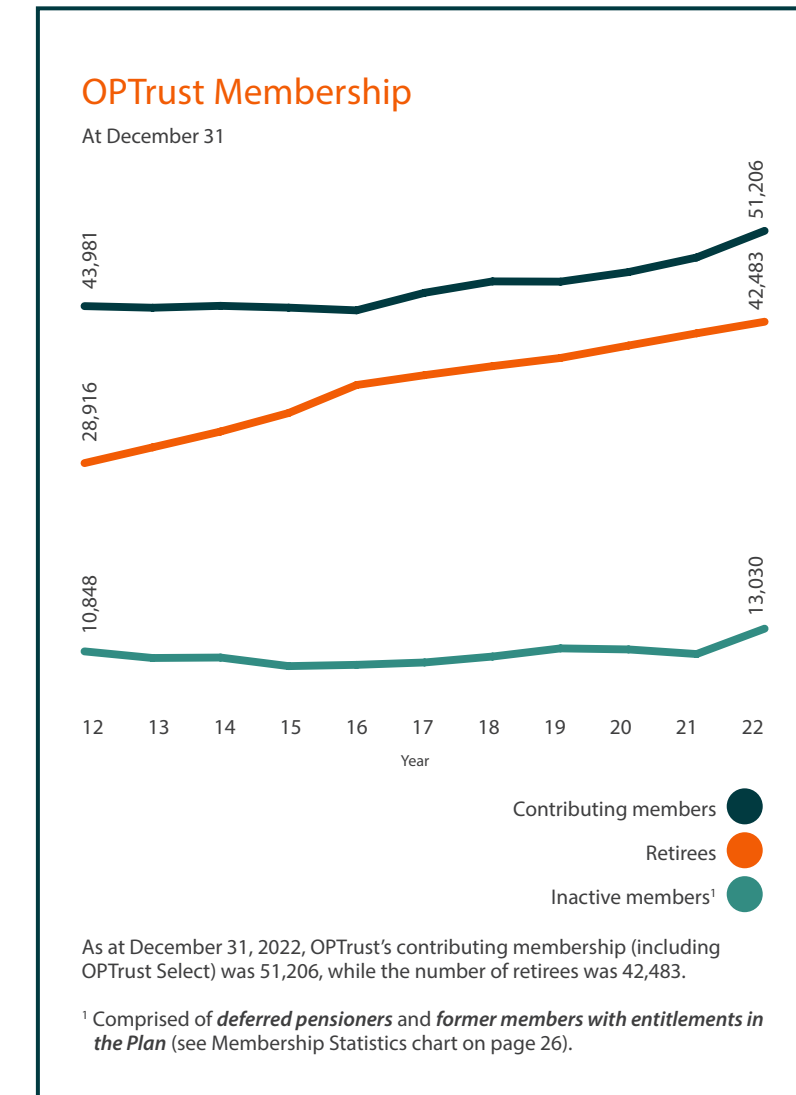


Over **338,000** visits to our website

OPTrust Select

OPTrust Select membership continues to grow at a steady pace with total membership reaching over 3,200 members and 10 employers added this year, providing pensions to those in the charitable, nonprofit and broader public sectors.

As interest from employers joining OPTrust Select continues to grow, we enhanced our onboarding processes to ensure new employers get the support they need. For many of these employers, providing a pension benefit for their employees is new and our goal is to ensure this important membership journey is smooth and well supported.



Investment Strategy and Performance

Membership Statistics

At December 31	2022	2021	2020	2019	2018	2017
Active members	51,206	48,649	47,249	46,330	46,354	45,259
Average age	43.9	44.3	44.8	44.8	44.7	44.9
Average salary	\$69,939	\$69,388	\$67,623	\$65,605	\$63,195	\$63,887
Number of new members enrolled	7,841	6,146	4,523	3,799	5,218	5,210
Number of members terminated or retiring	5,284	4,746	3,604	3,823	4,123	3,526
Former members with entitlements in the Plan	1,673	1,603	1,401	1,629	1,411	1,399
Deferred pensioners	11,357	10,405	9,635	9,508	8,943	8,386
Current pensioners	42,483	41,370	40,198	39,008	38,221	37,355
Average age	73.1	72.8	72.4	72.0	71.4	70.9
Average annual pension	\$22,968	\$22,504	\$22,321	\$21,930	\$21,613	\$21,426
Total members and pensioners	106,719	102,027	98,483	96,475	94,929	92,399

Note: As at December 31, 2022, the number of employers participating in the primary schedule and OPTrust Select were 23 and 60, respectively.

Our Member-Driven Investing Philosophy

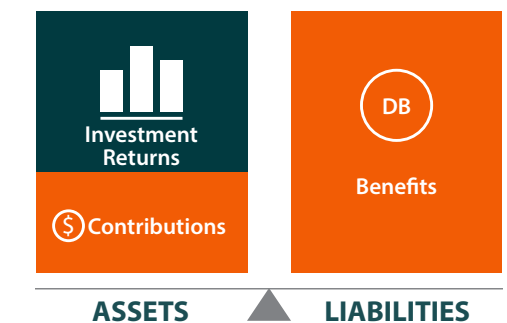
- We adopt a Total Portfolio Approach (TPA), which emphasizes an integrated approach to investing in which management and the Board work toward shared objectives, namely preserving the fully funded status of the Plan over the long term.
- Our Member-Driven Investing (MDI) strategy is our application of a TPA.
- MDI aims to earn the returns we require to keep the Plan fully funded while not exposing it to excessive risk. This is aligned with our members' interest — to improve pension certainty.
- MDI emphasizes managing the risk drivers of our liabilities to reduce the volatility of our funded status, earning diversified investment returns and adding value in asset classes where we have a competitive advantage.
- We allocate risk where we have the best potential for value creation, and we then use public market strategies to obtain our desired total fund risk exposure.
- We strive to construct our portfolio to be resilient to different economic and market environments to the extent possible, while delivering attractive risk-adjusted returns over the long term.
- We also consider other risks to long-term plan sustainability, including climate change and other environmental, social and governance (ESG)-related risks.

- As a long-term investor, we have many advantages in adverse economic environments as we can be patient and strategic in how we deploy capital.

Keeping the Plan in Balance

MDI helps us focus on our mission of paying pensions today and preserving pensions for tomorrow. This means keeping the Plan in balance to preserve its fully funded status. The three key components of this balance are contributions and investment returns on one side, and benefits on the other. We need to take risks to ensure the sustainability of the Plan, but not so much that we jeopardize the stability of contributions and benefits. Improving pension certainty means striking the right balance between these two objectives:

- **Sustainability** – generating sufficient returns to keep the Plan fully funded, and
- **Stability** – keeping contributions and benefits as stable as possible throughout time.

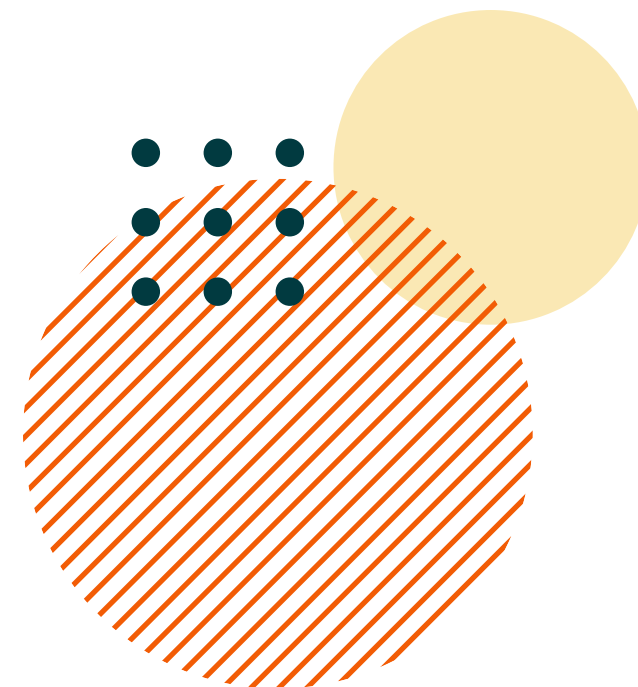


Building an “All-Weather” Framework

- Against a challenging backdrop, we are continuing to focus on building a resilient portfolio that can perform throughout various market environments. When constructing our portfolio, we focus on risk factors our asset classes expose us to and aim for diversification across market and economic regimes.
- Diversification across regimes makes sense because it is very difficult to predict in which economic or market regime we will find ourselves. Predicting the economy and markets is challenging, and we are subject to low-probability, high-impact tail events. While we do incorporate our forward-looking assessment of the macroeconomic environment into our total fund portfolio design, we want to ensure that we own an assortment of assets that perform differently in various environments.
- To better balance portfolio risks, we consider the behaviour of assets in different environments across the dimensions of growth, inflation and policy. Deflationary and stagflationary environments are the most challenging for investment portfolios.

Key Accomplishments

- 2022 was among the most difficult investment environments in decades with equity and fixed income securities both posting double-digit declines. After earning a Total Fund net return of 15.3 per cent in 2021, the net return in 2022 was -2.2 per cent, reflecting sharp declines in the value of public equity and fixed income securities.
- We have a large exposure to fixed income because bonds play a role in keeping our funded status stable through market cycles. While bond exposures delivered negative returns in 2022, we continue to deliver on our plan sustainability objective and have retained our fully funded status for the 14th consecutive year.
- We are a long-term investor and our longer-term results remain strong. Our net 10-year annualized return is 7.8 per cent, while the net annualized return since inception is 8.0 per cent. This has exceeded what is required to fund the Plan and puts us in a good position to weather short-term volatility.
- In 2022, illiquid asset classes performed well and helped partially offset total portfolio losses from public market assets, reflecting the diversification we have in our portfolio. Our infrastructure, real estate and private equity portfolios delivered net returns of 21.1 per cent, 15.0 per cent and 4.8 per cent, respectively.
- Our investment teams remained active this year and, despite the difficult environment, continued to find opportunities to make investments that we believe will serve our members well over the long term.
- We also released our enhanced climate change strategy and continued to build out our Responsible Investing program.



Investment Environment

The macroeconomic environment in 2022 posed a unique challenge for investors, characterized by persistently high inflation, low growth and aggressive monetary policy tightening globally. With interest rates rising and growth uncertainty elevated, returns for fixed income, public equities and credit have all been sharply negative. 2022 was among the most challenging regimes for cross-asset investors as balanced portfolios recorded one of the worst performing years since the Great Depression. A balanced portfolio with 60 per cent equities and 40 per cent bonds returned -16.4 per cent on the year.¹

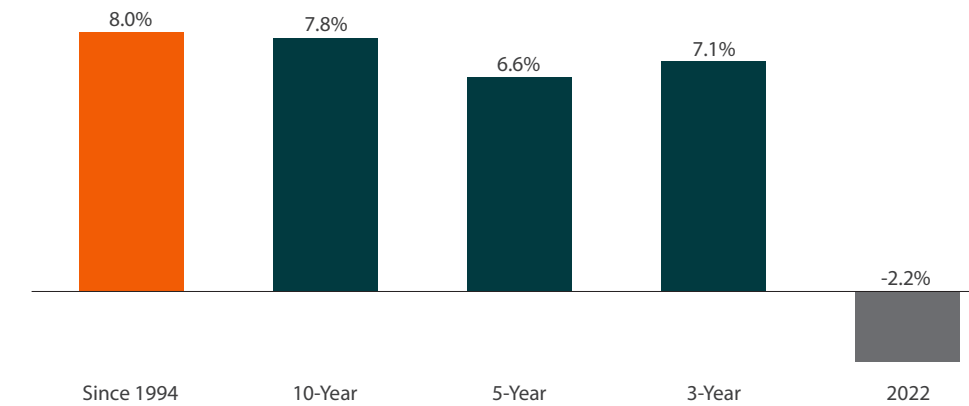
While restrictions due to the COVID-19 pandemic have been largely phased out, lingering supply chain stress and tightness in commodity and labour markets have kept inflation near multi-decade highs. Inflation expectations remained elevated compared to pre-pandemic levels. This, coupled with monetary policy tightening, has contributed to sharp increases in bond yields, which can negatively impact asset prices via higher discount rates.

Despite early signs of inflation moderating towards the end of the year, the path of economic growth and monetary policy remained highly uncertain. Growth was subdued around the world in 2022 on the back of tighter financial conditions. Expectations of weaker growth put further negative pressure on asset prices, compounding the effects of higher discount rates. Currency markets have also been exceptionally volatile, with the U.S. dollar appreciating sharply as the Federal Reserve Board hiked interest rates more aggressively than many other central banks.

Geopolitical tension posed additional challenges to the investment environment in 2022. Russia’s invasion of Ukraine sent food and energy prices higher, especially in Europe, further clouding the growth and inflation outlook. China’s growth trajectory was challenged by its zero-COVID policy in place for most of the year, along with ongoing stresses in its property market. The mix of geopolitical risk, rising interest rates, economic slowdown and higher inflation is especially difficult for most asset classes.

¹S&P 500 Total Return Index in CAD and FTSE Canada Long-term Government Bond Index are used as proxies for equities and bonds. See Notes on page 53 for further information.

Total Fund Investment Performance



The total fund return is net of management fees, transaction costs and investment administration expenses. OPTrust’s long-term nominal target rate of return is 5-6% or 3-4%, net of inflation.

Total Fund Performance

Our total fund delivered a net return of -2.2 per cent in 2022, driven mostly by declines in the value of fixed income and public equity securities. Positive returns for illiquid assets helped to offset negative returns for public market asset classes.

Asset Class Overview

In alignment with our TPA, we divide our total fund assets into four sub-portfolios, each with a specific purpose, to help us achieve our MDI objectives: the Liability Hedging Portfolio (LHP), the Return Seeking Portfolio (RSP), the Risk Mitigation Portfolio (RMP) and the Funding Portfolio (FP).

Liability Hedging Portfolio

The LHP is designed to help manage funded status volatility by mitigating risk associated with changes to the discount rate of the Plan's pension liabilities. In 2022, the LHP saw a negative net return of -20.6 per cent as market interest rates increased significantly. This was offset, however, by a reduction in the value of the Plan's liabilities, reflecting an increase in the long-term return expectations of the Plan's assets. Our LHP is composed of Canadian federal and provincial government bonds. It also serves as the main source of liquidity for the Plan.

Return Seeking Portfolio

To keep our commitment to members, we must earn enough return to keep the Plan fully funded over the long term. This means investing in a diversified portfolio of assets that we expect will earn a risk premium over time. Assets in the RSP include private and public equity, credit, multi-strategy investments, real estate and infrastructure. While 2022 was a difficult year for the liquid markets, the illiquid assets remained a bright spot for the portfolio and the RSP saw a net return of 2.7 per cent. More details on the performance across the RSP follow.

Public Equity

Our public equity exposure is designed to complement our private equity strategy by providing additional, liquid and differentiated sources of equity returns. 2022 proved to be a challenging year for public equity investments because of an unfavourable macroeconomic backdrop and difficult conditions in equity markets. This came on the back of two strong years for this asset class.

In public equities, we invest in both developed markets and emerging markets. In developed markets, we invest passively with the goal of capturing the equity risk premia while diversifying geographically, as well as reducing the carbon intensity of our public equity exposure. Performance of developed markets public equity was -19.9 per cent on a net basis in 2022 as developed public equity markets struggled with a sharper than expected rise in central bank policy rates to combat inflation.

Investing in emerging markets helps provide both diversification and exposure to global drivers of economic growth. Given our private equity program is focused on developed markets, we access our emerging market exposure primarily through public equities. In emerging markets, our approach is to utilize external managers to deliver active management because we believe the value-add opportunities are greater in these markets. Our public emerging markets equity portfolio returned a net -15.5 per cent in 2022, reflecting the overall performance of the asset class which struggled with a strong U.S. dollar and weak economic growth in China.

Overall, our public equity portfolio delivered a net return of -17.6 per cent in 2022.

Private Equity

Private equity is expected to generate higher returns than public equity over the long term while providing a smoother volatility profile. Our private equity strategy allows us to identify a broad range of investment opportunities and execute upon those that offer the most attractive risk-adjusted returns. We invest directly into private companies, typically alongside partners, and indirectly, through private equity funds.

Following an exceptionally strong year in 2021, we are pleased with the performance of our private equity portfolio in 2022. Our bias towards investing in cycle-resilient businesses and industries served us well as our portfolio companies weathered labour shortages, cost inflation and other operating challenges in 2022, amidst broad-based macroeconomic uncertainty and a slower growth environment. Declines in the valuations of public market equities and a slower private transaction environment in the second half of the year tempered some of the valuation increases we have experienced in recent years.

Despite the challenging investing environment and macroeconomic backdrop, we committed \$643 million of capital in 2022 across 11 new investments. We also capitalized on opportunities where we could achieve successful partial and full realizations of portfolio investments during the year. The private equity portfolio generated a net return of 4.8 per cent in 2022.

Credit

Credit investments serve as a diversifier to the total fund given the variety of sub-strategies in the credit space. They are also characterized by having attractive risk-adjusted returns and help generate stable cash flows for the Plan, allowing us to better fulfill our pension obligations. Our active credit exposure is implemented through external managers and complemented by passive internally managed strategies.

