OPB
Your Pension. Our Promise.

# Management's Discussion & Analysis

## Introduction

At the end of 2016, the Public Service Pension Plan (PSPP or the Plan) remains well funded at an estimated 97% on a going-concern basis. This success is a result of our Investments team's continued ability to deliver strong returns especially in a low-growth, low-interest-rate environment.

The sound performance from both private and public markets investments position us well to meet the long-term needs of the Plan to continue delivering on the pension promise to our members and stakeholders. Our 8.1%[1] return was an impressive result given the economic conditions and OPB's investment risk appetite, which has generally been on the conservative side given our current active-member-to-retired-member ratio.

At OPB, we understand that protecting members means that we must excel at both managing the Plan and meeting our members' needs. In 2016, we set up pensions for almost twice as many members as the year before and helped over 3,000 members navigate critical pension decisions, all while maintaining strong client service scores without increasing our pension administration costs.

Once again, OPB was widely recognized as a leader in the global pension landscape – continuing to rank second in pension administration among 12 Canadian plans, and seventh in the world out of 72 plans by CEM, a leading benchmarking firm.

In 2016, we implemented or advanced a number of initiatives to help protect the pension promise and to better serve our members. We:

- helped to establish the Investment Management Corporation of Ontario (IMCO), which will become OPB's investment manager beginning in June 2017, a move that we believe will help us earn higher risk-adjusted returns in the long term;
- continued to promote and enhance our Advisory Services program to provide members and retired members with the guidance they need to make informed pension decisions that align with their broader retirement plans and financial circumstances;

1 For 2016, the investment fees of external managers for private assets were deducted from the gross Total Plan return.

- planned for the upcoming replacement of our pension IT systems and the re-engineering of our processes to provide an enhanced and more responsive client service experience to members;
- furthered the internalization of asset management (Internalization Program), which now includes management of the full money market mandate, a passive government fixed income mandate and a new absolute return strategy;
- enhanced our performance and risk reporting process, improving our ability to respond to shifting market conditions and make timely investment decisions;
- increased our gross exposure to private markets investments by approximately $832 million, including an almost 70% increase in private equity investments;
- pursued and nurtured key relationships with like-minded institutional investors, by seeking out new co-investment opportunities;
- enhanced our Responsible Investing (RI) capabilities by bringing proxy voting in-house and hiring a Director of Responsible Investing, together improving our capacity to assess and mitigate long-term environmental, social and governance risk;
- actively promoted the socio-economic value of the defined benefit (DB) model and demonstrated – by way of example – that DB plans are sustainable when well-managed; and
- continued to manage expenses strategically and responsibly so that we continue to meet and, ideally, exceed government expectations for fiscal restraint while improving our performance.

This section of the report expands on these and other important initiatives from 2016.

# Funding

Our strong rate of return (8.1%[1]) contributed to the Plan maintaining its strong funded status, which is critical to delivering on the pension promise. At the end of 2016, we estimate the Plan was 97% funded on a going-concern basis. We maintained our funded ratio despite adjusting our inflation assumption and reducing our discount rate assumption to 5.7%, which added approximately $500 million to our liabilities.

The Plan's discount rate is a key assumption that is used in valuations and can influence contribution rates and benefits. It reflects what the Plan's assets can reasonably be expected to earn over the long term (less expenses and provisions for unanticipated events). Setting the discount rate is a rigorous process designed to ensure that the assumption is reasonable and aligns with the long-term investment returns OPB management believes can be achieved over the long term, based on the SAA asset mix targets. This is based on robust modelling that allows for a cushion. It was through this process that we determined that the discount rate should be reduced from 5.95% to 5.7% at the end of 2016.

Changes to the discount rate impact the Plan's projected liabilities (for example, a lower discount rate means higher plan liabilities) and, by extension, impacts the Plan's funded position.

1 For 2016, the investment fees of external managers for private assets were deducted from the gross Total Plan return.

As we look forward, we believe we are going to see a lower investment return environment. Given that, we believe adjusting the discount rate to reflect that long-term returns are likely to be lower is the prudent and responsible decision. Despite that reduction in the discount rate, the Plan remains well funded and well positioned to continue to meet the pension promise.

