Ontario Pension Board
2021 Annual Report

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Letter from the Chair

2021 was yet another challenging year. The pandemic, remote working, increasing demands and market volatility were just a few of the challenges OPB navigated in this past year. OPB staff responded by focusing on their commitment to provide excellent service, to protect the pension promise, and to deliver on critical initiatives that helped advance our long-term strategy.

OPB management and staff showed incredible resilience in meeting the challenges and identifying new opportunities to advance our vision as a premier pension delivery organization.

I should like to highlight a few of these key achievements:

We continue to receive very high client satisfaction scores from pensioners and employees. In 2021, we ranked #1 among pension plans by CEM, an external pension administration benchmarking firm.

Working with our investment manager, the Investment Management Corporation of Ontario (IMCO), we ended the year with a strong return of 9.4% (net of all expenses). While we are pleased with last year's results, the ongoing pandemic continues to introduce volatility into the market, and we expect the environment to remain challenging over the coming years.

Given the market volatility and outlook, plan sustainability was a key focus for the Board and management in 2021. We completed both our funding risk study and the asset liability study, enabling us to introduce a revised Strategic Asset Allocation (SAA). The studies helped us better understand the long-term risks, provided us with valuable information needed to manage the long-term sustainability of the Plan, and enabled us to set the investment strategies to mitigate these risks. More information about the Plan's funding and strategies can be found in the CEO's letter and the Funding section in the Management's Discussion & Analysis (MD&A) section.

As noted in my letter of last year, environmental, social and governance (ESG) has and will continue to be a strong focus for the Board and management as we continue to strengthen our practices in Responsible Investing (RI). We recognize there is more work to do, but we are pleased with the progress and momentum that occurred during the past year. We set out our Policy for ESG Investment Issues. We reviewed our ESG practices to develop a meaningful action plan and updated our Statement of Investment Policies and Procedures (SIP&P) to reflect our ESG investment beliefs. We are working closely with IMCO to ensure our policy and expectations shape their ESG strategy and priorities.

We know how critically important ESG is to our members. Our ESG commitment includes enhancing our communications to our members about the commitments we're making and how we're tracking against them. Our focus in 2022 will see us developing an ESG communications strategy to support this commitment.

We also recognize the urgency of addressing climate risk. We are committed to making progress in addressing climate change and investing in climate solutions. OPB and IMCO are founding signatories of the Canadian Investor Statement on Climate Change. IMCO has developed a robust climate strategy and Climate Action Plan to help it reach net-zero greenhouse gas (GHG) emissions by 2050 or sooner. More information about our progress on ESG can be found in the MD&A.

In the past year, we also made significant progress in the pension modernization program – a key strategic initiative that will, over the next five years, transform our business processes and technology to meet evolving client expectations. In 2021, we achieved two significant milestones, with the launch of modernized member and employer portals. OPB staff and management demonstrated that even in a very challenging year, they were able to deliver on this key strategic initiative. As the pension modernization program is a transformational initiative for the organization, the Board has put a robust oversight function in place to ensure the program advances on schedule and on budget. Mark Fuller speaks to our progress in more detail in his letter from the CEO.

Our third-party administration responsibilities have grown significantly over the past couple of years and, as a result, we've introduced a new Managed Plans Board committee. This was driven by the fact that we've taken on full administration for the Provincial Judges Pension Plan and the Retirement Compensation Arrangement (RCA) as well as administering benefits for existing TVO and Ontario Northland pensioners.

Overseeing enterprise risk management is a critical component of the Board's strategic function. To that end, we have worked closely with management over the past few years to help advance OPB's Enterprise Risk Management (ERM) maturity. In 2021, management further matured its risk management capabilities through the development of an ERM advancement plan that supports business resilience by facilitating informed risk-focused decisions and creating risk awareness across the organization.

We have continued our focus on ensuring a safe and inclusive work environment. The Board provides oversight on the development and progress on OPB's diversity, equity and inclusion (DEI) action plan. OPB holds DEI as core values, and we are committed to advancing initiatives which support these values.

We recognize that in an ever changing world, our Board needs to be committed to continuous learning. OPB Board members participate in ongoing learning opportunities on a wide range of subjects to further their knowledge and develop the governance expertise to support our oversight of strategic initiatives.

2021 was also a year of change on the Board. On behalf of the Board, I'd like to thank Elena Hagi and Michael Briscoe, two valued and respected Board members for their commitment to the Board and the valuable contributions they made during their tenure. I should also like to introduce and welcome our newest Board members:

- Geoffrey Melbourne is a partner and Wealth Canada Growth Leader with Mercer. He is an experienced pension actuary, retirement consultant and client relationship manager, and brings more than 30 years of experience advising clients on pension plan strategies, plan design and plan governance.
- Shawn Leis is the Executive Officer – Finance at Ontario Provincial Police Association (OPPA). He has a CPA designation as well as a master's degree in management. His career spans more than 25 years, including senior financial and operational leadership roles at several manufacturing companies, a sawmill distribution company, and a sub-prime automotive financing company.

In closing, on behalf of the Board, I want to express our thanks and appreciation to the OPB team. The Board is proud of the many achievements and successes, both operational and strategic, realized in a very challenging year. OPB's focus was again on the critical priorities, serving our clients, delivering on the pension promise, oversight of IMCO, and taking care of our people. This focus enabled us to advance our growth and modernization initiatives and identify key strategic priorities for the future.

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Chair

Letter from the President & CEO

OPB exists to deliver outstanding service to our pension plan members and stakeholders, and to protect the long-term sustainability of the Plan so it provides retirement security for generations to come.

Despite the pandemic and its lingering impacts through 2021, I am pleased to report that OPB was able to **Deliver Strong Results in Challenging Times**. Not only did we look after our colleagues and welcome new employees, but we provided industry-leading service to members, implemented critical new technologies, developed a new environmental, social and governance (ESG) policy for Plan investments, and strengthened our relationship with IMCO, our investment manager. With very good investment results this year, the financial health of the pension plan remains solid.

Supporting Health and Well-Being

Against the backdrop of COVID-19, the safety of our employees was a priority for OPB, and we worked to support their health and well-being. Throughout the year, OPB communicated with employees frequently on such topics as mental and physical health and resiliency. We reminded people of the need to refresh and recharge with vacation time, and introduced speakers and educational resources to help employees manage the pressures of family responsibilities and remote work. I, along with other leaders, shared messages reinforcing the need to focus on our individual well-being and support of one another.

Providing Exceptional Service

Across the board, our people continued to show incredible commitment. Working from their homes and faced with growing service demand, our employees rallied to deliver exceptional service to Plan members. Thanks to their efforts, OPB was ranked first for client service satisfaction among our national peers, and fifth among global peers in the annual survey by CEM, the established leader in pension administration benchmarking.

We remain the only defined benefit pension plan in Canada that employs in-house Certified Financial Planners (CFPs) to provide information and retirement planning advice to members to assist them in making sound decisions about their pensions. Our Client Care Centre staff are Registered Retirement Consultant (RRC) certified to equip them to answer incoming calls and general inquiries.

As we continued to update our technology, we launched modernized online portals for members and employers in 2021. These new platforms enhance security and will improve the member and employer experience, with new tools and more capabilities to come in the future. The portals are part of our larger multi-year modernization effort that will ensure OPB has the technology and business processes in place to support evolving stakeholder needs and expectations.

Keeping the Plan Sustainable

OPB's focus remains on the long-term sustainability of the Public Service Pension Plan (PSPP). We are driven to deliver superior service at an affordable cost, while always maintaining our focus on the financial health of the Plan. The Plan's funded status improved to an estimated 94%, up from 90% at the end of 2020. In addition, the Plan has accumulated a reserve (unrecognized asset gains and indexation reserve) estimated at $1,042 million.

We completed an asset liability (A/L) study, working closely with IMCO, and used the results to develop a new strategic asset allocation (SAA) plan. This is a key investment decision that remains the sole responsibility of OPB. The new SAA was approved by the Board in April 2021. It introduces new strategies designed to diversify the sources of the Plan's returns, which is expected to mitigate investment risk.

With assistance from our actuaries, OPB completed a funding risk study in 2021. The results of both of these studies gave us insight into the impact on the Plan of future economic, market and demographic risks.

Strong Investment Performance

The Plan's 2021 investment return was 9.4%, net of all internal and external expenses. The strong returns were primarily attributable to strong performance from Canadian and global equities as well as private equity. This was offset by negative returns from fixed income securities due to rising bond yields. These returns reflect the performance of the highly capable team of investment professionals that has been built at IMCO. We are pleased with the progress IMCO made on many fronts during 2021.

OPB and IMCO continued to work well together on many initiatives, including the development of OPB's updated SAA and efforts to advance our ESG agendas.

Acting on ESG Issues

We know that environmental and social issues, particularly climate change and the transition to a low-carbon economy, are of great interest to PSPP members and other stakeholders. We are committed to making significant and meaningful progress in this area, and are pleased to see IMCO release a four-pronged Climate Action Plan in 2021. We look forward to their progress in measuring and managing portfolio emissions and making sustainable investments.

Both organizations share a strong belief in the value of diversity, equity and inclusion (DEI). Advancing DEI is essential, both internally at OPB and in the entities in which we invest. We recognize that there is more to do, and we are committed to furthering DEI on behalf of our employees, clients and stakeholders. In 2021, we reviewed human resources programs and policies for potential barriers and gathered insights from our employees in an anonymous survey. Their personal and workplace experiences will help us develop a meaningful DEI plan. We intend to support and engage employees through a diversity council, which will help shape our approach to recruitment, and learning and development. We also communicated to IMCO our expectation that it focus on advancing DEI both internally and in the entities in which it invests on our behalf.

Growing Through Consolidation

We continued to implement our growth strategy to improve Plan demographics and reduce public sector pension administration redundancies. In 2021, we welcomed Agricorp and Ontario Health to the PSPP. Agricorp is a provincial government agency that delivers risk management programs and services to Ontario agricultural producers. Ontario Health is a government agency established in 2019 to co-ordinate partners across the health system, oversee healthcare delivery and strengthen capacities. OPB integrated Agricorp employees into our Plan as of May 1, 2021, a credit to the hard work and growing experience of our team. We began the onboarding process for Ontario Health employees, who joined the PSPP effective January 1, 2022.

Cost-Efficiency

In addition to improving Plan demographics, growing our membership helps to keep our operations cost-efficient in the long term, although it can increase demand for resources in the short term. We continue to closely manage and monitor our expenses. In 2021, our expense ratio, including all pension administration and investment expenses, both internal and external, was 0.55% (or 55 cents per $100 of average net assets available for benefits). This compares to an expense ratio of 0.50% in 2020. The year-over-year increase reflects the build out of IMCO's investment team and its internal infrastructure. It remains the case that, due to its scale, IMCO can implement our investment strategy at a lower expense ratio than we could investing on our own. Our costs are very competitive with our much larger public sector peers.

I would like to thank employees for their dedication and the Board of Directors for their guidance in 2021.

Mark Fuller
President & CEO

Management's Discussion & Analysis

OPB's vision is to be a premier pension delivery organization and a trusted advisor to all our stakeholders.

Introduction

At OPB, our primary objective is to effectively plan and efficiently manage the Public Service Pension Plan (PSPP or the Plan), so that we can deliver pension benefits as promised and the Plan remains affordable for our members and employers over the long term.

We are focused on providing unmatched service excellence to clients and managing the Plan to protect its sustainability, not just for our approximately 93,100 current members but for members well into the future. We are vigilant in managing the key risks facing the Plan, and we incorporate risk management in the oversight of our investment activities and in pension administration.

Pensions are funded through a combination of investment income and contributions made by members, employers and the Plan Sponsor.

IMCO manages Plan assets on a cost-recovery basis. As the administrator of the PSPP, and in line with our fiduciary duties, OPB continues to:

- own PSPP assets and be responsible only for PSPP liabilities;
- set our Strategic Asset Allocation (SAA) policy, which IMCO implements; and
- set our Statement of Investment Policies and Procedures (SIP&P), with which IMCO must comply.

As an agency of the Government of Ontario, OPB has an obligation to effectively manage costs. We operate within the objectives and guidelines on transparency established by the government.

This section provides management's analysis of how the Plan performed in the past year, its financial condition and its future prospects. This MD&A supplements the information provided in the financial statements.

Overview

Investment results: The Plan's one-year investment rate of return, net of all fees and costs, was 9.4% in 2021. Net assets grew to $33.8 billion at December 31, 2021, up from $31.0 billion the previous year. This result was primarily due to strong performance of Canadian and global stocks and private equity, which was partly offset by weak performance in government bonds. The 2021 investment return was net of investment expenses and also above our effective discount rate of 4.7%, which is the long-term investment return required to keep the Plan financially healthy.

Funding position: The one-year return and the rise in long-term bond yields helped to improve the funded status of the Plan to approximately 94% at the end of 2021, compared with 90% a year earlier. Year-to-year changes in the funded status are driven primarily by our investment return and the change in long-term Government of Canada bond yields. A funding risk study was completed in 2021 to update and enhance our understanding of the funding challenges the PSPP faces. OPB also completed an asset liability (A/L) study in 2021 and revised the SAA for the pension fund. The SAA is the key investment decision that is retained by OPB. The new SAA was approved by the OPB Board in April 2021. IMCO will implement the change to the asset allocations over a four-year period. **The Funding section that follows contains a detailed discussion of the Plan's funded status.**

Client service: Thanks to our employees' collective efforts, OPB achieved a service score of 87/100 from the benchmarking firm CEM Benchmarking (compared to 90/100 in 2020). That CEM Service Score ranked OPB first among its national peers and fifth among leading pension plan administrators from around the globe who participate in the CEM survey. This is a remarkable achievement given the COVID-19 disruption to our employees' and clients' lives.

Pension modernization and growth: OPB launched modernized online service portals for members and employers, as planned. These portals provide enhanced functionality and a more secure experience for clients, and we will continue to add tools and features to both portals over time. We added two new participating employers in 2021 as part of our growth strategy. We successfully integrated Agricorp employees into the PSPP and prepared to welcome Ontario Health employees on January 1, 2022.

Health and well-being: As the COVID-19 pandemic persisted and new variants emerged, the health, safety and well-being of our employees and clients remained paramount. Employees continued to work from home through the year and remained focused on providing exceptional services. To support new employees we onboarded remotely, we focused on helping them foster strong relationships with their leaders, teams and colleagues.

FUNDING

The funded status of a pension plan, in simple terms, compares the value of pension assets with the present value of projected future pension benefit payments, or liabilities. If assets exceed liabilities, the plan is said to be in a surplus position. If liabilities exceed assets, the plan is in a shortfall position.

OPB completed a funding risk study as well as an A/L study in 2021.

The goal of a funding risk study is to identify the primary risks to the long-term funding of the Plan and options that could be taken to mitigate those risks. The purpose of an A/L study is to determine whether the risk/return profile of OPB's investments is optimal and whether the

Plan's asset mix is the optimal match with its liabilities, and to identify any adjustments that could better optimize the asset mix.

Following the A/L study, we developed a new Board-approved SAA for the pension fund. Our investment manager, IMCO, will implement the changes under the new SAA over a four-year period.

The results of these studies gave us insight into the impact on the Plan of future economic, market and demographic risks.

Funding Calculation

Under the *Pension Benefits Act* (PBA) funding rules applicable to single-employer pension plans that became effective in 2018, movements in long-bond yields have a more pronounced impact on Plan liabilities than they did in the past. According to the PBA, we must first calculate Plan liabilities without any margin in the discount rate, and then add an explicit reserve, called a Provision for Adverse Deviations (PfAD). This provision is based on our target asset mix and the yields of the Government of Canada long bonds on the valuation date.

This makes the Plan's funded status more volatile, as it is driven to a significant extent by changes in spot rates for Canada long-bond yields from one valuation date to the next.

In both 2019 and 2020, with material declines in long-bond yields at year-end, our liabilities increased substantially under the PBA methodology.

In 2021, that trend reversed. Long-bond yields rose during 2021 causing a decline in the PfAD. That, combined with strong investment returns, improved the Plan's funded ratio to an estimated 94% at December 31, 2021, compared to 90% in 2020.

What We Did	Why It Matters
Reviewed results of the A/L study and adjusted the SAA as a result.	The new SAA includes strategies intended to deliver the investment returns needed to protect the long-term health of the Plan.
Reviewed results of the funding risk study and developed a funding management plan, including advanced metrics to manage risks.	A deep understanding of risks and advanced metrics will help OPB maintain a close watch over trends affecting the Plan's projected assets and liabilities.

Managing Funding Risk

With high valuations in many asset classes, such as public equities, private equity and infrastructure, it is prudent to assume that the Plan's assets will earn more modest returns over the next several years.

To keep the Plan sustainable over the long term, we must ensure it can withstand periodic downturns in investment returns and demographic challenges, such as continued improvements in members' lifespans. At OPB, we regularly update our assumptions to reflect actual experience. We then use that information to carefully manage elements of Plan funding that are within our control or the Plan Sponsor's control – namely, investment asset mix, contribution levels and pension benefits – to avoid significant shortfalls.

We work to minimize funding risk by:

- performing funding scenario and data analysis, including stress testing;
- regularly reviewing the strategic asset mix to improve expected investment returns, manage investment risk, and achieve an appropriate matching of our investments and liabilities;
- pooling assets through IMCO, our investment manager, to improve net investment returns, gain economies of scale, attract skilled talent, and enhance risk management and cost-efficiency; and
- implementing our consolidation strategy to maintain or improve Plan demographics and economies of scale.

In 2021, we developed a more advanced set of performance indicators to manage the funding risk to the Plan.

We continually monitor the adequacy of contributions to the Plan and recommend contribution increases as appropriate. The most recent increase took effect in April 2019.

Asset mix is a critical driver of investment returns and risk. At OPB, our SAA sets out the Board's target investment allocations (weights) to each major asset class. The targets are developed with the intention of meeting the Plan's long-term funding objectives while effectively managing investment risk through diversification across several asset classes.

OPB developed a new SAA in 2021 to ensure that the target mix is appropriate for the coming years, given projected future liabilities. The Board approved the SAA in April 2021. IMCO will implement the changes to the allocations over four years.

The SAA includes an allocation to Public Market Alternatives (PMA), which diversifies OPB's source of returns, and adds portfolio leverage, which is intended to reduce volatility and risk. Both decisions are aimed at improving risk-adjusted returns. Like the previous SAA, the revised asset mix provides for a continued, gradual reduction in the proportion of public market assets in favour of a greater weighting in private and alternative assets.

Key Assumptions

Effective pension plan management involves careful and prudent asset management and appropriate funding and design of the Plan over the long term. OPB adheres to a robust funding policy, which guides decisions around Plan design, funding and valuation assumptions.

In conducting funding valuations, some of the key analyses and assumptions we make in consultation with our actuaries include:

- the discount rate;
- expected interest and inflation rates;
- the projected number of member retirements;
- members' age at retirement; and
- member life expectancy.

DISCOUNT RATE

The discount rate is a key assumption used to calculate the present value of the future pensions expected to be paid by the Plan (the liabilities). A pension payment that is expected to be made in 20 years is "discounted" back to today's dollars at the discount rate. Over the long term, investment returns on the Plan's assets must equal or exceed the discount rate – otherwise, the cost of the pension will grow faster than the value of the assets, which produces a shortfall.

Changes to the discount rate impact the Plan's projected liabilities: a lower discount rate means higher Plan liabilities, and vice versa. By extension, the discount rate affects the Plan's funded status, and therefore can influence decisions about contribution rates and pension benefits.

Setting a realistic discount rate is a critical aspect of managing the long-term financial health of a defined benefit pension plan. We use a rigorous process to establish our "best estimate" of the discount rate, by considering reasonable expectations for investment returns, the current economic environment and outlook, plus a cushion for unanticipated events (known as a margin).

Using the valuation methodology required by our pension regulator, the funded status of the Plan has become much more directly sensitive to movements in long-term Government of Canada bond yields.

For 2021, our long-term inflation assumption and nominal discount rate have increased slightly from 2020. The long-term inflation assumption, based on the inflation underlying long-term Government of Canada bond yields, has increased from 1.75% to 1.80%. The nominal discount rate has increased from 5.40% to 5.50%. The effective nominal discount rate, after considering the impact of the PfAD, is 5.05%, resulting in an effective real discount rate (which is the effective nominal discount rate less our long-term inflation assumption) of 3.25%. This compares to 3.0% for 2020.

MEMBERS ARE LIVING LONGER

The most important demographic challenge facing the Plan is that members are living longer and collecting their pensions for longer periods.

For example, a 62-year-old member who retired in 2002 would be expected to receive their pension for 21.4 years. However, by December 2021, a member retiring at the same age would be expected to receive their pension for 26 years – an increase of 4.6 years.

We closely monitor demographic trends in our membership and may adjust our funding assumptions, or recommendations for changes to Plan design and funding, to ensure that the Plan remains financially healthy.

FINANCIAL POSITION

OPB conducts actuarial valuations of the Plan on a regular basis. The actuarial valuation for funding purposes is used to ensure there are sufficient assets to meet the Plan's pension obligations. It is also used to determine contributions to the Plan. The funding valuations provide a best estimate of the Plan's accrued pension liabilities and are performed by an independent actuary appointed by OPB's Board of Directors.

In determining the surplus or deficit position of the Plan for financial reporting purposes, OPB uses the latest actuarial valuation for funding purposes and extrapolates the pension obligations to the financial statement date.

Valuation Type	Purpose and Description
Funding basis	Pension plans are legally required to file a funding valuation with the Financial Services Regulatory Authority once every three years. In 2020, OPB filed an actuarial valuation of the Plan as at December 31, 2019. For purposes of the funding valuation, asset gains and losses relative to the discount rate are smoothed over a three-year period. The funding shortfall of $2.1 billion that existed at the end of 2019 is being amortized by special payments by the Plan Sponsor. The December 31, 2019 actuarial valuation for funding purposes and the December 31, 2020 valuation for financial statements both assumed an inflation rate of 1.75%. For the December 31, 2021 financial statements, the inflation assumption was increased to 1.80%, with an indexation reserve included for short-term inflationary impacts. As a result, other related assumptions in 2021, such as salary increases, and increases in the Year's Maximum Pensionable Earnings (YMPE) and *Income Tax Act* maximum pension, were also adjusted upward by 0.05%. The nominal discount rate used for the year-end financial statements was increased by 0.10% from 5.40% as of December 31, 2020, to 5.50% as at December 31, 2021. After considering the impact of the PfAD, the effective real discount rate went from 3.0% at the end of 2020 to 3.25% at the end of 2021.

Valuation Type	Purpose and Description
Financial statements	For the purpose of the financial statements, the Plan's liabilities were calculated as at December 31, 2020 and extrapolated to December 31, 2021. For financial reporting purposes, we have calculated the Plan's 2021 year-end financial position by comparing the extrapolated liability with the actual market value of assets as of December 31, 2021. The financial statements funding ratio increased to an estimated 97% compared to 90% in 2020. The estimated shortfall was $852 million, compared to $3.46 billion at the end of 2020. The primary difference between the funding ratio in the financial statements (97%) and the funded status (94%) is that smoothing is not applied to the financial statement results.

