

2020 FUNDED STATUS REPORT

TAKING CARE

“It was a year of taking care of not only the Plan, but also each other; our communities, our team and our obligations to our members as we continued to deliver on our mission of paying pensions today, preserving pensions for tomorrow, while working from home.”

Peter Lindley

President and Chief Executive Officer

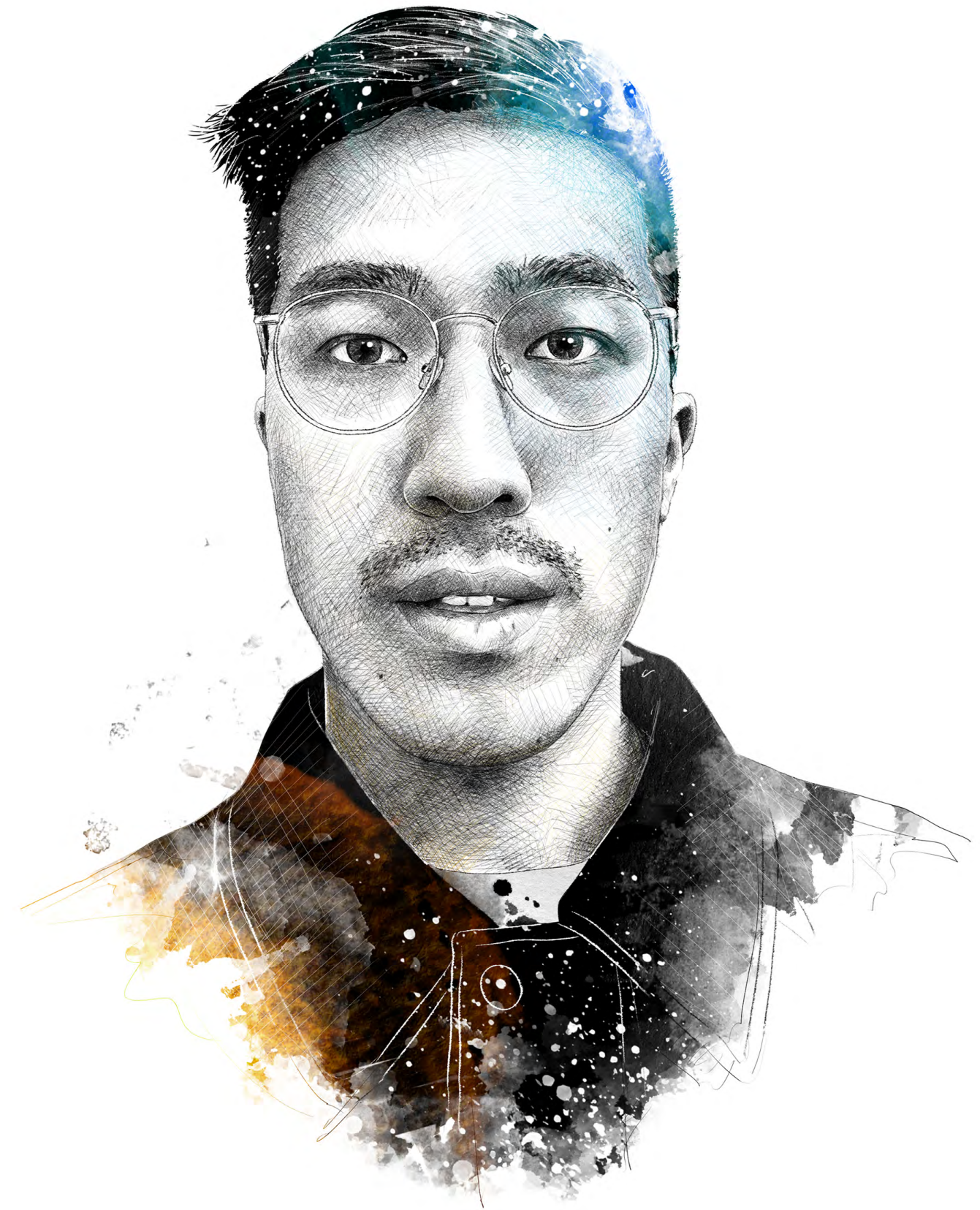
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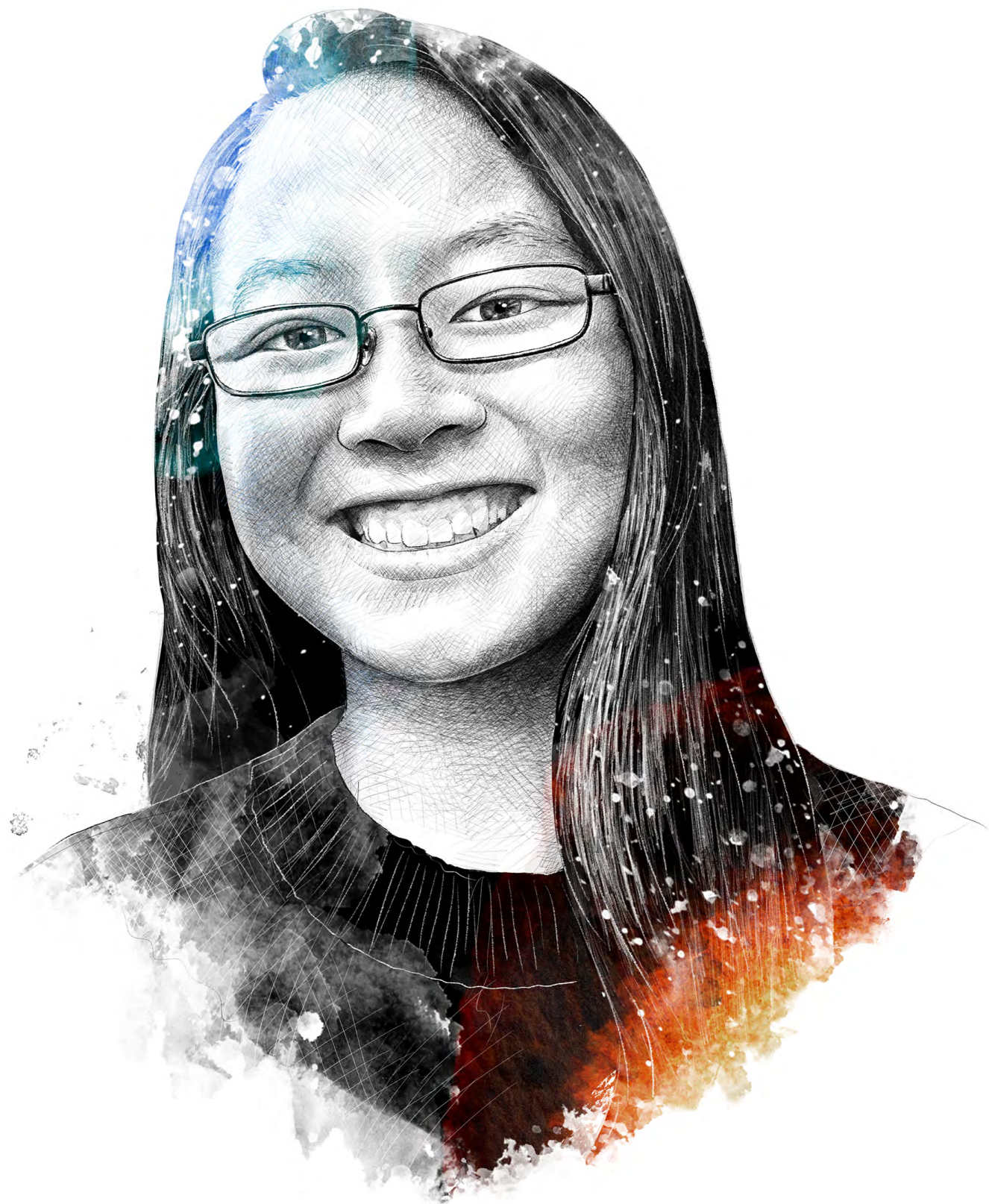
With net assets of over \$23 billion, OPTrust invests and manages one of Canada’s largest pension funds and administers the OPSEU Pension Plan (including OPTrust Select), a defined benefit plan with over 98,000 members.

RICKY LAM

MAILROOM SUPPORT, FACILITIES AND ADMINISTRATIVE SERVICES, OPTRUST

Ricky is an integral part of the Facilities and Administrative Services team at OPTrust. While almost all of the OPTrust team transitioned to working from home early in the COVID-19 pandemic, Ricky split his time between working from home and going to the office at 1 Adelaide Street East. Through 2020, he continued to take care of our members' interests by helping process mail and assisting the Member Experience team in handling member communication without delays. This means members can be sure their interests are being protected. Along with juggling mail responsibilities, Ricky focused on helping take care of the OPTrust team with the installation of new social distancing signage, ensuring the office space is safe for employees to return. With his colleagues on the Facilities team, Ricky has demonstrated excellence in taking care of the whole team working from home, helping with everyday tasks and one-off requests to keep operations moving ahead smoothly.





LAURA SONG

ANALYST, SUSTAINABLE INVESTING
AND INNOVATION, OPTRUST

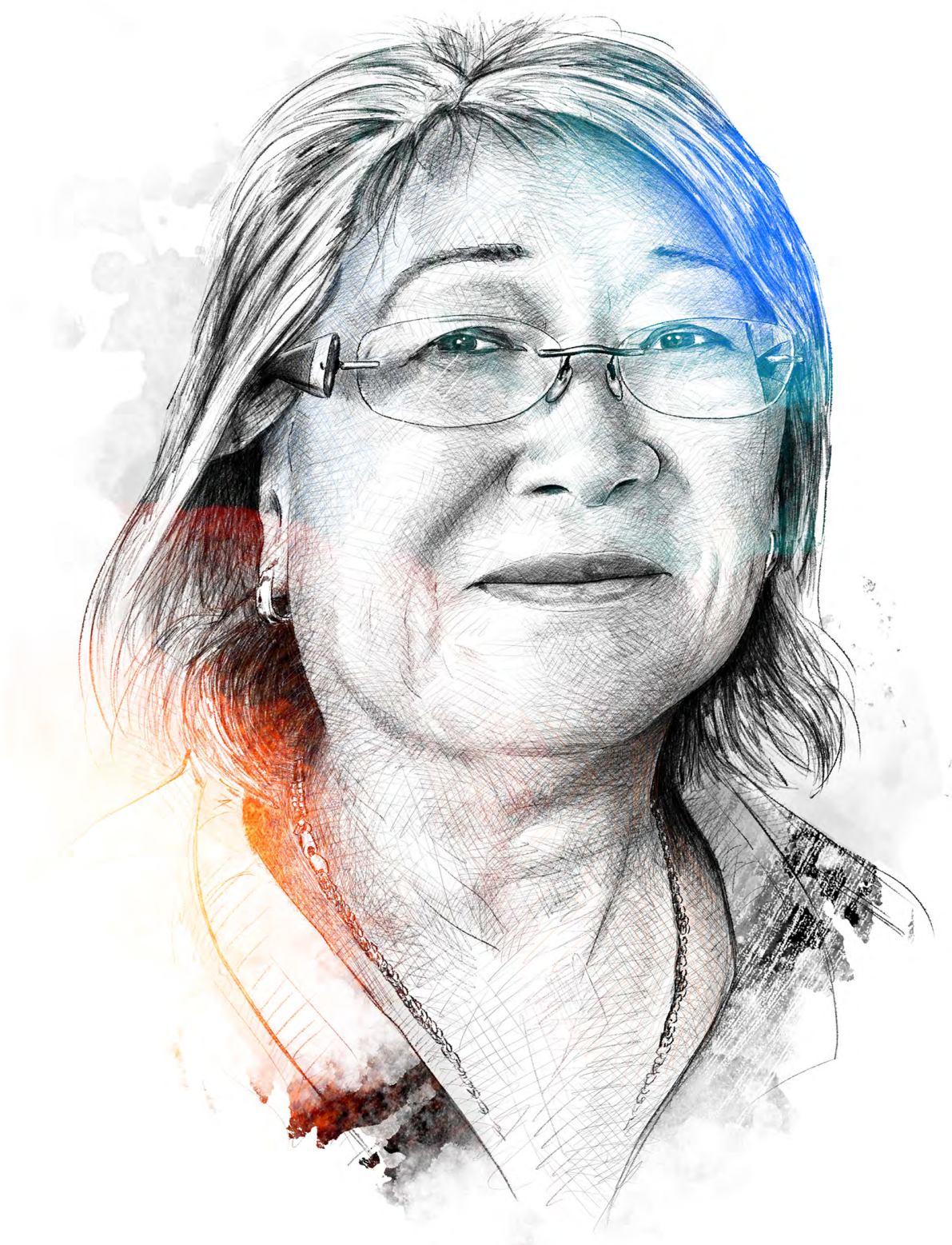
Laura is an Analyst on the Sustainable Investing and Innovation team. She focuses on responsible investing (RI), working on projects that enhance OPTrust's ability to identify and manage environmental, social and governance factors in investment decision-making. She collaborates with peer plans and with groups such as the UNPRI and the Investor Leadership Network, manages OPTrust's proxy voting and corporate engagement programs and maintains OPTrust's transparency on RI performance through reporting and disclosure. During 2020, Laura and the entire investment division successfully transitioned to working from home and maintained the high standards expected by OPTrust members, including forming a division-wide working group that strengthened RI integration in externally managed investments. Work on climate change initiatives forged ahead during the year, in an effort to protect both OPTrust members' retirement incomes and the world into which they will retire.