Effective pension plan management is not about short-term investment returns or performance in a given year. It is about the careful and prudent management of both our investment returns and the design and funding of the Plan (i.e., discount rate, contributions and benefit structure) over the long term. OPB continues to manage the sustainability of the Plan with care and prudence, including adhering to a robust funding policy. The Plan's current funding policy, developed with the Treasury Board Secretariat and approved by OPB's Board of Directors in 2014 and the President of Treasury Board, guides decisions around Plan design, funding and valuation assumptions.

For the financial statements, the Plan uses the actuarial valuation (effective as of December 31, 2015) and extrapolates the pension obligation forward to December 31, 2016. The extrapolated numbers are based on the assumption that the Plan's 2016 experience (for factors such as salary increases, retirement ages, terminations and mortality rates) match the Plan's actuarial assumptions. The extrapolation reflects indexing adjustments made to pensions as of January 1, 2016.

In 2016, OPB initiated a Long-Term Funding Study (LTFS) to ensure the sustainability of the Plan and to determine if the cost of providing the benefits under the Plan had increased as well as whether the current economic and demographic assumptions remain appropriate. The last LTFS, conducted in 2014, indicated there had been a slight increase in the cost of providing pensions. Conducting this study earlier than usual demonstrates OPB's prudent stewardship of the Plan.

Given the current economic environment and the continuing changes we're experiencing with members living longer, our preliminary analysis indicates that the long-term cost of providing benefits has, in fact, increased. As a result, it is likely that OPB will be recommending a modest contribution rate increase for both members and employers.

We are in a challenging environment for retirement plans in general and the work we are doing today will ensure the long-term sustainability of the Plan. Our actions in 2016 focused on positioning the Plan for success going forward – helping to protect the pension promise for today's and tomorrow's members.

## Funding

| What we did | Why it matters |
|---|---|
| Conducted an interim funding valuation | OPB is required to file a valuation with the Financial Services Commission of Ontario (FSCO) at least once every three years. However, OPB conducts interim valuations every year to ensure funding levels are tracking as expected. Our latest funding valuation measured the Plan's funding as of December 31, 2015. Our next funding valuation for December 31, 2016 must be filed with FSCO in 2017. |

## Managing funding

The funded status of a pension plan is, in simple terms, determined by the pension equation, which compares the value of pension assets on one side with the value of pension liabilities on the other. 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.

During the 1990s, investment returns exceeded expectations, prompting many plans to focus more on assets than liabilities. At the same time, a number of factors, including declining interest rates and longer life expectancies, began to influence the long-term cost of the Plan's pension liabilities (obligations). The combined impact of higher pension costs and the onset of market volatility quickly eroded funding surpluses and left most plans facing funding shortfalls – in many cases, significant shortfalls.

At OPB, we pride ourselves on having always paid closer attention to the liability side of the pension equation. Our focus on liabilities and regularly updating our assumptions to reflect emerging experiences has significantly contributed to the Plan's continued financial health. Despite ongoing economic and financial market challenges, we've been able to progress along the path to full funding while keeping benefit levels stable and contribution rates affordable.

Our success in managing liabilities can be attributed to two key factors:

1. OPB and its stakeholders have, together, made informed and responsible decisions about the benefit levels promised by the Plan; and
2. OPB has done a good job of setting prudent and realistic demographic and economic assumptions, which are used to calculate the Plan's pension obligations, and has made contribution rate adjustments in a timely fashion when needed.

## Financial position

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

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.

| Valuation type | Purpose and description |
|---|---|
| Funding basis | Pension plans are legally required to file a funding valuation with the regulator, FSCO, once every three years. OPB filed its 2013 valuation in September 2014. The valuation indicated that the Plan was 96% funded and had a shortfall of $804 million. That compares to 94% funded with a shortfall of $1.2 billion at December 31, 2010 (the previous valuation filed with pension regulators). |
| For financial statements | For the purposes of the financial statements, the Plan's liabilities were calculated as of December 31, 2015, the date of the last funding valuation, and extrapolated to December 31, 2016. The extrapolated numbers are based on the assumption that the Plan's 2016 experience (for factors such as salary increases, retirement ages, and termination and mortality rates) match the Plan's actuarial assumptions. The extrapolation reflects indexing adjustments made to pensions as of January 1, 2016.<br><br>For financial reporting purposes, we have calculated the Plan's 2016 year-end financial position by comparing the extrapolated liability with the actual market value of assets as of December 31, 2016. Based on this, the Plan had a deficit of $796 million. |

# Investments

## Disciplined and astute investing

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 relatively affordable contribution rates for members and participating employers.