Credit spreads widened meaningfully over the course of the year given increased market uncertainties and our credit portfolio experienced a net loss of -3.5 per cent in 2022. Our strategies performed relatively well in an adverse environment for credit due to a

diversified approach to credit selection and limited exposure to the negative impact of increasing interest rates. As a comparison, the Bloomberg US Corporate High Yield Bond Index had a return of -11.2 per cent.²

Multi-Strategy Investments

Our multi-strategy investments consist of a wide range of liquid alternative strategies that allow us to diversify the total portfolio, while accessing value-add opportunities as well as a broad and differentiated set of risk premia. These strategies, which can be more complex and dynamic in nature, generally increase the resilience of the total fund portfolio.

Multi-strategy investments generated a net return of -1.4 per cent in 2022, down from 2021, but a strong result relative to the -5.8 per cent return delivered by a diversified mix of hedge fund strategies represented within a broad hedge fund index.³ In general, the more traditional risk premia-oriented strategies were challenged, given their exposures to equities and fixed income. However, other strategies in our portfolio such as quantitative market-neutral hedge fund strategies, alternative risk premia strategies and macro-oriented and trend-following strategies contributed positively to performance.

Real Estate

The real estate portfolio is an important diversifier for the total fund, ideally lowering funded status volatility and providing predictable income to fulfill our pension obligations. Real estate can provide attractive risk-adjusted returns and is also a hedge against inflation over the long term, which has proven particularly beneficial in the prevailing high inflation environment.

Asset Mix and Return by Asset Class and Sub-portfolio*

	Asset Mix	2022 Return	2021 Return	2020 Return	3-Year Return
Liability Hedging Portfolio	21.4%	-20.6%	-3.9%	11.8%	5.1%
Return Seeking Portfolio	85.7%	2.7%	21.9%	4.6%	9.4%
Public Equity	11.8%	-17.6%	12.9%	16.1%	2.6%
Private Equity	16.1%	4.8%	52.2%	12.3%	21.5%
Credit	9.8%	-3.5%	4.6%	-3.9%	-1.0%
Multi-Strategy Investments	10.9%	-1.4%	8.2%	-1.6%	1.6%
Real Estate	18.9%	15.0%	18.5%	1.2%	11.3%
Infrastructure	16.1%	21.1%	33.0%	-0.5%	17.0%
Commodities ^a	1.9%	-7.1%	-	-	-
Other	0.2%	-54.5%	160.2%	7.8%	8.5%
Risk Mitigation Portfolio	11.3%	-7.3%	-6.5%	26.3%	3.1%
Funding Portfolio^b	-18.4%	-	-	-	-
Total Fund	100.0%	-2.2%	15.3%	8.9%	7.1%

* OPTrust is operating within the asset allocation range specified in the *Statement of Investment Policies and Procedures*.

Asset class weights are presented on an exposure basis, including the effect of derivatives.

Asset class returns are before deducting investment administrative costs.

3-year returns are annualized.

^a Inception date of OPTrust's Commodities program is March 28, 2022.

^b Funding Portfolio includes bond repurchase agreements and implied funding from derivatives.

² This reflects the performance of the Bloomberg US Corporate High Yield Bond Index.ⁱⁱ See Notes on page 53 for further information.

³ This reflects the performance of the Hedge Fund Research Indices (HFRI) Fund of Funds Composite in CAD terms, an investable index that consists of constituents of the HFRI 500 Fund weighted composite indexⁱⁱⁱ. See Notes on page 53 for further information.

Growing economic uncertainty and headwinds, including rapidly rising inflation and interest rates, resulted in slower investment and leasing activity in 2022, as well as rising property yields across most property types and geographies. Our real estate investment strategy remains focused on sourcing investments which provide predictable and growing income profiles; focusing on North American cities with attractive demand-supply fundamentals; ESG integration in our investment process – in particular the mitigation of climate change risks; pursuing dispositions of non-strategic properties where conditions remain conducive; and pursuing compelling opportunities that may arise due to dislocations in the current market.

New investments in 2022 were primarily focused on residential and industrial property types within North America. We also completed a number of dispositions in our real estate portfolio, realizing strong returns for OPTrust. The real estate portfolio generated a net return of 15.0 per cent in 2022.

Infrastructure

Infrastructure investments add diversification to the total fund and act as a partial inflation hedge. They also aim to provide cash flow and the potential for return enhancement through long-term capital growth.

Our infrastructure strategy focuses primarily on establishing and deploying capital through platforms, but also investing directly into infrastructure assets and indirectly through infrastructure funds. Although valuations and growth assumptions remain challenging and there is continued high amounts of available capital in the market,

we were able to make \$567 million in capital commitments in five new investments. The platform approach to our infrastructure investment strategy continued to generate attractive returns while also creating the opportunity to deploy capital into attractive opportunities. Further, we continued to pursue realizations or partial sell-downs where we believe bringing additional partners to the table can facilitate further portfolio company growth.

After exceptional performance in 2021, there was strong performance across the portfolio in 2022 which allowed us to again outperform the long-term expectations of the asset class. The infrastructure portfolio generated a net return of 21.1 per cent in 2022.

Commodities

The macro regime in the first half of the year favoured commodities over other risky assets. We added an allocation to commodities and have designed our commodity exposure to be dynamic, instead of buying and holding, as commodities tend not to deliver attractive risk-adjusted returns over the long term. Our commodities strategy is specifically aimed at capturing the upside when the cycle is favourable to the asset class.

Risk Mitigation Portfolio

Our RMP is designed to enhance total portfolio diversification and to help mitigate drawdowns in tail events. We hold U.S. Treasuries, U.S. dollar, gold and trend-following strategies in the RMP.

While the RMP is designed to help mitigate drawdowns in most types of market declines, it is not a guaranteed strategy that provides protection in all adverse scenarios. As a

long-term investor, we are cautious when we are adding risk mitigation to the portfolio because it is not always cost effective, and we want to limit any drag in good times. The RMP did well during much of the COVID-19 pandemic, earning a net return of 26.3 per cent in 2020, but did not perform as expected in 2022, earning a net return of -7.3 per cent.

The RMP is interest rate sensitive. It is designed to hedge different types of equity tail scenarios with the recognition that it would be more effective for deflationary rather than stagflationary tail events such as the one we experienced in 2022. This is one of the most challenging investment environments for a pension plan, with low growth and high inflation, as bonds and other interest rate-sensitive risk mitigants cease to provide effective hedges to our portfolio. We are continuing to enhance our RMP to be more dynamic and able to adjust quickly to changing market conditions.

Funding Portfolio

The funding portfolio represents the net funding for the total fund, which allows us to manage our day-to-day liquidity and to access a broader and more diversified set of strategies. This helps us achieve a better overall risk-return profile for the Total Fund. The funding portfolio includes exposures such as bond repurchase agreements, implied funding from our derivative positions, money market and liquidity reserves, with the goal of minimizing borrowing costs. The -18.4 per cent weight of the funding portfolio reflects OPTrust's overall balance sheet leverage. This amount is expected to change year over year to reflect the implementation of our investment strategies.

Case Study

In July 2022, OPTrust invested in Sen'ákw (sen-AWK), a purpose-built, multi-family rental project in Vancouver, British Columbia. The investment is a partnership with Westbank and the Squamish Nation.

With 20 per cent of homes being designated as affordable rental, the Sen'ákw development will generate significant affordable housing. Sen'ákw is the largest net-zero operational carbon residential project in Canadian history and also encompasses the largest federal financing to date, with a construction loan provided through the Canada Mortgage and Housing Corporation's Rental Construction Financing Initiative. As the largest non-resource private partnership with a First Nation, Sen'ákw will help further reconciliation in Canada and generate economic and social benefits for the Squamish Nation.

Upon completion, phases one and two of the project, which OPTrust has invested in, will consist of about 3,000 multi-family rental homes across seven buildings, alongside a district energy plant and ancillary commercial space, all totaling over two million buildable square feet. Subsequent phases of the project could encompass over 3,000 additional homes.

OPTrust is committed to continuing to grow its real estate portfolio sustainably and responsibly. Sen'ákw represents a compelling investment and is expected to enhance the quality, functionality and sustainability of OPTrust's real estate portfolio for the long term.

Rendering of the Sen'ákw project, located on the edge of the Kitsilano neighbourhood bounded by the waterfront of False Creek and adjacent to the Burrard Street Bridge. *Rendering and design architect: Revery Architecture; Architect of Record: Kasian Architecture, Interior Design and Planning*



Global Investor

We invest globally to pursue a broader set of investment opportunities. Investing globally can offer diversification and return-enhancement benefits to the total fund and is an important part of our investment program.



- **Canada: 33.6%**
- **U.S.: 44.9%**
- **Europe: 11.5%**
- **Asia Pacific: 9.4%**
- **Latin America: 0.6%**

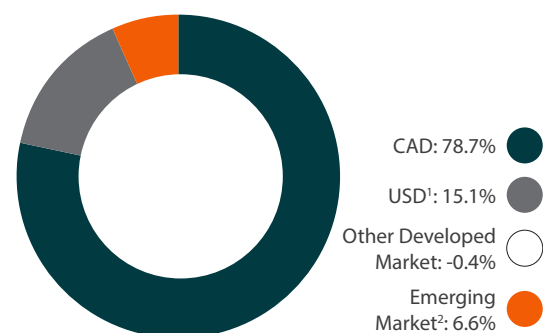
Based on country of risk, location of primary income or location of property.
Commodity and funding portfolios are excluded from exposures.

Digging Deeper on Currency

We invest our portfolio across different geographies and pick up foreign-currency exposure as part of our global investment activities. We treat currency as a separate risk factor that is managed in the context of our overall portfolio risk and return profile. Over the long run, most currencies do not pay a risk premium and can introduce additional volatility to portfolio returns. We, therefore, seek to hedge most of our foreign currency exposure. Exposure to a small number of safehaven currencies can, in certain environments, reduce portfolio risk due to their negative correlation with riskier assets, such as equities.

The benefits of hedging currencies must be balanced against the costs of doing so, including, but not limited to, usage of liquidity that cannot be deployed elsewhere in return-generating and/or risk-reducing assets. Our currency exposure at any given time reflects a balance of these costs, benefits, and risks, which change over time with market conditions, the risk-factor exposures of our portfolio and our liquidity position. Recognizing this reality, we do not have a static currency hedging policy, but view currency as a separate risk factor that needs to be sized and managed at the total fund level.

Net Currency Exposure Breakdown



¹ USD is held for diversification and risk mitigation purposes.

² As a general rule Emerging Market currencies are not hedged.

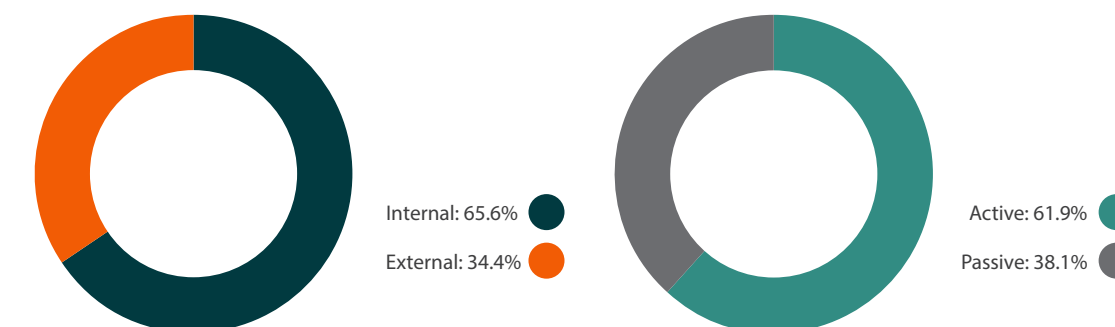
How We Invest

Our Internal Approach

In 2016, we embarked on an internalization initiative and are currently running our internally managed programs at over 65 per cent of the total fund. In addition to internally managed assets in our real estate, infrastructure and private equity portfolios, areas of internal investment management include our liability hedging, risk mitigation and funding portfolios, as well as our passive return-seeking strategies. We focus our internal resources on investment activities where we believe we have the skills and scale to be cost effective, otherwise investment activities are outsourced to external managers. Moving forward we will continue to seek out opportunities to internally manage investment strategies where appropriate.

Focus on Active Management

Active management is best deployed in areas where value creation potential is the greatest. We believe this is best achieved in the illiquid asset classes, such as real estate, infrastructure and private equity. Within public markets, we have focused our active management strategies on multi-strategy investing, credit and emerging market public equities. The focus of our passive programs is on gaining the exposure we need to balance out our total fund risk profile as cost effectively as possible.



The internal/external and active/passive breakdowns do not include the funding portfolio.

Cost Effectiveness and Value-Added Performance

According to the latest results from a CEM Benchmarking Inc. analysis, OPTrust delivered strong risk-adjusted performance using a sophisticated asset mix that was implemented cost effectively. Some highlights from CEM:

- We are in the top decile of global peers based on the combination of both value-added performance relative to benchmarks and investment costs for the five-year period ending in 2021.
- Our 2021 value-added performance was in the top one percentile of global peers' single-year outcomes in the last 20 years.
- Our five-year value-added performance was in the top quartile of Canadian peers for the period ending in 2021.



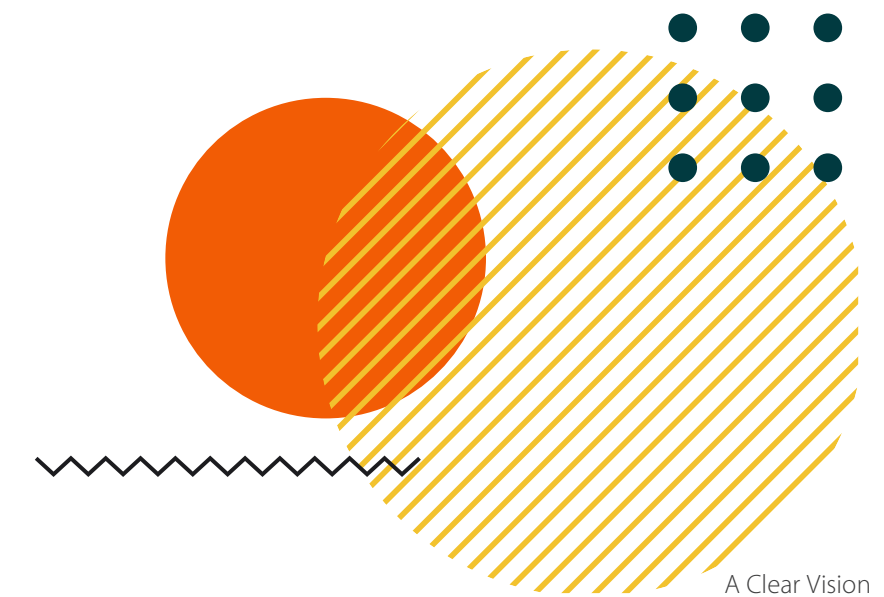
2022 Responsible Investing Report

Our Responsible Investing (RI) program plays a key role in making more informed investment and risk management decisions, creating value and securing pensions for our members for decades to come. Recognizing that environmental, social and governance (ESG) factors can materially impact investment risk, return and our reputation, every investment professional at OPTrust is responsible for integrating ESG risks and opportunities in their decision-making and portfolio management.

With an increasing focus on ESG within the investment industry and growing stakeholder expectations more broadly, it is more important than ever for us to actively manage and engage on material ESG issues for the long-term sustainability of the OPSEU Pension Plan (the Plan). As an asset owner, we have a critical role to play in advocating for the advancement of RI practices, working closely with like-minded investors to elevate management of ESG issues and promote stewardship of natural and human capital for sustainable global growth.

During 2022, we made significant progress across numerous RI workstreams, enhancing our capabilities to effectively embed ESG considerations into every aspect of our business. Notably, we announced our ambition to achieve a net-zero portfolio as part of our enhanced climate change strategy and commitment to preserving pension sustainability through the world's decarbonization and climate adaptation journey.

In keeping with our commitment to transparency and disclosure, we are pleased to share reporting of our RI activities and achievements over the past year.



Responsible Investing Highlights



Released our **enhanced climate change strategy with an ambition to create a more climate-resilient portfolio**, aligned with reaching net zero by 2050.



Completed our **Responsible Investing Partner Evaluation** framework on 100% of new externally managed investments; monitored and engaged with partners on their ESG practices.



Engaged **524** companies on key environmental, social and governance (ESG) issues.



Revised our **Proxy Voting Guidelines** to keep up with evolving best practices in corporate governance, climate strategy and labour standards.



Continued to be an active voice in **investor collaborative initiatives**, including UNPRI's Asset Owner Technical Advisory Committee, the Thinking Ahead Institute's climate change working group, and the Ceres and UNPRI private equity working groups.



Voted at **1,721** company meetings in **49** countries.



Piloted **COMPAS (Capturing OPTrust's Management and Progress Around Sustainability)**, our internally developed ESG data program, to establish a baseline and better track and understand our RI performance across the total fund.

Enhanced Climate Change Strategy

As stewards of our members' capital, our role is to look far ahead at challenges and opportunities that could affect members' retirement security across multiple generations. Chief among these is climate change. A defining issue of our time, it presents a real, measurable risk to our members that cannot be ignored in our investment approach.