ALLEN MENDOZA

OCCUPATIONAL HEALTH AND SAFETY INSPECTOR,
MINISTRY OF LABOUR, TRAINING AND SKILLS
DEVELOPMENT, OPTRUST MEMBER

Allen is an Occupational Health and Safety Inspector – Construction Health and Safety Program. He has spent 10 years at the Ministry of Labour, Training and Skills Development with eight of those years in his current role, focusing on protecting workers by creating safe and healthy workplaces. Allen enforces the *Occupational Health and Safety Act* and its regulations, ensuring workplaces comply with health and safety requirements and are safe for workers and members of the public. A key responsibility for Allen is providing the information and education people need to understand requirements and comply with them. As a result of the COVID-19 pandemic, Allen's role pivoted during 2020 to protecting workers who were deemed essential. While continuing his core job responsibilities, he has taken numerous measures and precautions to protect the health and safety of workers, including those facing hazards posed by infectious disease. Allen has remained nimble, adapting to new regulations and processes for taking care of essential workplaces.





JANICE ARIZA

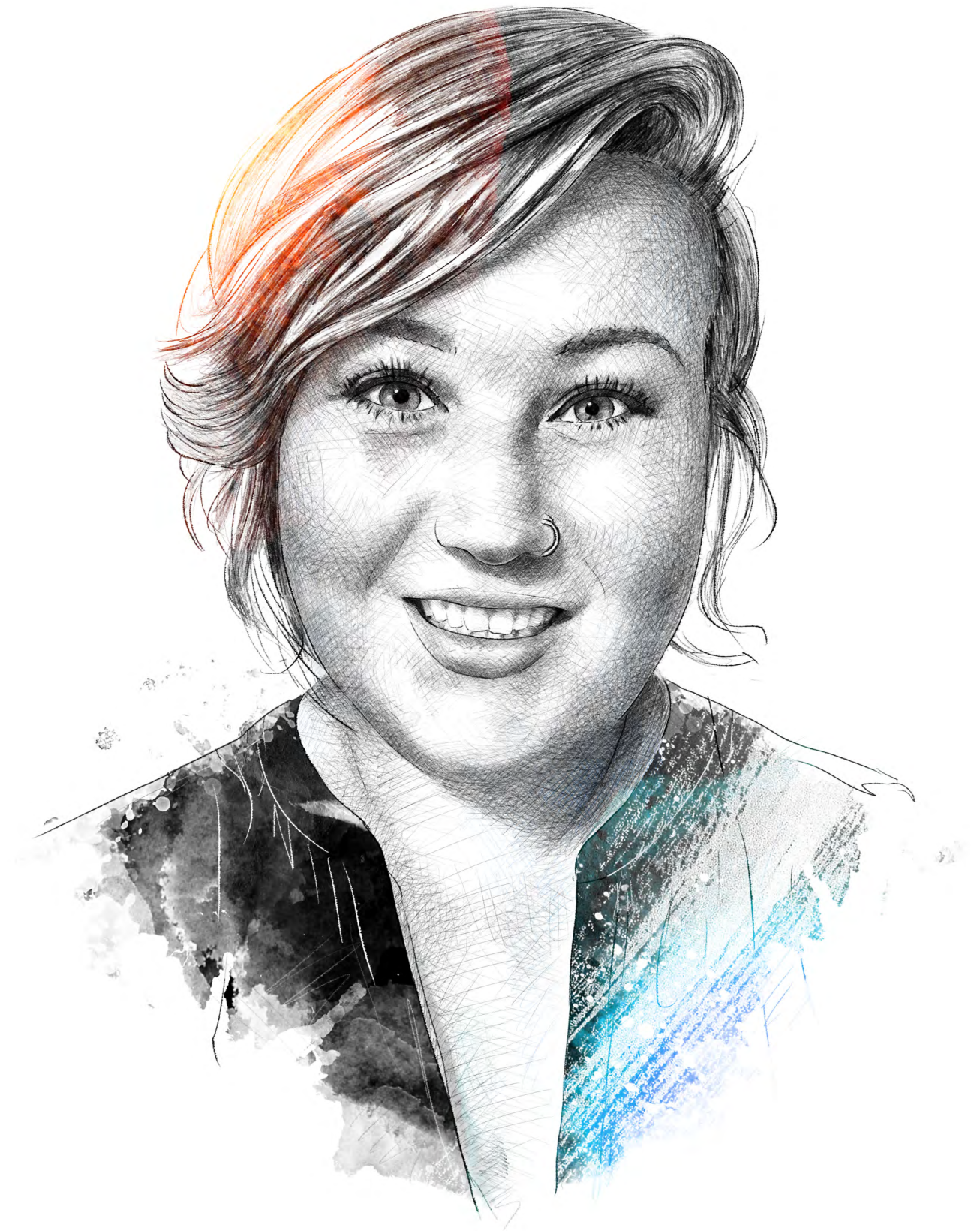
ASSISTANT MANAGER
LCBO, OPTRUST MEMBER

Janice is an Assistant Manager at the LCBO, with over 30 years of service. Throughout the COVID-19 pandemic, LCBO employees across the province have worked diligently to keep stores operating safely for customers and staff members. During 2020, Janice provided much-needed support and encouragement for her staff members, while continuing her core job responsibilities. Whether keeping energy up, increasing sanitization measures, providing access to personal protective equipment, reorganizing staff schedules to allow for personal needs or enforcing the wearing of masks in the store, Janice is doing her part to take care during the COVID-19 pandemic. Janice also plays an active role in her local union, serving as a store steward and local secretary. With Janice's retirement coming up soon, she plans to continue her union activism through a retired members' group and looks forward to taking courses, staying involved and enjoying her OPTrust pension.

SARA GRAY

EMPLOYMENT FACILITATOR, PARKDALE
ACTIVITY-RECREATION CENTRE (PARC)
OPTRUST SELECT MEMBER

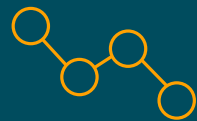
Sara holds an essential position as a member of PARC. In her role as an Employment Facilitator, she offers opportunities and tools for people to re-enter the workplace. Sara works with a drop-in team that supports PARC members through access to services like a clothing bank, food security, a warm place to sit and enjoy conversation with others, computer skills, financial literacy and emergency housing/ shelter assistance. During 2020 and due to the COVID-19 pandemic social restrictions, the drop-in was unable to accommodate its daily rate of more than 200 adults and was reduced to about 20 to 30 critically homeless adults. The PARC team quickly took a step back to examine how they could best help the membership. Going back to basics, they increased kitchen services and provided 400 to 500 takeout meals per day. Along with other PARC staff, Sara has stepped up and is doing what she can to take care by putting member needs at the heart of PARC's service offerings.



2020 HIGHLIGHTS



OPTrust remains **fully funded** for the 12th consecutive year



5.0%
nominal discount rate



8.9%
one-year net investment return



8.7/10
average member satisfaction score



7.8%
10-year average net investment return (2011-2020)

Funding Highlights¹

At December 31 (\$ millions)

	2020 VALUATION	2019 VALUATION
Net assets available for benefits	\$ 23,046	\$ 21,690
Actuarial smoothing adjustment	(980)	(523)
VALUE OF ASSETS	22,066	21,167
LIABILITIES	(21,910)	(21,019)
SURPLUS	\$ 156	\$ 148

¹ The differences between funding and financial statement valuations are described on page 22.



Over **98,000** members including OPTrust Select

OPTrust Select reached almost **1,400** new members



Earned A+ for our strategy and governance approach to responsible investing from the United Nations Principles for Responsible Investment

MESSAGE FROM THE CHAIR & VICE CHAIR

PLAN SUSTAINABILITY

This year has certainly been a time for “taking care.”

From the Board’s perspective, our overarching fiduciary duty is to act in the best interests of the Plan’s beneficiaries. In that sense, we oversee the Plan’s management and the way they discharge the responsibility to ensure we are taking care of members.

Plan sustainability is always a top-of-mind issue because it relates to the long-term nature of defined benefit pensions. We last conducted a sustainability study in 2016 and in 2020 began a new sustainability study, which is in progress, to understand the impact of adverse circumstances related to pension risks and how they can be addressed.

2020 presented many challenges for everyone. Throughout the year, the OPTrust team performed efficiently and at a high capacity. The Member Experience team, for example, has radically changed the way

We thank the entire OPTrust team for their continued commitment to taking care of our members each day throughout this year’s exceptional and challenging circumstances.

they deliver their services. During the pandemic, they have been thoughtful and seamless in terms of moving online from in-person appointments. That journey will continue to evolve.

Taking care of members requires a great deal of hard work. The environment today is much different than when the Plan was created 25 years ago and OPTrust is navigating these changes successfully because of the efforts of the OPTrust team.

OPTrust is a mature Plan. Member-Driven Investing is a strategy that

takes care of investments on behalf of members — something that is particularly important when markets are volatile. OPTrust is able to deliver on its mission — to pay pensions today, preserve pensions for tomorrow — not only through hard work, but also through smart work. The team has helped the Plan through the short-term market volatility in the early days of the COVID-19 pandemic, found solutions to difficult challenges and made the right decisions to benefit members’ long-term interests.

OPTrust Select continues to grow. It is a significant victory for people who would never have had an opportunity to belong to a defined benefit plan. It is making life better for people not only last year, this year and next year, but decades down the road. It will provide a modest, regular stream of income as working people become seniors. While so many others are retrenching from creating retirement income security, OPTrust is building new opportunity.

BOARD COMPOSITION

Michael Grimaldi was the board chair through most of 2020 and we thank him for his service in this capacity. We are enthusiastic about the efforts undertaken by the team and Board to promote diversity and inclusion within the organization — something the Board reflects in its own composition. In fact, for the first time, women occupy both the chair and vice chair positions.

THE OPTRUST TEAM

Our fellow Trustees put thought and effort into the decisions we make, but those decisions only produce results when the team works on members’ behalf to implement them. We thank the entire OPTrust team for its continued commitment to taking care of our members each day throughout this year’s exceptional and challenging circumstances.



Sharon Pel
Chair



Lindsey Burzese
Vice Chair

MESSAGE FROM THE PRESIDENT & CEO

TAKING CARE

Every day, the team at OPTrust takes care of members and their financial future in retirement. We do this by using a prudent investment strategy designed for the long term. It is structured to weather market turbulence, and provide the returns we seek to deliver on our pension promise.

And while it's what we do each day, in many respects, taking care was the theme for 2020.

It was the year we experienced the most significant public health crisis in over a century with the emergence of the COVID-19 pandemic. We witnessed tremendous sacrifice and courage, and sadly, significant loss for many around the globe.

It was a year of taking care of not only the Plan, but also each other; our communities, our team and our obligations to our members as we continued to deliver on our mission of paying pensions today, preserving pensions for tomorrow, while working from home.

The year also gave rise to a global social justice movement that demands an end to the discrimination of marginalized people the world over, and an acknowledgment of the changes required to end systemic racism. It is clear we all have a role to play in promoting fairness, equality and acceptance so that we can achieve an end to discrimination of all kinds.

CHANGE AND ACHIEVEMENT

2020 marked OPTrust's 25th year of proudly serving our members and was my first full year as President and CEO. While the pandemic presented challenges, we remained fully funded for the 12th consecutive year and continued to provide stability and security to our more than 98,000 members, with the team providing the same high quality and level of service that members have come to expect from us. The funded status is the measure that matters when it comes to long-term sustainability.

We reprioritized our strategic plan to increase our focus on our

members and the experience they receive when interacting with us. We continue to have gender parity on the executive team and identified diversity and inclusion as an organizational priority.

Recognizing how critical a strong corporate culture is to organizational success, we are working as a team to identify our key values, the qualities that define us and our vision for the future. We strive to offer an exceptional workplace — one which team members are proud to identify as their place of employment.