To achieve these objectives, OPB has developed an investment approach that emphasizes capital preservation and seeks to generate strong, long-term investment returns within an acceptable risk framework by:

- minimizing unrewarded risk;
- reducing Total Risk;
- focusing on fundamental research and analysis to make investment decisions; and
- sourcing global investment opportunities that provide predictable cash flow.

During 2016, our Investments team focused on four key areas:

1. optimizing the implementation and management of the Strategic Asset Allocation (SAA);
2. continuing to build our in-house expertise and asset management capabilities;
3. enhancing our portfolio performance and risk reporting; and
4. providing implementation and advisory support to the Asset Pooling initiative.

These key areas of focus are discussed in more detail on the following pages.

## Strategic Asset Allocation (SAA)

Managing the OPB portfolio according to the SAA (which is based on the actuarial liability profile of the Plan) continues to provide good diversification and enhance our risk-adjusted returns. The SAA targets help us best meet the Plan's long-term funding objectives while effectively managing investment risk.

In 2016, OPB continued to implement the SAA targets, which called for a shift in the Plan's assets from public to private markets investments, according to a planned five-year phase-in period that began in 2014. OPB increased the Plan's holdings in private assets from 26% at the end of 2015 to 27% at the end of 2016. In 2016, all three private markets asset classes were close to or exceeded their phase-in SAA target weights. The Plan also continued the transition from universe bonds to long bonds, which provide a better match with the Plan's long-term cash flow needs.

OPB initiated a new asset/liability (A/L) study in 2016. This study provided OPB with up-to-date data on the correlation between our assets and liabilities in advance of the operational launch of IMCO. Additionally, the A/L study helped to confirm prior investment decisions and provided the opportunity to revisit our SAA as the economic landscape continues to change. The 2016 A/L study validated the 2014 decision to shift assets from public to private markets overall and the Board of Directors approved an updated SAA in early 2017, increasing the allocations to private equity and infrastructure assets, and making a small decrease in the real estate allocation.

Private markets assets help (1) insulate the Plan from public markets volatility; (2) enable us to generate a larger proportion of returns from ongoing and predictable cash flow; (3) provide a greater degree of transparency, increased governance and due diligence; and (4) provide the potential for higher overall returns. In the case of real assets, this enables us to generate a larger proportion of returns from ongoing cash flow versus capital appreciation and have a high correlation to the Plan's inflation-based pension obligations.

As we move forward with our search for high-quality global opportunities, OPB will continue to be thorough in its analysis, and take measured, smart risks. We consider what role an investment will play in our portfolio (from both a risk and return perspective) and whether it complements our existing holdings. Compared to four years ago, the Plan's Reward to Risk ratio (four-year return divided by volatility) increased by over 50% (199.8% as at December 2016 versus 145.6% as at December 2012).

Additionally in 2016, OPB developed a Benchmarking Policy outlining governing principles and procedures for changes to the SAA and mandate-specific benchmarks that enable the Plan to assess and monitor the Portfolio's risk and performance relative to the SAA on an ongoing basis.

### SAA asset mix targets

| Asset class | 2017 New SAA[1] | 2014 Previous SAA |
|---|---:|---:|
| Fixed Income | 25% | 25% |
| Equity[2] | 42.5% | 42% |
| Real Assets[3] | 32.5% | 33% |

## Continuing the growth of in-house management capabilities

OPB continued to expand its in-house expertise and management of assets in 2016 (Internalization Program). In addition to continuing to grow our private markets investments' allocation and the associated internal private markets capabilities, OPB developed and launched a second internal absolute return strategy and completed its efforts to internalize the Plan's full money market mandates. The Internalization Program also developed and prepared for the early 2017 internalization of passive government Fixed Income. By implementing and supporting further internal asset management, we are better able to agilely respond to market movements and opportunities and generate incremental risk-adjusted returns on a cost-effective basis.

1 The 2017 SAA targets are the ultimate targets to be phased in over a three-year period. This is distinct from the SAA targets that are disclosed in Note 4(a) of the Financial Statements, which are the transition plan's year-end target allocation.