INVESTMENTS

The Plan's pension obligations drive OPB's long-term investment strategy. Since 1990, approximately 71% of pension payments have come from investment income, so strong investment returns are critical to the long-term health of the Plan.

OPB's strategic long-term approach to investing is shaped by two key objectives:

1. securing and maintaining the pension benefits promised to members; and
2. maintaining affordable contribution rates for members and participating employers.

IMCO, as our sole investment manager since 2017, invests OPB's investment portfolio in accordance with OPB's overarching investment policies, including our SIP&P and SAA.

Outsourcing investment management to IMCO provides us with best-in-class advice around portfolio construction, cost-efficient access to a diverse range of asset classes, and superior reporting on investment risks and returns. It has also enabled OPB to sharpen our focus on serving existing and new Plan members.

Investment Roles and Responsibilities

OPB	IMCO
Owns Plan assets and is responsible for Plan liabilities.	Manages Plan assets for a fee based on cost recovery (i.e., not for profit).
Sets SAA, considering Plan funding and cash-flow needs.	Manages investments in accordance with OPB's SAA, investment policies and other contractual requirements.
Monitors IMCO's investment performance with respect to the SAA, investment policies and other contractual requirements.	Regularly reports on investment performance and risk management to OPB.

Strategic Asset Allocation

Asset mix is the single most important driver of investment performance. At OPB, asset mix is broadly defined in our SAA, which sets out the Board's target investment allocations (weights) to each major asset class.

The SAA targets are developed with the intention of meeting the Plan's long-term funding objectives while effectively managing investment risk through diversification across several asset classes.

After completing the A/L study, OPB decided to make certain changes to our SAA to ensure that the asset mix is appropriate for the coming years, given projected future liabilities. The Board approved a new SAA and implementation plan in 2021, with changes planned over four years.

NEW ASSET MIX AT DECEMBER 31, 2021

In our new SAA, OPB made an initial allocation to PMA, which diversifies OPB's source of returns. The PMA strategy seeks to enhance the risk-adjusted expected returns by providing exposure to alternative risk premiums and active investment mandates that offer low correlation with public market equities. We also decided to incorporate portfolio leverage in the new SAA which, together with other changes in the SAA, is intended to reduce volatility while maintaining the expected returns that the plan needs to remain sustainable. Both decisions are aimed at improving risk-adjusted returns.

The changes in the asset allocation will be implemented over four years. The table on the next page illustrates the Plan's target asset allocations at the end of that four-year period, compared to the policy weights in the most recent SAA as at the end of 2020.

SAA IMPLEMENTATION PLAN

Asset Class	2020	2024
Portfolio Leverage	0.0%	(10.0%)
Money Market	3.0%	0.0%
Long Government Bonds	17.0%	12.0%
Real Return Bonds	5.0%	12.0%
Global Credit	0.0%	13.0%
Canadian Public Equities	7.5%	2.5%
Global Public Equities	14.0%	13.0%
EM Public Equities	12.5%	5.5%
Real Estate (net of real estate debt)	21.0%	15.0%
Infrastructure	11.5%	14.5%
Private Equity	8.5%	12.5%
Public Market Alternatives	0.0%	10.0%
Total	**100%**	**100%**

Monitoring

OPB has an ongoing program to monitor IMCO's investment performance and assess how well IMCO is meeting its responsibilities and obligations to OPB.

An Investment Management Agreement (IMA) governs the investment management relationship between IMCO and OPB and focuses largely on investment-related matters. A Service Level Agreement (SLA) sets out a framework for dealing with matters such as the content and frequency of reporting, and the service levels IMCO is expected to meet. An Implementation and Support Agreement (ISA) deals with operating and governance matters such as IMCO corporate policies, asset pool development, budgeting and cost management.

While minor modifications have been made to these documents as IMCO has taken the necessary steps to transfer Plan assets into structured pools, the key elements remain unchanged.

The monitoring program helps to assure OPB management and Board members that IMCO is prudently managing Plan assets and investment risk on behalf of OPB and its members, in accordance with all relevant investment strategies and policies.

Collaboration with IMCO

We have developed a strong relationship with IMCO since the organization began managing Plan assets in 2017.

IMCO was created, in part, to manage public sector assets in Ontario, with a professional investment team and world-class governance, and it is still actively growing and evolving toward that goal with several clients and over $70 billion in assets under management. We continue to see progress in IMCO's capabilities. We have open dialogue with IMCO executives, and OPB's Investment Committee receives regular updates from IMCO on key investment and operational developments.

In September 2021, IMCO hired a new Chief Investment Officer, Rossitsa Stoyanova, replacing Jean Michel. Ms. Stoyanova was previously the Managing Director and Head of Portfolio Design & Construction at CPP Investments Board. IMCO's investment, risk management, and operations teams continued to grow, adding experienced individuals.

IMCO launched three additional asset pools during the year: the Global Public Equity and Emerging Markets Public Equity pools, and the PMA pool. IMCO's scale and growing capacity enable it to eliminate duplications, introduce operational efficiencies, and develop relationships and expertise that will provide value over the long term for all stakeholders.

IMCO made substantial progress on ESG and climate change strategies in 2021, which are covered in detail in the Responsible Investing section of this report.

We worked closely with IMCO on our most recent A/L study, which was undertaken starting in 2020 to identify an optimal SAA for OPB given current demographic and capital market conditions. IMCO also provided significant input into the implementation plan for the planned changes to our SAA over the coming years. The A/L study projected the Plan's assets and liabilities under numerous economic and capital markets scenarios and modelled several investment portfolios with varying risk and return characteristics. The process gave OPB a full understanding of the range of investment strategies available to the Plan and their expected returns and risks.

Investment Highlights

OPB's investment portfolio earned a one-year net return of 9.4%. Overall, we consider this a good result, given the market volatility throughout the year, ongoing economic uncertainties related to COVID-19, and concerns about inflation that arose late in 2021.

Some asset classes, such as Canadian and global public equities and private equity, performed very well and posted double-digit returns. Other assets, such as fixed income, struggled in 2021 as central banks in developed markets began to withdraw pandemic-era stimulus measures, and bond market participants began to price in the impact of interest rate increases.

The inverse relationship between bond prices and yields meant that, although fixed income assets dropped in value in 2021, bond yields rose. The increase in yields also has the effect of reducing the present value of the Plan's liabilities.

In real estate, OPB has significant exposure to retail and office properties, and these real estate assets partly rebounded in 2021, after poor performance in 2020 due to pandemic lockdowns and shop closures. Other real estate segments, such as apartments and industrial properties, fared much better, and OPB was rewarded for its new investments in these property types. IMCO closed a US$325 million (approximately C$400 million) commitment to the Breakthrough Life Science Property Fund, which is developing and assembling a portfolio of life science properties in leading technology centres throughout the United States, starting in Boston.

In other private market asset classes – private equity, infrastructure, and private credit – IMCO is focusing on building relationships and investing with a select number of strategic external fund managers. IMCO made new commitments to strategic partners and funds in 2021, along with a number of direct co-investments.

In private equity, for example, IMCO closed approximately C$2.4 billion in transactions in 2021, adding four strategic partners and completing eight direct equity and co-investment deals. In global credit, IMCO added private direct lending to the portfolio through a US$500 million (approximately C$600 million) investment with Antares Capital LP and a US$500 million investment with Ares Management Corporation; both are new strategic partners. IMCO's infrastructure team closed the 100% acquisition of Pulse Clean Energy (formerly Green Frog Power Ltd.), a U.K. developer of flexible power generation projects.

Both OPB and IMCO made significant progress in advancing RI and addressing ESG issues during 2021. OPB developed and approved a new ESG Policy, while IMCO developed a robust climate action strategy. Both organizations became signatories to investment initiatives designed to improve DEI and accelerate action on climate change. The Responsible Investing section of this report provides details of these activities.

Investment Activities	Why It Matters
Portfolio delivered a net investment return of 9.4% in 2021 and a five-year compounded annual return of 7.6%. Since inception in 1990, our rate of return stands at 8.1%.	OPB's diversified portfolio has performed well over the long term and supports Plan sustainability.
Worked closely with IMCO to develop a new SAA, which IMCO will implement over four years.	OPB is adding new strategies to diversify the sources of investment returns and reduce volatility.
IMCO launched three new asset pools, covering public equities and PMA.	IMCO continues to implement its mandate: pooling assets of multiple clients to achieve economies of scale, provide access to a diverse range of direct investments, and derive other benefits.
IMCO made new commitments and investments in private equity, real estate, global credit and infrastructure.	These types of assets are expected to help generate the long-term returns required to pay future pensions.
IMCO made a commitment to net-zero GHG emissions in the portfolio by 2050 or sooner and developed its climate strategy and Climate Action Plan.	Climate change presents both a systemic investment risk and opportunity. IMCO integrates the impacts of the transition to a low-carbon economy and the physical impacts of different climate outcomes into the investment process.

RESPONSIBLE INVESTING

We believe that companies and investment managers who effectively address ESG issues, including climate change, are more likely to improve shareholder value over the longer term – which in turn helps pension plan members.

What's more, failure to identify and mitigate ESG issues may hurt long-term investment performance. It is increasingly important to PSPP members that ESG factors are considered and integrated into the investment decisions made on their behalf.

OPB's increased focus on RI reached a milestone achievement in 2021, with approval of a new Board-approved ESG Policy. This governing document articulates our expectations with respect to ESG, provides structure around governance at OPB, and indicates our direction. It further articulates our investment beliefs around ESG issues, including climate risk.

OPB regularly monitors IMCO's performance including its progress on ESG issues and activities.

We recognize that ESG matters, including climate change, are important to Plan members and other stakeholders. OPB is committed to enhancing our communications to members on our ESG Policy and activities.

Responsible Investing Governance

The *Ontario Pension Benefits Act* requires OPB and other pension plan administrators to establish a SIP&P that contains information about whether ESG factors are incorporated into the Plan's investment policies and procedures and, if so, how those factors are incorporated.

OPB's SIP&P includes our investment beliefs, which includes a statement that ESG factors should be integrated into the evaluation of an individual security, asset or external investment manager.

OPB has delegated the responsibility for considering all ESG factors to IMCO – including climate change and DEI – when managing the fund's investments.

As part of the governance regime, OPB has an ESG Policy, which was approved in 2021 and articulates how OPB addresses ESG issues, including climate change.

We expect IMCO to not only integrate ESG considerations into the investment process, but also to influence investee companies through engagement and shareholder voting to improve corporate practices and to avoid investments with problematic ESG issues. We expect IMCO to consider divesting from investments where insufficient action is taken to address those issues.

OPB engaged an ESG advisor in 2021 to assist on a range of ESG issues including the creation of our ESG Policy.

OPB's Board and Investment Committee receive continuing education on ESG and climate risk, review progress on ESG issues and activities, and meet with IMCO to review and discuss their performance.

Environmental, Social and Governance Issues

As an asset owner, OPB is a member of the UN-supported Principles for Responsible Investing (PRI), which commits us to supporting and implementing those principles and submitting comprehensive reporting on all our ESG activities to PRI annually. OPB submitted its first set of data to the PRI in 2021, which is required of asset-owner signatories.

OPB joined the Responsible Investment Association (RIA) and the 30% Club Canada in 2021. The RIA is an investment industry association where members share best practices and promote responsible investment in Canada's investment marketplace while the 30% Club Canada encourages board chairs and chief executive officers (CEOs) to achieve better gender diversity at the board and senior management levels. Its mission is to achieve at least 30% representation of women on all boards and C-suites globally.

Along with IMCO, we are a signatory to the RIA's Canadian Investor Statement on Diversity & Inclusion. As such, we encourage Canadian public companies to lead in global efforts to address systemic inequities by advancing diversity and inclusion efforts and enhancing transparency and accountability. We also challenge our own institutions to advance diversity and inclusion of underrepresented individuals within our organizations.

Also, in partnership with IMCO, we became a founding signatory of the RIA's recent Canadian Investor Statement on Climate Change, signed by 35 institutional investors managing more than $5.2 trillion in assets. As such, we will take specific actions outlined in the statement to support the goal of achieving global net-zero emissions by 2050 or sooner.

Environmental, Social and Governance at IMCO

IMCO has a Responsible Investing Policy that incorporates ESG beliefs and includes four pillars: Integration, Stewardship, Sustainable Investing and Screening. Additional detail on each pillar is provided below:

1) **Integration** – IMCO integrates material ESG risks and opportunities in the investment processes to support and enhance its investment analysis and decisions. It has developed guidelines that outline how ESG considerations are integrated across all asset classes, including the evaluation, selection and monitoring of external managers.

2) **Stewardship** – IMCO actively monitors and engages with external managers and companies on ESG matters and collaborates with peers and investor organizations. Since DEI can contribute to better idea generation and outcomes, IMCO encourages DEI practices among its managers and investee companies. Proxy voting is an important component of stewardship. IMCO's Proxy Voting Guideline sets out expectations in priority areas – increasing board diversity, addressing climate change risk, and improving governance on sustainability risks.

3) **Sustainable Investing** – IMCO invests in sustainable, long-term ESG opportunities that contribute to investment returns and have a positive impact on the environment and society.

4) **Screening** – IMCO developed an ESG screening guideline in 2021 to align its investment decisions with its core values and risk criteria. The guideline addresses which investments are ineligible to be included in portfolios. Investments in the following are excluded:

   - entities sanctioned under Canada's *Special Economic Measures Act* or the *United Nations Act*;
   - companies involved in the production of controversial weapons such as antipersonnel landmines, cluster munitions, and chemical, biological, and nuclear weapons;
   - companies that manufacture firearms and small arms ammunitions for civilian markets;
   - companies involved in the operation of for-profit prisons and detention centres; and
   - companies involved in the production of tobacco products.

Climate Change

OPB management and the OPB Board of Directors recognize the importance and urgency of environmental issues. Climate change is an unprecedented global threat.

When investing the Plan's assets, environmental factors, including those related to climate change and the transition to a lower-carbon economy, are key considerations. It is increasingly important to PSPP members that climate change considerations are included in the investment analysis and decisions made on their behalf.

OPB and IMCO are founding signatories of the RIA's Canadian Investor Statement on Climate Change. We recognize that climate change presents a major threat to long-term growth and prosperity, and that there is an urgent need to accelerate the transition towards an economy with net-zero GHG emissions. Transitioning to a net-zero economy requires carbon-emission reductions across all sectors. IMCO also became a founding participant of Climate Engagement Canada, which aims to drive investor and corporate collaboration towards a net-zero economy.

IMCO has developed a climate strategy and Climate Action Plan to help it reach net-zero GHG emissions by 2050 or sooner. On behalf of its clients, including OPB, IMCO is currently completing its emissions baseline, which it expects to publish in 2022. IMCO has committed to disclosing climate risks aligned with the Task Force on Climate-related Financial Disclosure (TCFD) recommendations beginning in 2022.

OPB and IMCO believe that engagement with companies and policymakers is a more effective and longer-lasting strategy to drive value and, ultimately, real change. IMCO is committed to using its influence and scale to engage with managers and partners to advocate for net-zero aligned investments, policies, and regulations.

Examples of activity in 2021 that reflect the commitment to advancing the climate strategy are as follows:

- IMCO began transforming Pulse Clean Energy (formerly Green Frog Power Ltd.), an acquisition made in 2021, into a clean energy platform. One of the first actions was to replace diesel fuel in current generators with biodiesel to reduce GHG emissions and environmental harm;
- IMCO made a significant commitment to the Brookfield Global Transition Fund, one of the largest funds focused on investing in the global transition to a net-zero economy; and
- IMCO engaged extensively with an energy company to develop a Paris Agreement-aligned business plan, targeting carbon neutrality by 2050 and a reduction in emissions of 50% by 2025, compared to a 2019 baseline. IMCO also voted in favour of the company procuring 100% of electricity from renewable sources, which was ultimately approved by the company.

We recognize that a transition to a net-zero economy will involve a major transformation of sectors and industries. We encourage all companies and stakeholders to facilitate a just transition that does not leave workers or communities behind. We also support a transition to a net-zero economy informed by Indigenous perspectives that supports Indigenous economic opportunities and encourages business practices that align with the principles of the United Nations Declaration on the Rights of Indigenous Peoples.

Climate Risks

OPB recognizes the urgent need to address climate change to support our mission to deliver sustainable pension security for all PSPP members.

The risks and impacts of climate change on specific markets, regions, communities, and investments are complex, dynamic and uncertain. The value of financial assets could be impacted by the physical effects of climate change (known as physical risks) and by an adjustment toward a net-zero economy (known as transition risks). There will also be investment opportunities in a range of assets and companies, as the world transitions and develops climate solutions.

As noted earlier, OPB has an ESG Policy and addressing climate risk in investment activities is a prominent part of the policy. For example, it includes OPB's expectations around IMCO's progress and achievement towards net-zero GHG emissions as well as progress towards comprehensive TCFD reporting.

IMCO is committed to engaging with managers and partners to advocate for net-zero aligned investments, policies and regulations. IMCO's Proxy Voting Guideline outlines its expectations and principles on climate change.

IMCO has also signed onto the Paris Aligned Investment Initiative (PAII) and has committed to setting targets for reducing emissions and increasing investment in climate solutions, consistent with the 1.5°C temperature goal of the Paris Agreement.

IMCO has a four-part climate action strategy. The components include:

- **Capital deployment:** investing in climate positive and transition investment opportunities, with an emphasis on investments supportive of a lower-emissions portfolio;
- **Asset ownership:** supporting joint industry action on climate change and developing an engagement strategy that establishes clear expectations and requirements when engaging with fund managers and management teams;
- **Portfolio management:** assessing climate risk and opportunity in the due diligence processes. IMCO has also conducted scenario analysis and is establishing baselines for its portfolio and operational emissions; and
- **Climate guardrails:** establishing limits for high-emission sectors to minimize exposure to investments incompatible with a net-zero economy, while supporting assets with a viable transition path.

Complementary Approach to Responsible Investing

OPB's RI Activities	IMCO's RI Activities
Our SIP&P articulates investment beliefs relating to ESG issues and delegates responsibility to IMCO to consider all ESG factors in managing the fund's investments. OPB actively monitors IMCO's execution.	IMCO integrates ESG considerations into investments on our behalf and reports regularly on its RI activities.
The OPB Board approved a new ESG Policy in 2021. The policy sets out OPB's approach to ESG issues, including climate change, and our expectations around progress on ESG matters by IMCO.	IMCO has a Responsible Investing Policy and a climate strategy. It engages with companies directly and with peers to encourage better performance on ESG factors, such as climate change and greater diversity on corporate boards.
As an asset owner, OPB is a signatory of the UN-backed PRI. We gain access to global resources, a network of peers and best practices.	As an asset manager, IMCO is also a PRI signatory. The PRI is an important forum for working with other investors globally.
OPB is a founding signatory of the RIA Canadian Investor Statement on Climate Change.	IMCO is also a founding signatory of the RIA Canadian Investor Statement on Climate Change. IMCO has developed a climate strategy and Climate Action Plan to help it reach net-zero GHG emissions by 2050 or sooner. IMCO is calculating its emissions baseline and has committed to making comprehensive climate-related financial disclosures.
OPB believes that engagement with companies and policymakers is a more effective and longer-lasting strategy to drive value and, ultimately, real change.	IMCO, on behalf of clients including OPB, is committed to using its influence and scale to engage with managers and partners and advocate for net-zero aligned investments, policies and regulations.

PROXY VOTING

OPB views proxy voting as an important tool to encourage companies to provide adequate disclosure to shareholders relating to ESG factors, policies and initiatives. Voting proxies at shareholder meetings enables investors to convey their views to the board of directors and management of public companies.

IMCO, on OPB's behalf, exercises voting rights for securities owned by OPB, in accordance with its Proxy Voting Guideline and Responsible Investing Policy. IMCO reports proxy voting results to OPB.

In 2021, IMCO published its new Proxy Voting Guideline, which made significant changes to reflect the raised expectations on climate change and DEI. For example:

- IMCO expects companies to commit to a net-zero target by 2050 or sooner, set science-based reduction targets, and disclose climate information in line with the TCFD.
- IMCO expects a minimum of 30% of the board to be represented by women, which aligns with the 30% Club Canada's objective to achieve a minimum of 30% of women on boards and at the executive level by 2022.

In 2021, IMCO voted on OPB's behalf at 1,956 public company meetings in 54 markets. On OPB's behalf, IMCO voted against the management recommendation for 9% of agenda items at shareholder meetings. This included election of directors and advisory votes on executive compensation, among other items. IMCO supported 323 shareholder proposals including climate risk disclosure, diversity, human rights risk assessment, and board effectiveness.

INVESTMENT PERFORMANCE

Our one-year net return in 2021 (net of external investment management and custodial fees and OPB's operating expenses) was 9.4%. This result was primarily due to the performance of investments in Canadian equities, global equities and private equity. This was offset by weaker performance in mid-term and long-term fixed income securities.

The 2021 investment return was also above our discount rate, which is the long-term investment return identified by the Plan's actuary that is required to keep the Plan financially healthy.

RATES OF RETURN

OPB's one-year, five-year, 10-year and since-inception compounded annual rates of net investment return for the period ending December 31, 2021 are as follows:

	1-year	5-year	10-year	Since 1990
Total Fund return	9.4%	7.6%	8.2%	8.1%
Benchmark return	7.8%	7.7%	7.8%	7.9%

Note: Total Fund returns are net of all Plan administration and investment management expenses.

Since pensions are accrued and paid out over decades, pension plans need to take a long-term perspective. Since the PSPP is a very mature Plan, we have a lower risk appetite than some other pension plans. Our investment approach (implemented by IMCO) emphasizes capital preservation. Our objective is to generate stable, long-term investment returns within an acceptable risk framework by minimizing unrewarded risk, reducing total risk, using fundamental research and analysis to make investment decisions, and sourcing diversified investment opportunities that provide predictable cash flow.

On a 10-year basis, our compounded annualized return of 8.2% has exceeded the portfolio benchmark return by 0.4%.

Asset Class Returns and Benchmarks

The aggregate performance of all asset classes determines our overall Plan return.

We provide a comparison of the 2021 versus 2020 asset class returns on the next page. The rates of return are net of all private markets' investment fees and public markets' external investment management fees, including IMCO's management fees, custodial costs, and all of OPB's internal operating expenses. These fees, costs and expenses amounted to 0.55% in 2021, compared to 0.50% in 2020.

The benchmarks are defined in IMCO's investment policy statements and enable us to determine the value added by active investment management.