A RESPONSE TO CLIMATE CHANGE

The pandemic demonstrated just how truly connected we really are. And while combatting the virus required a global effort, it is clearly not the only challenge of this scale we face.

The United Nations identified climate change as the defining issue of our time. OPTrust's sustainable investing program is a key component of its long-term

investing horizon because it ensures environmental considerations are integrated into OPTrust's decision-making processes. This is important for the sustainability of the Plan and the planet.

With our 2018 Climate Change Action Plan serving as a foundation, we brought renewed focus in 2020 to how we address climate change with the launch of a new Sustainable Investing and Innovation team, whose mandate is to identify new investment opportunities at the intersection of sustainability and innovation. This year has proven the critical importance of a long-term strategy, with sustainable investing providing the ultimate long-term investing approach.

PROVIDING RETIREMENT INCOME

Pensions play a critical role in providing the ability to retire. Now, more than ever, our members look to us to be there for them when they transition from the workplace

to retirement. In 2020, our newest defined benefit offering, OPTrust Select, reached a significant milestone and now has more than 43 employers and almost 1,400 members across the province in the broader public and nonprofit sectors. These workers fulfill some of the most essential services in our communities and their well-being in retirement is essential to us.

The effectiveness of our Member-Driven Investing strategy was evident in the way the portfolio remained resilient against market volatility. While the Plan continues to face a number of challenges, including a continued low interest rate environment and plan maturity, we have a high level of liquidity to help take advantage of opportunities that may arise.

I would like to thank the Executive Team for serving members through their diversity of thought and leadership as they met the challenges of this unprecedented year. My thanks also go to the

entire OPTrust team for their resilience and unwavering commitment to serving our members.



Peter Lindley
President and
Chief Executive Officer

PENSION FUNDING

SUSTAINABILITY

The Plan continues to be fully funded, yet we are facing formidable and ongoing challenges.

Several key drivers impact Plan sustainability: the investment environment, low interest rates that affect the funding valuation, plan maturity and longevity risk. Ultra-low interest rates, coupled with market volatility and low-return expectations for extended periods, make it extremely challenging to keep the Plan fully funded into the future. This situation is exacerbated as the number of pensioners in our Plan increases and the proportion of members making contributions to the Plan decreases.

We use several methods to help maintain the funded status: our Member-Driven Investing (MDI) strategy, the risk limits specified in our Risk Appetite Statement and other funding tools. As challenges endure 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. The ongoing sustainability study we started in 2020 focuses on this recognition, along with our duty to consider how to keep the Plan sustainable over the long term. The initial results of the sustainability study help us to understand the impact and likelihood of negative outcomes and how they can be alleviated through changes to investments, contributions and/or future 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. It is essential we keep our commitment to members that they will receive the benefit for which they have paid.

It is essential we keep our commitment to members that they will receive the benefit for which they have paid.

FUNDING VALUATION ASSUMPTIONS

	2020 VALUATION	2019 VALUATION
Inflation rate	2.00%	2.00%
Discount rate (real)	3.00%	3.10%
Discount rate (nominal)	5.00%	5.10%
Salary increases (nominal) ¹	2.75%	2.75%

¹ Plus an allowance for promotion, based on long-term scale.

2020 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. These valuations provide a snapshot of the Plan's financial position and ability to meet its pension obligations, while providing a review of gains and losses experienced since the last valuation.

OPTrust's 2020 valuation shows the Plan remained fully funded as of December 31, 2020. The funding valuation also showed deferred (or smoothed) investment gains of \$980 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 2020 funding valuation was reduced to 3.00%, net of inflation, down from 3.10% in 2019. The effect of this change increased the total fund liabilities by \$412 million.

SENSITIVITY TO ACTUARIAL ASSUMPTION CHANGES

(\$ millions)

	+0.5%	-0.5%
Impact of change in inflation linked assumptions ¹	176	(181)
Impact of change in funding discount rate assumption ²	1,945	(2,261)
Impact of change in assumed increase in salaries	(633)	557

¹ Assumes equivalent change in economic assumptions that are dependent on inflation.

² Assumes all other assumptions remain unchanged.

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

Financial Statements and Funding Valuations

The financial position of the Plan is presented using two different methods: financial statements valuations and funding valuations.

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 and does not incorporate margins of conservatism. The valuation recognizes the increase in value of future obligations over time, and pension-related receipts and disbursements. Experience gains or losses on investment activities are recognized in the year incurred. Experience gains or losses related to other assumptions are recognized in conjunction with the funding valuation.

FUNDING VALUATIONS

An actuarial funding valuation presents the Plan's financial information in a manner determined by OPTrust's Board of Trustees and is subject to regulatory constraints. 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 assumptions that are best estimates, with the exception of the discount rate, which includes a margin of conservatism.

Ontario regulations require a funding valuation to be filed with provincial authorities at least once every three years. Please see Note 6 to the financial statements on page 71 for further discussion.

The actuarial 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. The financial statements valuation is used for disclosure for the purpose of this report.

SERVING OUR MEMBERS

Throughout the COVID-19 pandemic, OPTrust continued to pay existing retirees and began payments to newly retired members with no interruptions.

TAKING CARE OF OUR MEMBERS DURING UNPRECEDENTED TIMES

We are proud to be administering pensions for a membership dedicated to serving Ontario during these unprecedented, difficult times. Our members continued to be patient and understanding as we transitioned from office to home. We salute and offer thanks to our members working on the front lines who continue to support us and keep us safe.

Throughout the COVID-19 pandemic, OPTrust continued to pay existing retirees and began payments to newly retired members with no interruptions — all while the team continued to serve

members through the transition from working at our offices to working remotely. The Member Experience team listened and provided counselling during the most uncertain of times, assuring members that their pension would start on time if they chose to retire this year.

With slower-than-normal mail delivery and limited access to our office, increased use of electronic forms and decreased use of paper forms enabled us to process member applications and requests. Members sent and received secure messages, made address and beneficiary updates and ran pension estimates through our secure online portal during the pandemic. We also re-introduced the online capability for retirees to make changes to their income tax deductions.

OPTRUST SELECT IMPLEMENTATION

OPTrust Select celebrated its first anniversary and we began paying a pension to the first OPTrust Select retiree. With almost 1,400 members and 43 employers, we implemented a pension administration system to

calculate pension transactions for our members. We also introduced a new pension calculator to illustrate the benefits for potential members.

REMARKABLE EXPERIENCE

Our members continued to be satisfied with their service experience, rating us at an average of 8.7/10 in 2020. Our services were rated among the top 10 globally and top three among our Canadian peer group, according to CEM Benchmarking Inc. Our Pension Information Sessions transitioned from in-person sessions to online webinars, so that our members could continue to plan and prepare themselves for retirement. The introduction of technology enhancements enabled our team to uniformly prioritize electronic messages and phone call response times.

Highlights for the year



Top 10 CEM Benchmarking Inc. global ranking and top three among Canadian peer group



Supported members through almost **45,000** member transactions



8.7/10 average member satisfaction score



Supported members through more than **41,000** telephone counselling events



More than **1,300** members attended pension information sessions (online and in person)



Over **\$1 billion** total entitlements paid

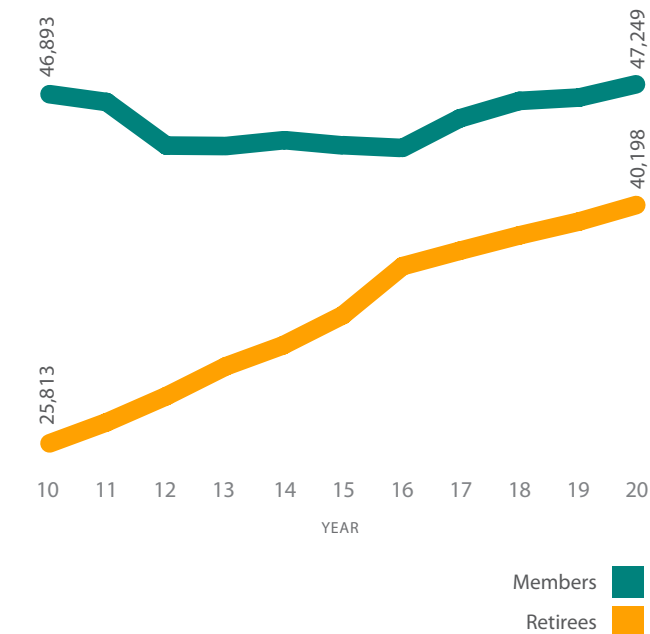
OPTrust remains **fully funded** for the **12th** consecutive year

Almost **117,000** online transactions and electronic communications

Over **337,000** visits to our website

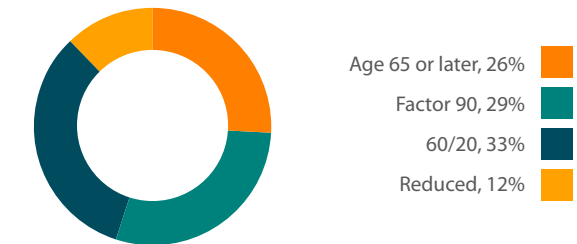
OPTRUST'S ACTIVE MEMBERS AND RETIREES

At December 31



In 2020, OPTrust's active membership was 47,249 at year-end, while the number of retirees was 40,198 at year-end, net of deaths. Deferred members are accounted for separately.

2020 RETIREMENT SNAPSHOT



In 2020, OPTrust members retired under one of the following options:

- Age 65 or later:** The normal retirement age under the Plan is age 65; members can postpone retirement as late as age 71
- Factor 90:** Age plus years of pension service total at least 90
- 60/20:** Age 60 or older plus at least 20 years of pension service
- Reduced:** Available starting at age 55 to members who do not qualify for an unreduced pension

Note: Chart does not include deferred, disability or survivor pensions.

MEMBERSHIP STATISTICS

At December 31	2020	2019	2018	2017	2016	2015
Active members	47,249	46,330	46,354	45,259	43,575	43,835
Average age	44.8	44.8	44.7	44.9	45.1	46.1
Average salary	\$ 67,623	\$ 65,605	\$ 63,195	\$ 63,887	\$ 62,121	\$ 62,488
Number of new members enrolled	4,523	3,799	5,218	5,210	4,567	4,271
Number of members terminated or retiring	3,604	3,823	4,123	3,526	4,827	4,444
Former members with entitlements in the Plan	1,401	1,629	1,411	1,399	1,500	1,237
Deferred pensioners	9,635	9,508	8,943	8,386	8,058	8,198
Current pensioners	40,198	39,008	38,221	37,355	36,409	33,721
Average age	72.4	72.0	71.4	70.9	70.3	70.2
Average annual pension	\$ 22,321	\$ 21,930	\$ 21,613	\$ 21,426	\$ 21,321	\$ 20,868
Total members and pensioners	98,483	96,475	94,929	92,399	89,542	86,991



BENCHMARKING OUR WORK

We benchmark our work against other defined benefit pension plans to better understand how our overall services compare to other organizations doing similar work. While plan administrators conduct business differently, we have found many opportunities to share our approaches and learn from others, while collaborating to improve the retirement system across Canada and globally, for the benefit of members.

OPTrust's total service score was 87 out of 100 in the most recent survey of leading pension plans by CEM Benchmarking Inc. Our score placed us in the top 10 globally and top three among our peer group of Canadian plans.

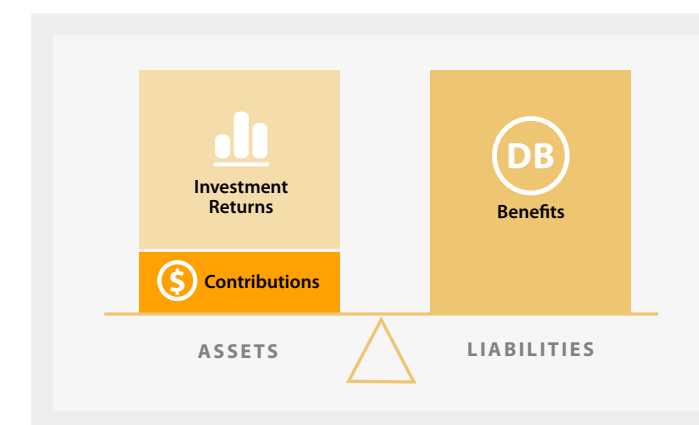
INVESTMENT STRATEGY & PERFORMANCE

MDI STRATEGY

Our Member-Driven Investing (MDI) strategy is designed to take care of members by improving pension certainty. We do this by seeking to earn the return we need to keep the Plan fully funded at the lowest risk possible.

MDI emphasizes the construction of a total fund portfolio with diversified return streams and resilience to different economic and market environments. This has helped our Plan weather the intense market volatility during the COVID-19 pandemic.