In 2022, we released our enhanced climate change strategy, outlining our plan to manage the risks and opportunities from a transitioning economy. Our ambition is to successfully navigate the global transition towards net zero through:

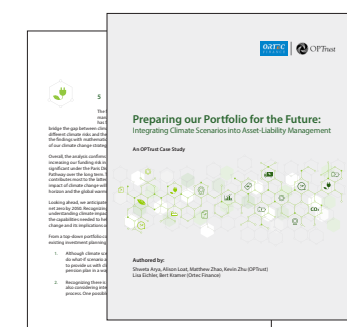
- Achieving a net-zero portfolio by 2050.
- Building resiliency and adaptability to an increasingly volatile climate.
- Taking a dynamic approach to implementation, evolving our strategy and targets as the world's path to a lower-carbon future emerges.

Five climate change beliefs underpin our strategy and they guide our decision-making and the strategy's implementation and evolution:

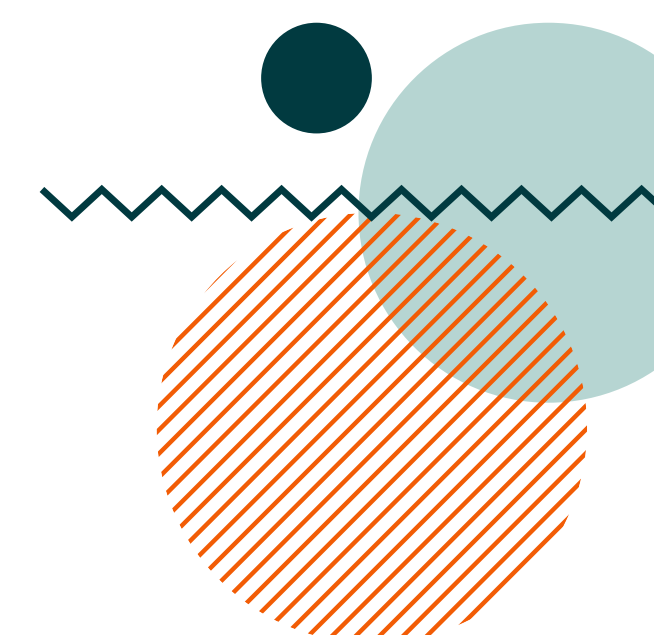
1. We recognize addressing plan sustainability requires addressing climate sustainability.
2. We must anticipate change and evolve.
3. We will find opportunities across transition pathways.
4. We are active owners and will engage with companies and in investor collaborations.
5. We will be transparent to preserve the trust of our members and stakeholders.

The strategy is built on four pillars designed to integrate climate considerations across OPTrust's investment portfolio and operations: investment strategy and selection, asset management, portfolio analytics, and advocacy and disclosure.

Further details on our enhanced climate change strategy and associated commitments can be found on our [website](#).



Within the investment strategy and selection pillar, a key commitment in driving progress towards resiliency is stress testing our portfolio construction using climate scenarios. Building on our 2018 partnership with Ortec Finance that integrated various global warming scenarios into the Plan's asset-liability modelling, we published an updated **report** in 2022 reflecting advancements in this area of climate scenario analysis. Having tracked the evolution in this space over several years, we are pleased to share our learnings as a resource for the industry as we all navigate the complexities of climate integration. While there remain challenges in translating the findings into actionable next steps, the exercise has proved helpful in positioning the risks of climate change to our funded status and setting the foundation for our enhanced climate change strategy.

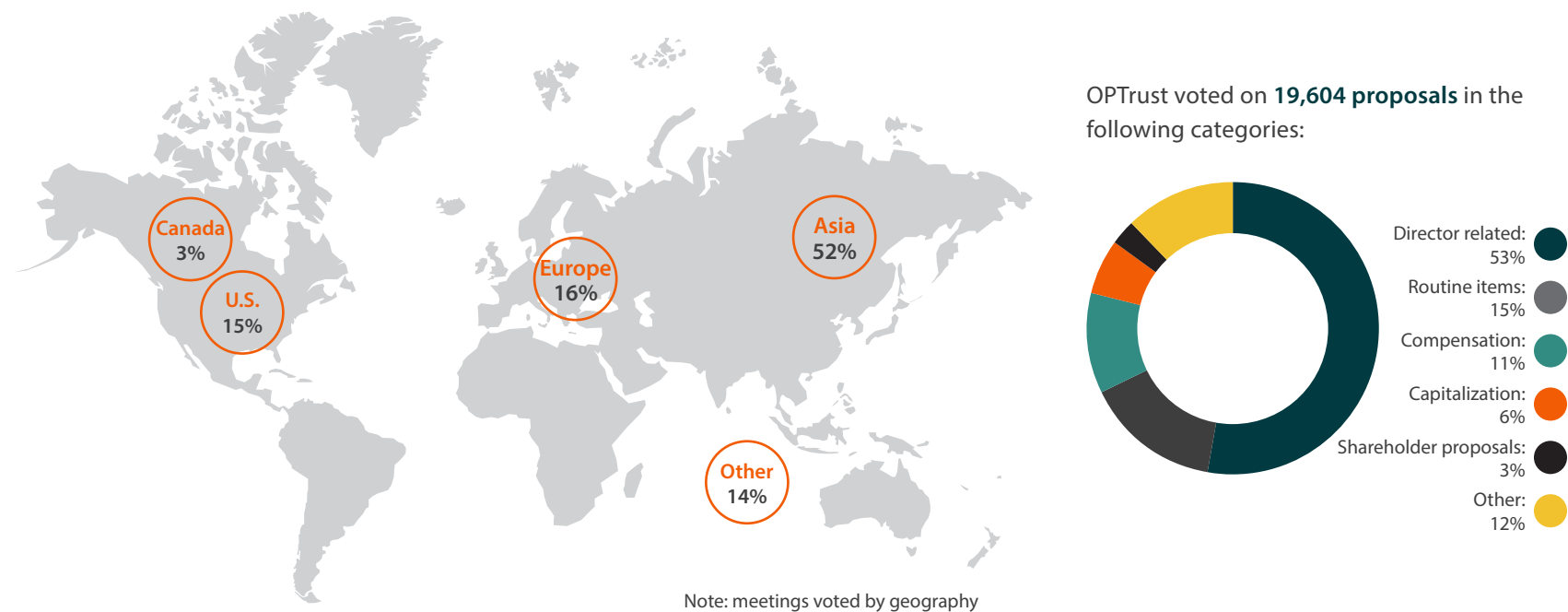


Active Ownership and Stewardship

As an asset owner with a long-term investment horizon, we view active ownership as a key lever for value creation and risk management that is essential to sustainable investment success. Exercising our governance rights through activities such as proxy voting and corporate engagement enables us to shape our investee companies' ESG strategy and hold them accountable for managing material issues effectively.

2022 Proxy Voting Highlights

OPTrust voted at 1,721 meetings in 49 countries.



- Voted **with management** on 87 per cent of proposals and voted **against management** on 13 per cent of proposals.
- Voted **in support** of 28 proposals to improve climate risk management at portfolio companies.
- As part of our commitment to improve diversity in our portfolio companies, we **voted against 362 director nomination proposals due to inadequate board gender balance.**

Corporate Engagement

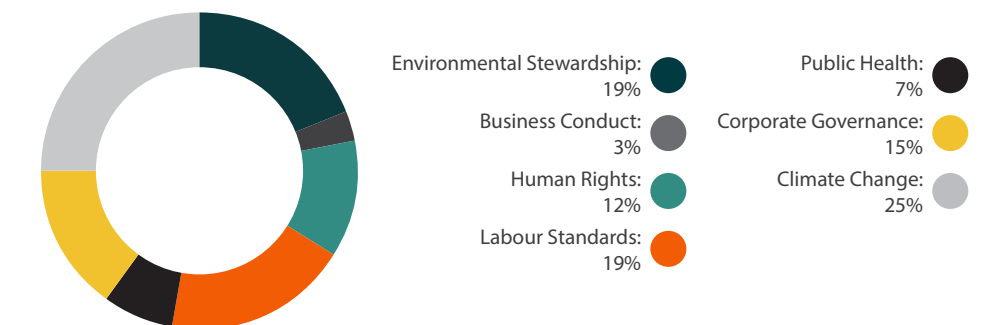
A core component of our commitment to active stewardship is our corporate engagement program, which supports our ability to manage emerging ESG issues and enhance long-term value. We believe that such engagement is generally preferable to divestment as it enables us to maintain a seat at the table, using the investor voice to effect positive change. In partnership with our engagement provider and other investor associations, including the Canadian Coalition for Good Governance, Climate Action 100+ and the 30% Club, we take part in dialogue with investee companies to advocate for improved practices and robust risk management around material sustainability issues. In our direct private markets investments, we leverage our more substantial ownership positions to play an even more active role in advancing our assets' ESG practices.

2022 Engagement Milestones

- **Climate change:** While Waste Connections has historically focused on emissions offsets as part of its climate action plan, engagement with the company advocating for actual emission reductions yielded a new target of reducing absolute Scope 1 and Scope 2 emissions by 15 per cent.
- **Labour standards:** Tesco committed to paying the living wage gap to their banana producers and sourcing bananas only from producers who pay a living wage to all workers beginning in 2024.
- **Environmental stewardship:** BHP launched a 2030 objective to create nature positive outcomes by having at least 30 per cent of its land footprint under nature positive management

Engagement Thematic Areas

524 companies engaged across 40 countries



practices by 2030, supported by a comprehensive implementation strategy and an ambition to develop natural capital accounts.

- **Corporate governance:** Following several years of dialogue with SCSK Corporation, the company appointed additional independent directors, raising the number of outside directors to six out of 12.
- **Public health:** Unilever set a new benchmark for the consumer goods industry in disclosing the healthiness of its sales against six government-endorsed nutrient profiling models and their own internal model.
- **ESG governance:** We supported the development of ESG policies and ESG frameworks for board reporting at several of our private markets assets.

COMPAS

Data quality is a well-known challenge in RI. ESG metrics are generally subjective, challenging to quantify, inconsistently measured and reported, and difficult to audit. The lack of widespread, high-quality information, both quantitative and qualitative, can lead to difficulty in rigorously evaluating ESG factors and effectively managing them in our portfolios. In the absence of standardized regulatory disclosures or an off-the-shelf ESG data framework applicable to our diverse asset classes and strategies, OPTrust's Responsible Investing Leaders Group (RLG) is creating one for the Investment Division.

Building on the successful integration of our Responsible Investing Partner Evaluation (RIPE) in 2021, the COMPAS (Capturing OPTrust's Management and Progress Around Sustainability) initiative is designed to further enhance the Investment Division's ability to track and assess our RI activities over time. COMPAS will enable us to consistently capture longitudinal, quantitative ESG data on our investments, supplemented with qualitative insights from investment teams.

The program's reporting on our ESG integration and impact will serve to:

- Identify strengths and weaknesses in our RI processes within and across our portfolios with better monitoring of key ESG indicators, and corresponding risks and opportunities across the fund.
- Strengthen our investment decision-making through informed analysis of material ESG factors.

- Support the fulfillment of our responsibilities around the disclosure of RI developments and performance to our diverse stakeholders.

In 2022, the RLG piloted the collection of key ESG indicators across the fund, focusing initially on metrics pertaining to our ESG integration practices and application of our *Statement of Responsible Investing Principles*. These indicators are shown in the chart below.

In time, we intend for the initiative to evolve to encompass systematic monitoring of our sustainability outcomes and ESG performance (such as diversity, allocations to low-carbon investments and energy consumption) to provide a holistic, data-driven view of our RI program.

ESG data collection and disclosure remains an area of development within the investment industry and we are committed to working collaboratively with our investment partners to achieve greater transparency year over year. In 2022, OPTrust joined the ESG Data Convergence Initiative as a limited partner member to support the adoption of a standard for meaningful, performance-based ESG data disclosure in private equity and facilitate ESG data analysis in our private equity portfolios. We will stay engaged with these developments as ESG data and disclosure standards continue to evolve and gain traction across asset classes, with an eye to improving ESG data coverage, depth and quality within our organization and across our portfolios.

Selected COMPAS Metrics

Asset Class	Data Points
Public markets	<ul style="list-style-type: none"> • Proxy voting statistics • Number of corporate engagements
Private equity and infrastructure	<ul style="list-style-type: none"> • Percentage of investments with an ESG policy (or equivalent) in place • Percentage of investments where ESG key performance indicators are tracked and reported to the Board
Real estate	<ul style="list-style-type: none"> • Percentage of assets with sustainability certifications • Percentage of assets where actions were taken during the period to improve ESG performance
Total fund	<ul style="list-style-type: none"> • Number of completed RIPE assessments on external investments • Percentage of external partners reporting ESG performance

Investment Division's Inclusion, Diversity and Equity Toolkit

In 2021, OPTrust's Investment Division rolled out the Responsible Investing Partner Evaluation (RIPE) framework, enabling teams to more systematically identify and assess RI strengths and gaps when investing with external managers and funds. Reflecting a broadly recognized area of development in the wider investment industry, our investment partners' diversity across asset classes has been frequently flagged as having room for improvement. As a result, OPTrust developed an inclusion, diversity and equity (IDE) toolkit to assist our investment teams in advancing IDE in their portfolios and facilitate engagement and advocacy around a complex and often sensitive topic.

The toolkit contains a primer on understanding IDE in investment management, as well as four tools for investment teams to use in assessing, monitoring and managing IDE considerations in their portfolios:

- **Portfolio snapshot tool** to help teams map their partners based on their IDE development and prioritize engagement.
- **Discussion guide** to assist teams in conducting due diligence on an investment partner's IDE practices.
- **Compilation of best practices** to support our partners in overcoming common IDE challenges.
- **Incident management framework** to guide the effective management of any IDE-related incidents or controversies.



“The creation of this toolkit underscores OPTrust’s key corporate priority of advancing IDE across the organization and it aligns with our internal focus on building a more diverse and inclusive culture within OPTrust. The toolkit will help empower our investment professionals to collaboratively drive positive change within the industry and contribute to long-term value creation through diversity of thought, forward-thinking human capital practices and comprehensive risk management.”

Lindsay Saldanha
Principal, Sustainable Investing and Innovation (Toolkit Development Lead)

Risk Management and Compliance

OPTrust recognizes there are risks in its operations and activities and in the execution of our objectives. Recognizing risk management as a tool to advance our mission and strategy, OPTrust seeks to ensure that policies, practices and processes are understood and integrated throughout the organization.

A robust risk governance and risk management framework at OPTrust assists in improving decision-making, achieving strategic and operational objectives, and enhancing overall performance. OPTrust strives to establish a risk-conscious culture with emphasis on appropriate behaviours, risk analysis and management of risks within approved risk parameters. The risk team provides advice, oversight and performs due diligence on strategies for managing OPTrust's mission-critical risks, including operational risk, crisis management, liquidity and investment risk, funding risk, cybersecurity risk, third-party risk, legal and regulatory risk, and reputational risk.

OPTrust employs a “three lines of defence” approach to risk governance and management

- The business is the **first line** of defence and owns the risks and the responsibility for managing them through maintaining effective internal controls.
- **The second line** of defence comprises the enterprise risk management, investment risk, legal, tax and compliance functions, which are responsible for facilitating and

monitoring the implementation of risk management and compliance practices by the various business lines.

- **The third line** of defence is internal audit, which provides independent assurance to the Board of Trustees (the Board) that risk management systems and reporting have been effectively implemented.

We are guided by our *Risk Appetite Statement*, to which the Board devoted much time in 2022, to ensure we manage our mission-critical risks within our risk appetite. We integrate risk management into all aspects of OPTrust's strategy and operations and related decision-making, engage appropriate stakeholders and subject matter experts, and employ industry best practices.

The Board is committed to ensuring that in executing their responsibilities, Board members, management and all employees conduct their affairs ethically and in compliance with all applicable laws, regulations and corporate policies. Our compliance program plays a critical role in managing legal and regulatory risk to ensure our position to deliver sustainability to our members and create a fulfilling work experience for our employees.

Our risk management and compliance governance and frameworks are grounded in our culture and corporate values, guided by the principles of our *Code of Conduct*, and are integrated into business processes in a way that is suited to our mission, size and environment.

Governance and Accountability

Governance System

The OPSEU Pension Plan (Plan) was established pursuant to a *Sponsorship Agreement* dated April 18, 1994, between the Government of Ontario, currently represented by Treasury Board Secretariat (TBS) and the Ontario Public Service Employees Union (OPSEU). The Plan is a successor to the Public Service Pension Plan for public servants who were members of OPSEU. Certain provisions of the *Sponsorship Agreement* were implemented by the *OPSEU Pension Plan Act, 1994* which came into force on June 23, 1994.

The Plan is jointly governed by a Board of Trustees (the Board) established pursuant to an *Agreement and Declaration of Trust* established by OPSEU and TBS dated October 25, 1994 (Trust Agreement). Consistent with the joint governance model, five trustees are appointed by OPSEU and five by TBS. The Board serves solely as the legal administrator of the Plan and has no power to amend the Plan. Only TBS and OPSEU (Sponsors) have the power to amend the Plan and any of the other founding documents. The Board and its employees operate under the business name OPTrust.

Under a joint governance system, the decisions and risks of the Plan are shared by the members and the employers who contribute to it. For decision-making purposes, OPSEU represents all Plan members and TBS represents all participating employers. This includes the members and participating employers of OPTrust Select, as a separate schedule of benefits under the Plan.