		2021		2020	
Asset Categories	Benchmark	**Actual**	**Benchmark**	Actual	Benchmark
Cash and Equivalents	FTSE Canada 91-Day T-Bill	**0.4%**	**0.2%**	1.4%	0.9%
Government Mid-Term Fixed Income	FTSE Canada Mid Government Bond	**-2.9%**	**-3.1%**	9.7%	9.7%
Government Long-Term Fixed Income	FTSE Canada Long Government Bond	**-4.9%**	**-5.1%**	12.2%	12.1%
Inflation-Linked Bonds	Custom Benchmark	**3.8%**	**3.7%**	10.6%	12.1%
Global Credit	Custom Benchmark	**5.7%**	**1.4%**	12.6%	6.1%
Canadian Equities	S&P/TSX Composite Index	**25.0%**	**25.1%**	2.9%	5.6%
Global Equities	MSCI World ex-Canada Index (C$)	**21.5%**	**20.6%**	16.5%	13.9%
Emerging Markets Equities	MSCI Emerging Equity Index (C$)	**0.3%**	**-3.4%**	17.0%	16.2%
Public Market Alternatives	Custom Benchmark	**-0.4%**	**-3.5%**	9.2%	10.2%
Real Estate	Custom Benchmark	**12.9%**	**5.8%**	-19.2%	-10.1%
Infrastructure	Custom Benchmark	**12.4%**	**21.7%**	6.4%	-10.1%
Private Equity	Custom Benchmark	**20.9%**	**14.8%**	36.0%	9.3%

Fixed Income Investments

Government Fixed Income – We invest in fixed income assets to diversify the overall OPB portfolio, and hold government fixed income assets primarily to provide liquidity and offset the changes in the value of the Plan's liabilities. In 2021, the Government Fixed Income portfolio, which includes nominal and inflation-linked bonds, provided a one-year return of -2.9% for Government Mid-Term Fixed Income (9.7% in 2020), -4.9% for Government Long-Term Fixed Income (12.2% in 2020), and 3.8% for inflation-linked bonds (10.6% in 2020). The year-end market value at December 31, 2021 was $7.0 billion, versus $6.6 billion at the end of 2020.

Global Credit – These assets are invested in a globally diversified portfolio of public and private credit securities. Investing in these assets gives OPB the ability to capitalize on market opportunities while seeking to gain exposure to a wide range of credit strategies. In 2021, the Global Credit portfolio returned 5.7% on a currency-hedged basis (12.6% in 2020), with a year-end market value of $2.8 billion ($1.8 billion in 2020).

IMCO made notable global credit investments during the year, including:

- An investment with Antares Capital LP that forms the foundations of the direct lending component of the global credit strategy. It aims to build a diverse portfolio of sponsor-backed loans in the middle-market, focusing on U.S. and Canadian borrowers; and
- A commitment with a new strategic partner, Ares Management Corporation, which will provide timely access to an actively managed, diversified multi-strategy credit portfolio. The partnership will enable exposures across a range of public and private credit market segments.

Public Equities

We invest in public equities to enhance long-term returns. Public equities are expected to generate higher returns than the Fund benchmark return over the long term. There are three main components to the portfolio:

- The **Canadian equity portfolio** had a return of 25.0% in 2021, compared to a return of 2.9% in 2020. The year-end market value of the portfolio was $1.9 billion, compared to $3.4 billion at the end of 2020;
- The **Global equity portfolio** generated a return of 21.5% in 2021, compared to 16.5% in 2020. At year-end 2021, the portfolio had a market value of $5.3 billion, compared to $5.1 billion a year earlier; and
- The **Emerging Markets equity portfolio** return was 0.3% in 2021, compared to 17.0% in 2020. As of December 31, 2021, the portfolio's market value was $3.6 billion, compared to $4.4 billion at year-end 2020.

OPB's public equity performance in 2021 was driven by strong relative returns (i.e., compared to the relevant benchmark performance) in the Emerging Markets equity portfolio, which exceeded its benchmark by 372 basis points, and the Global equity portfolio, which outperformed the benchmark by 87 basis points. The Canadian equity portfolio posted the strongest absolute returns for 2021 and performed in line with the portfolio's benchmark.

Public Market Alternatives

Until 2021, the Fund had only a minor investment in PMAs, which was managed with a straightforward investment strategy. However, in the updated SAA, a sizeable allocation was made to the PMA strategy. The initial component of this allocation was invested at the end of 2021.

The new PMA strategy is more actively managed by IMCO, and provides exposure to a range of alternative risk premiums and active investment mandates that offer low correlation with public market equities. The 2021 return of -0.4% noted in the table above reflects only a short period of time in the actively managed strategy. The year-end market value of the PMA portfolio was $1.1 billion.

Real Estate

The Fund invests in real estate in order to obtain strong cash-flow generation, relatively stable returns, and a partial hedge against inflation. These characteristics are a good match for the Plan's long-term pension liabilities.

OPB's Real Estate portfolio is made up of:

- direct and indirect holdings in quality Canadian office and retail properties;
- direct and indirect holdings in international real estate; and
- a modest investment in mortgages.

Real estate results are presented net of financing. OPB has previously issued private bonds to finance the addition of high-quality real estate assets that generate cash flows. The Real Estate portfolio returned 12.9% in 2021, on a currency hedged basis, compared to a negative return of -19.2% in 2020.

In 2021, while retail real estate continued to be impacted by mandated shutdowns and capacity limits, valuations stabilized. The OPB office portfolio, with a predominance of high-quality properties in Toronto and Vancouver, saw improvement over the prior year. Recent investments in the industrial and multi-family residential sectors performed well in 2021. Overall, portfolio returns were mainly driven by valuation gains in new strategic investments, partially offset by lower-than-budgeted income from retail assets.

As of December 31, 2021, real estate assets composed 15.1% of OPB's total investment portfolio, compared to 13.2% in 2020. At year-end, OPB also had commitments to acquire an additional $1.7 billion in real estate funds and co-investments, compared to approximately $1.6 billion a year earlier.

The market value of the real estate portfolio at year-end 2021, net of the market value of the bonds issued by OPB to finance a portion of the cost of the Canadian rental properties acquired since 2012, was $5.1 billion, compared to $4.1 billion a year earlier.

IMCO closed on a commitment to the Breakthrough Life Sciences Property Fund, which aims to develop and assemble a portfolio of Class A life science properties in leading technology centres throughout the United States. The fund's first investment includes the proposed development of Enterprise Research Campus at Harvard University in Boston.

Infrastructure

OPB's infrastructure portfolio consists of investments in assets that provide an essential service to the regions in which they operate, such as telecommunications, transportation and utility assets. Infrastructure assets are attractive because they provide predictable and ongoing cash flow, stable returns during periods of equity market volatility, and some degree of inflation protection. Over the long term, these characteristics provide a good hedge against the Plan's pension liabilities.

The portfolio is diversified with respect to revenue source, geography and industry sector. On our behalf, IMCO invests in infrastructure directly, alongside infrastructure funds or strategic partners, and through external managers.

On a currency hedged basis, the infrastructure portfolio generated a 2021 return of 12.4%, compared to 6.4% in 2020. The portfolio generated $228 million in income during the year, with a year-end market value of $2.8 billion, up from the market value of $2.6 billion at the end of 2020.

The one-year return was driven by positive performance across many sectors, particularly with a strong recovery in energy and transportation investments.

Notable new investments during the year included the acquisition of Pulse Clean Energy (formerly Green Frog Power Ltd.), a leading developer, owner and operator of flexible generation and storage projects in the U.K. The acquisition reflects IMCO's commitment to the low-carbon energy transition. IMCO was also an initial investor in the Brookfield Global Transition Fund, which is focused on the global transition to a net-zero economy. The fund will scale clean energy and invest capital to spur carbon-intensive businesses to align their operations with the Paris Agreement.

Private Equity

Private equity consists of investments in private companies or entities that are not publicly traded on a stock exchange. Private equity returns are generated principally from capital appreciation over the midterm to long term. Private equity is not as liquid as public equities, and returns are expected to be higher to compensate for the added liquidity risk. With OPB's long-term investing horizon, private equity is an important source of diversification.

Our private equity portfolio returned 20.9% in 2021, compared to 36% in 2020. The portfolio had a year-end value of $3.5 billion, compared to $2.5 billion at the end of 2020.

The portfolio growth over the year was led by increases in net capital contributions and fair market value increases, offsetting unfavourable currency movements.

IMCO made a number of direct private equity transactions as well as commitments to private equity funds during the year. They included:

- eight new co-investments or direct investments, the largest of which was a direct investment alongside Kohlberg and Company LLC (Kohlberg), including acquisition of OB Hospitalist Group, the largest dedicated obstetric hospitalist group in the United States;
- a commitment to KKR's North American private equity platform, which pursues primarily control investments in upper middle-market, large capitalization companies and platform buildups, as well as growth equity investments in the industrials, technology, media, telecom, consumer, healthcare and financial services sectors;
- a commitment to Ardian, one of the leading European private equity fund managers based in France that is also a leader in sustainable investing. Ardian's buyout fund makes control investments in European middle-market companies focused primarily on healthcare, food, technology, and services. IMCO also completed two co-investments alongside Ardian in 2021; and
- a commitment to GI Partners, a North American middle-market private equity firm that aims to pursue control-oriented investments in the healthcare, IT infrastructure, services and software sectors. IMCO also co-invested alongside GI in the acquisition of Valet Living, which provides amenity services to multi-family properties in the United States; a commitment to Peloton, a Canadian-based private equity firm focused on control and minority investments in North American middle-market businesses in the financial services, healthcare services and consumer sectors.

Investment Risk Management

A carefully negotiated legislative, regulatory and contractual framework clearly lays out IMCO's duties, responsibilities and obligations to OPB as well as OPB's governance and investment-related rights. Under this framework, OPB sets the investment strategy and IMCO implements it.

Our agreement with IMCO states that IMCO will manage investment risk in accordance with the *Pension Benefits Act*'s standard of care and best practices for Canadian public sector managers.

Investment risk management is integrated into the investment activities and decision-making process at IMCO and is overseen by its Chief Investment Officer and Chief Risk Officer (CRO). The CRO is expected to provide strong, independent risk management leadership within IMCO, and oversees IMCO's investment risk and enterprise risk management functions, including all risk modelling and management systems as well as risk-related research.

OPB's Chief Investment Officer and Investment Committee have regular dialogue with IMCO about the investment risks pertaining to OPB's investment portfolio. These include traditional portfolio risks (interest rate, liquidity, credit, etc.) as well as material ESG risks, including climate-related risks.

Investment Outlook

For several years, we have expressed caution about the ability to continue to earn strong investment returns because asset valuations have been elevated (compared to historical norms). While 2021 produced strong overall returns, we remain cautious about the outlook for capital markets.

At the beginning of 2022, equity markets began to pull back in anticipation of interest rate increases and in response to the Russian invasion of Ukraine. The key issues OPB is concerned about are a rising interest rate environment, a prolonged stretch of markedly higher inflation, high valuations for assets such as equities, the unfolding response to the climate crisis, and the geopolitical situation, particularly in eastern Europe and between the U.S. and China.

Changes in interest rates and inflation affect both the fund's assets as well as how the liabilities are determined. For example, rising interest rates generally mean the Plan earns a lower or negative return on our fixed income assets, but on the other hand, rising rates usually result in a decrease in the cost of the Plan's liabilities.

However, the other key issues noted above are more likely to present challenges for the value of the Plan's assets that aren't offset by a change in the liabilities. We continue to believe that having a well-diversified portfolio is the best way to mitigate the potential downside effects. That is one of the reasons why OPB's new SAA has added a new strategy, PMA. The returns from this strategy are intended to be uncorrelated with public market returns.

Over the long term, OPB's investment portfolio has posted a strong 10-year annual compounded return of 8.2%.

Our investment manager, IMCO, monitors and plans for a wide range of potential economic and market scenarios.

SERVICE EXCELLENCE

We believe that delivering on the pension promise goes beyond simply paying pensions and processing transactions. No matter what events are unfolding in the world, we offer the information, services and tools our 93,100 members need to make sound pension decisions in the context of their unique financial needs and retirement goals.

As the COVID-19 pandemic continued, with variants emerging through 2021, we were able to deliver strong results in challenging times. It was critical to maintain pension services to plan members without disruption, while ensuring the safety of employees as well as clients. Our employees continued working remotely, providing services by phone, email, secure video conferencing and mail. Pension payments were made on time through the year, and we introduced a new member portal that significantly improves the online experience while offering greater cybersecurity.

Our ranking from CEM, a leading global pension benchmarking organization, is a testament to the commitment and effort of our team. Even as staff neared the second year of working from home, and in the face of steadily growing demand for the services we provide, our team delivered exceptional service and garnered high rankings.

Our overall client service score, as measured by an independent external survey firm, remained very high at 8.8 out of 10, the same level as in 2020. This is remarkable, given the additional legislative, compliance-related and modernization initiatives that we implemented, the new Plan members we welcomed, and the fact that we were recruiting and onboarding new employees through the year. We appreciate that, even under stressful COVID-19 conditions, OPB remained focused on service excellence and meeting our clients' needs.

What We Did	Why It Matters
Earned a total service score of 87 out of 100 from CEM Benchmarking, ranking OPB first among Canadian peer pension plans (up from second in 2020) and fifth globally for excellence in service and pension administration.	We are consistently recognized as a world-class service leader, while operating efficiently and managing a more complex plan than many peers.
Launched our modernized client portal on a new web platform, enhancing accessibility, online security and service options for members.	Enhancing digital and online services for members enables convenient access to the information, tools, and services client's needs to make sound pension decisions.
Met virtually with 3,782 members in advisory sessions to help them navigate key pension decisions.	Despite the pandemic, we continued to provide expert, unbiased advice on how pension benefits fit into members' larger financial picture.
Client satisfaction with our advisory services remained high at 8.8 out of 10.	Our advisory services model distinguishes us from other pension plans, and our members recognize the additional value we provide.
Answered 98% of client calls within 30 seconds. Managed a 57% increase in retirement transactions and a 35% increase in services to transfers.	We are committed to maintaining world-class service to members, even as Plan membership grows.
Received an employer satisfaction survey score of 8.5 out of 10 in 2021, compared to 8.7 in 2020.	Our strong partnerships with employers help ensure that we have the information and data we need to provide excellent member service.

Client Service

At OPB, we take pride in delivering exceptional service to our clients, at a reasonable cost. We offer a wide array of proactive services to support clients when there are changes in their life and career, as well as personalized advisory services that are tailored to each member's unique financial and retirement circumstances.

In addition to providing information and advice about pension decisions, and processing transactions such as buybacks and retirements, our employees completed a number of special initiatives during 2021.

We provided the first Annual Pension Statement (APS) for provincial judges as part of our third-party administration for the Provincial Judges Pension Plan. The APS gives members a better understanding of their pension entitlement so they can plan more effectively for their retirement.

OPB worked through the year to convert the existing Public Service Supplementary Benefits Account to an RCA, effective January 1, 2022. This brings the PSPP into alignment with other major pension plans, improves pension portability, and allows members to deduct contributions in the year they are made. OPB will be the administrator of the RCA and trustee of the RCA trust fund.

As we continued to grow by consolidating other public sector pension plans, we welcomed Agricorp and Ontario Health employees as new members. Agricorp is a provincial government agency that delivers risk management programs and services to Ontario agricultural producers. Ontario Health is a government agency established in 2019 to co-ordinate partners across the health system, oversee healthcare delivery and strengthen capacities. OPB smoothly integrated Agricorp employees into our Plan as of May 1, 2021, a credit to the hard work and growing experience of our team. We also prepared for the onboarding process for Ontario Health employees, who joined the PSPP effective January 1, 2022. Adding new members helps OPB to maintain or improve Plan demographics and reduce public sector pension administration redundancies.

We measure our service by two key metrics: our CEM Benchmarking Service Score and ranking, and our client satisfaction survey score. Both metrics indicate that we continue to deliver outstanding service, despite the enduring pandemic challenges.

- Our CEM Service Score was 87/100, compared to 90/100 the prior year. CEM ranked us first among our Canadian peers and fifth among its universe of leading global pension plan administrators who participate in the CEM survey.
- Our overall client satisfaction score, as measured by an independent external survey firm, was steady at 8.8 for 2021. Our employer satisfaction score stood at 8.5, compared to 8.7 in 2020.

We saw changes in the demand for various types of transactions in 2021. For example, we managed a 57% increase in enrolment transactions, a 15% increase in estimate requests, and a 35% increase in plan-to-plan transfers. Pensioner service, termination and retirement client transactions all returned to normal levels in 2021. Our total call volume increased by 7% from 2020, to the highest call volume seen since 2017, likely due to increased client engagement in support of the member portal launch. We continued to respond quickly to Client Care Centre calls, with 98% of calls answered within 30 seconds.

ADVISORY SERVICES

At OPB, we feel strongly about the importance of retirement and financial literacy. We have provided advisory services for our members since 2015. These services are very popular with members, as reflected in the increasing demand for meetings with our advisors, and are also attractive to prospective and current provincial employees.

We still lead the industry in being the only defined benefit (DB) pension plan that employs in-house experts with the Certified Financial Planner (CFP) designation. Our Advisors help members make informed decisions about their pensions. In 2021, they helped more than 3,700 members to understand their pension decisions within their broader financial and life circumstances. Demand for advisory services rose 11% from 2020.

Feedback from members who have used our advisory services and tools continues to be very positive: almost two-thirds of our members (69%) continued to rate their satisfaction with their OPB Advisor as 9 or 10 out of 10, and 77% indicated their Advisor provided them with valuable insights they hadn't considered.

We also have Registered Retirement Consultant (RRC) certified staff in our Client Care Centre providing front-line support for incoming calls and general inquiries. RRC is a program offered by the Canadian Institute of Financial Planning.

EDUCATION AND FINANCIAL LITERACY

OPB's client education sessions originally focused on informing members about the Plan and its benefits. In recent years, our education efforts have evolved to help members improve their retirement knowledge and financial literacy.

We provide tailored financial and retirement planning sessions designed to get members engaged earlier in retirement planning. Our broader education efforts include comprehensive financial advisory workshops for members in the early, middle and late stages of their career.

In 2021, as the pandemic persisted, we continued to offer webinars instead of in-person advisory workshops. We hosted a total of 93 presentations that reached 4,207 members, compared to 54 member presentations that reached 3,145 members in 2020.

We worked with peer pension plans across Canada to develop and launch a financial literacy video. The short, animated video, entitled *What's Important*, was released on YouTube in November to mark Financial Literacy Month. The objective was to raise awareness about how DB pension plans work, and how individual member decisions can affect future retirement security. The video highlighted key facts about things such as commuted value and the implications of leaving a DB plan, so that members can make informed pension decisions. The video aimed to combat messaging from some investment organizations that were encouraging members to withdraw the commuted value of their pension, without providing necessary and important context.

We continued to offer advisory articles in our newsletters and website through the year to help active and retired members better understand personal finance topics.

DIGITAL AND ONLINE SERVICES

As part of our multi-year pension modernization program, we successfully launched our updated online portals in 2021: one for employers, and a new member portal with updated services and tools such as a pension estimator, improved accessibility features, and a more secure login process. Members can now select their preferred communication method for annual pension statements or retired member statements – exclusively online, or by mail.

Behind the scenes, we improved security for both portals. This entailed updating the application security with stronger and more modern tools and coding approaches as well as multi-factor authentication (MFA) on portals. We also further enhanced our disaster-recovery capacity.

We continued to see elevated use of our digital and online services as more members sought information and conducted self-service transactions.

Prior to the relaunch of e-services in November 2021, more than 67% of active members and 54% of retired members were registered for e-services. As part of the new MFA process for securely accessing the portal, members were instructed to reregister to access e-services.

Our e-services traffic jumped 67% to its highest level in 2021, driven in part by relaunch of the portal, with more than 145,700 logins, compared to 87,300 in 2020. Approximately 23% of e-services logins were from a mobile device, up from 20% in 2020.

In 2021, we procured a new, mobile-responsive and cloud-based email marketing tool for member e-alerts. This software provides us with a responsive and accessible channel for communicating with members, with advanced analytics capabilities.

Employee Engagement and Well-Being

OPB was able to deliver exceptional service, in part because we continued to pay attention to the physical and mental well-being of all employees in 2021. We made sure that they had the supports needed to work effectively away from the office, including access to mental health and well-being resources.

We communicated regularly with employees on topics such as vacation reminders, ergonomics, mental and physical health, resiliency, and topics related to children, family and elder care. We shared resources to support mental health and overall well-being in May, coinciding with Mental Health Week. These resources covered mental, physical and emotional health as well as links to our Employee and Family Assistance Program, and other insured benefits, services and supports. OPB held an all-staff wellness session and hosted guest speakers, sharing informational materials after the sessions. Our President & CEO reinforced the need to focus on our individual well-being and support for one another.

Employee engagement and the broader employee experience is measured through pulse surveys, new hire check-ins and other feedback mechanisms. In our 2021 employee engagement survey, our scores consistently demonstrated positive results, including an overall participation rate above 97%; overall job, team and organizational engagement measures above 85%; and many other engagement-driver measures well into the 90th percentiles.

Closely aligned with OPB's Vision 2025 and Strategic Plan is our commitment to fostering a workplace culture of diversity and inclusion, where employees feel connected and supported. We believe in continuous, incremental improvement, and support innovation through collaboration and professional development.

DIVERSITY, EQUITY AND INCLUSION

Diversity, equity and inclusion are core values for OPB, and we recognize that they are absolutely necessary if we are to deliver on our vision. Building a DEI workplace makes us a stronger, more agile and more successful organization.

We recognize that there is more to do, and we are committed to furthering DEI for our employees, clients and stakeholders.

In 2021, we continued our ongoing efforts to bring greater DEI into the fabric of OPB. We took the following steps:

- asked employees in our anonymous engagement survey to share information about their backgrounds, identities and experiences of our workplace to help us develop a meaningful plan that supports all employees;
- engaged employees in learning opportunities to enhance understanding about how to better support and serve our clients and one another;
- worked with external experts to deliver programs and training on issues such as unconscious bias and gender and sexuality, supporting employees in understanding the importance of pronouns to gender identity and inclusive service, and encouraging the use of personal pronouns in their email signatures;
- developed a better understanding of the organizational resources required to support initiatives and projects, including those related to DEI;
- shared information and resources on topics and dates of significance, such as the National Day for Truth and Reconciliation;
- continued to provide quarterly reports to the Board on how we are furthering education and our focus/progress on DEI initiatives;
- provided DEI updates and education to the Board;
- communicated with employees on DEI through town halls; and
- included diversity considerations in our efforts to recruit and retain top talent, knowing that being a great workplace for everybody is the best way to attract and keep great people.

Our President & CEO signed BlackNorth's CEO pledge against anti-Black systemic racism, and we partnered with organizations such as the Canadian Association for Urban Finance Professionals, and the 30% Club Canada, which encourages greater representation of women on company boards and in senior management. We continued to progress in our commitments to the BlackNorth CEO pledge. As part of our efforts, we reviewed existing HR programs and policies to identify and remove barriers.

Looking ahead, we will seek to support and engage employees through a diversity council, whose insights and recommendations will help shape our approach to recruitment, learning and development, and ensure DEI initiatives resonate with our employee base.