We have conducted a complete review of reference indices and performance measures to align with our objective of improving pension certainty for our members.



KEY ACCOMPLISHMENTS

- Volatility in fund returns has been relatively low in a very challenging economic and market environment, reflecting the diversification within our portfolio and outperformance of risk-mitigating strategies.
- Maintained business continuity during the COVID-19 pandemic; deal teams and internal trading operations have been active and functioning at a high level without interruption.
- Advanced the integration of our external and internal public market investing team under a "One Capital Markets Group" structure; this will improve operational efficiency and decision making.
- Initiated projects to develop best practice environmental, social and governance integration in partner selection and governance in the private market space.

Investment Environment:

The COVID-19 pandemic has caused significant uncertainty on the investment outlook



The evolution of the COVID-19 pandemic and related changes in consumer behavior have increased uncertainty around the growth outlook and relative asset class performance over the long term.



Low interest rates and elevated asset valuations make it more challenging to generate returns on a go-forward basis.



Unprecedented monetary and fiscal expansion has extended the ranges of outcomes for interest rates, inflation and asset prices.



Geopolitical risks remain structurally elevated in both developed and emerging economies.

ASSET MIX BY ASSET CLASS

	WEIGHT
Public Equity	16.5%
Private Equity	13.0%
Multi-Strategy Investments	12.3%
Real Estate	13.8%
Infrastructure	11.4%
Fixed Income	19.7%
Gold	5.8%
Credit	11.1%
Funding	-3.6%
Total	100.0%

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

ASSET MIX BY PORTFOLIO

	WEIGHT
Liability Hedging Portfolio	15.8%
Return Seeking Portfolio	76.1%
Risk Mitigation Portfolio	11.7%
Funding Portfolio	-3.6%
Total	100.0%

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

Investment Performance

ASSET CLASS OVERVIEW

To fulfill our MDI objectives, we divide our total fund assets into four categories: Liability Hedging Portfolio (LHP), Return Seeking Portfolio (RSP), Risk Mitigation Portfolio (RMP) and Funding Portfolio (FP). Each of these portfolios has a specific purpose in helping us deliver on our MDI objectives.

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. We do this through hedging a portion of the Plan's interest rate sensitivity. This portfolio is composed of Canadian government bonds, both nominal and real return bonds. These bond holdings also serve as the main source of funding liquidity for the Plan.

Our LHP helped to reduce funded status volatility and delivered attractive returns in 2020 as bond values increased with falling interest rates. On net, our LHP assets earned 11.8% in the year.

Return Seeking Portfolio: We keep our Plan fully funded by investing to earn sufficient returns that maintain Plan sustainability at the lowest risk possible, while keeping benefit levels and contribution rates stable. In a low interest rate environment, we must take risk to earn the required returns. The RSP serves this purpose. Assets in this portfolio include: public equity, private equity, credit, public market multi-strategy investments, real estate and infrastructure.

Public Equity: Our public equity exposure is designed to complement our private equity strategy and generate returns using liquid market instruments. We obtain public equity exposure through internally managed cash and derivative positions, as well as using external managers. Our public equity portfolio is diversified across developed and emerging markets. Public equities contributed positively to total fund returns in 2020, despite the challenges presented by the COVID-19 pandemic, delivering a net return of 16.7% for the year.

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, which focuses on buyout investments and lower-risk private equity and debt investments, 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.

We committed \$355 million of capital in 2020, including \$316 million to six new investments despite the challenges presented by the COVID-19 pandemic in developing new relationships and completing new transactions.

Our private equity portfolio demonstrated resiliency through the challenging 2020 operating environment. While many of our companies were impacted to varying degrees by the pandemic, they had sufficient liquidity to sustain their operations through the most challenging periods and most have experienced recoveries to pre-pandemic or near pre-pandemic levels, with growth initiatives

resuming across much of the portfolio. We remain cautious about the ultimate slope of the recovery curve, but believe the portfolio is well-positioned to deliver long-term returns in line with expectations. The private equity portfolio generated a net return of 12.3% in 2020.

Credit: Credit investments provide attractive risk-adjusted returns and can deliver stable cash flows for the total fund, helping us to better fulfill our pension obligations. Our credit exposure is implemented through both internal and external strategies. Credit spreads widened significantly at the beginning of the year as growth uncertainty increased due to the COVID-19 pandemic. Spreads have since narrowed. Our credit portfolio — the bulk of which is exposed to credit risk premia only, with limited exposure to movements in risk-free rates — has been impacted by these moves and earned a net return of -3.9% in 2020.

Multi-Strategy Investments: We invest in customized, liquid alternative strategies to access value-add opportunities within a broad and diversifying set of risk premia. These strategies, which are dynamic and generally less

correlated with traditional market returns, increase resilience of the total fund portfolio to different economic and market environments.

Multi-strategy investments generated a net return of -1.6% in 2020. Within this portfolio, our alternative risk premia strategies contributed the bulk of the underperformance, with significant factor volatility experienced during the COVID-19 crisis. Other market-neutral and asset allocation-based strategies performed relatively better despite the market disruptions. Rapid capital deployment into opportunistic strategies allowed us to take advantage of market dislocations. Significant rebalancing continued within our external manager program to better position the portfolio for 2021.

Real Estate: The real estate portfolio is an important diversifier for the total fund, 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.

Repercussions from the ongoing pandemic are far reaching and still

evolving, but the impact on commercial real estate is substantial. We have remained focused on building resilience in our real estate portfolio by targeting defensive sectors driven by demographic, consumer and technological change, and by actively modernizing and improving the functionality of our properties.

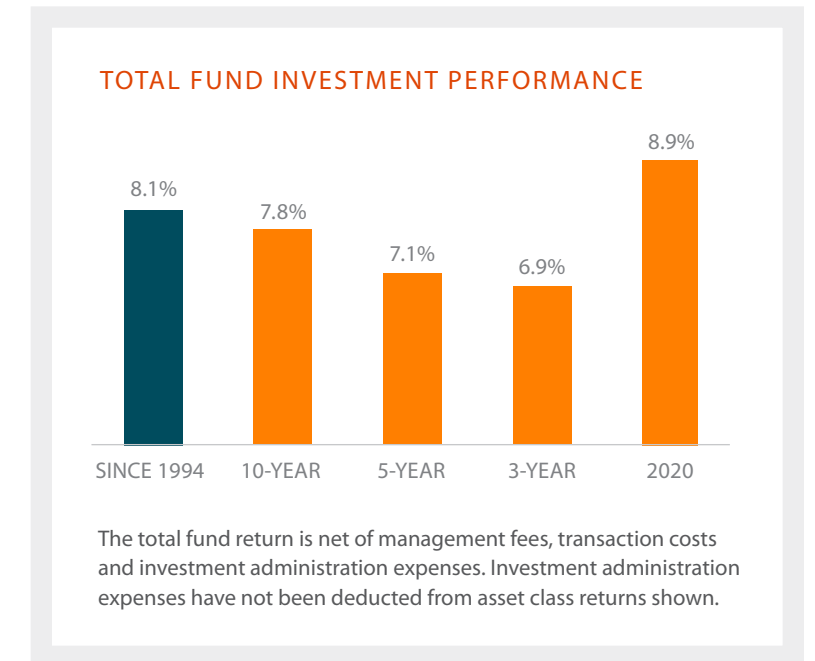
We committed to nine new investments totaling \$604 million in 2020, all located within North America. These investments were sourced primarily through existing partnerships, reflecting our ability to access compelling opportunities through our network of trusted partners. New commitments were partially offset by \$34 million in realizations. The real estate portfolio generated a net return of 1.2% in 2020.

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

While COVID-19 operating conditions have made completing new transactions challenging, we were able to benefit from the

various platform portfolio companies and relationships we put in place prior to the crisis. This has enabled us to close 11 transactions either directly or through our platforms, representing \$854 million of capital committed. The infrastructure portfolio has generally been resilient to COVID-19-related impacts; however, some assets have been affected, notably transportation assets, resulting in lower than normal annual returns for the year. The infrastructure portfolio generated a net return of -0.5% in 2020.

Risk Mitigation Portfolio: These assets help to enhance portfolio diversification and can mitigate drawdowns in certain market-stress scenarios. We hold U.S. Treasuries, safe-haven currencies, gold and trend-following strategies in this portfolio, as they typically perform well in market-stress environments. This portfolio delivered positive returns in 2020 and helped the total fund weather the severe market drawdown during the COVID-19 pandemic. We have modestly increased our allocation to risk-mitigating assets on the back of rising market uncertainties, as we continued to

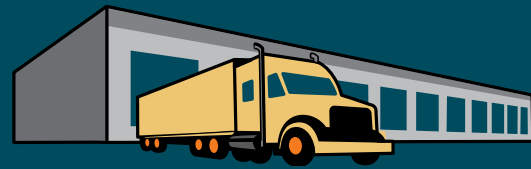


build out a diversified mix of assets. The Risk Mitigation Portfolio earned a net return of 26.3% on the year.

Funding Portfolio: This portfolio represents the net funding for the total fund, which allows us to achieve the optimal overall return-risk profile for the total fund. The Funding Portfolio includes exposures such as bond repurchase agreements, implied funding from our derivative positions and liquidity reserves. The -3.6% weight of the Funding Portfolio reflects OPTrust's overall balance sheet leverage.

The total fund return is net of management fees, transaction costs and investment administration expenses. Investment administration expenses have not been deducted from asset class returns shown.

Case Study: Lineage Logistics



In August 2020, OPTrust made an equity investment of \$90 million shares in Lineage Logistics, the largest operator of temperature-controlled logistics

worldwide. As part of its fundraising efforts, Lineage raised a total of US \$1.6 billion from existing and new strategic investors, including OPTrust.

Lineage provides a full suite of services for the shipping and warehousing of food products, preserving, protecting and optimizing the distribution of food around the world and taking the world's food from farm to table.

Lineage intends to target acquisitions in regions with strong population growth and where consumer preferences, such as the propensity to shop for groceries online, support Lineage's business model. Lineage's focus is to continue to build its platform through organic revenue growth, further acquisitions of real estate and operating companies, the development of new warehouses and the expansion of existing facilities.

The business is resilient to economic fluctuations because the food products that Lineage warehouses and transports are necessities. The construction of temperature-controlled warehouses is also capital intensive and requires specialized knowledge, creating high barriers to entry into the sector. OPTrust's Real Estate Group is keen to participate in the continued growth of Lineage. The investment is expected to generate attractive risk-adjusted returns for OPTrust.

SUSTAINABLE INVESTING & INNOVATION

RESPONSIBLE INVESTING STRATEGY

OPTrust's responsible investing (RI) strategy supports the organization's mission to deliver pension security for all members. Environmental, social and governance (ESG) factors can materially impact investment

risk, return and reputation. We seek to identify, assess and manage these concerns and opportunities over our long-term investment horizon to protect and enhance investment performance and ultimately fulfill our commitment to members.

SUSTAINABLE INVESTING AND INNOVATION TEAM

OPTrust's Sustainable Investing and Innovation (SII) team was formed in late 2019 to reflect our broadening approach to responsible investing. In addition to continuing to provide support for ESG integration and active ownership activities across the total fund, the SII team has a unique mandate to invest at the intersection of sustainability and

innovation. The team explored several themes impacting the long-term sustainability of the Plan, and climate change was selected as an appropriate initial theme to explore due to its profound impacts on natural capital and decision making in societies and economies globally. SII will continue to develop and implement this strategy through 2021.

Our investment activities are guided by the following principles:

- **Strong corporate governance:** We support and encourage good corporate governance practices to enhance returns and promote alignment between corporate, investor and broader stakeholder interests.
- **Environmental stewardship:** We expect investee companies to ensure compliance with environmental regulations, and in regions where there are no regulations or regulations are not enforced, to strive for generally accepted best practices.
- **Responsible treatment of people and communities:** We support and encourage equitable practices relating to employees, communities and other stakeholders, including fair wages, benefits and working conditions for workers employed by companies we invest in.
- **Transparency and disclosure:** We encourage transparency and disclosure of relevant and material ESG information to enable investors to fully assess and manage ESG risks and opportunities.
- **Active ownership:** We practice active ownership by monitoring ESG issues and engaging with investee companies, partners and policy-makers to advocate for improved management of material ESG factors.

Climate change was selected as an appropriate initial theme to explore due to its profound impacts on natural capital and decision making in societies and economies globally.

Responsible Investing Activities



Voted at **2,028 company meetings** in 52 countries.

Engaged **543 companies** on key ESG issues.

Earned A+ for our strategy and governance approach to responsible investing from the United Nations Principles for Responsible Investment.