The joint governance model is built into every aspect of OPTrust's governance system. The Board Chair and Vice-Chair positions rotate between OPSEU and TBS nominees. The standing committees of the Board and any ad hoc committees are composed of equal numbers of OPSEU and TBS nominees and the Chairs of the standing committees rotate between OPSEU and TBS nominees.

Under the governance system established by the Board, the four standing committees of the Board serve a monitoring/supervisory function and make recommendations to the Board on matters that are assigned to them under their respective terms of reference. The Board approves matters recommended by the committees and is directly responsible for strategic matters such as the strategic plan, the corporate objectives, the annual business plan and the selection of the President and CEO.

Standing Committees of the Board

The **Governance and Administration Committee (GAC)** monitors Plan administration and major pension initiatives and oversees the preparation of actuarial valuations. The GAC also oversees various governance-related activities, recommends and oversees governance reviews, monitors the Board's education and development and oversees the preparation of the *Funded Status Report*.

The **Audit, Finance and Risk Committee (AFRC)** monitors the budget and provides oversight in the areas of financial reporting, tax, audits, internal controls, corporate insurance, information technology (digital), data management, regulatory compliance and enterprise risk management.

The **Investment Committee (IC)** oversees the investment activities of OPTrust and monitors the progress of strategic investment initiatives. The IC also makes recommendations to the Board for approval of key investment metrics and investment policies.

The **Human Resources and Compensation Committee (HRCC)** provides oversight of OPTrust's people strategy, the management compensation system and reviews and recommends to the Board the compensation of the President and CEO as well as the compensation of the Executive Team and certain other high earners in the organization.

Two additional committees have been established which operate on an as-needed basis: the **Adjudication Panel**, which gives Plan members access to a review process in the event of certain types of disputes, and the **Concern Assessment Panel**, which provides a forum for addressing complaints under OPTrust's *Whistle-Blowing Policy*. From time to time, the Board also establishes ad hoc working groups or committees to undertake specific projects.

Regulatory Framework

OPTrust is registered as a jointly sponsored pension plan with the Financial Services Regulatory Authority of Ontario under the *Pension Benefits Act* (Ontario) and with the Canada Revenue Agency under the *Income Tax Act* (Canada). OPTrust is also subject to numerous other statutes in Ontario and in jurisdictions where OPTrust invests and/or has offices (Australia and the U.K.).

Board Appointments

Lindsey Burzese and Len Elliott were reappointed to the Board effective January 1, 2022. Deborah Leckman and Bob Plamondon were reappointed effective January 18, 2022. Richard Nesbitt was reappointed effective September 24, 2022.

Effective November 1, 2022, Lindsey Burzese was appointed Chair of the Board and Chair of the GAC and Richard Nesbitt was appointed Board Vice-Chair and Chair of the IC. Effective the same date, Deborah Leckman was appointed Chair of the AFRC and Ram Selvarajah was appointed Chair of the HRCC.

Orientation and Education

New Board members are provided with a comprehensive two-day orientation. Recognizing that Board members join with different levels of related experience, all Board members are encouraged to take a basic board effectiveness course (e.g. Institute of Corporate Directors) if they have not done so already. Board members receive an annual budget for conferences and courses and in-house education sessions are regularly built into the Board calendar.

Process for Managing Conflicts

Board members are required to complete a *Conflict-of-Interest Disclosure and Attestation* form when they join and to update it on an annual basis or when there is a change in their circumstances, such as the assumption of a new role.

Board Effectiveness Reviews

In 2022, changes were made to Board procedures aimed at enhancing the effectiveness of Board governance. The changes included improvements to the agenda setting process, use of a standardized form of Board reporting and adoption of new requirements for management presentations at Board meetings.

Management Governance

Management has established the *Management Governance Charter* which sets out the roles and responsibilities of the participants in the management governance system. The Executive Team, comprising the heads of each of the divisions at OPTrust, serves in an advisory capacity to the President and CEO. Five management committees aligned with the Board standing committees review and approve management policies and serve as information-sharing forums.

Compensation Program

The contributions made by employees are critical to the successful achievement of OPTrust's mission. Our compensation program plays a key role in achieving these objectives by attracting, rewarding and retaining talented employees who work to deliver on our goals and live our values.

Compensation structures for bargaining unit employees are negotiated in the collective agreement. The four-year agreement expired on December 31, 2022, and collective bargaining commences in 2023.

For non-bargaining unit employees, our compensation program consists of a base salary and variable compensation including annual and long-term (when applicable) components.

Benefit and Retirement Programs

In addition to total compensation, total rewards for all employees (bargaining unit and management) include retirement programs, health benefits and wellness programs.

Management Compensation Principles and Objectives

The OPTrust compensation principles provide a framework for the design of our compensation program. We strive to:

- Pay competitively compared to relevant external markets, while considering internal equity and cost effectiveness for our members.
- Align employee compensation with how well we achieve our business objectives.
- Focus on total fund and asset class performance measures and how well we achieve our corporate, divisional and individual objectives.
- Encourage effective risk management that is aligned with the organization's *Risk Appetite Statement* and other risk metrics.
- Have a variable pay structure that facilitates pay for performance and rewards employees commensurate with their ability to impact results.
- Promote OPTrust's values by focusing not just on what is achieved but how it is achieved.
- Be perceived as fair and reasonable by internal and external stakeholders.

To ensure our management compensation program remains aligned with these principles and market competitive, we undertake regular comprehensive reviews.

Compensation Framework for Management

Base Salary

Employees are assigned a salary to provide market-competitive compensation appropriate for the level of responsibility, knowledge and skill required for their role.

Variable Compensation

The OPTrust variable compensation plan is based on performance assessments in the key areas outlined below. Performance metrics are established at the beginning of the year and the weighting for each category varies based on the level of the employee and their division.

Within the OPTrust Performance category, the four-year Retrospective Total Fund Performance is evaluated through three metrics: funded status, risk-adjusted returns and cumulative value-add of active strategies. For the employees in investment roles, the

divisional performance category includes an evaluation of the four-year retrospective asset class performance.

For all eligible employees, after the end of the year, performance is assessed against objectives at the individual, divisional and corporate levels to determine their payment. The payment is made as a combination of an annual component and, if eligible, a long-term component. The annual component is paid in cash after the end of the performance year, while the long-term component is payable in equal installments over the two years after the annual payment is made.

Quantitative metrics in OPTrust's variable compensation program are in the second year of a three-year transition from the prior incentive program to the new variable compensation program.

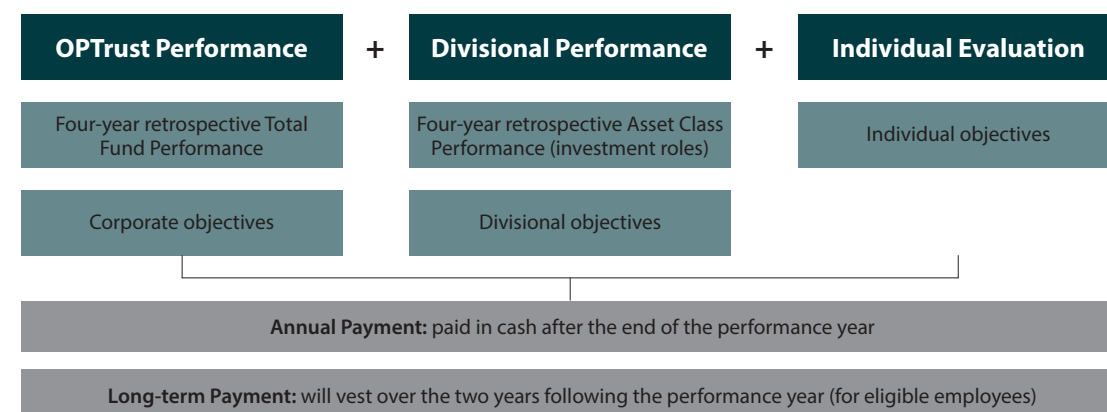
The prior incentive program included a short-term incentive program that assessed individual performance against objectives aligned to OPTrust's annual business plan and

a long-term incentive plan aligned to three risk measures: funded status, efficient risk management and surplus preservation.

Compensation Oversight

The Board approves the compensation principles and philosophy, the design of the compensation program, the performance factors, and the salaries and variable compensation paid to the CEO, members of the Executive Team and certain other highly paid employees. The Human Resources and Compensation Committee assists the Board in meeting its fiduciary duties by making recommendations to the Board on compensation-related matters and monitoring the implementation of the compensation program. The Board engages an independent compensation advisor to provide advice and assistance to the Human Resources and Compensation Committee and the Board in executing their responsibilities.

The CEO is responsible for overseeing the implementation of the compensation program and for making recommendations to the Board on the payment factors for the quantitative and qualitative metrics. The CEO makes recommendations to the Human Resources and Compensation Committee with respect to the salaries and variable compensation of members of the Executive Team and certain other highly paid employees and the aggregate compensation paid to all other members of management.



Compensation Disclosure

The Board is committed to transparency with respect to the compensation of members of OPTrust's Executive Team. Details about the base salary and other compensation paid to the President and CEO, CFO and the other three highest-paid members of the Executive Team are found on page 50.

One Plan

Annual Variable

Payments under OPTrust's variable compensation program are reported for the year in which they are earned but are paid in the subsequent calendar year. This payment represents annual variable compensation earned in 2022 to be paid in 2023. Annual payment includes transition payments related to moving to the new plan design if applicable.

Long-Term Variable

These payments reflect the first payment of the long-term component of the variable compensation under the new One Plan, awarded in the year 2021.

Prior Plan

LTIP (Long-Term Incentive Payments)

These payments reflect the final tranche of LTIP awarded under the prior compensation plan for the plan year 2020.

Other Benefits and Payments

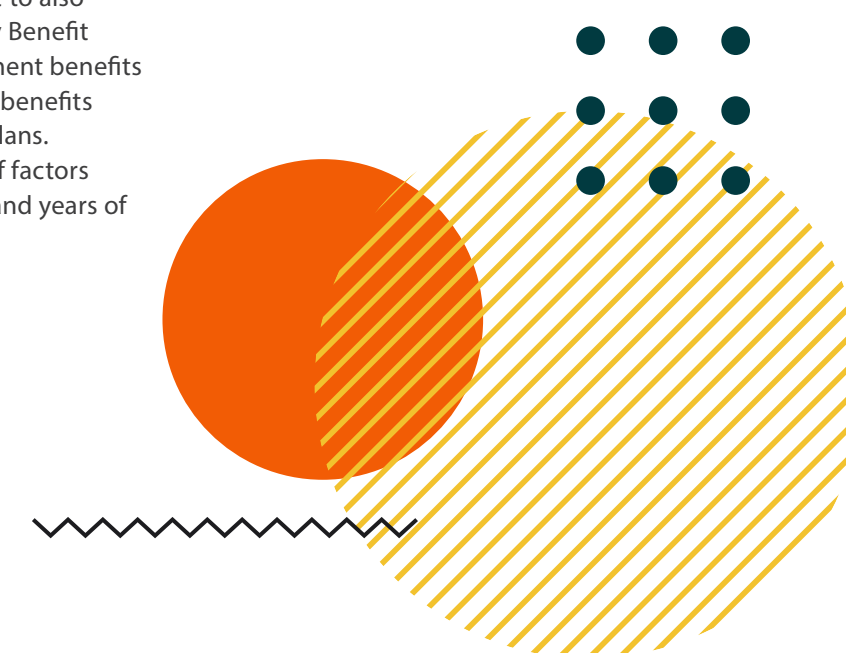
The amounts disclosed include vacation payouts, other taxable benefits and the employer's share of all employee benefit premiums and contributions (excluding pension contributions) made on behalf of employees. One-off contractual payments may also be included.

Post-Employment Benefits

The disclosed executives all contribute to the OPTrust defined benefit pension plan. Employees who exceed the maximums are allowed under the *Income Tax Act* to also participate in the Supplementary Benefit Arrangement. The post-employment benefits disclosed reflect the value of the benefits earned for the year under both plans. The value is reliant on a variety of factors including pensionable earnings and years of service credit in the Plan.

Board of Trustees Expenses

The Board of Trustees do not receive compensation from OPTrust. Reimbursement for Trustee-related incidental expenses and education received by Trustees totaled \$148,000 in 2022 (2021 – \$30,000). The total spent in 2022 reflects a full year of in-person board meetings and a regular schedule of board educational activities. Prior-year costs were lower due to a greater number of virtual board meetings and fewer educational opportunities, because of pandemic protocols. The Trustees appointed by the Province of Ontario receive a per diem paid directly by the Province. Trustees appointed by OPSEU are compensated by the union for any loss of regular income as a result of time spent fulfilling their duties as a member of the Board.



2022 Compensation Paid

As at December 31

	Base A	One Plan Annual Variable B	One Plan Long-term Variable and Prior Plan LTIP C	Other Benefits D	Total A+B+C+D	Post- Employment Benefits E
(\$ thousands)						
Peter Lindley President and Chief Executive Officer	375	519	458	6	1,358	61
Upton Jeans Chief Financial Officer	290	213	71	8	582	85
James Davis Chief Investment Officer	385	777	754	24	1,940	53
Stephen Solursh Senior Vice-President & General Counsel	285	242	218	19	764	42
Dani Goraichy Senior Vice-President & Chief Risk Officer	270	209	142	8	629	58

Board Advisors

Actuary
WTW

Investment Advisors
Janet Rabovsky
Richard Talbot

External Auditor
PricewaterhouseCoopers LLP

Internal Auditor
Ernst & Young LLP

Compensation Advisor
Hugessen Consulting Inc.

**Information Technology
and Risk Advisor**
Deloitte Canada

External Legal Advisor
Fasken Martineau DuMoulin LLP

Members of the Board of Trustees

At December 31, 2022

Lindsey Burzese, Chair²

Acting Divisional Program Specialist
Ministry of the Environment, Conservation
and Parks
Appointed in January 2018, Chair since 2022
Governance and Administration Committee
(Chair), Investment Committee, Human
Resource and Compensation Committee,
Adjudication Panel

Richard Nesbitt, Vice-Chair¹

Adjunct Professor at the Rotman School of
Management, University of Toronto and a
Visiting Professor at the London School of
Economics, United Kingdom
Appointed in September 2019, Vice-Chair
since 2022

Investment Committee (Chair), Governance
and Administration Committee, Human
Resources and Compensation Committee,
Adjudication Panel

Len Elliott²

Supervisor of OPS Negotiations
OPSEU
Appointed in April 2019
Audit, Finance and Risk Committee,
Adjudication Panel

Deborah Leckman¹

Senior Investment Professional
Appointed in January 2019
Audit, Finance and Risk Committee (Chair),
Human Resources and Compensation
Committee

Neil Martin²

Industrial Health and Safety Inspector, Ministry
of Labour, Training and Skills Development
Appointed in April 2021
Governance and Administration Committee,
Audit, Finance and Risk Committee, Human
Resources and Compensation Committee

Sharon Pel¹

Consultant and Board Member (past Board
Chair)
Appointed in February 2017
Governance and Administration Committee,
Investment Committee, Adjudication Panel

Robert Plamondon¹

Consultant and Board Member
Appointed in January 2019
Governance and Administration Committee,
Audit, Finance and Risk Committee

Ram Selvarajah²

Senior Systems Analyst, Ministry of the
Solicitor General
Appointed in April 2021
Human Resources and Compensation
Committee (Chair), Investment Committee

Randy Marie Sloat²

Customer Care Representative (Retired)
Ministry of Government and Consumer
Services
Appointed in January 2012
Governance and Administration Committee,
Audit, Finance and Risk Committee,
Investment Committee, Adjudication Panel
(OPSEU alternative)

Don Wilkinson¹

Vice-Chair, Deloitte and Leader of National
Asset Management Group (Retired)
Appointed in June 2017
Audit, Finance and Risk Committee,
Investment Committee, Human Resources and
Compensation Committee, Adjudication Panel
(Government alternative)

¹ Appointed by the Government of Ontario

² Appointed by OPSEU

Members of the Executive Team

At December 31, 2022

Peter Lindley

President and Chief Executive Officer

Karen Danylak

Vice-President, Strategy, Communications and Stakeholder Relations

James Davis

Chief Investment Officer

Audrey Forbes

Senior Vice-President, Member Experience

Dani Goraichy

Chief Risk Officer and Senior Vice-President, Actuarial Services and Plan Policy

Tracy Hoskins

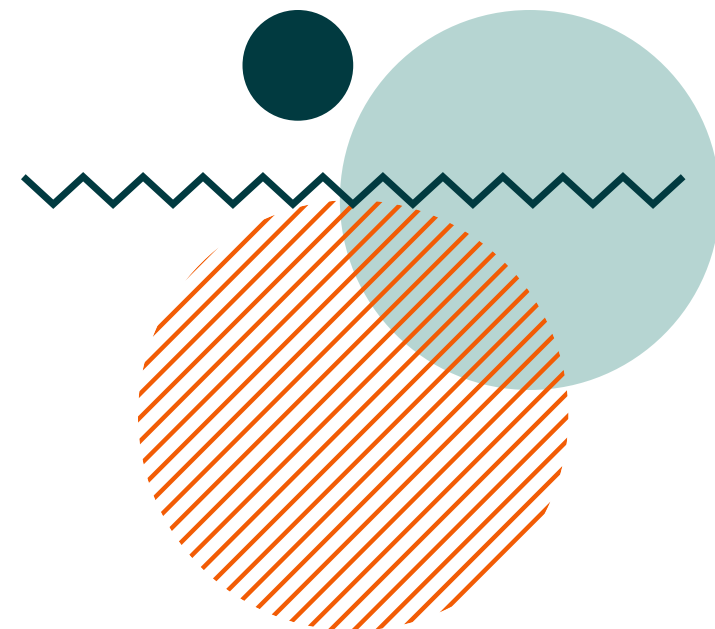
Head of People

Upton Jeans

Chief Financial Officer

Stephen Solursh

Senior Vice-President and General Counsel



Notes

¹ The S&P 500 Total Return Index ("Index") and associated data are a product of S&P Dow Jones Indices LLC, its affiliates and/or their licensors and has been licensed for use by OPTrust. © 2023 S&P Dow Jones Indices LLC, its affiliates and/or their licensors. All rights reserved. Redistribution or reproduction in whole or in part are prohibited without written permission of S&P Dow Jones Indices LLC. For more information on any of S&P Dow Jones Indices LLC's indices please visit www.spdji.com. S&P® is a registered trademark of Standard & Poor's Financial Services LLC ("SPFS") and Dow Jones® is a registered trademark of Dow Jones Trademark Holdings LLC ("Dow Jones"). Neither S&P Dow Jones Indices LLC, SPFS, Dow Jones, their affiliates nor their licensors ("S&P DJI") make any representation or warranty, express or implied, as to the ability of any index to accurately represent the asset class or market sector that it purports to represent and S&P DJI shall have no liability for any errors, omissions, or interruptions of any index or the data included therein.