Our investment manager, IMCO, endorses the Responsible Investing Association of Canada's Canadian Investor Statement on Diversity & Inclusion, which commits institutional investors to address systemic racism and inequities in the investment industry. IMCO is also a member of the 30% Club Canada.

Pension Modernization

Pension modernization is a multi-year business transformation and risk mitigation program that will enhance our data security and improve our clients' experience. The COVID-19 pandemic accelerated what was already a priority transition toward digital services.

Our client experience initiative is a significant portion of the pension modernization program. It involves rebuilding our pension administration business processes and IT systems to deliver a more modern and efficient digital/online service experience and to provide our staff with the tools required to do their jobs more efficiently. This initiative aligns with the Ontario government's Digital First service delivery strategy. Modernization requires an investment in human and financial resources, and the returns on this investment will be improved operational effectiveness, improved security, and the modern services Plan members want and deserve.

In 2021, we launched enhanced online service portals for members and employers. The previous platforms for our member services portal and the employer portal were outdated, first-generation approaches and technologies. As the digital "front door" of OPB, they had to be updated to reduce the risk of cyber breaches and the possibility of platform instability or failure, and they needed to be fully accessible in order to meet our *Accessibility for Ontarians with Disabilities Act* (AODA) compliance requirements.

The new employer portal has improved efficiency for participating employers and our internal users, and provides employers with some improvements they asked for, including the ability to reset their own passwords and reassign messages within their organization. The new member portal was designed with feedback from members, and features an improved user experience, a modern pension-estimate tool, improved accessibility, and a more secure method to log in.

We improved security for both portals by updating the application security with stronger and more modern tools and coding approaches, and the portals offer MFA. We also further enhanced our disaster-recovery capacity.

We used a new development and deployment approach with the portals, which paid off with a faster introduction and implementation of service/security improvements, and a rapid response to addressing challenges. Now that OPB has launched the modern portals, we will turn our focus to adding new features and capabilities to meet the growing needs of our members and employers. In 2022, we will begin the design and strategic thinking stage in preparation for developing an updated pension-entitlement calculator. Moving to one calculation engine will ensure that clients and staff get a consistent result regardless of which pension calculator they are using, reduce manual effort and eliminate process inefficiencies. It will also provide the scale and agility to handle multiple plans and complex rules.

Outstanding Stakeholder Relations

OPB works closely with the Plan Sponsor to ensure that it has the information needed on issues to make decisions that impact the Plan. We also conduct regular and ongoing discussions with bargaining-agent groups to keep them informed about the health of the Plan and emerging trends and issues, and to ensure they understand the value of the Plan.

We believe DB plans are the most effective approach in achieving retirement income while still being affordable to both employers and employees. We also believe that, as an attractive part of a total compensation package, DB plans can help public sector employers attract and retain key talent.

We undertake advocacy efforts through:

- direct OPB submissions to government, regulators and employee groups;
- partnerships with our peer plans on matters of mutual concern; and
- collaboration with industry organizations, such as the Association of Canadian Pension Management and the Ontario Bar Association.

OPB recognizes the value that a strong retirement system has for all Canadians. In 2021, we worked with peer plans to enhance members' financial literacy by creating a video that promotes the importance of financial security in retirement and educates viewers on some of the key components of a DB plan.

In 2021, we also:

- delivered 93 member presentations to 4,207 participants around Ontario;
- continued to provide members with information about the value of their pension, Plan provisions, and key decision points through our website, newsletters and interactions;
- held our annual Agency Forum online (roundtable meeting with employer representatives), where we discussed pension-related topics; and
- facilitated 18 employer training sessions.

We recorded **227,290** visits to OPB's public website in 2021, compared to 196,700 visits in 2020. 32% of website visitors accessed OPB.ca via smartphone or tablet versus 28% in 2020.

Overall transactions through the employer portal rose to 11,288, compared to roughly 10,000 transactions conducted in 2020.

FINANCIAL MANAGEMENT

OPB is committed to efficient management and to offering value-added service at a cost-effective price. As an agency of the Province of Ontario, we operate in an environment of cost-constraint, and we judiciously manage the Plan's expenses. In recent years, we have expanded our range of member services and added new members by consolidating other pension plans, yet our overall expense ratio remains among the lowest in the industry.

To efficiently manage the Plan, we routinely:

- focus on priorities and work smart;
- re-engineer and redeploy resources where it makes sense to do so;
- enhance our abilities, through staffing and training, to perform more value-added services in-house rather than pay premiums in the open markets; and
- increase our digital offerings.

Our overall consolidated (investments and pension administration) expense ratio for 2021 was 0.55% (or 55 cents per $100 of average net assets available for benefits). This compares to 0.50% in 2020.

Our objective is to keep our consolidated expense ratio at or below 66 basis points with OPB's operating expenses at or below 16 basis points, and IMCO costs at or below 50 basis points.

In recent years, with members both joining and leaving the Plan, the outsourcing of our asset management to IMCO, and new regulatory and risk mitigation requirements, OPB has managed costs and expenses while dealing with a tremendous amount of change.

Managing Costs

At OPB, we are committed to disciplined cost management, and we strive to stay within budgeted expenses each year.

Our goal is to ensure we spend strategically where it is in the best interests of our members and stakeholders. The Plan's expenses are a combination of investment management costs and operating costs for pension administration.

Investment fees – IMCO incurs investment management and custodial fees on OPB's behalf. In addition, a share of the cost of IMCO's operations is charged to OPB on a cost-recovery basis. In 2021, these two costs were 0.41% (or 41 cents per $100) of average net assets available for benefits, compared to 0.36% (or 36 cents per $100) in 2020. These fees are deducted from total investment income. The "investment fees" disclosed in Note 6 to the financial statements include "Transaction costs". These costs are already included in our gross returns and, accordingly, are not deducted for purposes of calculating the basis-point ratios of investment fees.

Operating expenses – OPB has direct operating expenses, which are the internal costs associated with managing the pension plan, the pension administration, and the investment monitoring/oversight activities. These costs represent 0.14% of the average net assets available for benefits in 2021, compared to 0.14% in 2020.

The above sets of costs add up to a 0.55% expense ratio in 2021, compared to 0.50% in 2020.

We will continue to adhere to strong budget management, and adjust staffing costs only as needed to meet business requirements, while focusing on competitive procurements for essential services and technologies.

RETURNS

OPB's 2021 return net of all expenses was 9.4%. The comparison of the Plan's net return against the effective 4.7% actuarial discount rate used to value the Plan's liabilities helps us answer the question "Are we generating sufficient returns to meet the Plan's obligations net of all expenses incurred in managing the Plan?"

Over the long term, we need to earn investment returns that exceed the discount rate to maintain Plan sustainability.

CONTRIBUTIONS

Contribution rates for the PSPP are set by the *Public Service Pension Act, 1990* (PSP Act). They are adjusted as needed to keep pension benefits affordable and sustainable over the long term.

As of April 1, 2021, members contributed 7.4% of their salary below the YMPE and 10.5% of their salary above the YMPE ($61,600 for 2021 and $64,900 for 2022). Employers contribute a matching amount.

Ontario Provincial Police (OPP) officers in the PSPP are required to contribute additional amounts to fund the 50/30 unreduced early retirement provision and the enhanced earnings component of the benefit formula (average annual earnings based on the highest 36 consecutive months for officers and highest 48 consecutive months for civilians). The contribution rates for OPP officers are 9.7% of salary up to the YMPE and 12.8% of salary above the YMPE. For OPP civilians, the contribution rates are 8.545% of salary up to the YMPE and 11.645% of salary above the YMPE. These contribution rates are matched by the employer.

During 2021, contributions for all OPB members and employers totaled $1.496 billion, compared to $1.105 billion in 2020. In 2021, special contributions included $385 million related to the RCA, which we hold as a prior year credit balance.

PENSIONS PAID

OPB made pension payments totaling $1.43 billion in 2021, up from $1.37 billion in 2020.

The increase is attributable to a 1.0% inflation protection adjustment (Escalation Factor) that was applied to pensions on January 1, 2021. The remainder is attributable to increases in the average pension amounts and the number of new retired members.

Executive Compensation

OPB recognizes compensation as a key component in achieving its long-term strategies and organizational effectiveness. As an agency of the Government of Ontario, OPB is committed to providing excellent service and value for money to our clients and stakeholders while operating in a public sector fiscal environment.

Executive compensation is carefully overseen and approved by the Board's Human Resources Committee and follows the Province's direction on broader public sector wages. Effective February 28, 2018, OPB implemented its Executive Compensation Program, which is compliant with Ontario regulation 3014/16: Executive Compensation Framework, introduced in September 2016. The regulation sets out how all employers designated under the *Broader Public Sector Executive Compensation Act, 2014*, including OPB, must establish and publish compensation programs for executives. The program must include the compensation philosophy, salary and performance-related pay caps, comparative analysis details, and a description of other elements of compensation.

Executives receive an annual base salary that is within the salary range assigned for the corresponding classification. In addition to base salary, executives are eligible to participate in the annual compensation plan (short-term incentive). OPB conducts annual performance reviews for executives, and annual performance-based incentives are provided in line with appropriate market-based ranges. OPB regularly participates in third-party external compensation surveys and typically trends below market average.

Base salaries and incentive pay for executives in designated positions are within OPB's approved Executive Compensation Program. Regulation, 406/18: Compensation Framework, was introduced on August 13, 2018, that set out new requirements for compensation for those in designated executive positions. OPB is in compliance with the regulation and, specifically, base salaries were not increased for those in designated positions beyond their current amount (as of the date of regulation).

The table below sets out the compensation for the CEO, the three senior executives who report directly to the CEO, and the most senior finance position. The figures in the table include the components of compensation and the total compensation (excluding only retirement benefits) paid to the listed executives.

For the year ended December 31	Year	Base Salary[1]	Short-Term Incentive[2]	Taxable Benefits & Allowances[3]	Total
Mark Fuller, President & CEO	2021	$ 526,165	$ 302,300[4]	$ 572	$ 829,037
	2020	$ 526,165	$ 279,000[5]	$ 638	$ 805,803
Valerie Adamo, Chief Technology Officer	2021	$ 323,093	$ 121,576[6]	$ 373	$ 445,042
	2020	$ 323,093	$ 121,576	$ 440	$ 445,109
Armand De Kemp, Vice-President, Finance	2021	$ 205,912	$ 70,000[4]	$ 259	$ 276,171
	2020	$ 205,912	$ 66,118	$ 326	$ 272,356
Christian Kautzky, Chief Investment Officer	2021	$ 338,836	$ 138,295[4]	$ 389	$ 477,520
	2020	$ 338,836	$ 129,625	$ 455	$ 468,916
Peter Shena, Executive Vice-President & Chief Pension Officer	2021	$ 342,479	$ 154,200[4]	$ 392	$ 497,071
	2020	$ 342,479	$ 136,388	$ 459	$ 479,326

1 Base salary is based upon amounts paid during the year. In 2020 and 2021, there were 26 bi-weekly pays.

2 Short-term incentive earned is paid in March of the following year and is within the established Executive Compensation Envelope as per Regulation 406/18: Compensation Framework.

3 Includes life insurance. There are no car allowances or other perquisites.

4 Per footnote 2, the total performance-related pay for all designated executives must be less than or equal to the employer's performance-related pay envelope. As a result, the incentive pay for OPB executives was decreased to ensure compliance.

5 In recognition of the financial environment, Mr. Fuller elected to reduce his 2020 incentive payment to ensure his total compensation was no more than 1% higher than his 2018 and 2019 total compensation.

6 The total compensation is capped for the Chief Technology Officer as per the Executive Compensation Framework. As a result, Ms. Adamo's incentive is capped accordingly.

The above-noted individuals are entitled to pension benefits on their base salary from both the PSPP and the Public Service Supplementary Benefits Account (the PSSBA). Having the executives as members of the same pension plans as the clients that they serve builds strong alignment.

Three existing executives (President & CEO, EVP & CPO, and CTO) currently participate in a Supplementary Executive Retirement Plan (SERP) that provides retirement benefits equal to 2% of the best five-year average annual award of short-term incentive plan (STIP) compensation for a year of service with OPB. There is no service accrued in the SERP for years other than during their employment time with OPB. The maximum inflation protection adjustment to the SERP benefit in any year is limited to 2.5%. All the other provisions of the SERP mirror the provisions of the PSPP. The SERP is an unregistered arrangement that is non-contributory and not funded.

In accordance with Government of Ontario directives, OPB executives do not receive any perquisites, such as automobile entitlements.

SOUND RISK MANAGEMENT

OPB's risk framework is set out in our Governance, Risk Management and Compliance Policy, which establishes core functions and responsibilities for managing risk.

Our approach to risk management is to assess strategic and operational risks and to take actions that mitigate or limit downside risk exposures. In a rapidly changing environment characterized by technological disruption, geopolitical instability, cyber-threats and changing societal demands, risk management is critical in enabling **OPB to Deliver Strong Results in Challenging Times**.

Enterprise Risk Management

The goal of Enterprise Risk Management (ERM) is to enable OPB to make good decisions in the face of uncertainty, evolving external information or circumstances, and competing demands.

While OPB tries to anticipate material risks, unforeseen and unprecedented events will occur – the COVID-19 pandemic is a prime example of this reality. We maintain a robust ERM framework to ensure significant current and emerging risks and opportunities are identified and managed; appropriate risk mitigations are developed and implemented; regular monitoring is conducted to evaluate the mitigation measures; and risk activities are reported on a regular basis.

OPB adopts an enterprise-wide approach that involves all areas of our organization and all levels of staff. Our goal is to ensure key risks are identified in a timely manner and managed within acceptable levels.

Categories of Enterprise Risk

Our ERM program provides a consistent framework to evaluate and manage the uncertainty that will naturally arise from administering a major DB pension plan.

We segment enterprise risks into three principal categories:

1. **Strategic** – These are risks taken to pursue and capture long-term value for the Plan. They generally represent the risks with the highest overall potential to affect achievement of OPB's objectives. These risks are actively managed by ensuring that the development of corporate strategy is aligned with OPB's risk profile.
2. **Operational** – These are risks that arise from day-to-day business, emergency planning and project processes. In the normal course of service delivery, we face threats and vulnerabilities. To manage these risks, operational risk management is embedded at the business unit level through awareness training and targeted assessments.
3. **Emergent** – These are primarily external and uncontrollable trends that may impact OPB over a long-term horizon. Routine surveillance of emerging trends allows us to assess the business impact of threats and opportunities presented by changes in the external environment.

2021 Developments

Business continuity, key operational challenges, and the health, safety and well-being of employees were our top priorities again in 2021. Based on advice from public health authorities, staff continued to work remotely due to the ongoing COVID-19 pandemic and the emergence of new variants.

We focused extra attention on employee health, safety and well-being; elevated risk of frauds and scams; project prioritization and delivery; and stakeholder relations due to remote work.

We successfully transitioned both member and employer online portals to a new web platform. This was an important risk mitigation project because vendor support for our current platform was due to terminate at the end of 2021. The shift to a new platform helped OPB to maintain strong cybersecurity controls and provides improved security for users.

We have made progress integrating risk management with business operations, particularly with program/project management and internal audit, with the objective of creating a more mature ERM framework and becoming an organization with a resilient, informed and risk-aware mindset.

To build a stronger ERM foundation, we took the following steps in 2021:

1. enhanced our risk assessment process by introducing quantitative and objective metrics where possible to measure the likelihood and impact of risks;
2. expanded our risk profile to capture risks across OPB, providing us with a holistic view of enterprise-wide risks. We also classified common risks into categories to help improve our ability to identify root causes, to easily see where we have higher concentration of risks, and to identify other commonalties;
3. enhanced risk reporting by introducing dashboards, bar charts and heatmaps that allow us to more easily view risks in relation to each other and showcase our risk mitigation plans in alignment with risk prioritization;
4. improved integration between risk and the business planning process, program/project management and internal audit, which helped improve risk management rigour at the initiative level; and
5. enhanced risk awareness across OPB by engaging with staff and providing learning opportunities in risk management.

In the remote-work environment, we remained vigilant to privacy and the security of our data and networks. We actively monitor network activity and third-party risks to assess threats, and address risks in the remote-work environment and the broader security landscape.

Key Risks and Mitigation Activities

Our top three risks and mitigation activities are as follows.

1. **Plan sustainability**. DB pension plans face the risk that they may be unable to meet all current and future obligations while remaining affordable over the long term. To mitigate this risk, we conduct various studies and analysis to better understand the risks facing the Plan and to develop recommendations to mitigate these risks.
2. **Investment performance**. We rely on our investment manager, IMCO, to execute OPB's SAA with the objective of achieving performance that can meet or exceed our target returns. We have a monitoring program to oversee our relationship with IMCO. We receive regular reporting on requirements under the Investment Management Agreement, IMCO's risk management activities, and detailed fund performance reports. See the Investments section for more information on investment risk management.
3. **Modernization of core systems**. Pension modernization presents a significant opportunity while at the same time introducing enterprise-wide program-level risks such as unexpected program costs or delays, breakdowns in change management and data governance processes, or failure to deliver expected outcomes. Our pension modernization program will update our service offerings, introduce efficiencies, and address at-risk legacy technology. We address potential risks by using a combination of our enterprise program management framework and a deliberate, incremental and modular approach to pension modernization.

Operational Risk Management

Operational risk management (ORM) provides a practical, business objective-based approach to identifying, assessing, mitigating and continuously reporting on risk inherent in OPB's day-to-day operations. ORM focuses on how we apply management controls in areas such as compliance and conduct, business continuity, project delivery and service quality.

SYSTEMS RISK

We regularly review our IT systems for operational performance and scalability to meet future requirements. We also work very closely with our managed service providers, IT advisors and independent research firms.

OPB's information technology and security infrastructure remained strong, and digital enhancements are ongoing. Security education and awareness measures continued in 2020 with organization-wide phishing exercises and online information security training on a regular basis.

We implemented a new web-based system that meets a range of human resource (HR) administration needs. It processes and maintains records of HR transactions such as payroll, employee benefits, time and attendance, in one place.

LEGAL RISK

Occasionally, OPB is involved in legal actions arising from the ordinary course of business. All significant legal matters are reported to the Audit Committee of the Board of Directors.

INTERNAL AUDIT

We routinely conduct internal audits of key business functions and operational processes. The internal audit function reports to the Board of Directors through the Audit Committee. The annual internal audit plan is approved by the Audit Committee.

PRIVACY, INFORMATION SECURITY AND COMPLIANCE

Like other public institutions and financial services organizations, OPB carefully manages risks related to privacy, cybersecurity and compliance. We continue to invest in and monitor privacy controls and conduct an enterprise-wide compliance program using a combination of policy training and ongoing review of reputational reporting and attestations.

PROJECT DELIVERY

A large program or individual projects can introduce both business and financial risks. We monitor projects using governance processes and regular reporting. This helps provide assurance that internal controls and project procedures are being followed. We also conduct project-specific risk assessments throughout a project's life cycle to identify and mitigate potential uncertainties, threats and vulnerabilities.

In 2021, we continued to expand our use of our project and portfolio management tool and our balanced approach when prioritizing initiatives and allocating resources. A review, assessment and prioritization of business plan initiatives was performed to ensure we were well positioned for the scope and work ahead.

What We Did	Why It Matters
Conducted a high-level assessment of OPB's ERM program maturity, seeking opportunities to advance the maturity of our program and processes.	ERM is constantly changing, and continuous improvement is important. The assessment identified multi-year priority areas that will improve our risk management function.
Performed business impact analysis to gauge exposure and identify vulnerabilities, and created a COVID-19-related risk register.	Enabled OPB to monitor and manage any new risks or changes in impact to existing risks, as a result of the pandemic.
Enhanced our regular cybersecurity education and awareness measures with a more behaviour-based assessment and corresponding mandatory training, and continued our organization-wide exercises.	Systems and cybersecurity risks rose amid the COVID-19 pandemic. Ongoing employee awareness and training helps mitigate these risks. We also educate Plan members on these risks.
Continued in-depth planning, with a balanced approach to prioritizing initiatives and allocating resources to our multi-year pension modernization program. We reviewed and prioritized business plan initiatives.	We need to be well positioned to manage the scope of pension modernization initiatives. When complete, they will help to improve client and stakeholder experiences, while supporting our digital strategy and improving data security.

GOVERNANCE

A robust governance structure keeps OPB strong and is the foundation of our continued success. OPB's governance structure meets – and in many cases exceeds – industry standards and best practices. Our steadfast commitment to industry-leading governance practices ensures full accountability, effective decision-making, prudent oversight of investment management, fiscal responsibility, legal compliance and smart risk-taking. In short, it ensures that we are – at all times – protecting and promoting the best interests of the Plan and its beneficiaries.

A series of documents define our organizational structure, roles and responsibilities, and governance practices. Collectively referred to as the governance documents, these documents include a General By-law that incorporates Governance Principles, Statements of Mandate and Authority, and a Code of Conduct & Ethics.

Our governance documents draw a clear link between responsibility and accountability, set expectations for ethical behaviour, and entrench conflict-of-interest guidelines. They also establish a well-defined system of checks and balances on all power and authority.

Role of the Board

OPB's Board of Directors holds the ultimate responsibility for the Plan's stewardship. The Board has delegated to management the responsibility for the day-to-day operations required to administer the Plan and manage the Fund.

IMCO is OPB's sole and exclusive investment manager, managing the investment and reinvestment of the Fund. It also acts as OPB's non-exclusive investment advisor. The Board has delegated to management (primarily to the Chief Investment Officer) the responsibility to monitor, assess and report on IMCO in respect of its investment products, returns and risk management, and its performance in fulfilling its duties, responsibilities and obligations under the following key agreements:

- the IMA, which governs the investment management relationship between IMCO and OPB, and focuses largely on investment-related matters; and
- the ISA, which deals with operating and governance matters such as IMCO governance policies, budgeting and cost allocation, development of asset pools and cost containment principles.

The Board has also delegated specific responsibilities to six committees of the Board: the Governance, Investment, Audit, Pensions, Managed Plans, and Human Resources committees.

A new Board committee was created – the Managed Plans Committee – as OPB's third-party administration responsibilities have grown in recent years. We have taken on full administration for the Provincial Judges Pension Plan and the RCA as well as benefits for TVO and Ontario Northland pensioners.

The Board retains overall responsibility for supervision of OPB's business affairs. For example, it:

- approves OPB's strategic plan, business plan and budget;
- ensures that management has identified and is managing risks;
- conducts performance and compensation reviews for the President & CEO;
- approves the SAA, which drives investment management asset-mix decisions;
- approves non-ministerial appointments to the IMCO board of directors;
- approves material amendments to the IMA and ISA;

- supervises and approves all audit and risk management matters;
- ensures that management is maintaining a culture of integrity;
- conducts an annual review of OPB's Statement of Investment Policies & Procedures;
- approves any recommendations made to the Plan Sponsor regarding Plan amendments and funding; and
- monitors compliance with OPB's governance documents, including government directives and policies.