Contributed to the **Ontario Capital Markets Modernization Task Force**, advocating for advancements on sustainability issues in capital markets regulation.



Completed **carbon risk assessments**, including carbon footprinting of our public equity, fixed income, private equity and infrastructure portfolios.

Joined the **CDP Science-Based Targets (SBTs) Corporate Engagement Campaign** to accelerate the adoption of science-based climate targets in the corporate sector.



Collaborated with leading global investors, as a member of the Investor Leadership Network (ILN), on practical tools for climate change mitigation in portfolios and initiatives to promote gender diversity in capital markets.

Established a cross-portfolio working group to strengthen the integration of sustainability into externally managed investments and developed a framework, which will be implemented in 2021, to systematically evaluate and monitor our external partners' RI performance.



Updated OPTrust's **Statement of Responsible Investing Principles and Proxy Voting Guidelines** to reflect evolving best practices.

Launched a renewal of OPTrust's **climate change strategy** and enhanced implementation of the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), including disclosure of our public equity portfolio's carbon footprint for the first time.

RISK MANAGEMENT & COMPLIANCE

Despite the short-term market volatility caused by the COVID-19 pandemic, OPTrust maintained more than enough liquidity to meet its needs to take care of members.

In 2019, the key functions responsible for overseeing risk management at OPTrust were combined into one Risk, Actuarial Services and Plan Policy team (Risk and ASPP). Risk and ASPP provide advice on strategies for managing enterprise risk, including operational risk and crisis management, liquidity and investment risk, regulatory risk and funding risk.

RISK GOVERNANCE FRAMEWORK

We continue to employ a comprehensive risk framework through a robust risk governance and management program focused on improving decision making,

achieving strategic and operational objectives and meeting legal and regulatory requirements. Further, we are guided by our Management Risk Policy to ensure we identify material or mission-critical risks on an ongoing basis and ensure they are appropriately managed within our risk appetite. Mission-critical risks are monitored and reported to the Board of Trustees on a quarterly basis.

We are rolling out a program to enhance the integration of compliance requirements with operations. A key component of the compliance program is the regulatory risk assessment and attestation, which identifies compliance-risk exposure at the operational level, by evaluating the impact and likelihood of a breach. When we assessed our ability to meet legal and regulatory requirements in 2020, we accounted for the way the COVID-19 pandemic changed our operations and implemented adjustments where necessary.

We created a plan and related testing to ensure our ability to take care of members would continue during a crisis. The plan continues

to guide our crisis response to the COVID-19 pandemic to effectively address ongoing member, team and stakeholder needs while protecting the team's health and safety.

LIQUIDITY

Despite the short-term market volatility caused by the pandemic, OPTrust maintained more than enough liquidity to meet its needs to take care of members. We take a conservative approach to manage funding risk, market risks, counterparty risk and concentration risk.

DIVERSITY & INCLUSION

CREATING A SENSE OF BELONGING

At OPTrust, we care about reflecting the diversity of the membership we serve and the markets in which we invest. We are stronger together when every employee feels comfortable bringing their whole selves to work each day and feels valued for their unique perspectives.

The power of diversity and inclusion leads to better decision making and outcomes for our members, our team and the Plan's sustainability. It is simply the right thing to do.

Our strategy addresses two components of diversity: representation and inclusion. To advance our long-term aspirations, in 2020 we identified three goals within this framework for the outcomes we seek.

THREE GOALS

A gender-balanced workplace

Women and men have similar levels of representation across functions and levels of the organization. Transgender, non-binary and other forms of gender expression are welcomed and respected.

A racism-free workplace

Black and other people of colour are well-represented at all levels of the organization and feel that race is not a barrier to achieving their career aspirations at OPTrust.

An accessible, inclusive workplace

Physical barriers to accessibility and inclusivity are identified and removed. Mental health concerns are effectively supported and employees are not stigmatized.

COMBATTING ANTI-BLACK SYSTEMIC RACISM

A global reckoning on anti-Black racism inspired OPTrust to lend its voice to the discourse with a member of our Executive Team writing an editorial published in one of Canada's largest daily newspapers and participating in an important conversation about understanding non-violent racism.

Dismantling systemic racism, discrimination and barriers to senior leadership roles features prominently in our framework to create a racism-free workplace. Representation matters and institutional investors should reflect the diversity of the markets in which we invest and the communities where we operate. OPTrust is committed to putting in the work and partnering with like-minded organizations to realize greater equity and sustainable action on anti-Black racism.

Diversity & Inclusion Highlights



Signed on to the new **Canadian Investor Statement on Diversity & Inclusion**, an initiative coordinated by the Responsible Investment Association (RIA) together with institutional investors managing more than \$2.3 trillion in assets.



Reaffirmed our commitment to work together with members of the **Investor Leadership Network (ILN)** on measures to increase diversity in the financial industry and capital markets.



Reviewed our policies and practices through a diversity lens to remove any identified barriers to ensure they support a diverse workplace.

Continued our pursuit of an **EDGE certification** by maintaining a strong gender-balanced pool of talent, proactively managing pay equity, sustaining a strong framework of effective policies and practices, as well as supporting an inclusive culture while developing an action plan to further progress.



Launched a diversity and inclusion section on our website reflecting our organization's commitment and initiatives.



Signed the **BlackNorth Initiative Pledge**, joining many other Canadian business organizations, to acknowledge the existence of anti-Black systemic racism and commit to sustainable inclusion of Black people in business leadership.



Delivered a wide range of **educational sessions and campaigns** to mark Black History Month, International Women's Day, Mental Health Awareness, Pride Month, Indigenous Peoples' Day and Orange Shirt Day.

We aim to continue creating a sense of belonging where differences are valued, heard and respected. We know actions matter more than words. As we look to the future, we are committed to taking bold steps in driving greater equality and meaningful change.

GOVERNANCE & ACCOUNTABILITY

GOVERNANCE MODEL

The OPSEU Pension Plan was established as a jointly governed pension plan by the Ontario Public Service Employees' Union (OPSEU) and the Government of Ontario — currently represented by the Treasury Board Secretariat (TBS) — pursuant to a Sponsorship Agreement dated April 18, 1994, as amended. The Plan is a successor to the Public Service Pension Plan primarily for OPSEU employees in the Ontario public service. Certain provisions of the Sponsorship Agreement were implemented by the *OPSEU Pension Plan Act, 1994*.

The Plan is administered by a Board of Trustees established pursuant to an Agreement and Declaration of Trust dated October 25, 1994 (the 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 the Plan sponsors, TBS and OPSEU, have the power to amend the Plan and any of the Plan's founding documents.

Under the joint governance model, 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 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 comprised 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 fall to them under their respective Terms of Reference.

The Board is directly responsible for strategic matters such as the strategic plan, the corporate objectives, the annual business plan and strategic initiatives. The Board also approves matters recommended by the Committees.

GOVERNING LEGISLATION

OPTrust is established as a trust and therefore the key governing document is the Trust Agreement. OPTrust is also registered with the Financial Services Regulatory Authority of Ontario (FSRA) and the Canada Revenue Agency (CRA) and is subject to the *Pension Benefits Act* (Ontario) (the PBA) and 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 United Kingdom).

BOARD MEMBER CHANGES

There were no changes to Board membership in 2020.

MANAGEMENT COMMITTEE CHANGES

In 2020, five management committees that align with the standing committees of the Board

were established. The management committees replaced the former Operating Committee. They serve as information-sharing forums, perform policy and oversight functions within their mandates and facilitate communication between management and the Board. The management committees also serve as vehicles for developing talent for succession planning purposes and perform functions previously performed by other committees within the organization.

ORIENTATION AND EDUCATION

New Board members are provided with a comprehensive two-day orientation through the OPTrust education program. Recognizing that Trustees join the Board with different levels of Board-related experience, they are encouraged to take a board effectiveness course, if they have not done so already. Trustees receive an annual budget for conferences and courses and in-house education sessions are regularly built into the Board meeting schedule or are offered at other times.

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 Trustee 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 compliance, 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)** monitors OPTrust's People strategy, monitors the management compensation strategy, including incentive plans, reviews and approves CEO compensation and reviews the compensation of the Executive Team and other top earners.

The Board has also established an ad hoc governance committee, which makes recommendations to the Board on various governance initiatives, and two committees 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.

BOARD EFFECTIVENESS REVIEWS

In 2020 the Board reviewed the policies that govern Board operations. The review resulted in the elimination of several policies and their replacement

with organization-wide policies or with changes to the Board's main governing documents. The Board also completed a Board Governance Self-Assessment, which focused on Board operations and Board/management interactions. All

respondents ranked the Board's performance as either very good or excellent. A working group comprised of Trustees and members of management has been established to review the results of the survey in detail

CEM Benchmarking Inc. reported OPTrust investments perform in line with peers on a risk-adjusted basis and at a lower cost after adjusting for asset mix.

and recommend any changes in practice.

EXPENSE MANAGEMENT

We are very conscious that the costs we incur are dollars that belong to members and that we must ensure the choices we make that incur costs benefit members. We seek to deliver the most value to our members while ensuring cost effectiveness. This includes work on operational efficiencies, the development of integrated technology solutions and ensuring we have the right resources and capabilities to deliver on our mission.

As a pension plan, OPTrust is subject to the *Pension Benefits Act* (Ontario) which imposes a fiduciary standard

of care and duty of loyalty on the plan administrator which applies to the Board and all employees of OPTrust.

Our cost management framework has four main elements: (1) clearly defined delegations of authority; (2) transparent processes for the establishment, approval and monitoring of budgets; (3) detailed operating processes and procedures necessary to operationalize the cost management framework; and (4) supplementary policies and procedures governing specific types of expenditures. We have a system of internal controls designed to ensure that costs are managed prudently. Management is required to justify the need for material expenditures while significant strategic initiatives must be approved at the Board level.

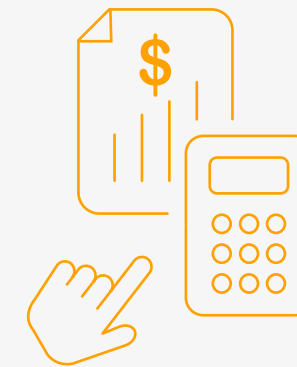
Annual operating and capital budgets are approved by the Board of Trustees in advance of each new fiscal year. Monthly reporting is provided to the Board and Executive Team, with supplemental quarterly detailed expense analysis provided to the Board's Audit, Finance and Risk Committee.

Our MDI strategy endeavors to carefully balance risk and return to deliver on our investment objectives. While striving to achieve these goals, we accept that the investment management cost of implementing this strategy can vary based on factors such as the amount of invested capital, asset-class weightings, investing style, as well as actual performance results. Certain asset classes designed to achieve our strategic goals will result in higher costs than if we were to invest in lower-cost assets that do not help attain those goals. These costs are mitigated by cost efficiencies achieved by internal management of certain asset class strategies.

We undertake cost-effectiveness assessments on an annual basis conducted by CEM Benchmarking Inc. The cost-effectiveness assessment is a benchmarking of organizational spending in the areas of pension administration and investment administration against a comparable peer group. The benchmarking of expenses provides the Board with an independent third-party assessment of the cost effectiveness of the organization.

COMPENSATION PRINCIPLES

OPTrust's compensation philosophy and principles provide a framework for the design of our compensation programs to ensure that we properly incent the behaviours necessary to achieve our mission.



- ① Align individual and team incentives with OPTrust's mission, values and investment strategy
- ② Explicitly reward performance that helps OPTrust achieve its mission and mandate
- ③ Ensure we are able to attract and retain the highly skilled professionals required to deliver on our mandate
- ④ Include an integrated design framework and performance management system
- ⑤ Support and reinforce the prudent risk-taking culture that is necessary to achieve our mission and mandate
- ⑥ Support a governance model that provides appropriate oversight and monitoring of the compensation strategy.

CEM Benchmarking Inc. reported OPTrust investments perform in line with peers on a risk-adjusted basis and at a lower cost after adjusting for asset mix.

COMPENSATION PROGRAM Overview

OPTrust actively considers its obligation of stewardship in preserving pensions for tomorrow on behalf of our members, and in our commitment to continually provide a superior member experience. Our employees are measured and remunerated in alignment with our organizational strategy.

OPTrust's Compensation Framework:

- **Short-term incentive plan (STIP, annual incentive):** Drives towards creating a high-performance organization allowing OPTrust to attract and retain high-calibre talent. It is based on individual performance and assessed against objectives directly aligned with OPTrust's annual business plan.
- **Long-term incentive plan (LTIP):** Aligns to the three key MDI metrics that measure:

- a. Maintaining the fully funded status of the Plan
- b. Managing risk in an efficient and effective manner
- c. Preserving the surplus in the Plan

These metrics measure performance over a three-to-five-year period that reflects the long-term perspective of the total fund portfolio. We are one of the first pension plans globally to align its LTIP directly to members' interests with a focus on preserving the funded status of the Plan.