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² **Source:** Bloomberg Index Services Limited. BLOOMBERG® is a trademark and service mark of Bloomberg Finance L.P. and its affiliates (collectively "Bloomberg"). Bloomberg or Bloomberg's licensors own all proprietary rights in the Bloomberg Indices. Bloomberg does not approve or endorse this material or guarantee the accuracy or completeness of any information herein, nor does Bloomberg make any warranty, express or implied, as to the results to be obtained therefrom, and, to the maximum extent allowed by law, Bloomberg shall not have any liability or responsibility for injury or damages arising in connection therewith

³ **Source:** HFR, Inc. www.HFR.com. The HFR Indices are being used under license from HFR, Inc., which does not approve of or endorse any of the products or the contents discussed in this these materials. HFRI Fund of Funds Index performance is based on the most recent estimates provided by HFR, Inc. at the time this report was published and may be subject to change.



Financial Statements 2022 Funded Status Report

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Management's Responsibility for Financial Reporting

Management of the OPSEU Pension Plan Trust Fund (OPTrust) is responsible for the integrity and fairness of the data presented in the financial statements and the financial information presented in the Funded Status Report (FSR). The financial statements have been prepared in accordance with the Canadian Chartered Professional Accountants of Canada Handbook section 4600 — Pension Plans (s4600) and comply with the financial reporting requirements of the Pension Benefits Act (Ontario). In the selection of accounting policies that do not relate to its investment portfolio or pension obligations, OPTrust has chosen to comply on a consistent basis with International Financial Reporting Standards (IFRS), as issued by the International Accounting Standards Board (IASB), to the extent that those standards do not conflict with the requirements of s4600. The financial statements include amounts that must, as necessary, be based on the best estimates and judgment of management with appropriate consideration as to materiality. Where applicable, the financial information presented throughout the FSR is consistent with the financial statements.

Management has recognized the importance of OPTrust maintaining and reinforcing a high standard of conduct in all of its actions, including the preparation and publication of statements fairly presenting the financial position of the OPSEU Pension Plan (the Plan). Systems of internal control and supporting

procedures are maintained to provide assurance that transactions are properly authorized, assets are safeguarded against unauthorized use or disposition and proper records are maintained. The systems are augmented by the careful selection and training of qualified staff, the establishment of organizational structures providing for a well-defined division of responsibilities, and the communication of policies and guidelines of business conduct throughout OPTrust.

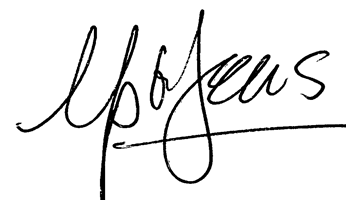
The Board of Trustees has the ultimate responsibility for the financial statements presented to plan members. The Audit, Finance and Risk Committee, consisting of Trustees appointed by each of the Province of Ontario and OPSEU, reviews the financial statements with management and the external auditor before such statements are recommended to the Board of Trustees for approval. The Audit, Finance and Risk Committee meets on a regular basis with management and the external auditor to review the scope of the audit, discuss auditor's findings, and satisfies itself that the Board of Trustees' responsibilities have been adequately discharged.

PricewaterhouseCoopers LLP, the Plan's external auditor, has conducted an independent examination of the financial statements in accordance with Canadian generally accepted auditing standards and have expressed their opinion upon

completion of such examination in their report to the Board of Trustees. The auditors have full and unrestricted access to management, the Audit, Finance and Risk Committee and the Board of Trustees to discuss their audit and related findings as to the integrity of the Plan's financial reporting and the adequacy of the systems of internal control.



Peter Lindley
President and Chief Executive Officer



Upton Jeans
Chief Financial Officer

March 10, 2023

Actuaries' Opinion

Towers Watson Canada Inc. (WTW) was retained by the Board of Trustees of the Ontario Public Service Employees' Union Pension Plan (the Plan) to perform an actuarial valuation of the Plan as at December 31, 2022. The purpose of this valuation is to determine the pension obligations of the Plan as at December 31, 2022, for inclusion in the Plan's financial statements in accordance with Section 4600 of the *Chartered Professional Accountants of Canada (CPA Canada) Handbook*.

We have undertaken such a valuation and provided our related report. As this valuation was undertaken for purposes of the Plan's financial statements under the *CPA Canada Handbook* Section 4600, it might not be appropriate for other purposes and should not be relied upon or used for any other purpose.

The results of the valuation disclosed total going concern pension obligations of \$20,776 million in respect of service accrued to December 31, 2022.

The valuation of the Plan's going concern pension obligations was based on:

- members' demographic data provided by OPTrust management as at September 23, 2022 for Primary Schedule members and September 26, 2022 for OPTrust Select members, projected to December 31, 2022 using management's estimates of experience for the intervening period;

- the actuarial cost method prescribed by the *CPA Canada Handbook* Section 4600; and
- best-estimate assumptions about future events (for example, economic factors such as future rates of inflation and returns on the pension fund, as well as demographic factors) which were developed by OPTrust management in consultation with WTW and have been adopted by OPTrust management and approved by the Board.

Changes have been made to the actuarial assumptions affecting the pension obligations since the previous valuation for the purpose of the Plan's financial statements at December 31, 2022, as described in the notes to the financial statements.

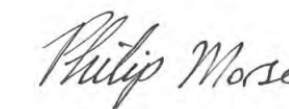
We have reviewed the data used for the valuation and have performed tests of reasonableness and consistency. In our opinion, for the purposes of the valuation,

- the membership data are sufficient and reliable;
- the assumptions adopted are appropriate;
- the methods employed in the valuation are appropriate; and

- the valuation has been completed in accordance with our understanding of the requirements of the *Chartered Professional Accountants of Canada (CPA Canada) Handbook* Section 4600.

Nonetheless, differences between future experience and the assumptions about such future events will result in gains or losses which will be revealed in future valuations, none of which have been anticipated at this time. Our valuation was prepared and our opinions given in accordance with accepted actuarial practice in Canada.

Towers Watson Canada Inc.



Philip A. Morse
Fellow, Canadian Institute of Actuaries



Suzanne Jacques
Fellow, Canadian Institute of Actuaries

Toronto, Ontario
March 10, 2023

Independent auditor's report

To the Board of Trustees of OPSEU Pension Plan Trust Fund

Our opinion

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of OPSEU Pension Plan Trust Fund (OPTrust) as at December 31, 2022 and 2021 and the changes in its net assets available for benefits and changes in its pension obligations for the years then ended in accordance with Canadian accounting standards for pension plans.

What we have audited

OPTrust's financial statements comprise:

- the statements of financial position as at December 31, 2022 and 2021;
- the statements of changes in net assets available for benefits for the years then ended;
- the statements of changes in pension obligations for the years then ended; and
- the notes to the financial statements, which include significant accounting policies and other explanatory information.

Basis for opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the *Auditor's responsibilities for the audit of the financial statements* section of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We are independent of OPTrust in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada. We have fulfilled our other ethical responsibilities in accordance with these requirements.

Other information

Management is responsible for the other information. The other information comprises the information, other than the financial statements and our auditor's report thereon, included in the *Funded Status Report*.

Our opinion on the financial statements does not cover the other information and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information identified above and,

in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

Responsibilities of management and those charged with governance for the financial statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with Canadian accounting standards for pension plans, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing OPTrust's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate OPTrust or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the OPTrust financial reporting process.

Auditor's responsibilities for the audit of the financial statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is

sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of OPTrust's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on OPTrust's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are

based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause OPTrust to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

PricewaterhouseCoopers LLP

**Chartered Professional Accountants,
Licensed Public Accountants**

Toronto, Ontario
March 10, 2023

Statement of Financial Position

As at December 31 (\$ millions)	2022	2021
ASSETS		
Investments (Note 3)	28,657	27,206
Contributions receivable (Note 7)	56	56
Other assets	5	2
	28,718	27,264
LIABILITIES		
Accounts payable and accrued charges	63	26
Investment-related liabilities (Note 3)	4,012	1,325
	4,075	1,351
NET ASSETS AVAILABLE FOR BENEFITS	24,643	25,913
PENSION OBLIGATIONS (Note 5)	20,776	21,365
SURPLUS (Note 6)	3,867	4,548
PENSION OBLIGATIONS AND SURPLUS	24,643	25,913

For the years ended December 31 (\$ millions)	2022	2021
SURPLUS, BEGINNING OF YEAR	4,548	2,364
CHANGE IN SURPLUS		
(Decrease)/Increase in net assets available for benefits	(1,270)	2,867
Increase/(Decrease) in net pension obligations	589	(683)
NET (DECREASE)/INCREASE IN SURPLUS	(681)	2,184
SURPLUS, END OF YEAR	3,867	4,548

The accompanying notes are an integral part of these financial statements

The financial statements were authorized for issue by the Board of Trustees on March 10, 2023, and were signed on its behalf by:

Lindsey Burzese
Chair

Richard Nesbitt
Vice-Chair

Statements of Changes in Net Assets Available for Benefits

As at December 31 (\$ millions)	2022	2021
NET ASSETS AVAILABLE FOR BENEFITS, BEGINNING OF YEAR	25,913	23,046
Changes Due to Investment Activities		
Investment income (Note 4)	445	453
Net (loss) gain on investments (Note 4)	(950)	3,089
Investment management and administrative expenses (Notes 4 and 9)	(75)	(77)
	(580)	3,465
Changes Due to Pension Activities		
Contributions (Note 7)	594	582
Benefits paid (Note 8)	(1,245)	(1,138)
Pension administrative expenses (Note 9)	(39)	(42)
	(690)	(598)
(DECREASE)/INCREASE IN NET ASSETS AVAILABLE FOR BENEFITS	(1,270)	2,867
NET ASSETS AVAILABLE FOR BENEFITS, END OF YEAR	24,643	25,913

The accompanying notes are an integral part of these financial statements

Statements of Changes in Pension Obligations

As at December 31 (\$ millions)	2022	2021
PENSION OBLIGATIONS, BEGINNING OF YEAR	21,365	20,682
INCREASE IN PENSION OBLIGATIONS		
Interest accrued on benefits	1,094	1,061
Benefits accrued	574	566
Change in actuarial assumptions (Note 5)	(1,556)	115
	112	1,742
DECREASE IN PENSION OBLIGATIONS		
Benefits paid (Note 8)	1,245	1,138
Experience losses (Note 5)	(544)	(79)
	701	1,059
(DECREASE)/INCREASE IN NET POSITION OBLIGATIONS	(589)	683
PENSION OBLIGATIONS, END OF YEAR	20,776	21,365

The accompanying notes are an integral part of these financial statements

Notes to the Financial Statements

1. Description of the OPSEU Pension Plan

The OPSEU Pension Plan (the Plan) was established as a jointly sponsored defined benefit plan pursuant to a *Sponsorship Agreement* dated April 18, 1994 between the Province of Ontario (the Province or Government of Ontario) and the Ontario Public Service Employees Union (OPSEU) (collectively, the Sponsors), primarily for employees in the Ontario Public Service who were members of bargaining units represented by OPSEU. The *Ontario Public Service Employees Union Pension Act, 1994* (the OPSEU Act) enacted in June 1994 facilitated certain aspects of the Agreement.

The Plan's primary schedule (Primary Schedule) provides pension benefits mainly for employees of the Province and various crown agencies, boards commissions and certain other employers in the broader public sector in bargaining units represented by OPSEU. Pursuant to a letter of agreement executed by the Sponsors on April 19, 2018, a second schedule of benefits known as OPTrust Select was added to the Plan. OPTrust Select members are employees of participating employers in the broader public and nonprofit sectors.

The Plan and the related pension fund (Trust Fund) were established pursuant to an *Agreement and Declaration of Trust* dated October 25, 1994 (the Trust Agreement). The Trust Agreement also established the OPTrust Board of Trustees (the Board) as the legal administrator of the Plan and the Trust Fund. The Board is composed of five appointees of the Province and five appointees of OPSEU. The legal name of the Board is "OPSEU Pension Plan Trust Fund" and it operates under the name OPTrust. The Plan, Trust Fund and Board are collectively referred to in these financial statements as OPTrust. As permitted by the *OPSEU Act*, the Board's employees are also members of the Primary Schedule.

The Plan is registered under the *Pension Benefits Act* (Ontario) and the *Income Tax Act* (Canada) under registration number 1012046. The Plan is a registered pension plan as defined in the *Income Tax Act* (Canada) and is not subject to income tax in Canada. However, OPTrust, its entities and investments are subject to other federal, provincial and municipal taxes in Canada, and some are subject to tax in other countries.

These financial statements reflect OPTrust's financial position, including the net assets available for benefits, pension obligations and surplus.

The following is a summary description of the Plan. For more complete information, reference should be made to the Plan text.

A. FUNDING

Contributions and investment earnings fund Plan benefits. The determination of the value of the benefits and required contributions is based on actuarial valuations for funding purposes.

B. CONTRIBUTIONS

Under the Primary Schedule, the contribution rate for both employers and members since January 1, 2012 is 9.4% of pensionable salary up to the Year's Maximum Pensionable Earnings (YMPE), and 11% of pensionable salary above the YMPE.

Under OPTrust Select, the contribution rate for both employers and members is 3.0% of pensionable salary. For the first two years of participation, new employers are required to contribute an additional 0.2%.

C. PENSION BENEFITS

Pension benefits vest immediately under both schedules and include a lifetime pension payable at age 65.

Under the Primary Schedule, pensions are determined using a formula that considers a member's total pension service and annual salary rate averaged over 60 sequential months of membership. Members can retire early with an unreduced pension if their age plus years of pension service total 90 or if they are at least 60 years of age and have at least 20 years of pension service. Members who do not qualify for an early unreduced pension may start receiving a reduced pension between ages 55 and 65. Members who retire early also receive a temporary bridge benefit until age 65 or death, whichever occurs first.

Under OPTrust Select, there is no bridge benefit or early unreduced retirement provision. Members are entitled to an unreduced pension at age 65 and may start receiving a reduced pension between ages 55 and 65. The lifetime pension is determined by using a formula that considers a percentage of a member's pensionable pay in each year of membership plus any benefit upgrades granted by the Board.

D. INFLATION PROTECTION

Under the Primary Schedule, pensions and deferred pensions are adjusted annually for inflation based on changes to the Consumer Price Index (CPI), to a maximum of 8% in any one year. Where the inflation adjustment exceeds 8% in any one year, the excess is carried forward to any subsequent years when the adjustment is less than 8%.

Under OPTrust Select, pensions paid to retirees and pension benefits accrued for prior years by active members may be adjusted for inflation at the discretion of the Board.

E. DEATH BENEFITS

A 60% survivor pension is provided to an eligible spouse (or eligible children if there is no spouse) at no cost to the pensioner under the Primary Schedule. Under OPTrust Select, the member's pension is reduced to pay for a spousal survivor pension. A pre-retirement death benefit is provided to the eligible spouse or to the member's designated beneficiary or estate under both schedules.

F. DISABILITY PENSIONS

Under the Primary Schedule, a disability pension is available to members with a minimum of 10 years of pension service in the Plan who meet the established criteria. The amount of the disability pension depends on the years of pension service and the average salary of the disabled member. Disability pensions are not available under OPTrust Select.

G. DEFERRED PENSIONS

Members in the Primary Schedule and OPTrust Select who terminate membership in the Plan before retirement have the right to leave their entitlement in the Plan and receive a pension when they retire. Deferred pensions are increased annually for inflation under the Primary Schedule only.