In fulfilling their duties, members of the Board are directly accountable to:

- the Plan's beneficiaries (i.e., active and retired members);
- the Financial Services Regulatory Authority (the organization that oversees registered pension plans in Ontario); and
- the Government of Ontario (the Plan Sponsor).

ESG matters are a strong focus for the Board and management as OPB continues to strengthen practices and collaborate with peers. The Board approved a new policy for ESG investment issues in 2021, which articulates how OPB addresses ESG issues, including climate risk. The Board invited experts to address the Board on the topics of RI and climate change. OPB and IMCO understand the significance and urgency of climate change. IMCO developed an ESG strategy and a climate change strategy and Climate Action Plan, and has committed to reach net-zero GHG emissions by 2050 or sooner. IMCO also committed to implementing climate risk disclosure requirements that are aligned with the TCFD.

In 2020, OPB signed The BlackNorth Initiative, a commitment made by industry leaders across Canada to end anti-Black racism by removing systemic barriers and reshaping corporate structures to create better representation for Black Canadians. The CEO is accountable to our Board for the development and evaluation of concrete, strategic action plans to prioritize and drive accountability around diversity and inclusion.

OPB is consistently recognized as an example of good governance within Ontario's public service. The Board is committed to maintaining a best-in-class governance model and ensuring OPB can continue to drive innovation and build a strong future for all PSPP stakeholders.

The Board and its committees met a total of 37 times in 2021.

Board of Directors

Effective governance and oversight demand a committed board with the right mix of skills and expertise.

In addition, Board members must continue to develop skills to ensure that the Board collectively is well-equipped to govern in a rapidly changing world. The Board invites external experts to present education sessions throughout the year. In 2021, the Board held education sessions on important topics including unconscious bias, the future of work, RI and climate change.

OPB Board members are appointed by the Ontario Lieutenant Governor in Council.

Biographies of all board members are below.

BOARD MEMBERS

Geri Markvoort (Chair)
Geri Markvoort is Chair of the Ontario Pension Board and a member of the Human Resources, Investment, and Governance committees. She is a retired senior human resources executive, with more than 40 years' experience in large, complex organizations. She has aligned the delivery of human resources with the needs of business in various sectors (natural resources, manufacturing, banking and professional services). Significant organizational change, global service models, total rewards delivery, effective client relationships, and the evolution of the human resources function have challenged and engaged her throughout her career. A passionate champion for change and strong human resources leadership, Geri's board experience has included governance roles as Chair of the Board of Governors, George Brown College; Chair of the Board, Dress for Success Toronto; and board member of Lawn Summer Nights and the Cystic Fibrosis Toronto Chapter. Geri holds an ICD.D designation from the Institute of Corporate Directors.

Patti Croft (Vice Chair)
Patti Croft is Vice Chair of the Ontario Pension Board as well as Chair of the Investment Committee and a member of the Human Resources and Governance committees. She is also a member of the Ontario Teachers' Pension Plan Board, where she is Chair of the Governance Committee, and is a member of the Human Resources and Compensation Committee and the Investment Committee. She is the former Chief Economist of RBC Global Asset Management. Her community involvement has included the Oakville Humane Society and the Oakville Fairshare Food Bank. She is member in good standing of the pet therapy program through St. John Ambulance. Patti has been a member of the Ontario Pension Board since 2013. She holds a Bachelor of Arts degree in Economics from the University of Toronto as well as an ICD.D designation from the Institute of Corporate Directors.

Dave Bulmer

Dave Bulmer is Chair of OPB's Governance Committee and a member of the Human Resources and Pensions committees. He is the President and Chief Executive Officer of AMAPCEO – Ontario's Professional Employees (15,000 members) and has been since 2015. He previously held the offices of Chief Financial Officer, Board Chair, Director-at-Large, Finance Committee Chair and Pension Committee Chair. His home position in the Ontario Public Service is within the Emergency Health Services Branch of the Ministry of Health & Long-Term Care. Dave has completed SHARE's Pension Investment and Governance certification and Trustee Master Class certification. Dave lectures on labour relations at several Ontario universities and is a long-time community activist who has volunteered his time as a coach in elite-level sports and as a volunteer with PFLAG and Crohn's & Colitis Canada. Dave holds an ICD.D designation from the Institute of Corporate Directors.

Lynne Clark

Lynne Clark is Chair of OPB's Audit Committee and a member of the Pensions and Investment committees. She is a retired senior Deloitte partner with over 35 years of public accounting experience and a former leader of the Deloitte National Financial Services Industry. She is the 2012 recipient of the Queen Elizabeth II Diamond Jubilee Medal for community service, is a former Treasurer of the Junior Achievement Foundation (Canadian Business Hall of Fame) and is past chair of Junior Achievement of Canada. She was also a Director of The Easter Seals Society of Ontario. Lynne is a Fellow Chartered Professional Accountant of Ontario and received her ICD.D designation from the Institute of Corporate Directors. She also holds a Master of Business Administration from the Schulich School of Business and a Bachelor of Science from the University of Toronto.

Earl Dumitru

Earl Dumitru is a member of the Governance, Pensions and Managed Plans committees. He has been a legal and policy advisor with the Government of Ontario for more than 20 years. He brings breadth and depth in legal practice attained in increasingly complex and senior portfolios under five governments with diverse missions. Some notable files include liability reform, amendments to the *Class Proceedings Act*, developing a new *Legal Aid Services Act*, agency and industry governance, and oversight of capital projects. Earl has also served on the Board of the Association of Law Officers of the Crown (ALOC) for over 10 years, and was President of ALOC from 2014–2018. As President, his responsibilities included collective bargaining, managing staff, budgets and audits, day-to-day operations, and developing a sustainable organization capable of meeting its fiduciary responsibilities to its members.

Shawn Leis

Shawn Leis is a newly appointed Board member and has been nominated to OPB's Pensions, Audit, and Managed Plans committees. He is the Executive Officer – Finance at Ontario Provincial Police Association. His career spans more than 25 years, including senior financial and operational leadership roles at several manufacturing companies, a sawmill distribution company, and a sub-prime automotive financing company. Shawn is a part-time finance instructor at Georgian College and serves as Treasurer on the Georgian Bay Cancer Support Centre. Past board experience includes Penetang Minor Hockey (four years), School Board Trustee (eight years), Church Trustee (eight years) and Church Stewardship (14 years). He attended the University of Waterloo to obtain an Honours Degree in Co-op Accountancy Studies and subsequently earned a CPA designation, as well as a master's degree in management. Shawn also completed four modules of the Director's College at DeGroote School of Business.

Geoffrey Melbourne

Geoffrey Melbourne is Chair of OPB's Pensions Committee. He is a seasoned actuary and client relationship manager, with experience leading strategic initiatives and articulating complex subject matter to stakeholder groups. Geoffrey is a partner and Wealth Growth Leader at Mercer Canada. His career highlights include driving the multi-year process of the first Ontario jointly sponsored pension plan conversion under the new regulatory framework. Geoffrey completed a term on the Actuarial Standards Board in 2020. He currently chairs the Project Oversight Group for an update of Canadian Pensioners' Mortality, and leads the Diversity, Equity, and Inclusion Advisory Group of the Canadian Institute of Actuaries. He has served on multiple Financial Services Regulatory Authority of Ontario committees.

Suzann Pennington

Suzann Pennington is Chair of OPB's Human Resources Committee and a member of the Audit and Investment committees. She is a retired senior finance executive with over 30 years' experience in strategic planning, complex investments, M&A, risk management and ESG in public and private companies. As Managing Director and Chief Investment Officer of CIBC Global Asset Management, Suzann was responsible for over $110 billion in financial assets. She has held a number of senior finance positions including Vice President of Mackenzie Financial, and was a founding partner of a mutual fund company. Suzann holds a Bachelor of Mathematics degree from the University of Waterloo, a Chartered Financial Analyst designation, and the ICD.D designation from the Institute for Corporate Directors.

Rob Ritchie

Rob Ritchie is the Chair of OPB's Managed Plans Committee and a member of the Audit and Investment committees. He is the Chief Executive Officer of a defined benefit plan, with over 35 years of experience in the insurance, pension, and financial services industries. He spent 27 years with a major Canadian life insurance group with both domestic and international assignments, and has extensive experience in investment management and delivering total return and liability-oriented investment solutions. He also has a strong track record of building and operating successful business units and recruiting and developing high-performing teams. Rob holds a Bachelor of Business Administration from Wilfrid Laurier University and a Master of Business Administration from the University of Toronto.

BOARD TERMS AND REMUNERATION

Appointee Name	Appointment Start Date	Appointment End Date	Position	2021 Total Remuneration
Geri (Geraldine) Markvoort	1/5/2015	2/1/2023	Chair of the Board	$77,376
Patti Croft	5/1/2013	12/15/2024	Vice-Chair	$53,636
Michael Briscoe	8/15/2016	2/9/2021	Member	Nil[1]
Dave Bulmer	11/16/2016	11/15/2022	Member	Nil[1]
Lynne Clark	6/22/2016	12/8/2023	Member	$39,176
Earl Dumitru	7/9/2020	7/8/2023	Member	Nil[1]
Elana Hagi	1/17/2019	1/16/2022	Member	$39,176
Shawn Leis	3/4/2022	3/3/2025	Member	Nil[1]
Geoffrey Melbourne	12/22/2021	12/21/2024	Member	Nil
Suzann Pennington	6/25/2020	6/24/2023	Member	$38,232
Rob Ritchie	7/16/2020	7/15/2023	Member	$35,163

1 Representing a bargaining agent.

The Management Board of Cabinet Agencies & Appointments Directive (the "Directive") sets out the principles and high-level criteria for the compensation of Board members. By Order in Council 1150/2007, the per diem compensation rates payable to OPB Board members are set at the rates payable to appointees to Regulatory and Adjudicative Agencies specified in the Directive, as may be amended from time to time. The current per diem compensation rates payable to the Chair, the Vice-Chair and members are:

Chair: $744

Vice-Chair: $583

Member: $472

The number of days compensated is based upon attendance at Board and management meetings as well as preparation, training and debriefing activities.

Members employed by the Ontario Government or employed by bargaining agents who receive their normal salaries while participating as an OPB Board member do not receive any additional compensation.

Five-Year Review

(in millions of dollars)	2021	2020	2019	2018	2017
Opening net assets	**$ 31,000**	$ 29,338	$ 26,561	$ 26,482	$ 24,381
Investment income (loss)	**2,871**	2,052	2,724	361	2,531
Contributions	**1,496**	1,106	889	887	804
Transfers from other plans	**134**	90	644	234	137
	4,501	3,248	4,257	1,482	3,472
Pension payments	**1,427**	1,368	1,275	1,211	1,175
Terminations	**196**	177	166	156	148
Operating expenses	**44**	41	39	36	48
	1,667	1,586	1,480	1,403	1,371
Closing net assets	**$ 33,834**	$ 31,000	$ 29,338	$ 26,561	$ 26,482
Annual net rate of return	**9.4%**	7.0%	10.2%	1.3%	10.3%

Looking Ahead

OPB will continue to be guided by our Vision 2025 statement: to be a premier pension delivery organization and a trusted advisor to all our stakeholders.

When we developed Vision 2025, OPB determined our dual strategic focus would be on **Sustainability** and **Service Excellence**. Especially as the COVID-19 pandemic remains with us, then the **Safety** of our employees and clients will remain a third critical focus.

Sustainability Focus	**Service Excellence Focus**
Investment Excellence	Digital and Online Services
Plan Funding and Design	Advanced Business Processes and Systems
Cost-Efficiency	Advisory and Education Services

SUSTAINABILITY

We will continue to execute several initiatives to support the sustainability of the Plan. Based on the results of our A/L study, we adjusted our SAA in order to navigate what we expect will be a challenging investment environment. Our investment manager, IMCO, will implement the updated SAA in the next four years. New strategies and target weightings were developed with a view to generating incremental returns while staying within our risk appetite.

We are committed to advancing our ESG practices, which is linked to broader Plan sustainability. We plan to expand communications to members and other stakeholders about our ESG commitments and how we're tracking against them. As part of that work, we expect to engage with our clients and stakeholders to better understand their expectations around ESG communications and how they'd like to engage with us around these important issues.

We support the Government of Ontario's goal of consolidating smaller broader public sector pension plans. By bringing in smaller plans and growing our client base, this strategy supports the long-term sustainability of the PSPP by increasing our membership and assets. By joining the PSPP, smaller plans gain access to professional investment management through IMCO. The administration of several other plans/services on behalf of the Government of Ontario are all on a fee-for-service agreement and are structured on a cost-recovery basis, not as a profit-generating activity. We expect to continue experiencing elevated service demands as we merge plans and bring on new employers.

SERVICE EXCELLENCE

As our multi-year pension modernization initiative continues, our upgraded member and employer portals will continue to offer additional digital services, tools and resources.

The member and employer portals introduced in 2021 are more secure, mobile-responsive and accessible sites that offer clients and employers more features and functions. In 2022, we will begin the design and planning of additional capabilities, such as an enhanced pension-entitlement calculator. Investment in a new rules and calculation engine will enable new online services, reduce manual effort, and eliminate process inefficiencies, and will be able to handle multiple plans and complex rules.

Pension modernization also involves updating additional elements of our pension administration technology systems. This work is necessary to manage our systems risks and cyber risks. We will continue to monitor the business and IT risks that need to be addressed and adjust the modernization roadmap accordingly.

Key Performance Indicators and Metrics

OPB has adopted a number of key performance indicators (KPIs) to measure progress as we execute our strategies. The KPIs represent the outcomes relating to the Plan that are most important to the Plan stakeholders. The KPIs are set forth in the following table.

Business Objective	Defined Output	Performance Metric	2021 Outcome	Discussion of Outcome
Investment execution	OPB's investment return versus the Strategic Asset Allocation benchmark	Outperform the benchmark	Investment return exceeded the benchmark return	Total Plan performance was driven by strong results in Canadian, global, and private equities
Investment risk management	OPB's active risk	Target of 2% and less than 3.2% for past five years	Active risk was on target and ranged from 1.9% to 2.2%	Risk was regularly monitored, and was stable near the target level during 2021
Member and pensioner service	Overall satisfaction with client services	8.7 or higher	8.8	Exceeded performance benchmark target
Employer service	Employer satisfaction scores	8.1 or higher	8.5	Exceeded performance benchmark target
Business Plan achievement	Advancement of strategies and initiatives (both planned and emergent)	Substantial delivery/ achievement of Business Plan initiatives	Substantial achievement of initiatives outlined in the 2021 Business Plan, including many emergent initiatives	Completion of some in-progress initiatives have carried over to early 2022. Nine new or carry-over initiatives from 2020 were added to 25 proposed in the 2021 Business Plan
Managing to budget	Actual versus budgeted expenses	Within budget	2021 actual operating expenses were 1% under budget	Achieved performance target
Cost-efficiency	Expense management ratios (cost per net assets available for benefits): 1. OPB operating expenses 2. IMCO costs 3. Consolidated	1. 16 basis points or lower 2. 50 basis points or lower 3. 66 basis points or lower	1. 14 basis points for operating expenses 2. 41 basis points for IMCO costs 3. 55 basis points for consolidated expenses	Expense management ratios are within acceptable target ranges
Financial health of PSPP	Level of, and year-over-year change in, going-concern funded status	Plan remaining 90% or more funded on a going-concern basis	Plan is 100% funded at December 31, 2021, before PfAD; with the $2.1 billion PfAD, the Plan is approximately 94% funded	PSPP remains well funded

Actuaries' Opinion to the Directors of the Ontario Pension Board

Aon was retained by the Ontario Pension Board ("OPB") to prepare the following actuarial valuations of the Public Service Pension Plan ("PSPP"):

- An actuarial valuation prepared on a funding basis as at December 31, 2020, as described in Note 11 of these financial statements, prepared in accordance with the *Public Service Pension Act* and applicable pension legislation.
- The actuarial valuation prepared on a funding basis as at December 31, 2020 was then rolled forward to December 31, 2021 to determine the pension obligations as at December 31, 2021 for financial statement purposes.

The actuarial valuation of the PSPP prepared on a funding basis as at December 31, 2020 was based on membership data provided by OPB as at December 31, 2020.

We have prepared a valuation of the liabilities as of December 31, 2020 on the basis of the accounting methodology required by the CPA Canada Handbook, Section 4600, as disclosed in Note 11, and extrapolated the liabilities to December 31, 2021. The valuation and extrapolation were based on assumptions that reflect OPB's best estimates of future events as of December 31, 2021 such as future rates of inflation, future retirement rates and future rates of return on the pension fund. The valuation reflects Ontario Regulation 250/18 that requires the funding of a reserve in the plan, referred to as a Provision for Adverse Deviations ("PfAD"). The amounts are set out in the statement of changes in pension obligations.

We hereby certify that, in our opinion:

- The data provided to us by OPB as of December 31, 2020 is sufficient and reliable;
- The actuarial assumptions used are appropriate for the purposes of each valuation; emerging experience differing from the assumptions will result in gains or losses which will be revealed in future valuations; and
- The methods used are appropriate for purposes of each valuation and are consistent with the applicable regulatory requirements.

Our valuations have been prepared, and our opinions given, in accordance with accepted actuarial practice.

AON

Allan H. Shapira

Allan H. Shapira
Fellow of the Canadian Institute of Actuaries

Andrew Hamilton
Fellow of the Canadian Institute of Actuaries

March 4, 2022

Management's Responsibility for Financial Reporting

The financial statements of the Ontario Pension Board ("OPB") have been prepared by management, which is responsible for the integrity and fairness of the data presented. The accounting policies followed in the preparation of these financial statements are in accordance with Canadian accounting standards for pension plans. Of necessity, many amounts in the financial statements must be based on the best estimates and judgment of management with appropriate consideration as to materiality. Financial information presented throughout this annual report is consistent with the financial statements.

Systems of internal control and supporting procedures are maintained to provide assurance that transactions are authorized, assets are safeguarded against unauthorized use or disposition, and proper records are maintained. The system includes careful hiring and training of staff, the establishment of an organizational structure that provides for a well-defined division of responsibilities and the communication of policies and guidelines of business conduct throughout OPB.

The Board of Directors (the "Board") is ultimately responsible for the financial statements of OPB. OPB's Audit Committee assists in this responsibility by reviewing the financial statements in detail with management and the external auditors before such statements are recommended to the Board for approval. The Audit Committee meets regularly with management and the external auditors to review the scope and timing of audits, to review their findings and suggestions for improvements in internal control, and to satisfy themselves that their responsibilities and those of management have been properly discharged.

Mark J. Fuller
President & CEO

Armand de Kemp
Vice President, Finance

March 4, 2022

Independent Auditor's Report

To the Directors of Ontario Pension Board

Opinion

We have audited the financial statements of Ontario Pension Board ("OPB"), which comprise the statement of financial position as at December 31, 2021, the statement of changes in net assets available for benefits and statement of changes in pension obligations for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of OPB, and the changes in its net assets available for benefits and the changes in its pension obligations for the year then ended in accordance with Canadian accounting standards for pension plans.

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 are independent of OPB in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

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 OPB'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 OPB or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing OPB'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 OPB'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 OPB'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 OPB 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.

Ernst & Young LLP

Chartered Professional Accountants
Licensed Public Accountants

Toronto, Canada
March 4, 2022

Statements of Financial Position

As at December 31 (in thousands of dollars)		2021		2020
Assets				
Cash	$	**4,810**	$	27,620
Investments (Note 4)		**33,691,081**		31,038,691
Investment-related assets (Note 4)		**119,032**		81,342
Contributions receivable				
Members		**32,577**		32,693
Employers		**48,156**		45,462
Accounts receivable and prepaid expenses (Note 16)		**11,965**		10,502
Capital assets, net (Note 10)		**212**		212
Total assets		**33,907,833**		31,236,522
Liabilities				
Investment-related liabilities (Note 4)		**17,139**		195,146
Accounts payable and accrued charges		**55,126**		38,969
Contributions payable		**1,825**		2,328
Total liabilities		**74,090**		236,443
Net assets available for benefits		**33,833,743**		31,000,079
Pension obligations, excluding PfAD		**32,610,220**		31,333,498
Provision for Adverse Deviations (PfAD)		**2,075,436**		3,131,487
Pension obligations (Note 11)		**34,685,656**		34,464,985
Deficit	**$**	**(851,913)**	$	(3,464,906)

See accompanying notes

On behalf of the Board:

Geri Markvoort
Chair, Board of Directors

Lynne Clark
Chair, Audit Committee

Statements of Changes in Net Assets Available for Benefits

For the year ended December 31 (in thousands of dollars)	**2021**	2020
Increase in net assets		
Net investment income (Note 6)	**$ 2,870,903**	$ 2,051,754
Contributions (Note 12)		
Members	**432,091**	422,862
Employers and sponsor	**1,063,422**	682,566
Transfer of service from other plans (Note 15)	**134,331**	90,240
Increase in net assets	**4,500,747**	3,247,422
Decrease in net assets		
Retirement pension benefits	**1,427,272**	1,367,866
Termination and other benefits (Note 14)	**196,189**	177,018
Operating expenses (Note 13)	**43,622**	40,655
Decrease in net assets	**1,667,083**	1,585,539
Increase in net assets for the year	**2,833,664**	1,661,883
Net assets, at beginning of year	**31,000,079**	29,338,196
Net assets, at end of year	**$ 33,833,743**	$ 31,000,079

See accompanying notes

Statements of Changes in Pension Obligations

For the year ended December 31 (in thousands of dollars)	**2021**	2020
Pension obligations, at beginning of year	**$ 34,464,985**	$ 31,814,856
Increase in pension obligations		
Interest on pension obligations	**1,845,558**	1,858,960
Past service cost	**–**	43,548
Benefits accrued		
Service accrual	**865,244**	793,732
Transfer of service from other plans (Note 15)	**134,331**	90,240
Past service buybacks	**47,916**	46,819
Net experience losses	**228,506**	207,695
Reserve for future indexation	**260,000**	–
Net assumption losses (Note 11)	**–**	951,026
Net change in Provision for Adverse Deviations	**–**	202,993
Total increase	**3,381,555**	4,195,013
Decrease in pension obligations		
Benefits paid	**1,623,461**	1,544,884
Net assumption gains (Note 11)	**231,579**	–
Net change in Provision for Adverse Deviations	**1,305,844**	–
Total decrease	**3,160,884**	1,544,884
Net increase in pension obligations	**220,671**	2,650,129
Pension obligations, at end of year	**$ 34,685,656**	$ 34,464,985

See accompanying notes

Notes to the Financial Statements

Note 1: *Public Service Pension Act*

Effective January 1, 1990, the Province of Ontario (the "Province") enacted the *Public Service Pension Act R.S.O., 1990* ("PSP Act") to continue the pension plan for the employees of the Province and certain of its agencies. The terms of the Public Service Pension Plan ("PSPP" or the "Plan") are stated in Schedule 1 to the PSP Act. Ontario Pension Board ("OPB") is the administrator of the PSPP. The Government of Ontario is the sponsor of the PSPP (the "Plan Sponsor"), acting through the member of the Executive Council to whom the responsibility for the administration of the PSP Act is assigned under the *Executive Council Act, R.S.O., 1990*.