COMPENSATION OVERSIGHT

The Board has oversight of the compensation program through its Human Resources and Compensation Committee and is responsible for approving OPTrust's management compensation structure and policies.

OPTrust's President and CEO has overall responsibility for establishing the compensation of other management personnel, including STIP and LTIP, consistent with the compensation philosophy and principles approved by the Board.

2020 EXECUTIVE COMPENSATION

(\$ thousands)	Base Salary A	STIP B	LTIP ¹ C	Other Benefits and Payments ¹ D	Total A+B+C+D	Post-Employment Benefits ²
Peter Lindley President and Chief Executive Officer	375	492	234	6	1,108	117
Tracy Hatanaka-Lejnieks Chief Financial Officer	247	192	104	62	605	540
James Davis Chief Investment Officer	385	485	1,040	29	1,939	92
Stephen Solursh Senior Vice President and General Counsel	285	207	162	19	672	60
Kelly Glass Senior Vice President, People, Communication and Public Affairs	260	175	94	89	618	59

¹ For Peter Lindley and Kelly Glass LTIP reflects a pro-rated payout for time of active plan participation during the three-year LTIP series. For Tracy Hatanaka-Lejnieks and Stephen Solursh LTIP reflects a pro-rated payout reflecting two out of three years below the executive level.

² Post-employment benefits are forward looking. Post-employment benefits reflect the change in value during the current year of the pension benefit accrual. This retirement benefit will be paid to the member in future. The value of the benefit is reliant on a number of factors including the Government of Ontario bond yields, an employee's pensionable earnings, years of service credit in the Plan and proximity to retirement. The real yields on Government of Ontario bonds have declined by approximately 80 basis points in 2020 resulting in a significant increase to the value of the post-employment benefit accrual.

BOARD ADVISORS

Actuary
Willis Towers Watson

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

The Board has direct responsibility for determining the STIP and LTIP awards for the CEO, approving the CEO's recommendation on aggregate STIP for the CEO's direct reports and all other management employees and the overall LTIP total fund performance factor and the asset class performance factors. The Board also amends OPTrust's compensation structure and policies, as required. Advice from an independent compensation consultant is obtained during compensation reviews.

COMPENSATION DISCLOSURE

The Board is committed to transparency regarding the compensation program. 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 44.

Incentive payments: Payments under OPTrust's annual STIP and LTIP are reported for the year in which they are earned, but are paid in subsequent calendar years.

Post-employment benefits: All OPTrust employees are eligible to contribute to the Plan, which provides pension benefits based on their years of pension service and average salary up to the maximums allowed under the *Income Tax Act*. Employees whose salary exceeds this maximum contribution level participate in the Above Maximum Plan, which provides pension benefits based on the same formula as the Plan. The post-employment benefits disclosed reflect the value of the benefits earned for the year under both plans.

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 the pension benefit) made on behalf of employees. One-off contractual payments may also be included.

TRUSTEE EXPENSES

The Board of Trustees do not receive compensation from OPTrust. Reimbursement for Trustee-related incidental expenses and education received by Trustees totaled

As a pension plan, OPTrust is subject to the *Pension Benefits Act* (Ontario) which imposes a fiduciary standard of care and duty of loyalty on the plan administrator which applies to the Board and all employees of OPTrust.

\$32 thousand in 2020 (2019 – \$115 thousand). 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.

MEMBERS OF THE BOARD OF TRUSTEES

At December 31, 2020

Sharon Pel, Chair¹

Consultant, Inglewood Advisory Services

Appointed in 2017, Chair since 2020

Governance and Administration Committee Chair, Investment Committee, Adjudication Panel

Lindsey Burzese, Vice Chair²

Surface Water Specialist
Ministry of the Environment,
Conservation and Parks

Appointed in 2018, Vice Chair since 2020

Investment Committee Chair,
Human Resources and Compensation Committee, Adjudication Panel

Len Elliott²

Supervisor, Pensions & Benefits,
Health & Safety and OPS Negotiations,
OPSEU

Appointed in April 2019

Audit, Finance and Risk Committee
Chair, Governance and Administration
Committee, Investment Committee,
Adjudication Panel

Jason Glover²

Probation and Parole Officer,
Ministry of Community Safety and
Correctional Services

Appointed in 2018

Investment Committee, Human
Resources and Compensation
Committee

Michael Grimaldi²

Work Advisor (retired)
Ministry of Labour, Training, Skills
and Development

Appointed in 2012

Governance and Administration
Committee and Audit, Finance and
Risk Committee

Deborah Leckman¹

Senior Investment Professional

Appointed in January 2019

Human Resources and Compensation
Committee Chair, Investment
Committee

Richard Nesbitt¹

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

Governance and Administration
Committee, Audit, Finance and Risk
Committee, Human Resources and
Compensation Committee,
Adjudication Panel

Bob Plamondon¹

Consultant and Board Member

Appointed in January 2019

Governance and Administration
Committee, Audit, Finance and Risk
Committee

Randy Marie Sloat²

Customer Care Representative (retired)
Ministry of Government and Consumer
Services

Appointed in 2012

Governance and Administration
Committee, Audit, Finance and Risk
Committee, Human Resources and
Compensation Committee; Adjudication
Panel (OPSEU alternative)

Don Wilkinson¹

Vice Chair, Deloitte and Leader of
National Asset Management Group
(Retired)

Appointed in 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, 2020

Peter Lindley

President and Chief Executive Officer

Karen Danylak

Vice President, Corporate Affairs

James Davis

Chief Investment Officer

Audrey Forbes

Senior Vice President, Member
Experience

Kelly Glass

Senior Vice President, People,
Communications and Public Affairs

Dani Goraichy

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

Tracy Hatanaka-Lejniaks

Chief Financial Officer

Stephen Solursh

Senior Vice President and General
Counsel

Rick Votano

Senior Vice President, Digital

FINANCIAL STATEMENTS

2020 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



Tracy Hatanaka-Lejnieks
Chief Financial Officer

March 4, 2021

Actuaries' Opinion

Towers Watson Canada Inc. (Willis Towers Watson) 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, 2020. The purpose of this valuation is to determine the pension obligations of the Plan as at December 31, 2020, 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 \$20,682 million in respect of service accrued to December 31, 2020.

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

- members' demographic data provided by OPTrust management as at September 27, 2020 for Primary schedule members and October 14, 2020 for OPTrust Select members, projected to December 31, 2020

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 Willis Towers Watson 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, 2020, 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,

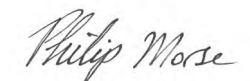
- the membership data are sufficient and reliable;
- the assumptions adopted are appropriate;
- the methods employed in the valuation are appropriate; and
- the valuation has been completed in accordance with our understanding

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



Benoit Coulombe
Fellow, Canadian Institute of Actuaries

Toronto, Ontario
and Montreal, Quebec
March 4, 2021

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, 2020 and 2019, 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, 2020 and 2019;
- 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 a summary of 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 OPTrust's 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 4, 2021

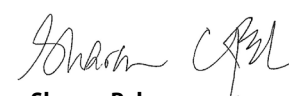
Statements of Financial Position

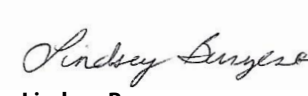
As at December 31 (\$ millions)	2020	2019
ASSETS		
Investments (Note 3)	26,439	28,609
Contributions receivable (Note 8)	52	49
Other assets	9	8
	26,500	28,666
LIABILITIES		
Accounts payable and accrued charges	38	28
Investment-related liabilities (Note 3)	3,416	6,948
	3,454	6,976
NET ASSETS AVAILABLE FOR BENEFITS	23,046	21,690
PENSION OBLIGATIONS (Note 6)	20,682	20,220
SURPLUS (Note 7)	2,364	1,470
PENSION OBLIGATIONS AND SURPLUS	23,046	21,690

For the years ended December 31 (\$ millions)	2020	2019
SURPLUS, BEGINNING OF YEAR	1,470	1,484
CHANGE IN SURPLUS		
Increase in net assets available for benefits	1,356	1,753
Increase in net pension obligations	(462)	(1,767)
NET INCREASE/(DECREASE) IN SURPLUS	894	(14)
SURPLUS, END OF YEAR	2,364	1,470

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 4, 2021 and were signed on its behalf by:


Sharon Pel
Chair


Lindsey Burzese
Vice Chair

Statements of Changes in Net Assets Available for Benefits

For the years ended December 31 (\$ millions)	2020	2019
NET ASSETS AVAILABLE FOR BENEFITS, BEGINNING OF YEAR	21,690	19,937
Changes Due to Investment Activities		
Investment income (Note 4)	520	449
Net gain on investments (Note 4)	1,457	1,830
Investment management and administrative expenses (Notes 4 and 10)	(76)	(62)
	1,901	2,217
Changes Due to Pension Activities		
Contributions (Note 8)	551	552
Benefits paid (Note 9)	(1,064)	(984)
Pension administrative expenses (Note 10)	(32)	(32)
	(545)	(464)
INCREASE IN NET ASSETS AVAILABLE FOR BENEFITS	1,356	1,753
NET ASSETS AVAILABLE FOR BENEFITS, END OF YEAR	23,046	21,690

The accompanying notes are an integral part of these financial statements.

Statements of Changes in Pension Obligations

For the years ended December 31 (\$ millions)	2020	2019
PENSION OBLIGATIONS, BEGINNING OF YEAR	20,220	18,453
INCREASE IN PENSION OBLIGATIONS		
Interest accrued on benefits	1,016	1,029
Benefits accrued	540	498
Change in actuarial assumptions (Note 6)	42	1,195
	1,598	2,722
DECREASE IN PENSION OBLIGATIONS		
Benefits paid (Note 9)	1,064	984
Experience gains/(losses) (Note 6)	72	(29)
	1,136	955
INCREASE IN NET PENSION OBLIGATIONS	462	1,767
PENSION OBLIGATIONS, END OF YEAR	20,682	20,220

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) is a jointly sponsored pension plan. The April 18, 1994 *Sponsorship Agreement* between the Province of Ontario (the Province or Government of Ontario) and Ontario Public Service Employees Union (OPSEU) documented the agreement between the Province and OPSEU (the Sponsors) to establish the Plan, with the Province and OPSEU as joint sponsors. The *Ontario Public Service Employees Union Pension Plan Act, 1994* enacted in June 1994 facilitated certain aspects of the agreement. The Plan's primary schedule (Primary Schedule) provides pension benefits for employees of the Province in bargaining units represented by OPSEU and certain other bargaining units and employers. Pursuant to a letter of agreement executed by the Sponsors on April 19, 2018, a second schedule 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 the October 25, 1994 *Agreement and Declaration of Trust* (the Trust Agreement). The Trust Agreement also established the 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 of Trustees and its employees is the OPSEU Pension Plan Trust Fund. The Plan, Trust Fund and Board are collectively referred to in these financial statements as OPTrust.

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* 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 may be 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 the best five sequential years 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*. In some cases, members may also receive a refund of contributions.

I. TRANSFERS

Under the Primary Schedule, members who transfer 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* 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.

Impact of COVID-19 on significant estimates

During March 2020, the World Health Organization characterized COVID-19 as a pandemic. COVID-19 has had an impact on global economies and markets in which OPTrust operates. As a result of COVID-19, adjustments have been made to inputs and considerations used to measure the fair value of OPTrust's investments. For assets where the impact from COVID-19 is prolonged, future cash flow assumptions are adjusted accordingly. For those assets where cash flow assumptions are not adjusted, the discount rate is elevated to capture the uncertainty with operating in the current climate. The ultimate impact of COVID-19 on OPTrust's financial results depend on future developments, including the duration and spread of the pandemic and related advisories and restrictions. If the impact of COVID-19 is for a period significantly longer than currently implied by the markets, the financial results of OPTrust, including the fair value of its investments, may be adversely affected.

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, banker's acceptances and certificates of deposits.

Government, Corporate and Real Return Bonds

Fair value is generally determined using market quotes between the closing bid and ask prices. 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.

Pooled and Hedge Funds

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

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.

Real Estate

Direct real estate investments are valued on an annual basis using appropriate valuation methodologies and management's best estimates for unobservable inputs, except where public market prices are available. Investments are externally appraised at least once every three years or more frequently for significant investments. Where an investment is not externally valued, it is valued internally.

For investments held through fund investments, fair value is based on the reported value of the external fund manager, who uses appropriate valuation methodologies in accordance with its own valuation policy to determine such value. Valuations are updated for any specific market and/or other investment factors known to OPTrust that could affect the fair value of the investment.