H. TERMINATION PAYMENTS

Members who terminate membership in the Primary Schedule or OPTrust Select before they become eligible for early retirement are entitled to transfer the commuted value of their pension to a registered retirement vehicle, subject to limits under the *Income Tax Act* (Canada). In some cases, members may also receive a refund of contributions.

I. TRANSFERS

Under the Primary Schedule, members who transfer employment to most management positions or certain professional groups are subject to a mandatory transfer of service to the Public Service Pension Plan, administered by the Ontario Pension Board. In addition, a member of the Primary Schedule who terminates their membership may be entitled to transfer the value of their pension to another pension plan if they are under the age of 55 and the other plan agrees to accept the transfer or if they are under the age of 65 and OPTrust has a reciprocal transfer agreement with that plan. The prescribed transfer options under the *Pension Benefits Act* (Ontario) are available to OPTrust Select members.

2. Significant Accounting Policies

A. BASIS OF PRESENTATION

These financial statements are prepared in accordance with the *Chartered Professional Accountants of Canada Handbook* Section 4600 - Pension Plans (s4600). The recognition and measurement of OPTrust's assets and liabilities are consistent with the requirements of s4600. The financial statements also include disclosures required by Regulation 909 of the *Pension Benefits Act*.

In the selection of accounting policies, OPTrust has chosen to comply with International Financial Reporting Standards (IFRS), as issued by the International Accounting Standards Board (IASB), to the extent that those standards do not conflict with the requirements of s4600.

These financial statements present the financial position of OPTrust as a separate financial reporting entity independent of participating employers, bargaining units, plan members, pensioners and sponsors.

B. USE OF ESTIMATES

In preparing these financial statements, management must make certain estimates, judgments and assumptions, that primarily affect the reported values of assets and liabilities, income and expenses, and related disclosures. Actual amounts could differ from these estimates. Significant estimates and judgments included in the financial statements relate to the valuation of real estate investments, private equity and infrastructure investments, certain fund investments and the determination of the pension obligations.

C. INVESTMENTS

Investments, investment-related assets and investment-related liabilities are financial instruments and are recognized on a trade date basis and stated at fair value. OPTrust uses IFRS 13 Fair Value Measurement in determining fair value.

i. Valuation of Investments

The fair value of investments is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The determination of fair value is based on market conditions at a specific point in time and may not be reflective of future values. Fair values determined using valuation models and techniques require the use of assumptions that may not be supported by observable market transactions or available market data. In such cases, fair values may be significantly impacted by the choice of assumptions.

Fair values are determined as follows:

Cash

Cost approximates fair value.

Short-Term Investments

Fair value is determined using cost plus accrued interest or quoted closing mid-market prices. Short-term investments include commercial paper, certificates of deposits and treasury bills.

Government, Corporate and Real Return Bonds

Fair value is generally determined using market quotes. Where quoted prices are not available, estimated values are calculated using discounted cash flows based on current market yields for comparable securities or market information.

Public Equity

Fair value is generally represented by the closing quoted market price. Where a listed market price is not available, fair value is determined using comparable market information and considering liquidity factors.

Pooled and Hedge Funds

Fair value is determined through reference to the net asset values as reported by the external fund manager.

Real Estate, Private Equity and Infrastructure

Investments and related liabilities are valued at least annually using appropriate valuation methodologies and the valuator's best assessment of unobservable inputs, except where public market prices are available.

Investments, net of related debt, exceeding predefined thresholds are valued externally at least once every three years, or annually for significant investments following the year of acquisition. Certain investments may be selected for external valuation on a discretionary basis. Investments are otherwise valued internally. Fund investment and co-investment fair values are based on the value reported by the fund manager, asset manager or investment manager, who uses appropriate valuation methodologies. Fair value is updated for material and asset specific factors known to OPTrust at the valuation date.

The estimated value of mortgages held on real estate investments are valued using discounted cash flows based on indicative market yields of securities with comparable credit risk and term to maturity.

Derivative Instruments

Derivative instruments are financial contracts, the value of which is derived from changes in underlying assets, interest rates, foreign exchange rates, commodities or indices. Market prices are used for exchange-traded derivatives. Where quoted prices are not available, derivatives are valued using appropriate valuation techniques such as option pricing models and discounted cash flows. Inputs used in these valuations include, but are not limited to, spot prices, price volatilities, currency exchange rates, interest rate curves and credit spreads.

Resell and Repurchase Agreements

Resell agreements (reverse repos) and repurchase agreements (repos) are transactions where OPTrust buys and sells securities and simultaneously agrees to sell and buy them back at a specified price at a future date. Resell and repurchase agreements are carried at cost, which together with accrued interest approximates fair value due to their short-term nature.

Collateral

Cash collateral provided by OPTrust is excluded from cash on these financial statements and an equivalent receivable amount is recognized as cash collateral pledged. Cash collateral received by OPTrust from counterparties is recognized as cash and a liability for the equivalent amount is recognized as cash collateral received.

When OPTrust pledges collateral in the form of securities to enterparties, the asset remains as an investment in OPTrust's financial statements. Collateral received in the form of securities is not recognized in OPTrust's financial statements as the risks and rewards of ownership do not transfer. OPTrust does not sell, repledge or otherwise use any securities collateral received from the securities lending program, but collateral received from transactions executed under resell agreements can be sold or repledged for the duration of each transaction.

ii) Income Recognition

Net investment income includes interest and dividend income from investments, realized gains and losses on disposal of investments, and unrealized gains and losses resulting from changes in the fair value of investments. Investment income is recognized on an accrual basis.

Realized gains and losses arise from the sale of the investment and represent the difference between net proceeds on disposal and cost. Unrealized gains and losses represent the change in the difference between the fair value and cost of the investment held.

iii) Transaction Costs

Transaction costs include incremental costs directly attributable to the acquisition, issue or disposal of investment assets or liabilities. These fees are expensed in the period on an accrual basis and reported as a component of net investment income.

iv) External Management and Performance Fees

External management fees for portfolio management are expensed when OPTrust is directly invoiced in the period incurred and recognized on an accrual basis. Performance fees are recognized on an accrual basis. Performance fees and management fees not directly invoiced are reported as a component of net investment income.

D. PENSION OBLIGATIONS

The value of pension obligations is determined based on actuarial valuations prepared by an independent actuarial firm and verified by OPTrust. Actuarial valuations are prepared every year for financial statement reporting (financial statement valuations) and at least every three years for purposes of determining funding requirements (funding valuations).

For financial reporting purposes, s4600 requires that pension plans report the actuarial value of pension obligations using management's best estimate assumptions and the projected unit credit method, prorated on service. This method calculates the actuarial value of pension benefits accrued up to the financial reporting date, after the projected benefits have been attributed equally to each year of a member's service. This method differs from the modified aggregate method, chosen by OPTrust and used for funding purposes, which includes the members' and employers' expected future contributions, pension benefits to be earned after the reporting date and margins of conservatism in the setting of economic assumptions. The projected benefits for OPTrust Select include the value of future intended benefit enhancements that are currently targeted at full inflation protection.

E. CONTRIBUTIONS

Contributions from members and employers that are due at year-end and transfers into the Plan, are recorded on an accrual basis. The carrying value of the receivable approximates fair value due to its short-term nature.

F. BENEFIT PAYMENTS

Payments of pensions, refunds and transfers are recorded on an accrual basis.

G. SURPLUS/DEFICIT

Surplus or deficit results from the excess or shortfall of the value of net assets available for benefits over the actuarial value of pension obligations.

H. FOREIGN CURRENCY TRANSLATION

Foreign currency transactions are translated into Canadian dollars at the rates of exchange prevailing at the dates of the transactions. The fair value of investments and cash balances denominated in foreign currencies is translated at the rates in effect at year-end. The resulting unrealized gain or loss is included in the statement of changes in net assets available for benefits.

I. FAIR VALUE DISCLOSURES

All financial instruments measured at fair value are categorized into one of three hierarchy levels, described below, for disclosure purposes. Each level is based on the transparency of the inputs used to measure the fair values of assets and liabilities:

Level 1 — inputs are unadjusted quoted prices of identical assets or liabilities in active markets. Investments that are classified as Level 1 generally include cash, actively traded equity securities and exchange-traded derivatives which are valued using quoted prices.

Level 2 — inputs are used, other than quoted prices, that are observable for the asset or liability, either directly or indirectly. Investments that are classified as Level 2 include short-term securities, resell agreements, repurchase agreements, government, real return and corporate bonds and over-the-counter (OTC) derivatives. For these investments, fair values are either derived from quoted prices from less actively traded markets, independent price sources, or pricing models that use observable market data.

Level 3 — one or more significant inputs used in valuation methodologies that are unobservable in determining fair values of the assets or liabilities. Investments that are classified as Level 3 include investments in most private equity, infrastructure, real estate, pooled and hedge fund investments.

Determination of fair value and the resulting hierarchy requires the use of observable market data whenever available. The classification of a financial instrument in the hierarchy is based upon the lowest level of input that is significant to the measurement of fair value. The significance of a particular input to the fair value measurement requires judgment and evaluation of actors specific to the investment. The determination of an input's observability also requires considerable judgment.

J. FUTURE CHANGES TO ACCOUNTING DISCLOSURE

During 2021, amendments were made to IAS 1 *Presentation of Financial Statements* and IAS 8 *Accounting Policies, Changes to Accounting Estimates and Errors*. IAS 1 requires companies to disclose their material accounting policy information rather than their significant accounting policies while IAS 8 introduces a new definition of accounting estimates and clarifies the distinction between changes in accounting estimates and changes in accounting policies and the correction of errors. The amendments are effective for annual periods beginning on or after January 1, 2023. OPTrust has concluded that these amendments do not have a significant impact on the disclosures presented in the financial statements.

During 2022, amendments were issued to s4600 which are effective for annual periods beginning on or after January 1, 2024. These amendments have not been adopted early by OPTrust and are not expected to have a significant impact on the financial statements.

3. Investments

A. FAIR VALUE HIERARCHY

The following schedule presents the fair value of OPTrust's investments categorized within the fair value hierarchy as described in Note 2.

As at December 31 (\$ millions)	2022					2021				
	Level 1	Level 2	Level 3	Fair value	Cost	Level 1	Level 2	Level 3	Fair value	Cost
Fixed income										
Cash	677	–	–	677	677	561	–	–	561	561
Short-term investments	–	2,325	–	2,325	2,315	–	4,769	–	4,769	4,767
Government and corporate bonds										
Canadian	–	5,132	–	5,132	5,794	–	2,883	–	2,883	2,762
Foreign	–	1,361	–	1,361	1,488	–	–	–	–	–
Real returns bonds										
Canadian	–	452	–	452	358	–	438	–	438	279
Foreign	–	–	–	–	–	–	953	–	953	830
	677	9,270	–	9,947	10,632	561	9,043	–	9,604	9,199
Public equity										
Canadian	56	–	–	56	39	129	–	–	129	60
Foreign	963	33	–	996	905	1,699	59	–	1,758	1,312
	1,019	33	–	1,052	944	1,828	59	–	1,887	1,372
Pooled and hedge funds										
Real estate	–	392	3,882	4,274	3,997	–	719	2,835	3,554	3,283
Private equity	–	–	4,679	4,679	3,399	–	–	3,981	3,981	3,156
Infrastructure	–	–	4,012	4,012	2,918	–	–	4,017	4,017	2,518
	–	392	16,732	17,124	12,979	–	719	14,197	14,916	11,409
Investment-related assets										
Cash collateral pledge	413	–	–	413	413	135	–	–	135	135
Accrued income	6	24	–	30	30	5	13	–	18	18
Due from brokers	–	5	–	5	5	–	37	–	37	37
Derivative instruments	–	83	–	83	66	–	224	–	224	133
Resell agreements	–	3	–	3	3	–	385	–	385	385
	419	115	–	534	517	140	659	–	799	708
INVESTMENT ASSETS	2,115	9,810	16,732	28,657	25,072	2,529	10,480	14,197	27,206	22,688
Investment-related liabilities										
Cash collateral received	(19)	–	–	(19)	(19)	(175)	–	–	(175)	(175)
Due to brokers and other liabilities	(147)	–	–	(147)	(147)	(67)	–	–	(67)	(67)
Derivative instruments	–	(398)	–	(398)	(122)	–	(86)	–	(86)	–
Repurchase agreements	–	(3,448)	–	(3,448)	(3,448)	–	(997)	–	(997)	(997)
	(166)	(3,846)	–	(4,012)	(3,736)	(242)	(1,083)	–	(1,325)	(1,239)
NET INVESTMENTS	1,949	5,964	16,732	24,645	21,336	2,287	9,397	14,197	25,881	21,449

B. CHANGES IN FAIR VALUE MEASUREMENT FOR INVESTMENTS IN LEVEL 3

The following table presents a reconciliation of financial instruments measured at fair value using significant unobservable inputs and included in Level 3 of the fair value hierarchy:

For the years ended December 31 (\$ millions)	2022					2021				
	Pooled and hedge funds	Real estate ^b	Private equity ^b	Infrastructure ^b	Total	Pooled and hedge funds	Real estate ^b	Private equity ^b	Infrastructure ^b	Total
Balance, beginning of year	2,835	3,981	4,017	3,364	14,197	2,671	3,168	3,178	2,620	11,637
Net realized gains/(losses)	33	261	808	153	1,255	(56)	172	539	344	999
Change in unrealized gains/(losses)	87	451	(422)	570	686	268	425	827	352	1,872
Purchases	1,183	424	777	284	2,668	395	523	451	538	1,907
Sales/redemptions	(256)	(438)	(1,168)	(212)	(2,074)	(443)	(307)	(827)	(490)	(2,067)
Transfers in/(out) ^a	–	–	–	–	–	–	–	(151)	–	(151)
BALANCE, END OF YEAR^a	3,882	4,679	4,012	4,159	16,732	2,835	3,981	4,017	3,364	14,197

^a As at December 31, 2021, transfers out of Level 3 into Level 1 was due to private investments becoming publicly traded. There were no transfers in nor out of Level 3 for the year-ended 2022.

^b Net realized gains/(losses) include investment income of \$118 million (2021 - \$153 million) for Real estate, \$16 million (2021 - \$70 million) for Private equity and \$74 million (2021 - \$58 million) for Infrastructure.

C. SENSITIVITY TO CHANGES IN ASSUMPTIONS

Sensitivity information is available for certain direct investments in real estate, private equity and infrastructure and is presented in the table below. Sensitivity changes are not provided for investments where fair values are based on information provided by external parties where the Plan has a lack of information rights over assumptions and methodologies used to determine the fair value of the underlying investments.

As at December 31 (\$ millions)	Key Factor	2022			2021	
		Change in key factor	Fair value	Increase/(Decrease) to fair value	Fair value	Increase/(Decrease) to fair value
Real estate	Capitalization rate ^a	+/-0.25%	1,756	(157)/175	1,572	(140)/156
Mortgages ^c	Interest rate ^b	+/-0.50%	672	(14)/14	797	(17)/18
Private debt ^{c/e}	Discount rate ^b	+/-0.50%	299	(3)/3	114	(1)/1
Infrastructure	Discount rate ^b	+/-0.25%	3,334	(177)/177	2,184	(55)/58
Private equity	EBITDA multiple ^d	+/-10%	1,345	217/(217)	1,482	244/(244)

^a A rate of return to derive the value of an investment property based on expected income.

^b The rate used in discounted cash flow analysis to determine the present value of future cash flows.

^c Private debt is held within the real estate asset class.

^d EBITDA is defined as earnings before interest, taxes, depreciation and amortization. The EBITDA multiple is used to determine the fair value of a company based on the subject company's EBITDA.

^e Prior year comparatives have been updated to reflect current year Change in key factor.

D. DERIVATIVE CONTRACTS

OPTrust utilizes derivatives to manage its asset mix exposure, enhance returns and manage financial risk. Derivative contracts are transacted by OPTrust either directly with counterparties in the OTC market or on regulated exchanges and execution platforms. The following are the types of derivative contracts that OPTrust has entered into:

Futures

Futures are standardized contracts traded on regulated future exchanges and are subject to daily cash settlement of changes in fair value. Futures contracts include the following:

Interest rate futures are contractual obligations to either buy or sell interest rate sensitive financial instruments or indices at a specified price at a future date. OPTrust utilizes interest rate futures contracts to manage its fixed income exposure.

Equity index futures are standardized contracts to either buy or sell a specific equity index at a specified price at a future date. OPTrust utilizes equity index futures contracts to manage its exposure to public equity markets.

Commodity futures are standardized contracts to either buy or sell a predetermined amount of a commodity at a specified price at a future date. OPTrust utilizes commodity futures contracts to manage its exposure to commodity markets.

Forwards

A forward contract is a contract between two parties to buy or sell an asset at a specified price at a future date. OTC currency forward contracts are contractual agreements between two parties to exchange a notional amount of one currency for another at a specified price for settlement at a future date. OPTrust utilizes foreign exchange forward contracts to modify currency exposure for both economic hedging and active currency management.

Swaps

Swaps are OTC contracts between two parties to exchange a series of cash flows. Swap contracts include the following:

An interest rate swap is a contractual agreement between two parties to exchange a series of fixed or floating cash flows based on a notional amount of principal. OPTrust utilizes interest rate swaps to manage interest rate exposures and duration exposures. A credit default swap is a contractual agreement between two parties to provide protection against a change in value due to a credit event of referenced debt instruments. The purchaser pays premiums to the seller on the credit default swap in return for payment related to a change in value due to credit events. OPTrust utilizes credit default swaps to promote credit risk diversification.