Note 2: Description of the Plan

The following is a brief description of the PSPP. For more complete information, reference should be made to the PSP Act.

GENERAL

The PSPP is a contributory defined benefit pension plan. Membership is mandatory for persons or classes of persons who satisfy the eligibility requirements provided in the PSP Act. Persons who are entitled, but not required, to join the Plan, including Deputy Ministers and contract employees, may elect to participate. Under the PSPP, both the members and the employers make contributions. The PSPP is registered with the Financial Services Regulatory Authority of Ontario ("FSRA"), and the Canada Revenue Agency (Registration Number 0208777) as a registered pension plan not subject to income taxes.

In 2015, the *Investment Management Corporation of Ontario Act* was proclaimed by the Province, creating the Investment Management Corporation of Ontario ("IMCO"), a new investment management entity providing investment management and advisory services to participating organizations in Ontario's broader public sector, with the ownership of the investment assets remaining with the participants. OPB and Workplace Safety and Insurance Board were IMCO's founding members. IMCO has responsibility for OPB's day-to-day investment management functions. OPB retains responsibility for setting its Strategic Asset Allocation ("SAA") of the Plan's investments and for oversight of IMCO.

RETIREMENT COMPENSATION ARRANGEMENT

Effective January 1, 2022, OPB was appointed the trustee of the Retirement Compensation Arrangement Trust Fund ("RCA"), which continues the Public Service Supplementary Benefits Account ("PSSBA"). The purpose of the RCA is to provide additional pension benefits to members and former members whose contributions and benefits under the PSPP are limited by the *Income Tax Act (Canada) R.S.C., 1985* ("ITA") and regulations under that Act. The RCA is not registered as a pension plan under either the *Pension Benefits Act* ("PBA") or ITA.

As trustee, OPB acts as administrator of the RCA, trustee of the RCA assets and oversees the investments of the RCA. IMCO was appointed as investment manager for the RCA.

Governed by the RCA Plan Text, as set out in *Order in Council 1298/2021*, the RCA Trust Fund Agreement and the federal ITA, the RCA is supported by a trust agreement that is separate from the PSPP Fund. As a result, the RCA is therefore not included in these financial statements of the PSPP. The RCA assets are invested and accounted for separately from the PSPP, and the accrued pension obligation of the RCA is valued separately from the PSPP accrued pension obligations. Expenses for the RCA are paid from the RCA assets.

The Government of Ontario is the sponsor of the RCA and must, along with other employers of members, remit required contributions in respect of the RCA. A PSPP member must contribute to the RCA when their annual salary rate exceeds the annual threshold that corresponds to the ITA benefit limit for that year.

FUNDING POLICY

The PSPP is a contributory defined benefit pension plan covering eligible employees of the Ontario Public Service and other designated employers. It is funded by contributions from members, deducted from their salaries and remitted by their employers, and by matching contributions from employers. The benefits and contribution rates of the PSPP are set, and may be amended, by the Plan Sponsor through an Order-in-Council.

CONTRIBUTIONS

The PSPP is integrated with the Canada Pension Plan ("CPP"). Contribution rates are 7.4% of the salary on which contributions are made up to the Year's Maximum Pensionable Earnings ("YMPE") and 10.5% of the salary above the YMPE. Employers contribute matching amounts.

Ontario Provincial Police ("OPP") officers are required to contribute an additional 2.3% of salary, which is matched by the employer. These additional contributions are used to fund an unreduced early retirement provision available to OPP officers meeting a minimum 50 years of age and 30 years of service and to fund the change in the final average salary to the best consecutive 36-month period. The contribution rates for OPP officers, inclusive of the additional 2.3% of salary, are 9.7% of the salary on which contributions are made up to the YMPE, and 12.8% of the salary above the YMPE. The contribution rates for OPP civilians ("OPPC") are 8.545% of the salary on which contributions are made up to the YMPE, and 11.645% of the salary above the YMPE. These additional contributions are used to fund a Factor 85 unreduced early retirement benefit, as described in Pensions below.

Contributions from members and employers are remitted to OPB. The portion of these contributions that exceeds the *Income Tax Act (Canada) R.S.C., 1985* ("ITA") limits is remitted to the RCA, separately administered by OPB and funds benefits previously paid from the PSSBA.

When a member joins the PSPP, they may be able to transfer credit from a pension plan that has a transfer agreement with the PSPP or buy additional pension credit for an eligible period of prior service. The PSPP allows members to continue, if they choose, to earn pension credit when they go on an authorized leave of absence or qualify for long term income protection if contributions are continued.

PENSIONS

A pension is payable at age 65, based on the number of years of credit in the PSPP multiplied by 2% of the average annual salary during the best consecutive 60-month period, less an offset for integration with the CPP at age 65. An unreduced pension can be received before age 65 if the member's age and years of credit total 90 ("Factor 90") or when the member reaches age 60 and has 20 or more years of credit.

OPP officers are eligible for a pension payable based on the average salary during the best 36-month period. OPP officers are eligible for a 50/30 unreduced early retirement benefit if they reach at least 50 years of age with at least 30 years of pension credit. OPPC are eligible for a pension payable based on the average annual salary during the best 48-month period. Effective January 1, 2020, OPPC are eligible for a Factor 85 unreduced early retirement benefit if they reach an age-plus-pension credit totaling 85 years or more and retire as an OPP civilian.

DEATH BENEFITS

Upon the death of a member or pensioner, benefits may be payable to a surviving eligible spouse, eligible children, a designated beneficiary or the member's or retired member's estate.

DISABILITY PENSIONS

Based on meeting all eligibility criteria, a disability pension may be available to members with a minimum of 10 years of credit in the PSPP. The amount of the disability pension is dependent on years of credit and average annual salary.

TERMINATION PAYMENTS

Members terminating employment before age 55 who are eligible for a deferred pension may be entitled to transfer the commuted value of the pension to a locked-in registered retirement savings arrangement, to a life income fund, to another registered pension plan, or to purchase a life annuity.

TRANSFERS

OPB participates in transfer agreements with several public and private sector pension plans. Transfer agreements allow eligible members to move their pension credit from one participating plan to another. To be eligible for a transfer, there must be a transfer agreement or provision with the former pension plan, the transfer must be applied for within the time limit and the pension credit must still be in the former plan. OPB participates in the Major Ontario Pension Plans ("MOPPs") Pension Portability Agreement, the National Public Service Pension Transfer Agreement, the Ontario Public Service Employees Union Pension Plan ("OPSEU") transfer provision, and various bilateral Reciprocal Transfer Agreements ("RTAs").

INFLATION PROTECTION

Pension amounts are protected against inflation to help pensioners maintain their purchasing power throughout retirement through a cost of living adjustment. Current pensions and deferred pension benefits are increased for inflation based on the Consumer Price Index to a maximum of 8% in any one year. Any inflation above 8% in any one year is applied to increase the pension in subsequent years when the adjustment is less than 8%.

Note 3: Summary of significant accounting policies

BASIS OF PRESENTATION

The financial statements are prepared in accordance with Canadian accounting standards for pension plans and present the financial statements of the PSPP as a separate entity independent of the employers, Plan Sponsor and Plan members.

In accordance with Section 4600, "Pension Plans", of the CPA Canada Handbook – Accounting, Canadian accounting standards for private enterprises in Part II of the CPA Canada Handbook – Accounting have been chosen for accounting policies that do not relate to the investment portfolio or pension obligations to the extent that those standards do not conflict with the requirements of Section 4600.

All the entities that OPB has an ownership interest in, regardless of whether OPB can control or exercise significant influence, are investment assets which are presented on a non-consolidated basis.

USE OF ESTIMATES

The preparation of financial statements in conformity with Canadian accounting standards for pension plans requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts on the statements of changes in net assets available for benefits and changes in pension obligations during the reporting period. Actual results could differ from those estimates. The most significant estimates affecting the financial statements relate to the determination of the pension obligations (Note 11) and the fair values of the Plan's Level 3 investments (Note 4b).

INVESTMENTS

Valuation

Investments are stated at their fair values, including accrued income. Fair value is the amount of consideration that would be agreed upon in an arm's length transaction between knowledgeable, willing parties who are under no compulsion to act.

Fair value of financial instruments is determined as follows:

i. Cash and cash in trust is recorded at cost, which approximates fair value.

ii. Short-term investments are recorded at cost plus accrued interest or discount earned, which approximates fair value.

iii. Bonds and OPB Finance Trust debentures are valued at quoted market prices, where available. For those debt instruments for which quoted market prices are not available, estimated values are calculated using discounted cash flows based on current market yields and comparable securities, as appropriate.

iv. Direct private debt investments are valued using discounted future cash flows based on year-end market yields plus a spread for the credit quality of the borrower and the indebtedness.

v. Public equities are valued at quoted closing market prices where available. Where quoted market prices are not available, other industry pricing conventions that are used by market participants such as ask price are used to estimate the values.

vi. Pooled fund values are supplied by the fund managers based upon fair value quotations or the most recently available financial information.

vii. Exchange-traded derivatives are valued at quoted market prices. For non-exchange-traded derivatives for which market prices are not available, estimated fair values are determined using appropriate valuation models based on industry-recognized methodologies.

viii. Real estate investments are either wholly or partially owned, directly or indirectly.

Directly owned income-producing real estate properties are valued at estimated fair values based on appraisals performed by independent accredited appraisers. The cost of properties acquired during the year may be used as an approximation of their fair value where there has been no significant change in market conditions. Mortgages are valued using discounted future cash flows based on year-end market yields.

Non-operating real estate investments, such as vacant land and real estate assets under construction, are carried at cost until such time as a change in fair value can be supported by external evidence.

Real estate investments held through partially owned funds, fund co-investments, or similar investment vehicles are valued based on information supplied by fund managers and general partners and adjusted for any transactions during the interim period up to the reporting date of these financial statements.

Participating mortgages are valued based on an accrued fixed rate of interest on the mortgages and OPB's share of profit derived from the independent appraisals of the underlying properties.

ix. Private equity and infrastructure investments are valued using independent appraisals or industry-recognized valuation methodologies.

Private equity and infrastructure investments held through funds or fund co-investments are valued using the most recently available financial information provided by the fund managers and general partners and adjusted for any transactions during the interim period up to the reporting date of these financial statements.

The cost of investments acquired during the year may be used as an approximation of their fair value where there has been no significant change in fair value.

Net investment income

Investment transactions are recorded on the trade date. Interest is recognized on an accrual basis when earned. Dividend income is recognized on the ex-dividend date. Distributions from investments in pooled funds and limited partnerships are recognized when declared by the fund managers and general partners. Since real estate is valued on a fair value basis, depreciation and amortization are not recorded. Interest on participating mortgages is accrued at the rate stated in the instrument, and any participation income is accrued based on an estimate of OPB's participation in the change in the estimated fair values of the properties.

Net investment income also includes fair value changes. Fair value changes represent both realized and unrealized gains and losses. Realized gains or losses are recognized when OPB has transferred to the purchaser the significant risks and rewards of ownership of the investment, the purchaser has made a substantial commitment demonstrating its intent to honour its obligation, and the collection of any additional consideration is reasonably assured.

Investment management fees, transaction costs and other investment-related fees are expensed as incurred and reported as a component of net investment income.

Foreign currency translation
Foreign currency transactions impacting income and expenses are translated into Canadian dollars at the rates of exchange prevailing at the dates of the transactions. The fair values of investments and cash balances denominated in foreign currencies are translated at the rates in effect at year-end. Realized exchange gains and losses from investment transactions are included in realized gains and losses at the time of sale of the investments. Unrealized exchange gains and losses from investment transactions are included in the change in unrealized gains and losses on investments.

PENSION OBLIGATIONS

Pension obligations are determined based on an actuarial valuation prepared by an independent firm of actuaries using an actuarial valuation report prepared for funding purposes. This valuation uses the projected benefit cost method pro-rated based on service and management's best estimate of various economic and non-economic assumptions. The year-end valuation of pension obligations is based on data extrapolated to the current financial statement year-end date.

CASH AND CASH IN TRUST

Cash is held directly by both OPB and IMCO. Cash held by IMCO is held in their bank accounts in trust for OPB.

CONTRIBUTIONS

Contributions due to the PSPP at year-end are recorded as receivable. Transfers into the Plan and purchases of prior service are recorded after cash is received and the transfer or purchase transaction is completed.

RETIREMENT PENSION PAYMENTS AND BENEFITS

Retirement pension payments, commuted value transfers, refunds to former members, and transfers to other pension plans are recorded when paid.

CAPITAL ASSETS

Capital assets are carried at cost less accumulated depreciation. Depreciation is provided on a straight-line basis over the estimated useful lives of the capital assets as follows:

Computer equipment	3 years
Leasehold improvements	Remaining term of lease
Furniture and fixtures	10 years

Note 4: Investments

The Plan's investments consist of the following:

As at December 31 (in thousands of dollars)	2021 Fair Value	2020 Fair Value
Cash held in trust and short-term investments (Note 4d)		
Canada	$ 680,321	$ 1,456,418
Global	566,682	911,276
	1,247,003	2,367,694
Fixed income		
Canada	7,477,155	6,889,732
Global	2,256,786	1,461,360
	9,733,941	8,351,092
Public equities (Note 4h)		
Canada	10,451	115,654
Global	620,258	8,324,595
	630,709	8,440,249
Pooled funds (Note 4h)	10,853,396	2,686,711
Real estate (net of financing, Note 4e)	5,036,310	4,094,759
Infrastructure	2,669,431	2,551,855
Private equity	3,520,291	2,546,331
Total investments	33,691,081	31,038,691
Investment-related assets		
Pending trades	1,131	263
Derivatives receivable (Note 5)	117,901	81,079
Total investment-related assets	119,032	81,342
Investment-related liabilities		
Pending trades	-	136,356
Derivatives payable (Note 5)	17,139	58,790
Total investment-related liabilities	17,139	195,146
Total net investments	$ 33,792,974	$ 30,924,887

a) INVESTMENT ASSET MIX

The Plan's actual and target investment asset mix is summarized below as at December 31:

	2021		2020		
	Asset Allocation %		Asset Allocation %		2021
	Total Plan	**Target**	Total Plan	Target	SIP&P Range
Asset categories[1]					
Cash	**1.9%**	**0.5%**	0.1%	3.0%	0.0%–10.0%
Fixed income[2]	**29.2%**	**30.0%**	27.1%	22.0%	25.0%–35.0%
Public equities[3]	**31.8%**	**34.0%**	43.1%	34.0%	29.0%–39.0%
Real estate	**15.1%**	**14.5%**	13.2%	21.0%	9.5%–19.5%
Infrastructure	**8.4%**	**8.0%**	8.3%	11.5%	3.0%–13.0%
Private equity	**10.4%**	**9.0%**	8.2%	8.5%	4.0%–14.0%
Public market alternatives[4]	**3.2%**	**4.0%**	0.0%	0.0%	0.0%–9.0%
Total investments	**100.0%**	**100.0%**	100.0%	100.0%	

1 The asset categories in this asset mix table are adjusted to reflect the market exposures after allocating derivatives positions to the asset classes to which they relate, offset by an adjustment to cash and equivalents, included in the fixed income category.

2 Fixed income includes government nominal and inflation-linked bonds, publicly traded corporate bonds, and privately held debt.

3 Public equities include Canadian equity, global equity, emerging markets equity, and public equity pooled funds.

4 Public market alternatives include a broad range of assets, including pooled funds, equities, fixed income, credit, and currencies, as well as derivatives, seeking to offer low correlation to public equities.

OPB's Statement of Investment Policies and Procedures ("SIP&P") was amended and approved on December 2, 2021. The SIP&P was updated for changes in the strategic asset allocation and transition, expected long-term rate of return, and benchmarks. For purposes of assessing the investment asset mix of the Plan, the investment asset categories reflect the impact of derivative contracts, pooled funds, and investment-related receivables and liabilities. The SAA does not allocate any assets to pooled funds as an asset class, although pooled funds are used to achieve allocations to the investment categories indicated. At December 31, 2021, the asset mix of the Plan's investments was within the target ranges as specified in the SIP&P effective as at the financial statement year end date. At December 31, 2020, the allocation to some of the asset classes was outside the ranges as specified in the SIP&P effective as at the 2020 financial statement year-end date, although this is permitted in certain circumstances. The deviation from the target ranges was mainly driven by challenging conditions for investing in private assets and was offset by allocations to public equities and fixed income assets.

b) FAIR VALUE HIERARCHY

Canadian accounting standards for pension plans require disclosure of a three-level hierarchy for fair value measurements based on the transparency of inputs to the valuation of an asset or liability as of the financial statement year-end date. The three levels are defined as follows:

Level 1: Fair value is based on quoted market prices in active markets for identical assets or liabilities. Level 1 assets and liabilities generally include equity securities traded in an active exchange market.

Level 2: Fair value is based on observable inputs other than Level 1 prices, such as quoted market prices for similar (but not identical) assets or liabilities in active markets, quoted market prices for identical assets or liabilities in markets that are not active, and other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities. Level 2 assets and liabilities include debt securities with quoted prices that are traded less frequently than exchange-traded instruments and derivative contracts whose value is determined using a pricing model with inputs that are observable in the market or can be derived principally from or corroborated by observable market data. This category generally includes pooled funds; hedge funds; Government of Canada, provincial and other government bonds; Canadian corporate bonds; and certain derivative contracts.

Level 3: Fair value is based on non-observable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities. This category generally includes investments in real estate properties, infrastructure and private equity, and securities that have liquidity restrictions.

The following tables present the level within the fair value hierarchy for investments and derivatives, excluding pending trades, for which a fair value hierarchy is not required.

As at December 31, 2021 (in thousands of dollars)	Level 1	Level 2	Level 3	Total Fair Value
Financial assets				
Cash in trust and short-term investments				
Canada	$ 21,813	$ 658,508	$ –	$ 680,321
Global	566,682	–	–	566,682
Fixed income				
Canada	673,716	6,517,776	285,663	7,477,155
Global	–	1,377,189	879,597	2,256,786
Public equities				
Canada	4,489	–	5,962	10,451
Global	620,258	–	–	620,258
Pooled funds	–	10,853,396	–	10,853,396
Real estate	–	–	5,036,310	5,036,310
Infrastructure	–	–	2,669,431	2,669,431
Private equity	289,298	–	3,230,993	3,520,291
Forwards	–	97,824	–	97,824
Futures	8,134	–	–	8,134
Credit default swaps	–	11,943	–	11,943
	$ 2,184,390	$ 19,516,636	$ 12,107,956	$ 33,808,982
Financial liabilities				
Forwards	$ –	$ 1,860	$ –	$ 1,860
Credit default swaps	–	12,558	–	12,558
Futures	2,721	–	–	2,721
	$ 2,721	$ 14,418	$ –	$ 17,139

As at December 31, 2020 (in thousands of dollars)	Level 1	Level 2	Level 3	Total Fair Value
Financial assets				
Cash in trust and short-term investments				
Canada	$ 338,065	$ 1,118,353	$ –	$ 1,456,418
Global	178,870	732,406	–	911,276
Fixed income				
Canada	496,630	6,160,001	233,101	6,889,732
Global	–	946,492	514,868	1,461,360
Public equities				
Canada	109,119	–	6,535	115,654
Global	8,324,595	–	–	8,324,595
Pooled funds	–	2,686,711	–	2,686,711
Real estate	–	–	4,094,759	4,094,759
Infrastructure	–	–	2,551,855	2,551,855
Private equity	–	595,958	1,950,373	2,546,331
Forwards	–	44,760	–	44,760
Futures	27,323	–	–	27,323
Credit default swaps	–	8,996	–	8,996
	$ 9,474,602	$ 12,293,677	$ 9,351,491	$ 31,119,770
Financial liabilities				
Forwards	$ –	$ 11,990	$ –	$ 11,990
Credit default swaps	–	38,875	–	38,875
Futures	7,925	–	–	7,925
	$ 7,925	$ 50,865	$ –	$ 58,790

Transfers between levels of the fair value hierarchy are deemed to have occurred at the beginning of the reporting period. During the year ended December 31, 2021, $596 million of private equity was transferred from Level 2 to Level 1. There were no transfers between Level 1 and Level 2 during the year ended December 31, 2020. Transfers in and out of Level 3 are shown in the Level 3 investment reconciliation below.

c) LEVEL 3 INVESTMENT RECONCILIATION

The following tables present a reconciliation of Level 3 assets and liabilities measured at fair value.

(in thousands of dollars)	**Fair Value as at January 1, 2021**	**Net Transfers In/(Out)[1,2]**	**Acquisitions**	**Dispositions**	**Fair Value Changes**	**Fair Value as at December 31, 2021**
Financial assets						
Fixed income						
Canada	**$ 233,101**	**$ –**	**$ 106,763**	**$ (45,477)**	**$ (8,724)**	**$ 285,663**
Global	**514,868**	**–**	**460,072**	**(143,347)**	**48,004**	**879,597**
Public equities	**6,535**	**–**	**–**	**–**	**(573)**	**5,962**
Real estate	**4,094,759**	**–**	**953,939**	**(292,290)**	**279,902**	**5,036,310**
Infrastructure	**2,551,855**	**–**	**299,772**	**(244,404)**	**62,208**	**2,669,431**
Private equity	**1,950,373**	**–**	**899,939**	**(274,304)**	**654,985**	**3,230,993**
	$9,351,491	**$ –**	**$2,720,485**	**$ (999,822)**	**$1,035,802**	**$ 12,107,956**

1 Transfers between levels of the fair value hierarchy are deemed to have occurred at the beginning of the reporting period.

2 Gross transfers out of Level 3 amounted to $nil and gross transfers in amounted to $nil.

(in thousands of dollars)	Fair Value as at January 1, 2020	Net Transfers In/(Out)[3,4]	Acquisitions	Dispositions	Fair Value Changes	Fair Value as at December 31, 2020
Financial assets						
Fixed income						
Canada	$ 264,592	$ 14,373	$ 3,556	$ (58,156)	$ 8,736	$ 233,101
Global	384,450	–	147,698	(33,868)	16,588	514,868
Public equities	–	9,336	–	–	(2,801)	6,535
Real estate	5,055,844	–	430,875	(219,419)	(1,172,541)	4,094,759
Infrastructure	2,314,452	–	424,077	(116,397)	(70,277)	2,551,855
Private equity	1,845,347	(180,045)	299,174	(165,379)	151,276	1,950,373
	$9,864,685	$ (156,336)	$ 1,305,380	$ (593,219)	$(1,069,019)	$ 9,351,491

3 Transfers between levels of the fair value hierarchy are deemed to have occurred at the beginning of the reporting period.

4 Gross transfers out of Level 3 amounted to $180,045 thousand and gross transfers in amounted to $23,709 thousand.

d) CASH IN TRUST AND SHORT-TERM INVESTMENTS

The following table provides a breakdown of the cash in trust and short-term investments.