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.

Private Equity and Infrastructure

Direct private equity and direct infrastructure investments are valued on an annual basis using appropriate valuation methodologies and management's best estimates for unobservable inputs, except where public market prices are available. Investments exceeding a predefined threshold are externally valued at least once every three years or more frequently for significant investments. Where an investment is not independently valued, it is valued internally.

For investments held through fund investments, fair value is based on the reported value of the external fund manager, who uses appropriate valuation methodologies in accordance with its own valuation policy to determine such

value. Valuations are updated for any specific market and/or other investment factors known to OPTrust that could affect the fair value of the investment.

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, in determining fair value.

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 counterparties, 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 offset against 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 factors specific to the investment. The determination of an input's observability also requires considerable judgment.

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)	2020					2019				
	Level 1	Level 2	Level 3	Fair value	Cost	Level 1	Level 2	Level 3	Fair value	Cost
Fixed income										
Cash	352	—	—	352	352	351	—	—	351	351
Short-term investments	—	5,329	—	5,329	5,328	—	2,374	—	2,374	2,367
Government and corporate bonds										
Canadian ^a	—	3,731	—	3,731	3,383	—	8,229	—	8,229	8,014
Foreign ^a	—	60	—	60	57	—	933	—	933	953
Real return bonds										
Canadian	—	438	—	438	279	—	441	—	441	302
Foreign	—	917	—	917	837	—	618	—	618	624
	352	10,475	—	10,827	10,236	351	12,595	—	12,946	12,611
Public equity										
Canadian	49	—	—	49	39	33	—	—	33	36
Foreign	1,859	—	—	1,859	1,280	1,666	—	—	1,666	1,307
	1,908	—	—	1,908	1,319	1,699	—	—	1,699	1,343
Pooled and hedge funds	—	265	2,671	2,936	2,911	—	222	4,644	4,866	4,716
Real estate	21	—	3,168	3,189	2,796	16	—	3,075	3,091	2,524
Private equity	—	—	3,178	3,178	2,455	—	—	2,797	2,797	2,137
Infrastructure	—	—	2,620	2,620	2,068	—	—	2,405	2,405	1,756
	21	265	11,637	11,923	10,230	16	222	12,921	13,159	11,133
Investment-related assets										
Cash collateral pledged	46	—	—	46	46	58	—	—	58	58
Accrued income	3	24	—	27	27	5	39	—	44	44
Due from brokers	—	11	—	11	11	—	—	—	—	—
Derivative instruments	—	280	—	280	69	—	217	—	217	75
Resell agreements	—	1,417	—	1,417	1,422	—	486	—	486	490
	49	1,732	—	1,781	1,575	63	742	—	805	667
INVESTMENT ASSETS	2,330	12,472	11,637	26,439	23,360	2,129	13,559	12,921	28,609	25,754
Investment-related liabilities										
Cash collateral received	(223)	—	—	(223)	(223)	(124)	—	—	(124)	(124)
Due to brokers and other liabilities	(81)	—	—	(81)	(81)	(67)	—	—	(67)	(67)
Derivative instruments	—	(72)	—	(72)	(30)	—	(63)	—	(63)	(9)
Bonds sold short										
Canadian ^a	—	(60)	—	(60)	(58)	—	(158)	—	(158)	(159)
Foreign ^a	—	(48)	—	(48)	(50)	—	(233)	—	(233)	(238)
Repurchase agreements	—	(2,932)	—	(2,932)	(2,934)	—	(6,303)	—	(6,303)	(6,337)
	(304)	(3,112)	—	(3,416)	(3,376)	(191)	(6,757)	—	(6,948)	(6,934)
NET INVESTMENTS	2,026	9,360	11,637	23,023	19,984	1,938	6,802	12,921	21,661	18,820

^a Canadian government and corporate bonds (Fair Value \$158, Cost \$159) and Foreign government and corporate bonds (Fair Value \$233, Cost \$238) were previously disclosed under Fixed income assets in the prior year and are now disclosed as Bonds sold short under Investment-related liabilities.

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)	2020					2019				
	Pooled and hedge funds	Real estate	Private equity	Infra-structure	Total	Pooled and hedge funds	Real estate	Private equity	Infra-structure	Total
Balance, beginning of year	4,644	3,075	2,797	2,405	12,921	5,628	2,927	2,288	2,339	13,182
Net realized gains/(losses)	(150)	201	308	177	536	57	194	446	57	754
Change in unrealized gains/(losses)	(119)	(176)	58	(103)	(340)	77	(88)	10	99	98
Purchases	1,062	311	498	289	2,160	631	631	662	90	2,014
Sales/Redemptions	(2,766)	(243)	(483)	(148)	(3,640)	(1,749)	(589)	(609)	(180)	(3,127)
BALANCE, END OF YEAR^a	2,671	3,168	3,178	2,620	11,637	4,644	3,075	2,797	2,405	12,921

^a There were no transfers in nor out of Level 3 for the years ended 2020 and 2019.

C. SENSITIVITY TO CHANGES IN ASSUMPTIONS

Sensitivity information is available for direct investments in real estate and certain private equity and infrastructure investments and is presented in the table below. Sensitivity changes are not provided for certain 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	2020			2019	
		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%	1,362	(129)/144	1,403 ^b	(101)/115
Mortgages	Interest rate	+/- 0.25%	893	(11)/11	1,173	(11)/12
Private debt	Discount rate ^c	+/- 0.25%	227	(1)/1	N/A ^d	N/A ^d
Infrastructure	Discount rate ^c	+/- 0.25%	1,973	(45)/48	2,130	(45)/48
Private equity	EBITDA multiple ^e	+/- 10%	839	205/(205)	670	138/(138)

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

^b The 2019 fair value was restated for comparability with the current year due to change in presentation from gross asset value to net asset value.

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

^d Private debt disclosures are new in 2020 to expand the sensitivity information. As such, 2019 comparative is not available.

^e 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.

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.

Options

Options are contractual agreements under which the seller (writer) grants the purchaser the right, but not the obligation, either to buy (call option) or sell (put option) a security, currency or another financial instrument at a specified price at or by a future date. They may be acquired in standardized amounts on regulated exchanges or may be customized and acquired in the OTC market. OPTrust utilizes options to manage its directional and volatility exposures for both economic hedging and active investing.

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 for 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 or 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:

		2020			2019		
As at December 31 (\$ millions)		Notional amount	Fair value assets	Fair value liabilities	Notional amount	Fair value assets	Fair value liabilities
Interest rate contracts	Futures – long positions	2,998	—	—	148	—	—
	– short positions	1,757	—	—	70	—	—
	Options – long positions	1	4	—	10	10	—
	Swaps ^a	767	1	(6)	2,676	42	(40)
Equity contracts	Futures – long positions	1,842	—	—	797	—	—
	Options – short positions	3,030	—	—	—	—	—
	Swaps	287	8	—	—	—	—
Commodity contracts	Futures – long positions	1,508	—	—	548	—	—
	– short positions	11	—	—	12	—	—
Currency contracts	Forwards	11,211	125	(66)	7,145	77	(23)
Credit contracts	Credit default swaps						
	– long positions	139	—	(3)	438	—	(11)
	– short positions	1,529	145	—	1,040	99	—
TOTAL DERIVATIVES		25,080	283	(75)	12,884	228	(74)

^a Long and short positions for interest rate swaps were disclosed separately in 2019 and are now disclosed on an aggregate basis.

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

		2020					2019 ^a				
As at December 31 (\$ millions)		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		4,756	73	358	336	5,523	218	1,235	1,006	445	2,904
Equity contracts		5,159	—	—	—	5,159	797	—	—	—	797
Commodity contracts		1,519	—	—	—	1,519	560	—	—	—	560
Currency contracts		11,211	—	—	—	11,211	7,145	—	—	—	7,145
Credit contracts		—	1,668	—	—	1,668	—	1,478	—	—	1,478
TOTAL		22,645	1,741	358	336	25,080	8,720	2,713	1,006	445	12,884

^a Table was previously presented using fair values and is now being presented using notional values.

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)	2020			2019		
	Number of investments	Fair value	Cost	Number of investments	Fair value	Cost
Fixed income	9	2,306	2,149	17	5,402	5,176
Pooled and hedge funds	3	1,396	1,410	6	3,695	3,581
Infrastructure	2	1,250	735	3	1,425	937

As at December 31, 2020, 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 — Province of Ontario, Mizuho Bank, Bank of Nova Scotia, Government of Canada, The Fédération des caisses Desjardins du Québec and Bank of Tokyo-Mitsubishi UFJ Ltd.

Pooled and hedge funds — MAN FRM Bespoke Alpha LP, LFIS Vision Premia OPT Fund and PIMCO Multi-Strategy Credit Fund.

Infrastructure — Globalvia Infraestructuras, S.A. and Firelight Infrastructure Partners LP.

F. RISK MANAGEMENT

Investment Risk

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.

The management of these investment risks is addressed in OPTrust's *Risk Appetite Statement* and other management policies.

Investment risk includes the following types of 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

As at December 31 (\$ millions)	2020					2019				
	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	5,329	—	—	—	5,329	2,374	—	—	—	2,374
Government and corporate bonds	122	163	986	2,520	3,791	497	931	3,299	4,435	9,162
Real return bonds	—	—	9	1,346	1,355	—	—	—	1,059	1,059
Resell agreements	1,417	—	—	—	1,417	486	—	—	—	486
TOTAL	6,868	163	995	3,866	11,892	3,357	931	3,299	5,494	13,081

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 asset values for fixed rate securities (e.g. bonds, mortgages and bank loans). During periods of rising interest rates, the market value of the existing fixed income securities will generally decrease.

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.

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 \$747 million (2019 – \$1,199 million) respectively.

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:

(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. Currency risk is managed at the total OPTrust level. OPTrust 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.

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

As at December 31 (\$ millions)	2020			2019
	Gross exposure	Impact of derivatives ^a	Net exposure	Net exposure
Canadian Dollar	13,155	4,921	18,076	17,718
Foreign currency exposure				
United States Dollar	5,759	(4,239)	1,520	1,869
Japanese Yen	153	884	1,037	539
Swiss Franc	25	908	933	529
Indian Rupee	135	134	269	174
South Korean Won	187	77	264	178
Euro	1,631	(1,685)	(54)	(70)
Europe – other	403	(214)	189	71
Asia Pacific – other	1,184	(1,099)	85	54
Emerging Markets – other	391	313	704	599
	9,868	(4,921)	4,947	3,943
NET INVESTMENTS	23,023	—	23,023	21,661

^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 \$192 million change in net assets available for benefits as at December 31, 2020 (2019 – \$156 million).

As at December 31 (\$ millions)	Change versus Canadian Dollar	2020	2019
		Change in net assets available for benefits	Change in net assets available for benefits
United States Dollar	+/- 5%	+/- 73	+/- 89
Japanese Yen	+/- 5%	+/- 49	+/- 26
Swiss Franc	+/- 5%	+/- 44	+/- 25
Indian Rupee	+/- 5%	+/- 13	+/- 8
South Korean Won	+/- 5%	+/- 13	+/- 8
TOTAL		+/- 192	+/- 156

(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. 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.

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

As at December 31 (\$ millions)	Equity market ^a	Market index	Change in market index ^b	2020	2019
				Change in net assets available for benefits	Change in net assets available for benefits
Private	MSCI World Index	+/- 10%	+/- 10%	+/- 272	+/- 212
Developed	MSCI World Index	+/- 10%	+/- 10%	+/- 186	+/- 91
Emerging	MSCI EMF Index	+/- 10%	+/- 10%	+/- 141	+/- 123
TOTAL				+/- 599	+/- 426

^a Equity market is based on the portfolio mandates of the investment managers.

^b For 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.

(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 the commodity index:

As at December 31 (\$ millions)	Commodity market	Market benchmark	Change in market index ^a	2020	2019
				Change in net assets available for benefits	Change in net assets available for benefits
Gold	S&P GSCI Gold Total Return Index	+/- 10%	+/- 10%	+/- 133	+/- 54

^a The 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.

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.

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.

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

As at December 31 (\$ millions)	2020					2019				
	Short-term investments	Bonds	Resell agreements	Derivatives ^a	Total	Short-term investments	Bonds	Resell agreements	Derivatives ^a	Total
AAA/R-1 High	4,625	917	—	—	5,542	2,264	3,594	—	—	5,858
AA/R-1 Mid	286	2,066	635	23	3,010	—	1,544	240	3	1,787
A/R-1 Low	418	1,930	780	253	3,381	110	4,242	246	204	4,802
BBB/R-2 Low or lower	—	233	2	—	235	—	841	—	—	841
TOTAL	5,329	5,146	1,417	276	12,168	2,374	10,221	486	207	13,288

a Excludes exchange traded derivatives.