A total return swap is a contractual agreement between two parties to provide the investment return on a referenced asset. The receiver of the total return on the asset pays a floating rate of interest to the payor of the asset total return. OPTrust utilizes total return swaps to promote asset risk diversification.

The notional amounts of derivative contracts represent the nominal or face amount that is used to calculate the cash payments made on that contract. The fair values of the derivative contracts included in the financial statements are determined by using the notional values and changes in the market rates or prices relative to the original terms of the contract. The notional values do not necessarily reflect the future cash flows to be exchanged nor do they indicate OPTrust's exposure to market or credit risk.

The following schedule presents the notional and fair value of OPTrust's derivative contracts held:

As at December 31 (\$ millions)	2022			2021		
	Notional amount	Fair value assets	Fair value liabilities	Notional amount	Fair value assets	Fair value liabilities
Interest rate contracts						
Futures						
– long positions	–	–	–	229	–	–
– short positions	2,030	–	–	6,103	–	–
Equity contracts						
Futures						
– long positions	316	–	–	1,980	–	–
– short positions	140	–	–	12	–	–
Swaps	758	13	(18)	559	4	–
Commodity contracts						
Futures						
– long positions	1,145	–	–	1,457	–	–
– short positions	88	–	–	31	–	–
Currency contracts						
Forwards	17,971	61	(380)	20,107	89	(86)
Credit contracts						
Credit default swaps						
– short positions	1,251	9	–	1,393	131	–
TOTAL DERIVATIVES	23,699	83	(398)	31,871	224	(86)

The following schedule presents the notional values of OPTrust's derivative positions by term to maturity:

As at December 31 (\$ millions)	2022					2021				
	Within 1 year	1 to 5 years	5 to 10 years	Over 10 years	Total	Within 1 year	1 to 5 years	5 to 10 years	Over 10 years	Total
Interest rate contracts	1,787	243	–	–	2,030	5,760	572	–	–	6,332
Equity contracts	1,214	–	–	–	1,214	2,551	–	–	–	2,551
Commodity contracts	1,233	–	–	–	1,233	1,488	–	–	–	1,488
Currency contracts	17,971	–	–	–	17,971	20,107	–	–	–	20,107
Credit contracts	–	1,251	–	–	1,251	–	1,393	–	–	1,393
TOTAL	22,205	1,494	–	–	23,699	29,906	1,965	–	–	31,871

E. SIGNIFICANT INVESTMENTS

The following schedule presents OPTrust investments having a fair value or cost exceeding 1% of the fair value or cost of net investment assets as at December 31.

As at December 31 (\$ millions)	2022			2021		
	Number of investments	Fair value	Cost	Number of Investments	Fair value	Cost
Fixed income	10	2,934	3,092	1	273	163
Pooled and hedge funds	7	2,889	2,732	4	1,808	1,678
Real estate ^a	2	572	361	–	–	–
Private equity	2	699	265	2	545	203
Infrastructure	3	2,410	1,168	2	1,722	936

^a BG LLH, LLC was held by both the Real estate and Private equity portfolios with a significant majority held in the Real estate portfolio.

As at December 31, 2022, the investments where the individual investment has a cost or fair value exceeding 1% of the cost or fair value of net investment assets are as follows:

Fixed income – Bonds issued by the Government of Canada, Government of the United States of America and the Provinces of Ontario and Quebec

Pooled and hedge funds – Man FRM Bespoke Alpha L.P., PIMCO Multi Strategy Credit Fund, UBS Global Emerging Markets Opportunity Fund, Goldman Sachs Asset Management – Ontario Multi-Asset Fund, Schroders Emerging Markets Equity Alpha Fund, Marshall Wace Market Neutral TOPS Plus U.S. Fund and Carlyle Ontario Credit Partnership, L.P.

Real estate – Unison Midgard Fund LP and BG LLH, LLC.

Private equity – Kinetic TCo Pty Limited and Atmosphere Aggregator Holdings II, L.P.

Infrastructure – Globalvia Infraestructuras S.A, Firelight Infrastructure Partners L.P. and BRUC OPT Energy Partners S.L.

F. RISK MANAGEMENT

OPTrust is subject to certain investment risks and engages in risk management practices to help ensure that sufficient assets will be available to fund pension benefits. OPTrust has identified our general approach to risk along with the level of risk we are willing to accept for each key risk category. We have also established a framework for effective risk management. This encompasses the monitoring, managing and reporting of enterprise risks including investment risks. Our risk approach, principles and framework are reviewed and approved by the Board. The Board has delegated responsibility for managing risk to the President and Chief Executive Officer (CEO) but retains responsibility for approving OPTrust's approach to risk and monitoring risks identified by management as top enterprise risks, which have the potential to prevent OPTrust from meeting one or more of its strategic objectives. The CEO has delegated day-to-day responsibility for implementing the investment-related aspects of risk management to the Chief Risk Officer and Senior Vice-President Actuarial Services and Plan Policy, who ensures investment risks are measured and monitored against limits and guidelines, and to the Chief Investment Officer, who ensures that the investment risks are accurately priced and incorporated into the investment decision-making process.

There is a potential risk that OPTrust will not have sufficient assets available to fund future pension benefits. OPTrust manages this risk by focusing on the funded status of the Plan, measured as the ratio of assets to liabilities. Since the funded status of the Plan is a function of both assets and liabilities, and both are affected by the investment environment, managing investment risks is central to ensuring assets will not fall short of liabilities.

Investment Risk

Investment risk includes the following types of risk:

- Market risk (including interest rate, foreign currency, equity price and commodity price risks)
- Credit risk; and
- Liquidity risk.

Market Risk

Market risk is the risk that the value of an investment will be adversely affected by changes in interest rates, foreign exchange rates, inflation rates, equity and commodity prices. OPTrust manages market risk through investment management practices designed to optimize the relationship between risk and return and the diversification of investments across a variety of asset classes. Risk mitigation strategies aimed at lowering the total fund's risk level are actively employed.

a. Interest Rate Risk

Interest rate risk is the risk that the fair value of future cash flows of a financial instrument will fluctuate because of changes in market interest rates. The potential exposure results from either changes in floating interest rates which increase or decrease cash flows or changes in the values of assets or liabilities for fixed rate instruments (e.g. bonds and mortgages). During periods of rising interest rates, the market value of the existing fixed rate instruments will generally decrease.

A 1% increase or decrease in interest rates, with all other variables held constant, would result in a decrease or increase in the value of the fixed income portfolio of \$990 million (2021 - \$720 million) respectively. The change in fair value will be offset by a change in the value of our pension liability which is also correlated to a change in interest rates.

The following table illustrates how fair value is allocated among the various types of interest-bearing investments based upon the contractual maturity of the securities:

As at December 31 (\$ millions)	2022					2021				
	Within 1 year	1 to 5 years	5 to 10 years	Over 10 years	Total	Within 1 year	1 to 5 years	5 to 10 years	Over 10 years	Total
Short-term investments	2,325	–	–	–	2,325	4,769	–	–	–	4,769
Government and corporate bonds	335	–	971	5,187	6,493	–	–	290	2,593	2,883
Real return bonds	–	–	155	297	452	–	–	140	1,251	1,391
Resell agreements	3	–	–	–	3	385	–	–	–	385
TOTAL	2,663	–	1,126	5,484	9,273	5,154	–	430	3,844	9,428

OPTrust manages interest rate risk relative to its liabilities by balancing investments between interest-sensitive investments and those subject to other risks. There are also certain real estate, private equity and infrastructure investments which may have interest rate components making them subject to interest rate exposure.

As a result of the implementation of interbank offered rates (IBOR) reform in 2021, IBOR will permanently cease in 2023 and a number of IBOR rates were replaced with alternative benchmark rates (ABR). It was further announced that the Canadian Dollar Offered Rate (CDOR) will permanently cease in 2024. As at December 31, 2022, OPTrust held \$184 million (2021 - \$218 million) in non-derivative assets referencing benchmark interest rates subject to IBOR reform that have yet to transition to ABRs and \$52.4 million in non-derivative assets referencing CDOR. We continue to work towards the recommended target dates for the end of those IBOR and CDOR rates provided by the regulators and are on track with our transition activities to move to ABRs.

b. Foreign-Currency Risk

Foreign currency risk is the risk that the value of foreign investments will be affected by changes in foreign currency exchange rates for Canadian dollars.

OPTrust's market value exposure to foreign currencies is as follows:

As at December 31 (\$ millions)	2022			2021
	Gross exposure	Impact of derivatives ^a	Net exposure	Net exposure
Canadian Dollar	11,086	9,217	20,303	20,739
Foreign currency exposure				
United States Dollar	8,206	(4,718)	3,488	2,169
Indian Rupee	174	–	174	263
Hong Kong Dollar	164	(6)	158	224
South Korean Won	153	–	153	172
Taiwan New Dollar	130	–	130	208
Euro	2,685	(2,834)	(149)	(105)
Europe-other	499	(379)	120	1,017
Asia Pacific-other	1,252	(1,255)	(3)	951
Emerging Markets-other	296	(25)	271	243
	13,559	(9,217)	4,342	5,142
NET INVESTMENTS	24,645	–	24,645	25,881

^a The impact of derivatives reflects the foreign currency exposure represented by the notional amount economically hedged using currency forwards.

The impact of a 5% absolute change in the Canadian dollar against the top five currency exposures held at year-end, holding all other variables constant would have resulted in a \$+/-223 change in net assets available for benefits as at December 31, 2022 (2021 - \$+/-141).

As at December 31 (\$ millions)	Change versus Canadian Dollar	2022	2021
		Change in net assets available for benefit	Change in net assets available for benefit
United States Dollar	+/-5%	+/-194	+/-103
Indian Rupee	+/-5%	+/-8	+/-13
Hong Kong Dollar	+/-5%	+/-8	+/-11
South Korean Won	+/-5%	+/-7	+/-8
Euro	+/-5%	+/-6	+/-6
TOTAL		+/-223	+/-141

Currency risk is managed at the total OPTrust level. OPTrust economically hedges most of its currency exposure using currency forwards. The remaining unhedged exposures include currencies that are used to diversify total portfolio risk, emerging market currencies and opportunistic exposures.

c. Equity Price Risk

Equity price risk is the risk that the fair value of a financial instrument will fluctuate because of changes in equity market prices whether those changes are caused by factors specific to the individual financial instrument, its issuer, or factors affecting all similar financial instruments traded in the market. OPTrust is exposed to equity price risk through its investment in public and private equities.

The table below shows the impact of a 10% change in public and private equity markets.

As at December 31 (\$ millions)		2022		2021
Equity market ^a	Market Index	Change in market index ^b	Change in net assets available for benefit	Change in net assets available for benefit
Public equities	MSCI World Developed Index	+/-10%	+/-170	+/-386
	MSCI World Developed Index	+/-10%	+/-365	+/-343
TOTAL			+/-535	+/-729

^aEquity market is based on the specific exposure of the investment.

^bFor each equity category, the expected effect of a 10% change in the market index is estimated using market data since January 2004. Currency exchange rates are not affected by the change in market indices.

OPTrust manages equity price risk through adherence to approved policies and guidelines, which includes ensuring thresholds are being met through monitoring equity exposures in developed and emerging markets, as well as total fund.

Credit Risk

Credit risk is the risk of financial loss due to a counterparty, borrower, issuer, endorser or guarantor failing to make payments under its contractual obligations. OPTrust has exposure to credit risk through short-term investments, bonds, resell agreements and OTC derivatives.

The credit risk exposure by credit rating of our counterparties, without taking account of any collateral held is as follows:

As at December 31 (\$ millions)	2022					2021				
	Short-term investments	Bonds	Resell agreements	Derivatives ^a	Total	Short-term investments	Bonds	Resell agreements	Derivatives ^a	Total
AAA/R-1 High	–	1,361	–	–	1,361	3,397	953	–	–	4,350
AA/R-1 Mid	1,063	3,407	–	–	4,470	–	1,890	26	2	1,918
A/R-1 Low	1,262	2,177	3	83	3,525	1,372	1,431	359	222	3,384
TOTAL	2,325	6,945	3	83	9,356	4,769	4,274	385	224	9,652

^aExcludes exchange-traded derivatives.

d. Commodity Price Risk

Commodity price risk is the risk that the fair value of investments will fluctuate due to changes in market prices of commodities.

The table below shows the impact of a 10% change in gold and broad commodity indices:

As at December 31 (\$ millions)		2022		2021
Commodity market	Market benchmark	Change in market index ^a	Change in net assets available for benefit	Change in net assets available for benefit
Gold	S&P GSCI Gold Total Return Index	+/-10%	+/-77	+/-128
Broad Commodity Exposure	Bloomberg Commodity Index	+/-10%	+/-20	+/-12
TOTAL			+/-97	+/-140

^aThe expected effect of a 10% change in the commodity market index is estimated using market data since January 2004. Currency exchange rates are not affected by the change in market indices.

OPTrust manages commodity price risk through adherence to approved policies and guidelines, which includes ensuring thresholds are being met through monitoring commodity exposures in the total fund.

OPTrust mitigates credit risk on debt securities through adherence to approved policies and guidelines, which includes guidelines on exposure to single issuers.

Credit risk from OTC derivatives and resell agreements is managed by requiring counterparties to post collateral in order to back the fair value of these derivative contracts.

Credit risk for investments is measured by the positive fair value of the contractual obligations with the counterparties less any collateral or margin received as at the reporting date. OPTrust also monitors how the positive fair value of OTC derivatives and resell agreements may change in the future to ensure adequate collateral is in place.

OPTrust's collateral arrangements that support certain investment activities are as follows:

a. Derivatives

Collateral is received from and pledged to counterparties to manage credit risk from OTC derivatives in accordance with the Credit Support Annex (CSA), which forms part of the International Swaps and Derivatives Association (ISDA) Master Agreements. All uncleared derivatives are subject to global regulatory requirements requiring a CSA in conjunction with an ISDA. All of the ISDAs OPTrust has in place with counterparties are fully collateralized for OTC derivatives, and as a result has a right to offset credit risk against collateral received due to a default, insolvency, bankruptcy or other early termination events. In the case of exchange-traded derivatives, there is no provision to offset against obligations to the same counterparty.

b. Resell and Repurchase Agreements

Resell and repurchase agreements include collateral received and pledged from and to counterparties.

c. Securities Lending Program

OPTrust participates in a securities lending agreement whereby it lends securities to approved borrowers. OPTrust secures its exposure through the receipt of security collateral of at least 105% of the value of the securities lent. All securities lent are callable on demand at the option of OPTrust. Credit risk associated with the borrower is mitigated by requiring the borrower to provide collateral with market values exceeding the market value of the loaned securities. OPTrust continues to recognize securities on loan and does not recognize securities received as collateral.

The fair value of collateral received and pledged for derivatives, resell and repurchase agreements as well as for securities loaned as at December 31, is as follows:

As at December 31 (\$ millions)	2022	2021
Derivatives		
Collateral received ^a	(18)	(172)
Collateral pledged ^b	615	495
Resell and Repurchase Agreements		
Associated receivable from resell agreements	3	385
Collateral received ^c	(3)	(385)
Associated liability from repurchase agreements	(3,448)	(997)
Collateral pledged ^c	3,426	997
Securities Lending Program		
Securities loaned	58	194
Collateral received	(61)	(207)

^aIncludes cash collateral received of \$(18) million (2021 - \$(172) million).

^bIncludes cash collateral pledged of \$337 million (2021 - \$131 million).

^cIncludes net cash collateral pledged/(received) of \$75 million (2021 - \$(1) million).

d. Offsetting Arrangements

Financial assets and liabilities are offset and the net amount reported in the statement of financial position where OPTrust currently has a legally enforceable right to set-off the recognized amounts and there is an intention to settle on a net basis or realize the asset and settle the liability simultaneously. In the normal course of business, OPTrust enters into various master netting agreements or other similar arrangements that do not meet the criteria for offsetting in the statement of financial position but still allow for the related amounts to be set-off in certain circumstances, such as bankruptcy or the termination of the contracts.

The following table presents the recognized financial instruments that are offset, or subject to enforceable netting arrangements as at December 31, 2022 and 2021. Similar arrangements include repurchase agreements, resell agreements, securities lending and any related rights to financial collateral.

	2022				Net amount
	Gross amounts of recognized financial instruments	Gross amounts of recognized financial instruments set-off	Net amounts of financial instruments presented	Related amounts not set-off in the statement of financial position Financial collateral (received)/pledged	
As at December 31 (\$ millions)					
Financial assets					
Derivative instruments	117	(34)	83	(18)	65
Resell agreements	3	–	3	(3)	–
Securities lending	58	–	58 ^a	(58)	–
TOTAL FINANCIAL ASSETS	178	(34)	144	(79)	65
Financial liabilities					
Derivative instruments	(432)	34	(398)	398	–
Repurchase agreements	(3,448)	–	(3,448)	3,426	(22)
TOTAL FINANCIAL LIABILITIES	(3,880)	34	(3,846)	3,824	(22)

	2021				
Financial assets					
Derivative instruments	255	(31)	224	(172)	52
Resell agreements	385	–	385	(385)	–
Securities lending	194	–	194 ^a	(194)	–
TOTAL FINANCIAL ASSETS	834	(31)	803	(751)	52
Financial liabilities					
Derivative instruments	(117)	31	(86)	86	–
Repurchase agreements	(997)	–	(997)	997	–
TOTAL FINANCIAL LIABILITIES	(1,114)	31	(1,083)	1,083	–

^a These securities are included in public equity investments.