As at December 31 (in thousands of dollars)	2021	2020
Canada		
Cash in trust	$ 21,813	$ 340,931
Short-term notes and treasury funds	658,492	1,100,209
Term deposits	–	14,995
Accrued interest	16	283
	$ 680,321	$ 1,456,418
Global		
Cash in trust	$ 566,683	$ 156,638
Short-term notes and treasury funds	–	754,596
Accrued interest	(1)	42
	$ 566,682	$ 911,276

e) REAL ESTATE

The following table provides a breakdown of the real estate portfolio by its major components.

As at December 31 (in thousands of dollars)	2021	2020
Assets		
Wholly owned real estate[1]	$ 1,360,750	$ 1,438,300
Partially owned investments[2]	5,964,332	5,083,234
Participating mortgages[3]	149,305	122,292
Other assets, net[4]	–	5,025
Total assets	7,474,387	6,648,851
Liabilities		
Debentures[5]	2,431,688	2,554,092
Other liabilities, net[4]	6,389	–
Total liabilities	2,438,077	2,554,092
Net investment in real estate	$ 5,036,310	$ 4,094,759

1 Real estate investments that are 100% directly owned.

2 Investments held through partially owned funds, fund co-investments, or similar investment vehicles consist of real estate properties and any related assets and liabilities. These assets and liabilities are presented on a net basis.

3 Participating mortgages are held directly by OPB.

4 Working capital held in wholly owned real estate investments.

5 The debentures represent securities issued by OPB Finance Trust and are guaranteed by OPB.

f) OFFSETTING FINANCIAL ASSETS AND LIABILITIES

The following table presents the financial instruments subject to enforceable master netting arrangements and other similar agreements but not offset. The Plan presents these financial instruments as a gross amount in the statement of net assets available for benefits. The column "net amount" shows the impact on the Plan's statement of financial position if all set-off rights were exercised.

								2021
			Related Amounts Not Offset					
As at December 31 (in thousands of dollars)		**Gross Amounts Presented in the Statement of Financial Position**		**Amounts Subject to Master Netting Arrangements**		**Financial Collateral (Received)/ Pledged**[1]		**Net Amount**
Financial assets								
Derivatives	**$**	**117,901**	**$**	**(32)**	**$**	**–**	**$**	**117,869**
Securities lending[2]		**742,789**		**–**		**(742,789)**		**–**
Total financial assets	**$**	**860,690**	**$**	**(32)**	**$**	**(742,789)**	**$**	**117,869**
Financial liabilities								
Derivatives		**(17,139)**		**32**		**9,740**		**(7,367)**
Total financial liabilities	**$**	**(17,139)**	**$**	**32**	**$**	**9,740**	**$**	**(7,367)**

								2020
			Related Amounts Not Offset					
As at December 31 (in thousands of dollars)		Gross Amounts Presented in the Statement of Financial Position		Amounts Subject to Master Netting Arrangements		Financial Collateral (Received)/ Pledged[1]		Net Amount
Financial assets								
Derivatives	$	81,079	$	(6,385)	$	–	$	74,694
Securities lending[2]		788,380		–		(788,380)		–
Total financial assets	$	869,459	$	(6,385)	$	(788,380)	$	74,694
Financial liabilities								
Derivatives		(58,790)		6,385		52,405		–
Total financial liabilities	$	(58,790)	$	6,385	$	52,405	$	–

1 Refer to Note 8 for information relating to collateral received and pledged.

2 Included within fixed income and public equity investment assets in Note 4.

g) SIGNIFICANT INVESTMENTS

The following table summarizes where the fair value of an individual investment, excluding derivatives, exceeds 1% of the fair value of the Plan. As at December 31, 2021, 1% of the Plan was approximately $338 million and as at December 31, 2020 it was $310 million.

As at December 31 (in thousands of dollars)	**2021** **Fair Value**	2020 Fair Value
Short-term investments		
United States Treasury Bill	**$ -**	$ 560,482
Fixed income		
2187427 Ontario Inc.[2]	**675,138**	497,799
2742627 Ontario Inc. [2]	**365,092**	–
Government of Canada Bond	**383,342**	–
Government of Ontario Bond	**388,488**	–
Public equities		
iShares Core MSCI Europe	**-**	347,064
iShares Core S&P 500	**-**	1,065,487
Pooled funds[3]	**10,853,396**	2,686,711
Real estate, gross of financing[1]	**3,699,022**	3,708,747
Private equity[2]		
OPB Private Equity 3 Limited	**604,264**	584,470
OPB Private Equity 5 Limited	**649,856**	915,908
OPB Private Equity 6 Limited	**462,746**	337,245
OPB Private Equity (KBI IX) Limited	**342,730**	–
Infrastructure[2]		
OPB Infrastructure 2 Limited	**756,032**	718,709
OPB Infrastructure 4 Limited	**615,701**	655,014

1 Includes the following holding companies in 2021, which are 100% owned: OPB Realty Inc., OPB (TDC) Inc., OPB (Van Centre) Inc., OPB (155 Wellington) Inc., and OPB Real Estate Investments (US) 2 Ltd. The last valuation of each real estate investment was as at December 31, 2021. Includes the following holding companies in 2020, which are 100% owned: OPB Realty Inc., OPB (TDC) Inc., OPB (Van Centre) Inc., OPB (155 Wellington) Inc., and OPB Real Estate Investments Inc.

2 100% OPB owned holding companies.

3 Refer to Note 4h for additional information.

h) POOLED FUNDS

A pooled fund unit gives its holder a proportionate share in the value of the net assets of the pooled fund. Each pooled fund has a specific mandate; however, the fund may hold cash, short-term investments, accrued interest income and pending trades of investments.

In November 2020, IMCO launched the IMCO Canadian Public Equity LP. There was a sale of assets, at fair value, by OPB into the pooled fund. The fair value of assets transferred into the pooled fund amounted to $2,225 million and 22,253,974 units were issued to OPB in return.

In February 2021, IMCO launched the IMCO Global Public Equity LP. There was a sale of assets, at fair value, by OPB into the pooled fund. The fair value of assets transferred into the pooled fund amounted to $5,303 million and 53,295,413 units were issued to OPB in return.

In March 2021, IMCO launched the IMCO Emerging Markets Public Equity LP. There was a sale of assets, at fair value, by OPB into the pooled fund. The fair value of assets transferred into the pooled fund amounted to $2,549 million and 26,844,389 units were issued to OPB in return.

In November 2021, IMCO launched the IMCO Public Market Alternatives ("PMA") LP. There was a sale of assets, at fair value, by OPB into the pooled fund. The fair value of assets transferred into the pooled fund amounted to $810 million and 8,096,150 units were issued to OPB in return.

Fund	Investment Objective
Canadian Public Equity LP	To provide long-term growth through capital appreciation and dividend income by investing directly or indirectly in entities that are publicly traded in Canada and mostly based in Canada.
Global Public Equity LP	To provide long-term growth through capital appreciation and dividend income by investing directly or indirectly in entities that are publicly traded in developed market economies.
Emerging Markets Public Equity LP	To provide long-term growth through capital appreciation and dividend income by investing directly or indirectly in entities that are publicly traded in developing market economies.
Public Market Alternatives LP	To enhance risk-adjusted expected returns by providing exposure to alternative risk premiums and active investment mandates that offer low correlation with public equities.

	December 31, 2021		December 31, 2020	
(in thousands of dollars)	**Ownership**	**Market Value**	Ownership	Market Value
Fund				
IMCO Canadian Public Equity LP	**72.13%**	**$ 1,877,031**	74.98%	$ 2,686,711
IMCO Global Public Equity LP	**28.99%**	**5,326,848**	–	–
IMCO Emerging Markets Public Equity LP	**60.19%**	**2,565,768**	–	–
IMCO Public Market Alternatives LP	**27.71%**	**1,083,749**	–	–
Total pooled funds		**$ 10,853,396**		$ 2,686,711

i) SENSITIVITY TO CHANGES IN ASSUMPTIONS

The following table presents the Plan's assets recognized at fair value and classified as Level 3, together with the significant inputs used in the valuation technique that are considered unobservable, and a range of values for those unobservable inputs. The range of values represents the highest and lowest inputs used in calculating the fair value. The change in significant inputs and increase or decrease to fair value illustrates the impact to fair value when the significant inputs are changes to reasonable alternative assumptions.

As at December 31, 2021 (in thousands of dollars)	Significant Unobservable Inputs	Range of Inputs		Change in Significant Inputs		Increase (Decrease) to Fair Value
Private debt	Discount rate	4.0%–12.1%	+/-	0.25%	$	(2,111) / 2,167
Private equity	EBITDA multiple[1]	10.9x–23.7x				
	Revenue multiple	6.1x	+/-	0.5x		(39,445) / 39,514
	P/E multiple[2]	9.4x				
Infrastructure	Discount rate	7.2%–13.5%	+/-	0.25%		(47,504) / 48,743
	EBITDA multiple[1]	25.2x	+/-	0.5x		(7,129) / 7,130
Real estate	Discount rate	5.1%–8.8%	+/-	0.25%		(101,740) / 104,401

1 EBITDA is defined as earnings before interest, taxes, depreciation, and amortization.

2 P/E is defined as price-to-earnings.

The above sensitivity excludes investment funds which utilize net asset values reported by the general partners or external fund managers, unless there is a specific and objectively verifiable reason to vary from the value provided. The range for net asset values per unit or price per share has not been disclosed for these investments since the valuations are not model-based. In addition, it excludes investments where cost, direct comparisons or proceeds from sale is used as an approximation for fair value.

Note 5: Derivative contracts

Derivative contracts are financial contracts whose values change as a result of changes in the values of an underlying asset, index, yield curve or foreign exchange rate. OPB uses derivatives, either directly with counterparties in the over-the-counter market or on regulated exchanges, to facilitate asset allocation, alter the overall risk-return profile of the Plan, and manage or hedge risk. The Plan utilizes the following types of derivative contracts:

FUTURES CONTRACTS

Futures contracts are standardized agreements that can be purchased or sold on a futures exchange market at a predetermined future date and price specified at origination of the contract, in accordance with terms specified by the regulated futures exchange, and are subject to daily cash margining. These types of derivatives are used to efficiently modify exposures without purchasing or selling the underlying assets.

FORWARD CONTRACTS

Foreign exchange forward contracts are negotiated agreements between two parties to exchange a notional amount of one currency for another at an exchange rate specified at origination of the contract, with settlement at a specified future date. Foreign exchange forward contracts are used by OPB to modify currency exposure for both passive and active hedging.

A fixed income forward is a contractual obligation to either buy or sell an interest-rate-sensitive financial instrument on a predetermined future date at a specified price. Fixed income forward contracts are used to modify OPB's exposure to interest rate risk, such as hedging a potential new debenture issue.

SWAPS

In an interest rate swap, the parties exchange cash flows based on a notional principal amount (this amount is not actually exchanged) in order to hedge against interest rate risk.

In a total return swap, the total return from an asset is exchanged for another defined asset or portfolio of assets. This gives the party exposure to the underlying asset without having to expend the capital to hold it.

Credit default swaps are a type of credit derivative used to transfer credit risk of an underlying financial instrument or group of securities from one party to another. In a credit default swap, the buyer of the swap pays a regular premium to the seller in return for protection against any loss of the notional amount of the underlying securities if a credit event, such as a default, occurs.

OPTIONS

Options are contractual agreements under which the buyer has the right, but not the obligation, to either buy (call option) or sell (put option) an underlying asset at a predetermined price on or before a specified future date. Conversely, the seller has the obligation to sell (call option) or buy (put option) an underlying asset at a predetermined price if the option is exercised by the buyer on or before a specified future date.

a) DERIVATIVE NOTIONAL AND FAIR VALUES

The following schedule summarizes the notional amounts and fair values of the Plan's directly held derivative positions.

	2021			2020		
		Fair Value			Fair Value	
As at December 31 (in thousands of dollars)	**Notional Value**	**Assets**	**Liabilities**	Notional Value	Assets	Liabilities
Equity						
Futures	**$ 1,073,857**	**$ 7,543**	**$ (1,616)**	$ 1,852,502	$ 26,847	$ (6,104)
Currency						
Forwards	**6,536,649**	**97,824**	**(1,860)**	7,209,285	44,716	(11,213)
Fixed income						
Futures	**122,393**	**591**	**(1,105)**	1,174,322	476	(1,821)
Forwards	**-**	**-**	**-**	258,000	44	(777)
Credit						
Credit default swaps	**638,270**	**11,943**	**(12,558)**	1,143,160	8,996	(38,875)
Total	**$ 8,371,169**	**$ 117,901**	**$ (17,139)**	$ 11,637,269	$ 81,079	$ (58,790)

b) DERIVATIVE NOTIONAL VALUES BY TERM TO MATURITY

The maturities of the Plan's notional values for the Plan's derivative positions are as follows:

	2021				2020			
As at December 31 (in thousands of dollars)	**< 1 year**	**≥ 1-3 years**	**> 3-5 years**	**Total**	< 1 year	≥ 1-3 years	> 3-5 years	Total
Currency forwards	**$ 6,536,649**	**$ -**	**$ -**	**$ 6,536,649**	$ 7,209,285	$ –	$ –	$ 7,209,285
Equity futures	**1,073,857**	**-**	**-**	**1,073,857**	1,852,502	–	–	1,852,502
Fixed income futures	**122,393**	**-**	**-**	**122,393**	1,174,322	–	–	1,174,322
Fixed income forwards	**-**	**-**	**-**	**-**	258,000	–	–	258,000
Credit default swaps	**-**	**-**	**638,270**	**638,270**	–	–	1,143,160	1,143,160
Total	**$ 7,732,899**	**$ -**	**$ 638,270**	**$ 8,371,169**	$10,494,109	$ –	$ 1,143,160	$11,637,269

Note 6: Net investment income

The Plan's net investment income is as follows:

For the year ended December 31 (in thousands of dollars)	**2021** Investment Income[1,2]	**2021** Fair Value Changes[3]	**2021** Total	2020 Investment Income[1,2]	2020 Fair Value Changes[3]	2020 Total
Cash in trust and short-term investments						
Canada (Note 6a)	**$ 2,015**	**$ 548**	**$ 2,563**	$ 14,048	$ (5,715)	$ 8,333
Global[4] (Note 6a)	**95**	**108,196**	**108,291**	642	(3,204)	(2,562)
	2,110	**108,744**	**110,854**	14,690	(8,919)	5,771
Fixed income						
Canada	**200,898**	**(474,019)**	**(273,121)**	194,825	535,661	730,486
Global	**52,852**	**90,785**	**143,637**	33,078	82,509	115,587
	253,750	**(383,234)**	**(129,484)**	227,903	618,170	846,073
Public equities						
Canada	**298**	**20,357**	**20,655**	49,129	(147,843)	(98,714)
Global	**62,463**	**219,005**	**281,468**	147,988	1,048,565	1,196,553
	62,761	**239,362**	**302,123**	197,117	900,722	1,097,839
Pooled funds	**–**	**1,410,479**	**1,410,479**	–	295,099	295,099
Real estate	**246,378**	**273,718**	**520,096**	205,185	(1,211,624)	(1,006,439)
Infrastructure	**164,691**	**62,925**	**227,616**	266,922	(69,577)	197,345
Private equity	**227,102**	**341,472**	**568,574**	158,712	573,281	731,993
Total investment income	**$ 956,792**	**$2,053,466**	**$3,010,258**	$1,070,529	$1,097,152	$2,167,681
Investment management and related fees (Note 6b)			**(139,355)**			(115,927)
Net investment income			**$2,870,903**			$2,051,754

1 Investment income includes interest on cash and short-term investments, fixed income and participating mortgages, dividend income on equities, and distributions from pooled funds and limited partnerships.

2 Net of management fees incurred on investments in real estate, infrastructure, private equity, and private debt that are deducted from the managed assets.

3 Includes realized gains of $2,483 million and unrealized losses of $430 million in 2021 and realized gains of $1,161 million and unrealized losses of $64 million in 2020.

4 Fair value changes on cash and short-term investments include gains (losses) on foreign exchange forward contracts.

a) INTEREST INCOME

Earnings from pooled short-term investment funds are included within short-term notes and treasury funds. Interest income from cash and short-term investments is as follows:

For the year ended December 31 (in thousands of dollars)		**2021**		2020
Canada				
Cash in trust	**$**	**1,156**	$	2,655
Short-term notes and treasury funds		**859**		11,393
	$	**2,015**	$	14,048
Global				
Cash in trust	**$**	**-**	$	136
Short-term notes and treasury funds		**95**		506
	$	**95**	$	642

b) INVESTMENT MANAGEMENT AND RELATED FEES

For the year ended December 31 (in thousands of dollars)		**2021**		2020
IMCO management fees	**$**	**97,717**	$	63,709
External investment management fees		**30,160**		37,181
Transaction costs		**8,832**		11,468
Custodial fees		**2,589**		3,445
Private market expenses		**57**		124
	$	**139,355**	$	115,927

Transaction costs consist primarily of commissions and fees on public equity trades. IMCO management fees represent OPB's share of the operating expenses incurred by IMCO, which are charged back to its clients on a cost recovery basis. The external investment management fees invoiced by third parties, custodial fees and private market expenses were paid by IMCO on behalf of OPB and reimbursed by OPB (Note 17).

Note 7: Risk management

The Plan is subject to financial risks as a result of its investing activities that could impact its cash flows, income and assets available to meet benefit obligations. These risks include market risk (including interest rate risk, currency risk and other price risk), credit risk and liquidity risk. OPB manages these risks in accordance with its SIP&P, which prescribes the asset mix policy, diversification requirements, performance expectations, limits on individual investments, valuation standards, and guidelines for the management of the Plan.

MARKET RISK

Market risk is the risk that the fair value or future cash flows of an investment will fluctuate because of changes in market factors. Market risk comprises the following:

Interest rate risk

Interest rate risk refers to the effect on the fair value of the Plan's assets and liabilities due to fluctuations in market interest rates. The value of the Plan's investments is affected by changes in nominal and real interest rates. Pension liabilities are exposed to fluctuations in long-term interest rates and inflation.

Management

The Plan has established an asset mix policy that balances interest-rate-sensitive investments with other investments. OPB's fixed income investments have the most significant exposure to interest rate risk. Duration and weighting for the fixed income portfolio are actively managed. Modified duration is a measure of the sensitivity of the price of a fixed income instrument to a change in interest rates.

Measurement

Given the modified duration of the fixed income securities and interest rate derivatives of 12 years at December 31, 2021 (2020 – 12 years), a parallel shift in the yield curve of +/-1% would result in an approximate impact of +/-$1,237 million (2020 – +/-$1,173 million) on net investments with all other variables held constant. In practice, actual results may differ materially from this sensitivity analysis.

Currency risk

Currency exposure arises from the Plan holding foreign currency denominated investments and entering contracts that provide exposure to currencies other than the Canadian dollar. Fluctuations in the value of the Canadian dollar against these foreign currencies can have an impact on the fair value of investments.

Management

In addition to passively hedging a portion of its foreign currency exposure, the Plan also has an active currency hedging strategy in place using foreign exchange forward contracts, which are accounted for at fair value.

Measurement

The impact to the Plan of a 5% absolute change in foreign exchange rates relative to the Canadian dollar are as follows:

As at December 31, 2021 (in thousands of dollars)	**Gross Exposure**	**Foreign Exchange Contracts Receivable**	**Foreign Exchange Contracts Payable**	**Net Exposure**	**Impact of +/- 5% change**
U.S. dollar	**$ 3,434,072**	**$ 77,541**	**$ (4,706,495)**	**$ (1,194,882)**	**+/- $ 59,744**
Euro currency unit	**28,251**	**1,324**	**(917,274)**	**(887,699)**	**+/- 44,385**
Chinese renminbi	**632,853**	**–**	**(583)**	**632,270**	**+/- 31,614**
Pound sterling	**137,616**	**115,676**	**(565,595)**	**(312,303)**	**+/- 15,615**
Australian dollar	**594**	**–**	**(41,749)**	**(41,155)**	**+/- 2,058**
New Zealand dollar	**–**	**–**	**(13,083)**	**(13,083)**	**+/- 654**
Hong Kong dollar	**11,787**	**–**	**–**	**11,787**	**+/- 589**
Other	**7,759**	**25,988**	**(26,641)**	**7,106**	**+/- 355**
Total foreign	**4,252,932**	**220,529**	**(6,271,420)**	**(1,797,959)**	**+/- $ 89,898**
Canadian dollar	**29,444,078**	**6,315,096**	**(168,241)**	**35,590,933**	
	$ 33,697,010	**$ 6,535,625**	**$ (6,439,661)**	**$ 33,792,974**	

As at December 31, 2020 (in thousands of dollars)	Gross Exposure	Foreign Exchange Contracts Receivable	Foreign Exchange Contracts Payable	Net Exposure	Impact of +/- 5% change
U.S. dollar	$ 7,499,081	$ 778,058	$ (4,000,830)	$ 4,276,309	+/-$ 213,815
Hong Kong dollar	911,693	31,042	–	942,735	+/- 47,137
Chinese renminbi	647,461	–	–	647,461	+/- 32,373
Euro currency unit	429,166	62,589	(1,115,356)	(623,601)	+/- 31,180
New Taiwan dollar	460,635	129	–	460,764	+/- 23,038
Japanese yen	158,779	254,202	(18,106)	394,875	+/- 19,744
South Korean won	390,404	1,177	–	391,581	+/- 19,579
Other	1,154,941	304,970	(619,311)	840,600	+/- 42,030
Total foreign	11,652,160	1,432,167	(5,753,603)	7,330,724	+/- $ 366,536
Canadian dollar	19,239,224	5,779,988	(1,425,049)	23,594,163	
	$ 30,891,384	$ 7,212,155	$ (7,178,652)	$ 30,924,887	

Other price risk

Other price risk is the risk that the fair value of an investment will fluctuate because of changes in market prices other than those arising from foreign currency or interest rate risk, whether those changes are caused by factors specific to the individual investment or factors affecting all securities traded in the market.

Management

IMCO manages other price risk through diversification and regular monitoring of the performance of the Plan against approved benchmarks.

Measurement

An absolute change in the fair value of OPB's investments that are exposed to other price risk will have a direct proportional impact on the fair value of the investments. OPB's investments in public equities or pooled funds holding equities have the most significant exposure to other price risk. The impact of a 10% absolute change in the price of an investment, holding all other variables constant, is 10% of the net exposure of the impacted investment, as follows:

(in thousands of dollars)

			Change in Net Assets as at	
	Stock Market Benchmark	Change in Price Index	**December 31, 2021**	December 31, 2020
Canadian	S&P/TSX Composite Index	+/- 10%	**+/- $ 193,826**	+/- $ 335,467
Global	MSCI World (C$)	+/- 10%	**+/- 526,925**	+/- 512,044
Emerging	MSCI Emerging Equity Index (C$)	+/- 10%	**+/- 356,271**	+/- 440,760
			+/- $ 1,077,022	+/- $ 1,288,271

The sensitivity analysis is performed using the total Plan actual investment asset mix weights summarized in Note 4a as at December 31, 2021 and 2020.