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 margins are now 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)	2020	2019
Derivatives		
Collateral received ^a	(219)	(122)
Collateral pledged ^b	485	156
Resell and Repurchase Agreements		
Associated receivable from resell agreements	1,417	486
Collateral received ^c	(1,420)	(485)
Associated liability from repurchase agreements	(2,932)	(6,303)
Collateral pledged ^c	2,948	6,320
Securities Lending Program		
Securities loaned	282	164
Collateral received	(305)	(175)

a Includes cash collateral received of \$(219) million (2019 – \$(122) million).

b Includes cash collateral pledged of \$44 million (2019 – \$2 million).

c Includes net cash collateral pledged/(received) of \$(2) million (2019 – \$54 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, 2020 and 2019. Similar arrangements include repurchase agreements, resell agreements, securities lending and any related rights to financial collateral.

	2020				
	Gross amounts of recognized financial instruments	Gross amounts of recognized financial instruments set-off	Related amounts not set-off in the statement of financial position		Net amount
Net amounts of financial instruments presented			Financial collateral (received)/pledged		
As at December 31 (\$ millions)					
Financial assets					
Derivative instruments	318	(38)	280	(219)	61
Resell agreements	1,417	—	1,417	(1,417)	—
Securities lending	282	—	282 ^a	(282)	—
TOTAL FINANCIAL ASSETS	2,017	(38)	1,979	(1,918)	61
Financial liabilities					
Derivative instruments	(110)	38	(72)	72	—
Repurchase agreements	(2,932)	—	(2,932)	2,932	—
TOTAL FINANCIAL LIABILITIES	(3,042)	38	(3,004)	3,004	—

	2019				
	Gross amounts of recognized financial instruments	Gross amounts of recognized financial instruments set-off	Net amounts of financial instruments presented	Financial collateral (received)/pledged	Net amount
As at December 31 (\$ millions)					
Financial assets					
Derivative instruments	234	(17)	217	(122)	95
Resell agreements	486	—	486	(485)	1
Securities lending	164	—	164 ^a	(164)	—
TOTAL FINANCIAL ASSETS	884	(17)	867	(771)	96
Financial liabilities					
Derivative instruments	(80)	17	(63)	63	—
Repurchase agreements	(6,303)	—	(6,303)	6,303	—
TOTAL FINANCIAL LIABILITIES	(6,383)	17	(6,366)	6,366	—

^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 11). 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 cash equivalents, 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:

	2020			
	Within 1 year	1 to 5 years	5 to 10 years	Total
As at December 31 (\$ millions)				
Cash collateral received	(223)	—	—	(223)
Due to brokers and other liabilities	(60)	(21)	—	(81)
Derivative instruments	(67)	(4)	(1)	(72)
Bonds sold short	—	(78)	(30)	(108)
Repurchase agreements	(2,932)	—	—	(2,932)
TOTAL	(3,282)	(103)	(31)	(3,416)

	2019			
	Within 1 year	1 to 5 years	5 to 10 years	Total
As at December 31 (\$ millions)				
Cash collateral received	(124)	—	—	(124)
Due to brokers and other liabilities	(44)	(23)	—	(67)
Derivative instruments	(23)	(20)	(20)	(63)
Bonds sold short	—	(297)	(94)	(391)
Repurchase agreements	(6,303)	—	—	(6,303)
TOTAL	(6,494)	(340)	(114)	(6,948)

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:

	2020			2019		
	Investment income	Net gain/(loss) on investments ^a	Net investment income/(loss) ^{b/c}	Investment income/(loss)	Net gain/(loss) on investments ^a	Net investment income/(loss) ^{b/c}
For the years ended December 31 (\$ millions)						
Fixed income						
Cash and short-term investments	40	(11)	29	68	(4)	64
Government and corporate bonds						
Canadian	190	601	791	124	371	495
Foreign	8	72	80	(3)	41	38
Real-return bonds						
Canadian	10	41	51	11	20	31
Foreign	6	135	141	4	47	51
	254	838	1,092	204	475	679
Public equity						
Canadian	1	10	11	1	2	3
Foreign	34	234	268	42	231	273
	35	244	279	43	233	276
Pooled and hedge funds	1	(278)	(277)	1	141	142
Real estate	95	(70)	25	138	(31)	107
Private equity	31	334	365	26	430	456
Infrastructure	104	(30)	74	37	118	155
Derivative instruments	—	419	419	—	464	464
	231	375	606	202	1,122	1,324
	520	1,457	1,977	449	1,830	2,279
Investment management expenses						
External manager fees			(11)			(11)
Transaction costs			(15)			(7)
			(26)			(18)
NET INVESTMENT INCOME			1,951			2,261

a Includes net realized gain of \$1,285 million and net unrealized gain of \$172 million in 2020 and net realized gain of \$1,113 million and net unrealized gain of \$717 million in 2019.

b Certain investment-related disbursements of \$40 million in 2020 (2019 – \$52 million) have been netted against net investment income/(loss).

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

5. Total Fund Net Return

Total fund net return is calculated using industry-standard time-weighted return on a daily frequency. Returns are calculated daily and linked geometrically to derive the annual total fund net return. Returns are calculated as percentage of income to the fair value of net assets during the period. Fair value is determined and income is recognized and measured as described in Note 2. The percentage returns for the years ended December 31 are as follows:

For the years ended December 31	2020	2019
Total fund net return	8.9%	11.2%

The total fund net return is net of all management and performance fees, external manager fees, transaction costs, investment-related disbursements, and investment administrative expenses.

6. 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	2020	2019
Inflation rate	2.00%	2.00%
Discount rate (real)	3.20%	3.20%
Discount rate (nominal)	5.20%	5.20%
Salary increases (nominal)	2.75%	2.75%

The discount rate is based on the long-term expected return of plan assets proposed by management and approved by the Board.

The inflation rate is based on the expected CPI rate increases.

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

Experience gains/(losses) of \$72 million (2019 – \$(29) million) on OPTrust's pension obligations are due to differences between actual experience and assumptions. The assumption change loss of \$42 million (2019 – \$1,195 million gain) on OPTrust's pension obligations is due to an increase in the provision for expenses.

The financial statement nominal discount rate remains unchanged at 5.20% as at December 31, 2020 to reflect current market conditions and return expectations.

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 2021, OPTrust is expected to file with the regulator, the December 31, 2020 funding valuation, as prepared by Willis Towers Watson, showing that the Plan is fully funded, and the next funding valuation will not be required to be filed until December 31, 2023.

7. 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 \$2,364 million as of December 31, 2020 (2019 – \$1,470 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 6. 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 2020 to revise the asset mix disclosure and to reflect regulatory changes.

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.

As at December 31	2020	2019
	% Potential reduction to funded status ^d	% Potential reduction to funded status ^d
Risk appetite statement scenario A ^a	16.0%	12.5%
Risk appetite statement scenario B ^b	13.2%	10.7%
Risk appetite statement scenario C ^c	11.3%	8.7%

- 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.

8. Contributions

For the years ended December 31 (\$ millions)	2020	2019
Members		
Current service ^a	248	247
Prior service	16	14
Long-term income protection ^b	14	15
	278	276
Employers		
Current service ^a	248	247
Prior service	7	7
Long-term income protection ^b	14	15
	269	269
Transfers from other plans	4	7
TOTAL CONTRIBUTIONS	551	552

- 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, 2020 employers' and members' contributions receivable were \$30 million (2019 – \$28 million) and \$22 million (2019 – \$21 million) respectively. OPTrust reconciles contributions for each employer on a member-by-member basis.

9. Benefits Paid

For the years ended December 31 (\$ millions)	2020	2019
Retirement pensions	893	852
Transfers to Public Service Pension Plan	82	42
Refunds, commuted value transfers and death benefits	82	82
Transfers to other plans	7	8
TOTAL BENEFITS PAID	1,064	984

10. Administrative Expenses

For the years ended December 31 (\$ millions)	2020	2019
Investment administrative expenses^a		
Administration	43	39
Professional services ^b	6	4
Custodial fees	1	1
TOTAL INVESTMENT ADMINISTRATIVE EXPENSES	50	44

For the years ended December 31 (\$ millions)	2020	2019
Pension administrative expenses^a		
Administration	29	30
Professional services ^b	3	2
TOTAL PENSION ADMINISTRATIVE EXPENSES	32	32

- a Includes corporate expenses.
- b Total professional services include external audit expense of \$504 thousand (2019 – \$469 thousand) and actuarial expense of \$397 thousand (2019 – \$402 thousand).

11. 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, which may be considered material. As at December 31, 2020, these commitments totaled \$2,453 million (2019 – \$2,322 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:

As at December 31 (\$ millions)	2020	2019
Investment commitments	2,453	2,322
Guarantees	410	168
Lease commitments	8	9
TOTAL INVESTMENT COMMITMENTS, GUARANTEES AND LEASE COMMITMENTS	2,871	2,499

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, 2020, 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.

12. Related Party Disclosures

In the normal course of business OPTrust purchased 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 the bonds as at December 31, 2020, was \$2,037 million (2019 – \$3,722 million). Investment income recorded on the bonds amounted to \$121 million for the year-ended December 31, 2020 (2019 – \$100 million).

In 2019, OPTrust entered a joint venture partnership with GWL Realty (GWL) in the ownership of its corporate headquarters, in the amount of \$118 million. In 2020, the amounts paid to the joint venture with GWL amounted to \$3 million (2019 – \$3 million).

13. 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 (\$ thousands)	2020	2019
Salaries, short-term employee benefits and termination benefits	5,752	10,644
Other long-term benefits	2,915	1,673
Post-employment benefits	1,392	571
TOTAL	10,059	12,888

Ten-Year Financial Review (Unaudited)

As at December 31 (\$ millions)	2020	2019	2018	2017	2016	2015	2014	2013	2012	2011
CHANGES IN NET ASSETS										
Changes due to investment activities	1,901	2,217	145	1,742	1,037	1,311	1,818	1,615	1,237	578
Changes due to pension activities	(545)	(464)	(498)	(497)	(391)	(393)	(289)	(368)	(235)	(192)
INCREASE/(DECREASE) IN NET ASSETS	1,356	1,753	(353)	1,245	646	918	1,529	1,247	1,002	386
NET ASSETS										
Investments										
Cash and short-term investments	5,681	2,725	3,406	3,332	2,417	1,460	2,750	2,275	2,251	2,296
Government and corporate bonds and debentures	3,791	9,162	6,285	5,573	4,227	3,854	2,001	1,629	1,887	2,201
Real return bonds	1,355	1,059	866	430	438	468	446	577	1,177	1,495
Bank loan notes	—	—	—	—	168	156	145	90	—	—
Public equity	1,908	1,699	1,425	2,318	3,422	5,497	5,738	5,749	4,664	4,213
Pooled and hedge funds	2,936	4,866	5,863	4,573	2,597	959	732	456	126	—
Real estate	3,189	3,091	2,927	2,823	2,884	2,857	2,394	2,167	2,148	1,802
Private equity	3,178	2,797	2,288	1,920	1,595	1,691	1,284	794	608	547
Infrastructure	2,620	2,405	2,476	2,136	2,065	2,350	2,055	2,337	1,852	969
Investment-related assets	1,781	805	324	481	132	108	154	151	149	265
	26,439	28,609	25,860	23,586	19,945	19,400	17,699	16,225	14,862	13,788
Contributions receivable	52	49	52	48	53	51	52	58	56	50
Other assets	9	8	11	5	4	5	4	5	5	6
TOTAL ASSETS	26,500	28,666	25,923	23,639	20,002	19,456	17,755	16,288	14,923	13,844
Liabilities										
Accounts payable and accrued charges	(38)	(28)	(39)	(44)	(49)	(54)	(78)	(69)	(64)	(64)
Investment-related liabilities	(3,416)	(6,948)	(5,947)	(3,305)	(908)	(1,003)	(196)	(267)	(154)	(77)
TOTAL LIABILITIES	(3,454)	(6,976)	(5,986)	(3,349)	(957)	(1,057)	(274)	(336)	(218)	(141)
NET ASSETS AVAILABLE FOR BENEFITS	23,046	21,690	19,937	20,290	19,045	18,399	17,481	15,952	14,705	13,703
Pension obligations	(20,682)	(20,220)	(18,453)	(18,265)	(17,316)	(16,756)	(15,937)	(14,958)	(14,189)	(13,499)
SURPLUS	2,364	1,470	1,484	2,025	1,729	1,643	1,544	994	516	204

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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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