Liquidity Risk

Liquidity risk is the potential that OPTrust will not be able to meet payment obligations for pension payments, operating expenses or investment activities as they come due without the forced sale of assets. OPTrust has exposure to liquidity risk through its investment commitments, which are required to be funded in future periods, as well as through holding certain investments including pooled and hedge funds, private equity, infrastructure and real estate investments, which by nature are less liquid than public market assets (see Note 10). An additional source of liquidity risk exposure is OPTrust's use of derivatives with their potential margin calls which are impacted by daily market movements.

OPTrust forecasts and manages cash flows centrally to ensure it meets its obligations when due without unintended early liquidation of assets.

OPTrust's cash and liquidity positions are monitored daily for compliance with guidelines and limits established in a liquidity framework. Both short-term and long-term cash and liquidity requirements are assessed within this framework. In addition, OPTrust conducts various stress tests to examine how they may impact liquidity.

Liquidity risk is managed by holding cash and certain short-term investments, liquid money market securities and unencumbered high-quality liquid securities that can be sold under repurchase agreements to raise funds. A core liquidity reserve is maintained for deployment in the event of severe market disruption.

The remaining terms to contractual maturity of OPTrust's investment-related liabilities are as follows:

	2022			Total
	Within 1 year	1 to 5 years	5 to 10 years	
As at December 31 (\$ millions)				
Cash collateral received	(19)	–	–	(19)
Due to brokers and other liabilities	(130)	(17)	–	(147)
Derivative instruments	(398)	–	–	(398)
Repurchase agreements	(3,448)	–	–	(3,448)
TOTAL	(3,995)	(17)	–	(4,012)

	2021			
Cash collateral received	(175)	–	–	(175)
Due to brokers and other liabilities	(51)	(16)	–	(67)
Derivative instruments	(86)	–	–	(86)
Repurchase agreements	(997)	–	–	(997)
TOTAL	(1,309)	(16)	–	(1,325)

OPTrust maintains unsecured credit facilities to meet potential liquidity requirements.

4. Net Investment Income

The following schedule presents the net investment income of OPTrust's investments by asset class:

For the years ended December 31 (\$ millions)	2022			2021		
	Investment Income	Net gain/(loss) on investments ^a	Net investment income/(loss) ^{b/c}	Investment Income	Net gain/(loss) on investments ^a	Net investment income/(loss) ^{b/c}
Fixed income						
Cash and short-term investments	60	9	69	16	(4)	12
Government and corporate bonds						
Canadian	101	(806)	(705)	90	(235)	(145)
Foreign	4	(202)	(198)	5	(17)	(12)
Real-returns bonds						
Canadian	9	(65)	(56)	9	–	9
Foreign	3	(177)	(174)	8	48	56
	177	(1,241)	(1,064)	128	(208)	(80)
Public equity						
Canadian	1	(46)	(45)	1	44	45
Foreign	54	(335)	(281)	39	128	167
	55	(381)	(326)	40	172	212
Pooled and hedge funds	5	21	26	4	186	190
Real estate	118	594	712	153	448	601
Private equity	16	370	386	70	1,296	1,366
Infrastructure	74	649	723	58	638	696
Derivative instruments	–	(962)	(962)	–	557	557
	213	672	885	285	3,125	3,410
	445	(950)	(505)	453	3,089	3,542
Investment management expenses						
External manager fees			(9)			(12)
Transaction costs			(12)			(12)
			(21)			(24)
NET INVESTMENT INCOME			(526)			3,518

^a Includes net realized gain of \$242 million and net unrealized loss of \$(1,192) million in 2022 and net realized gain of \$1,721 million and net unrealized gain of \$1,368 million in 2021.

^b Certain investment-related disbursements of \$46 million in 2022 (2021 - \$40 million) have been netted against net investment income/(loss).

^c Net of management fees not directly invoiced and performance fees for portfolio management.

5. Pension Obligations

A. FINANCIAL STATEMENT VALUATION

OPTrust annually reviews the actuarial assumptions used in the financial statement valuation to ensure that they reflect management's best estimate of expected trends. The key economic assumptions used for the valuation are as follows:

As at December 31 (\$ millions)	2022	2021
Inflation rate	2.00%	2.00%
Discount rate (real)	4.00%	3.20%
Discount rate (nominal)	6.00%	5.20%
Salary increases (nominal)	2.75%	2.75%

The inflation rate is based on the long-term expected CPI rate increases. Note for the 2022 valuation, the cost-of-living adjustments for pensions under the Primary Schedule are assumed to be 5.00% and 3.50% for 2023 and 2024 respectively, to incorporate an elevated rate of inflation expected in the short term (2021 - 2.00% for all years).

The financial statement discount rate is based on the long-term expected return of Plan assets proposed by management and approved by the Board. The nominal discount rate is 6.00% as at December 31, 2022 (2021 - 5.20%) which reflects current market conditions and return expectations.

Salary increases reflect the long-term inflation rate plus general Plan member salary increases.

There are also many demographic assumptions used to estimate the timing of Plan benefits, including assumptions about mortality, termination and retirement. Demographic assumptions were reviewed as part of an experience study that was conducted in 2022. The assumption gains of \$1,556 million (2021 - loss of \$115 million) on the Plan's pension obligations are comprised of a \$1,428 million gain due to the economic assumption changes noted above and a \$128 million gain due to changes in demographic assumptions.

Experience losses of \$544 million (2021 - \$79 million) on OPTrust's pension obligations are due to differences between actual experience and assumptions of which \$551 million is due to cost-of-living adjustments being higher than expected.

B. FUNDING VALUATION

The funding valuation is based on the modified aggregate method. This method considers a time horizon that includes accumulation of benefits and receipt of contributions in respect of current members in future periods. Generally, the actuarial assumptions used to determine the pension obligations for funding purposes are more conservative than those used for the financial statement valuation. Pension obligations are valued using economic assumptions developed by reference to long-term market conditions. The funding valuation is used to identify gains or losses. Gains or losses are first

split between the Primary Schedule and OPTrust Select based on the accrued liability. Gains and losses are shared equally between the Sponsors.

Gains attributed to the Primary Schedule will be allocated at the discretion of the Sponsors to fund benefit improvements, reduce contributions, or reduce any existing funding deficiencies. Funding deficiencies resulting from losses are funded over a maximum of 15 years from increased contributions.

Gains attributed to OPTrust Select are allocated at the discretion of the Sponsors after all intended benefit enhancements have been provided to members. The Sponsors can fund benefit improvements, reduce contributions, or reduce any existing funding deficiencies. Funding deficiencies resulting from losses primarily reduce the level of benefit enhancements from those intended.

In accordance with the *Pension Benefits Act*, the *Income Tax Act* and regulations, an actuarial valuation for funding purposes is required to be filed at least every three years to assess OPTrust's financial position, and to determine the funding requirements. In 2023, OPTrust is expected to file with the regulator, the December 31, 2022 funding valuation, as prepared by Towers Watson Canada Inc., showing that the Plan is fully funded and the next funding valuation will not be required to be filed until December 31, 2025.

6. Capital

OPTrust defines capital as the funded position of the Plan, whether in surplus or deficit. Surplus is generated during periods of favourable economic performance and drawn down during periods of unfavourable economic performance in order to maintain OPTrust's ability to pay its pension obligations without unduly affecting contribution levels. OPTrust is not under regulatory requirements as it relates to capital. The surplus was \$3,867 million as of December 31, 2022 (2021 - \$4,548 million). The objective of managing capital is to ensure the Plan is fully funded to pay the Plan benefits over the long term. A funding valuation is used to manage capital by identifying gains or losses as described in Note 5. OPTrust prudently manages its investments to satisfy its long-term funding requirement in accordance with its *Statement of Investment Policies and Procedures* (SIP&P) and other policies and guidelines. The SIP&P was established in 1995 and was last amended in 2021 to revise the asset mix disclosure.

OPTrust uses different scenarios to monitor the market risks in the Plan. The *Risk Appetite Statement* (RAS) sets limits on how market risks can affect the funded status of the Plan in three scenarios. Funded status is the percentage of net assets available for benefits over actuarial liabilities. RAS A and RAS B are stress scenarios which represent severe stagflation and deflationary market conditions. RAS C measures pension stability and is a tail risk estimation of our funded status. In each scenario, the value of assets and liabilities is recalculated and the change in funded status is monitored. The drawdown in funded status for these three scenarios is monitored and used as a strategic risk limit.

The table below highlights the potential reduction in funded status in the three scenarios.

	2022	2021
As at December 31 (\$ millions)	% Potential reduction to funded status^d	% Potential reduction to funded status ^d
Risk appetite statement scenario A ^a	14.4%	15.9%
Risk appetite statement scenario B ^b	12.2%	15.7%
Risk appetite statement scenario C ^c	10.1%	12.4%

^a Under Scenario A, the assumption is that the MSCI World Index decreases by 30% while the 10-year government yield increases by 100 basis points.

^b Under Scenario B, the assumption is that the MSCI World Index decreases by 30%, while the 10-year government yield decreases by 100 basis points.

^c Scenario C is based on the average loss of the worst 10% of outcomes simulated using historical market scenarios starting from January 2004.

^d These are absolute value reductions from funded status.

7. Contributions

For the years ended December 31 (\$ millions)	2022	2021
Members		
Current service ^a	263	256
Prior service	17	17
Long-term income protection ^b	15	18
	295	291
Employers		
Current service ^a	263	257
Prior service	7	7
Long-term income protection ^b	16	18
	286	282
Transfers from other plans	13	9
TOTAL CONTRIBUTIONS	594	582

^a All contributions paid by members for current service are required contributions.

^b The employer pays member contributions for long-term income protection.

As at December 31, 2022 employers' and members' contributions receivable were \$33 million (2021 - \$32 million) and \$23 million (2021 - \$24 million) respectively. OPTrust reconciles contributions for each employer on a member-by-member basis.

8. Benefit Paid

For the years ended December 31 (\$ millions)	2022	2021
Retirement pensions	971	926
Transfers to Public Service Pension Plan	159	110
Refunds, commuted value transfers and death benefits	102	95
Transfers to other plans	13	7
TOTAL BENEFITS PAID	1,245	1,138

9. Administrative Expenses

Investment Administrative Expenses^a

For the years ended December 31 (\$ millions)	2022	2021
Administration	49	48
Professional services ^b	3	3
Custodial fees	2	2
TOTAL INVESTMENT ADMINISTRATIVE EXPENSES	54	53

Pension Administrative Expenses^a

For the years ended December 31 (\$ millions)	2022	2021
Administration	32	33
Professional services ^b	3	2
System development ^c	4	7
TOTAL PENSION ADMINISTRATIVE EXPENSES	39	42

^a Includes corporate expenses.

^b Total professional services include external audit expense of \$643 thousand (2021 - \$428 thousand) and actuarial expense of \$329 thousand (2021 - \$359 thousand).

^c There were no impairment charges in 2022 (2021 - \$5 million).

10. Commitments, Guarantees, Indemnifications and Contingencies

A. COMMITMENTS

In the normal course of business, certain OPTrust entities may enter into commitments to fund certain investments over the next several years in accordance with the terms and conditions agreed to. As at December 31, 2022, these commitments totaled \$3,449 million (2021 - \$2,993 million). OPTrust also has future lease commitments for office premises.

B. GUARANTEES

OPTrust enters into guarantee agreements related to certain investments. OPTrust is required to make payments to a third party if the investment companies fail to pay or perform a stated obligation to that party.

OPTrust's investment commitments, guarantees and lease commitments are as follows:

For the years ended December 31 (\$ millions)	2022	2021
Investment commitments	3,449	2,993
Guarantees	168	86
Lease commitments	32	5
TOTAL INVESTMENT COMMITMENTS, GUARANTEES AND LEASE COMMITMENTS	3,649	3,084

C. INDEMNIFICATIONS

OPTrust indemnifies its Trustees and staff against certain claims that may be made against them to the extent that these individuals are not covered under other arrangements.

D. CONTINGENCIES

As at December 31, 2022, OPTrust is involved in litigation and claims which arise in the normal course of business. The outcome of such litigation and claims is often inherently difficult to predict. Any liability that may arise from these litigations has been recognized as appropriate or has been determined to have an insignificant impact on the financial statements.

11. Related Party Disclosures

In the normal course of business OPTrust purchased short-term investments and bonds at the prevailing market prices that were issued by the Province of Ontario, a sponsor of the Plan and whose employees are members of the Plan. The fair market value of these investments as at December 31, 2022, was \$2,916 million (2021 - \$1,298 million). Investment income recorded on these investments amounted to \$56 million for the year-ended December 31, 2022 (2021 - \$40 million).

OPTrust has a joint venture partnership with GWL Realty (GWL) in the ownership of its head office. In 2022, the amounts paid to the joint venture with GWL amounted to \$4 million (2021 - \$4 million). On June 20, 2022, OPTrust entered into a new 10-year lease for its head office, commencing on January 1, 2024 and expiring on December 31, 2033. The future minimum lease payments by year, and in aggregate, are as follows:

(\$ millions)	Minimum lease payments
2024	3
2025	3
2026	3
2027	3
2028	3
Thereafter	15
TOTAL MINIMUM LEASE PAYMENTS	30

12. Key Management Personnel Compensation

Key management personnel consist of senior executives having authority and responsibility for planning and directing the activities of OPTrust. The aggregate key management personnel compensation is shown below:

For the years ended December 31 (\$ millions)	2022	2021
Salaries, short-term employee benefits and termination benefits	6,027	5,865
Other long-term benefits	376	592
Post-employment benefits	2,413	2,520
TOTAL	8,816	8,977

Ten-Year Financial Review (Unaudited)

As at December 31 (\$ millions)	2022	2021	2020	2019	2018	2017	2016	2015	2014	2013
CHANGES IN NET ASSETS										
Changes due to investment activities	(580)	3,465	1,901	2,217	145	1,742	1,037	1,311	1,818	1,615
Changes due to pension activities	(690)	(598)	(545)	(464)	(498)	(497)	(391)	(393)	(289)	(368)
INCREASE/ (DECREASE) IN NET ASSETS	(1,270)	2,867	1,356	1,753	(353)	1,245	646	918	1,529	1,247
NET ASSETS										
Investments										
Cash and short-term investments	3,002	5,330	5,681	2,725	3,406	3,332	2,417	1,460	2,750	2,275
Government and corporate bonds and debentures	6,493	2,883	3,791	9,162	6,285	5,573	4,227	3,854	2,001	1,629
Real return bonds	452	1,391	1,355	1,059	866	430	438	468	446	577
Bank loan notes	–	–	–	–	–	–	168	156	145	90
Public equity	1,052	1,887	1,908	1,699	1,425	2,318	3,422	5,497	5,738	5,749
Pooled and hedge funds	4,274	3,554	2,936	4,866	5,863	4,573	2,597	959	732	456
Real estate	4,679	3,981	3,189	3,091	2,927	2,823	2,884	2,857	2,394	2,167
Private equity	4,012	4,017	3,178	2,797	2,288	1,920	1,595	1,691	1,284	794
Infrastructure	4,159	3,364	2,620	2,405	2,476	2,136	2,065	2,350	2,055	2,337
Investment-related assets	534	799	1,781	805	324	481	132	108	154	151
	28,657	27,206	26,439	28,609	25,860	23,586	19,945	19,400	17,699	16,225
Contributions receivable	56	56	52	49	52	48	53	51	52	58
Other assets	5	2	9	8	11	5	4	5	4	5
TOTAL ASSETS	28,718	27,264	26,500	28,666	25,923	23,639	20,002	19,456	17,755	16,288
Liabilities										
Accounts payable and accrued charges	(63)	(26)	(38)	(28)	(39)	(44)	(49)	(54)	(78)	(59)
Investment-related liabilities	(4,012)	(1,325)	(3,416)	(6,948)	(5,947)	(3,305)	(908)	(1,003)	(196)	(267)
TOTAL LIABILITIES	(4,075)	(1,351)	(3,454)	(6,976)	(5,986)	(3,349)	(957)	(1,057)	(274)	(336)
NET ASSETS AVAILABLE FOR BENEFITS	24,643	25,913	23,046	21,690	19,937	20,290	19,045	18,399	17,481	15,952
Pension obligations	(20,776)	(21,365)	(20,682)	(20,220)	(18,453)	(18,265)	(17,316)	(16,756)	(15,937)	(14,958)
SURPLUS	3,867	4,548	2,364	1,470	1,484	2,025	1,729	1,643	1,544	994

With net assets of almost \$25 billion, OPTrust invests and manages one of Canada's largest pension funds and administers the OPSEU Pension Plan (including OPTrust Select), a defined benefit plan with over 106,000 members.

OPTrust

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This report summarizes certain provisions of the OPSEU Pension Plan. Please note that this report does not create any rights to benefits not provided for in the actual terms of the Plan. In the event of any conflict or omission, the legal requirements of the OPSEU Pension Plan will govern in all cases.

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