COVID-19 IMPACT

Since the outbreak of COVID-19, emergency measures taken in response to the spread of COVID-19 have resulted in significant disruption to business operations globally, resulting in an economic slowdown. Global equity and capital markets have also experienced significant volatility. The governments have reacted with significant monetary and fiscal interventions designed to stabilize economic conditions. These developments are constantly evolving, and the duration and impact of the COVID-19 pandemic is highly uncertain, and the effects on the Plan and the Plan Sponsor are not known at this time. The potential impacts could include decreased values in the investment portfolios, changes in the Plan's pension obligations and related funding, and declines in investment performance.

CREDIT AND COUNTERPARTY RISK

Credit risk is the risk of loss resulting from a borrower's failure to repay or meet contractual obligations. The Plan is exposed to credit risk through investments in fixed income instruments as there is a risk of default. Counterparty risk is the risk of loss arising from a counterparty defaulting on its obligations, the insolvency of a counterparty, or the risk of a market decline resulting from the deterioration in the credit quality of a counterparty. The Plan is exposed to counterparty risk through investments in OTC derivatives and securities financing transactions.

Management

IMCO manages credit risk by creating a diversified portfolio of investments and employing a multi-sector strategy. In creating a diversified portfolio, IMCO will invest according to a risk strategy outlining specified target allocation ranges by risk strategy (i.e., investment grade), geographical focus and investment vehicle.

In mitigating counterparty risk, IMCO will initiate counterparty transactions with parties on its approved counterparty list, which meet a minimum credit rating requirement. IMCO is responsible for monitoring the credit ratings of counterparties and reviewing those who suffer a downgrade.

Counterparty risk from OTC derivatives is managed by requiring that an International Swaps and Derivatives Association ("ISDA") master agreement and a Credit Support Annex ("CSA") must be implemented for all OTC derivative counterparties where the agreement is longer than one year. Under these agreements, collateral is exchanged with counterparties daily to manage the credit risk arising from any existing OTC derivative contracts with that counterparty. In addition, under the ISDA master agreement for OTC derivatives, the Plan has the right to settle obligations on a net basis in the event of default, insolvency, bankruptcy, or other early termination event.

On behalf of the Plan, IMCO may lend any of its investments if the loans are secured by readily marketable securities having a market value greater than the outstanding market value of the loaned investments.

Measurement

Counterparty and credit risk exposure is measured by the fair value of contractual obligations less any collateral or margin received from the counterparties. The use of credit ratings allows the Plan to assess the creditworthiness of counterparties using an independent source.

As at December 31, 2021, the Plan's greatest credit exposure to a single securities issuer is with the Government of Canada in the form of interest-bearing securities for $2.8 billion (2020 – with the Government of Canada for $1.9 billion).

The credit risk exposure, without considering any collateral held, is as follows:

As at December 31 (in thousands of dollars)	**2021 Total Risk Exposure**	2020 Total Risk Exposure
Credit risk		
Fixed income		
AAA	**$ 3,847,984**	$ 2,848,774
AA	**3,116,288**	3,341,646
A	**173,136**	121,692
BBB	**376,750**	395,491
BB	**141,708**	149,004
B	**46,240**	59,899
CCC	**24,257**	24,972
Not rated	**2,007,578**	1,409,614
Total fixed income	**$ 9,733,941**	$ 8,351,092
Short-term investments		
AAA	**617,513**	321,126
AA	**–**	846,342
A	**40,995**	702,657
Not rated	**–**	–
Total short-term investments	**$ 658,508**	$ 1,870,125
Counterparty risk		
Derivative assets		
AA	**51,302**	21,364
A	**66,599**	59,715
Total derivative assets	**$ 117,901**	$ 81,079
Securities lending		
AA	**280,283**	444,428
A	**436,979**	237,560
BBB	**–**	94,028
Not rated	**25,527**	12,364
Total securities lending	**$ 742,789**	$ 788,380

Note 4f illustrates the maximum net exposure to credit risk in OTC derivatives and securities trading by summarizing the amount of collateral held or pledged as security and their financial effect to mitigate credit risk exposure.

LIQUIDITY RISK

Liquidity risk is the risk that the Plan has insufficient cash flows to meet its pension obligations and operating expenses as they become due. The typical cash requirements of the Plan are in the form of monthly retirement benefit payments as well as periodic termination and other benefit payments and expenses.

Management

OPB manages liquidity risk by maintaining a physical cash reserve and performing regular cash flow projections to ensure the Plan can meet obligations. Most cash requirements are typically met through member, employer, and Plan Sponsor contributions. Additional cash requirements can be met through cash sources such as investment income and proceeds from the sales of investments. The majority of the Plan's assets are also invested in securities that are traded in active markets and can be divested on a timely basis to fulfil further cash flow needs as required.

IMCO manages liquidity risk by regularly measuring and monitoring liquidity against predetermined limits and performing stress tests and cash flow projections. An IMCO liquidity committee is also responsible for overseeing a crisis environment plan and approving any breach remediation plans.

Measurement

The remaining contractual maturities of the Plan's investment related liabilities are as follows:

					2021
(in thousands of dollars)	**< 1 year**	**≥ 1–5 years**	**> 5–10 years**	**> 10 years**	**Total**
Debentures	**$ 500,000**	**$ 500,000**	**$ 750,000**	**$ 500,000**	**$ 2,250,000**
Derivatives payable	**4,581**	**12,558**	**–**	**–**	**17,139**
Total	**$ 504,581**	**$ 512,558**	**$ 750,000**	**$ 500,000**	**$ 2,267,139**

					2020
(in thousands of dollars)	< 1 year	≥ 1–5 years	> 5–10 years	> 10 years	Total
Debentures	$ –	$ 750,000	$ 1,000,000	$ 500,000	$ 2,250,000
Derivatives payable	19,916	38,874	–	–	58,790
Total	$ 19,916	$ 788,874	$ 1,000,000	$ 500,000	$ 2,308,790

Note 8: Collateral and securities lending

COLLATERAL PLEDGED AND RECEIVED

Derivative transactions are supported by a CSA that regulates the collateral required when entering an ISDA master agreement. The collateral received mitigates the risk of potential losses. In the event of default, OPB has the right to offset credit risk with the collateral held. Securities pledged under derivatives arrangements continue to be recognized as OPB's investments as OPB retains the risks and rewards associated with these securities. Securities received under derivative arrangements are segregated from OPB's investments and OPB has the obligation to return the collateral to the owner on termination of the agreement. OPB does not have the risk and rewards associated with these securities.

As at December 31, 2021, OPB pledged $9.74 million (2020 – $163.32 million) and received $nil (2020 – $nil) in collateral. Note 4f illustrates how OPB's net exposure on derivatives is reduced by the collateral.

SECURITIES LENDING

Pursuant to a securities lending agreement, OPB's custodian and lending agent arranges loans with approved borrowers and OPB earns a fee. The lending agent follows strict lending criteria and over-collateralizes the loans with securities that have credit ratings equal to or better than the securities loaned. OPB does not employ cash collateral or letters of credit in its securities lending program. Securities loaned to third parties under lending arrangements continue to be recognized as OPB's investments as OPB retains the rewards and risks associated with these securities. OPB may request the redelivery of any or all loaned securities at any time or from time to time by providing notice of at least one business day. Securities held as collateral from third parties is not recognized as OPB investments as the rewards and risks have not been transferred.

At year-end, $742.79 million (2020 – $788.38 million) of OPB's securities were on loan to third parties. At year-end, $780.77 million (2020 – $829.71 million) of securities were held as collateral, providing a 5.11% (2020 – 5.24%) cushion against the potential credit risk associated with these securities lending activities. Note 4f illustrates how OPB's net exposure on securities lending is reduced by the collateral.

Note 9: Commitments and guarantees

As at December 31, 2021, OPB had unfunded commitments for certain private market investments of $5,462 million (2020 – $4,538 million).

OPB Finance Trust was established for the benefit of OPB and its related entities. It raises funds through the issuance of debentures. These debentures are recorded at fair value. The proceeds of the Series A, B, D, E and F debentures were loaned to several OPB wholly owned real estate subsidiaries. In turn, these real estate companies used the proceeds to repay amounts owed to OPB and/or to acquire real estate investments. The proceeds from the issuance of the Series C debentures were loaned to a real estate trust established for the benefit of OPB. OPB's real estate investments are shown net of the OPB Finance Trust debentures and any other financings specifically assumed by these real estate entities.

OPB has provided a guarantee for the payment of principal and interest on $2,250 million in debentures that were issued by OPB Finance Trust. Six series of debentures have been issued as at December 31, 2021:

1. $350 million, Series A, 30-year debentures due 2042, with a 3.89% coupon payable semi-annually.
2. $150 million, Series B, 50-year debentures due 2062, with a 3.87% coupon payable semi-annually.
3. $250 million, Series C, 10-year debentures due 2023, with a 2.90% coupon payable semi-annually.
4. $500 million, Series D, 7-year debentures due 2022, with a 1.88% coupon payable semi-annually.
5. $250 million, Series E, 10-year debentures due 2026, with a 2.95% coupon payable semi-annually.
6. $750 million, Series F, 10-year debentures due 2027, with a 2.98% coupon payable semi-annually.

In addition to the guarantee on the debentures, $8.8 million in letters of credit is guaranteed by OPB as at December 31, 2021 ($5.2 million as at December 31, 2020).

The Plan leases its office premises with minimum future lease payments as follows:

(in thousands of dollars)		Minimum Lease Payments
2022	$	3,555
2023		3,555
2024		3,555
2025		3,713
2026		3,713
Total	$	18,091

During 2020 IMCO subleased office space from OPB (Note 17).

Note 10: Capital assets

Capital assets as of December 31 consist of the following:

						2021						2020
(in thousands of dollars)		**Cost**		**Accumulated Depreciation**		**Net Book Value**		Cost		Accumulated Depreciation		Net Book Value
Computer equipment	**$**	**4,762**	**$**	**(4,762)**	**$**	**-**	$	4,762	$	(4,759)	$	3
Furniture and fixtures		**2,117**		**(1,980)**		**137**		2,117		(1,955)		162
Leasehold improvements		**1,878**		**(1,803)**		**75**		1,848		(1,801)		47
Total capital assets	**$**	**8,757**	**$**	**(8,545)**	**$**	**212**	$	8,727	$	(8,515)	$	212

Note 11: Pension obligations

FINANCIAL STATEMENT VALUATION

For the purposes of these financial statements, Aon, the Plan's actuary, used the funding valuation as at December 31, 2020 on the basis of the accounting methodology required by the CPA Canada Handbook – Accounting, Section 4600 and extrapolated those liabilities to December 31, 2021. The obligations as of December 31, 2020 have been extrapolated to December 31, 2021, based on the estimated service cost, benefit payments, asset transfers, past service buybacks, and estimated experience losses. The pension obligation, excluding PfAD, as at December 31, 2021 is $32.6 billion (2020 – $31.3 billion). The pension obligation, including PfAD, as at December 31, 2021 is $34.7 billion (2020 – $34.5 billion). During 2020 and 2021, changes were made to actuarial assumptions related to updated capital market assumptions, and the changes in Government of Canada long-term bond yields.

The actuarial assumptions used in determining the value of the pension obligations reflect management's best estimate of future economic and non-economic events. The primary economic assumptions as at December 31 are:

	2021	2020
Nominal discount rate before the application of the PfAD	**5.50%**	5.40%
Inflation	**1.80%**	1.75%
Real rate of return before the application of the PfAD	**3.70%**	3.65%
PfAD, a percentage of non-indexed liabilities and service cost	**7.78%**	12.07%
Effective real discount rate[1]	**3.25%**	2.98%
Salary increases		
2021	**1.50% + promotional scale**	1.50% + promotional scale
2022	**1.50% + promotional scale**	1.50% + promotional scale
2023	**1.50% + promotional scale**	1.50% + promotional scale
2024	**1.50% + promotional scale**	1.50% + promotional scale
2025	**1.50% + promotional scale**	2.50% + promotional scale
2026 and thereafter	**2.55% + promotional scale**	2.50% + promotional scale

1 The effective real discount rate is the rate that includes the impact of a margin for adverse deviation, rather than splitting out the PfAD as a percentage of liabilities, as required by post legislative changes.

FUNDING VALUATION

An actuarial valuation prepared for funding purposes ("funding valuation") is used as the basis for funding, Plan design decisions and the periodic determination of the Plan's pension obligations. This funding valuation is based on methods required under the PSP Act and the PBA. The PBA and the ITA require that a funding valuation of the PSPP be completed and filed with the regulatory authorities at least every three years.

The most recent regulatory filing of a funding valuation was as at an effective date of December 31, 2019, which disclosed pension obligations of $29,338 million, a Provision for Adverse Deviations of $1,988 million, and a funding shortfall of $2,101 million on a going-concern basis. A smoothed actuarial value of assets methodology was adopted to smooth investment gains and losses over a three year period. The funding valuation was prepared by Aon. The next required funding valuation to be filed with the regulatory authorities will have an effective date no later than December 31, 2022.

Note 12: Contributions

The contribution requirements are set out in the PSP Act and summarized in Note 2. The Government of Ontario, as sponsor of the Plan, contributed $287 million in 2021 (2020 – $283 million) in special payments towards the funding shortfall identified in the filed funding valuation as at December 31, 2019. In 2021 the Province also made an additional contribution of $385 million which generated a prior year credit balance ("PYCB") in the funding valuation. A PYCB can occur when a Plan Sponsor makes more than the minimum contribution.

For 2020 and 2021, the contributions to the Plan were made in accordance with the funding requirements as specified by the most recently filed actuarial funding valuation.

There was $256 thousand in required contributions past due as at December 31, 2021 ($243 thousand as at December 31, 2020).

For the year ended December 31 (in thousands of dollars)	**2021**	2020
Members		
Current service required	**$ 387,385**	$ 379,112
Prior service	**43,888**	43,002
Long-Term Income Protection benefits	**818**	748
	432,091	422,862
Employers		
Current service		
Regular contributions	**390,398**	376,040
PSSBA transfer[1]	**(18,545)**	(19,928)
For members receiving Long-Term Income Protection benefits	**15,341**	16,076
Prior service	**4,028**	3,817
	391,222	376,005
Sponsor		
Special payments[2]	**672,200**	283,261
Additional current service	**–**	23,300
	672,200	306,561
Total contributions	**$ 1,495,513**	$ 1,105,428

1 Effective January 1, 2022 the PSSBA is succeeded by the RCA.

2 Included in special payments is a $385 million contribution as a prior year credit balance ("PYCB") in the funding valuation.

Note 13: Operating expenses

For the year ended December 31 (in thousands of dollars)		2021[1]		2020[1]
Staffing	**$**	**22,409**	$	22,138
IT and project management		**12,590**		10,286
Office premises and operations		**5,212**		4,988
Professional services		**1,997**		1,635
Depreciation		**30**		72
Staff development and support		**358**		286
Communications		**432**		485
Audit		**309**		528
Board remuneration		**285**		237
	$	**43,622**	$	40,655

1 Included in the above operating expenses are actuarial services provided to OPB amounting to $811 thousand (2020 – $744 thousand) and external audit services provided to OPB amounting to $267 thousand (2020 – $478 thousand).

Note: Recorded by subsidiary operations are external audit services provided to and recorded by subsidiaries amounting to $276 thousand (2020 – $266 thousand).

Note 14: Termination and other benefit payments

Terminations and other benefit payments consists of the following amounts:

For the year ended December 31 (in thousands of dollars)		2021		2020
Transfers to other plans	**$**	**27,403**	$	23,755
Commuted value transfers and death benefits[2]		**168,786**		153,263
Total termination and other benefits	**$**	**196,189**	$	177,018

2 Disability payments amounted to $nil in 2021 and 2020.

Note 15: Transfers of service from other plans

Transfers of service from other plans consists of the following amounts:

For the year ended December 31 (in thousands of dollars)		2021		2020
Transfers from OPSEU Pension Plan	**$**	**119,537**	$	71,517
Transfers from MOPPs		**10,130**		13,890
Transfers from other plans		**4,664**		4,833
Total transfers of service from other plans	**$**	**134,331**	$	90,240

Note 16: Accounts receivable and prepaid expenses

Accounts receivable and prepaid expenses consists of the following amounts:

(in thousands of dollars)		**2021**		2020
Prepaid expenses	**$**	**8,944**	$	8,192
HST recoverable		**1,850**		1,439
Other receivables		**1,171**		871
Total accounts receivable and prepaid expenses	**$**	**11,965**	$	10,502

Note 17: Related party transactions

In the normal course of business, OPB transacted with various ministries, agencies and Crown corporations over which the Government of Ontario has control or significant influence. The Government of Ontario is the sponsor of the Plan. OPB purchased investments with IMCO, the Government of Ontario and related entities at normal commercial terms. Refer to Note 4h for details on IMCO pooled funds.

OPB provides additional employee benefit administrative services for the Province under Service Level Agreements. These services are all provided on a cost-recovery basis and have no net impact on OPB's operating expenses budget.

During 2020, IMCO subleased office space from OPB for $1.4 million and the sublease agreement terminated December 31, 2020. In 2018, IMCO entered into an arrangement to lease office space in a building partially owned by OPB and the lease commenced in 2021. The lease agreement was negotiated on an arm's length basis.

OPB administers the PSPP, in which all eligible IMCO employees participate. In relation to this service, IMCO remits to OPB the employee contributions and employer matching portion. IMCO has been managing OPB's investment assets since July 2017. OPB pays its share of IMCO's operating and capital expenditures on a cost recovery basis (Note 6b). External investment manager and custodial fees are paid by IMCO on OPB's behalf.

Note 18: Capital management

The funding surpluses or deficits determined periodically through the funding valuations prepared by the independent actuary are defined as the Plan's capital. The actuary's funding valuation is used to measure the long-term health of the Plan. The objective of managing the Plan's capital is to ensure the Plan is funded to fully pay out the Plan's benefits. The funding valuation determines the annual minimum contribution levels to eliminate any shortfalls. The Plan's SIP&P also provides guidance with respect to the investment of the Plan's assets (see Note 4a) to assist with the management of any funding excesses or shortfalls. The Plan's expected average annualized real rate of return has been set in the SIP&P at equal to or greater than 3.7%, net of expenses.

Note 19: Subsequent events

Effective January 1, 2022, OPB was appointed the trustee of the RCA which funds benefits previously paid from the PSSBA. Additional information can be found in Note 2.

Directory of Key Personnel

Officers

Mark J. Fuller
President & Chief Executive Officer

Christian Kautzky
Chief Investment Officer

Mila Babic
Vice-President, Client Services

Jasmine Kanga
Vice-President, Human Resources & Corporate Services

Peter Shena
Executive Vice-President & Chief Pension Officer

Valerie Adamo
Chief Technology Officer

Armand de Kemp
Vice-President, Finance

Glossary

Active risk: The volatility or fluctuations of portfolio returns compared to the portfolio benchmark.

Asset class: A group of securities that exhibit similar characteristics.

Asset mix: The categorization of asset classes within the pension plan portfolio (e.g., cash, Canadian equities, real estate, etc.). Each category is measured as a percentage of the total pension plan portfolio's fair value.

Assumptions: Estimates of what certain variables – such as interest rates, investment returns and mortality rates – will be in the future. Assumptions are used to estimate the future cost of pensions and the future value of pension assets.

Benchmark: A point of reference that is used to compare portfolio performance and risk. The S&P/TSX Composite Index is a commonly used benchmark to compare Canadian equity portfolio performance and risk. OPB's Strategic Asset Allocation (SAA) is a benchmark against which the overall Plan is assessed from a risk and return perspective.

CEM Benchmarking Inc.: An international pension administration benchmarking company.

Counterparty risk: The risk of a counterparty not fulfilling its contractual financial obligations.

Debenture: A long-term debt security normally yielding a fixed rate of interest, not secured against assets.

Discount rate: The expected rate of future investment return used to calculate the present value of pensions.

Factor risk: Shows which investment factors – macroeconomic (such as gross domestic product, inflation and interest rate) and fundamental (such as value, momentum and size) – drive the level of portfolio risk and return.

Funded status: A measure of the amount of assets the pension plan currently holds to pay out its future pension benefits (present value of projected future pension benefits). The funded status is regarded as the "health check" of a pension plan, and is determined by undertaking a funding valuation of the pension plan.

IMCO: Investment Management Corporation of Ontario.

Implementation and Support Agreement (ISA): The ISA deals with operating and governance matters such as employee transition in the short term, shared services, IMCO governance policies, and cost allocation and cost containment principles.

Investment Management Agreement (IMA): The IMA governs the investment management relationship between IMCO and OPB, and focuses largely on investment-related matters.

LEED: Leadership in Energy and Environmental Design (LEED) is a program that sets standards used internationally for the design, construction and maintenance of environmentally sustainable buildings and infrastructure.

Options: Options are contractual agreements under which the buyer has the right, but not the obligation, to either buy (call option) or sell (put option) an underlying asset at a predetermined price on or before a specified future date.

Passive investing: Passive investing is an investment strategy that aims to mimic the returns of a specific index. This type of strategy is generally lower cost.

Pension modernization: A program we are initiating to re-engineer our business processes and review and upgrade our pension administration system to allow us to meet the evolving needs of our clients and stakeholders, and ensure our technology remains current and secure.

PMA: Public market alternatives include a broad range of assets, including pooled funds, equities, fixed income, credit, and currencies, as well as derivatives, seeking to offer low correlation to public equities.

PSPP: The Public Service Pension Plan.

Renminbi: General term for the currency of the People's Republic of China (PRC). The renminbi (or yuan) is made up of 10 jiao and 100 fen and is often either abbreviated as RMB or presented with the symbol ¥. Renminbi is issued by the People's Bank of China, which is controlled by the PRC.

Responsible Investing (RI): The integration of environmental, social and governance (ESG) factors into the investment decision-making and monitoring process, which supports long-term investment performance.

Risk-adjusted return: A measurement used to analyze an investment's return based on how much risk is involved in producing that return. Risk-adjusted returns can be used to compare the return of a portfolio against a benchmark with a known return and risk profile.

Strategic Asset Allocation (SAA): A long-term strategy that involves setting target allocations of the Plan's asset mix with the purpose of achieving highest returns on investment to meet current and projected future pension benefits given the Plan's risk tolerance and investment horizon.

Total risk: The volatility or fluctuations of portfolio returns over a defined period of time.

WELL certification: WELL Building Standard™ (WELL) is a performance-based system for measuring, certifying and monitoring features of buildings that impact the health and well-being of the people who live, work and learn in them.

WSIB: Workplace Safety and Insurance Board, a Crown agency of the Government of Ontario.

Yield to maturity (YTM): Total return anticipated on a bond if the bond is held until the end of its lifetime. Yield to maturity is considered a long-term bond yield, but is expressed as an annual rate.