2 Equity is comprised of Public Equity and Private Equity.

3 Real Assets is comprised of Real Estate and Infrastructure.

Along with growing the Internalization Program, OPB continued to advance its very successful Tactical Asset Allocation (TAA) strategy, adding resources to increase its ability to assess the forces that drive global markets and increase risk deployment best practices.

Leveraging this expertise, we were again able to make very timely TAA decisions in 2016 that bolstered our overall investment results. For example, in January and February 2016, the Asset Mix Committee took steps to preserve stakeholder capital by initiating a relative short position in equities (i.e., reducing the Plan's exposure to equity markets) and purchasing protective put options. The strategy was well timed. Not only did the reduced exposure to public equity markets help preserve capital, the Plan benefited from the increased market volatility as the value of the put options increased during the subsequent market turbulence. By year-end, the Asset Mix Committee had again repositioned the Plan for a rally in global equities, recognizing the underlying global growth impetus and inflationary signs by lessening exposure to fixed income and shortening duration, and overweighting global equities.

## Investment risk assessment and analysis

The Internalization Program increases our ability to adapt quickly to changing markets and pursue opportunities that can offer better long-term returns. While this key initiative enables OPB to manage market and currency risk more effectively, it adds a level of complexity that demands an increased focus on investment risk management, compliance, monitoring, and middle- and back-office support. Our risk-managed approach to investing integrates investment risk management into the investment decision-making process and day-to-day activities.

In 2016, we enhanced OPB's investment and risk reporting by developing a fully automated comprehensive risk reporting tool that enables risk attribution, measurement and monitoring. A new performance attribution report was developed to assess the impact of the Asset Mix Committee's investment decisions on Total Plan relative performance, providing management with additional information when positioning the OPB portfolio. We believe being able to attribute, measure and monitor the investment risk associated with a particular investment as a contribution of the Total Plan's investment risk improves the return/risk relationship of our investment decisions by taking only those investment risks that expect to be duly rewarded.

OPB advanced other risk assessment and reporting initiatives in 2016 including:

- Counterparty risk, to assess the dollar value of risk associated with derivative counterparty default, is now reported on a daily basis;
- A diversification benefit report was developed to assist with potential risk mitigation actions from investing in, or divesting from, different asset classes; and
- A trend analysis is now provided in reporting – incorporating insight on future investment risk and the likelihood of significant financial events.

Additionally, OPB updated and reviewed key risk policies in 2016. The Investment Risk Policy and associated research was fully reviewed and all of the original findings relating to outperformance versus the SAA within an acceptable risk framework were re-confirmed. Managing liquidity risk is also of utmost importance and, to this end, the OPB Liquidity Policy was fully reviewed to re-assess the minimum physical cash needed should a liquidity event occur. The result of the Policy review also re-confirmed all of the original findings.

## Investment

| What we did | Why it matters |
|---|---|
| Achieved an annual investment return of 8.1%[1] | Despite ongoing market volatility and a low-interest-rate environment, good investment returns helped partially offset the negative impact of lowering the discount rate used in the valuation of OPB's pension liability at December 31, 2016. |
| Came close to or exceeded our SAA phase-in targets | The Investments team continued working to meet the SAA targets identified in 2014 to better match the Plan's liability profile. Targets were adjusted to place more emphasis on private markets investments and long-term bonds. |
| Developed an analytical tool used for multi-manager factor return attribution monitoring | Increases management's effectiveness in evaluating external manager mandates and improves ongoing due diligence discussions and market research. |
| Internalized our money market mandate and developed the capability to manage passive fixed income in-house. Developed and implemented a second absolute return mandate as part of the Internalization Program | Internally managed assets helps us to reduce costs and increase efficiency in executing overall asset mix decisions. We are better able to agilely respond to market movements and opportunities and generate incremental risk-adjusted returns on a cost-effective basis. |
| Advanced our TAA strategy | Our TAA strategy helps enhance returns by taking advantage of perceived market anomalies at various points in the market cycle and preserving capital in volatile markets. Timely TAA decisions contributed almost 25% of the Total Plan's outperformance versus the benchmark in 2016. |

1 For 2016, the investment fees of external managers for private assets were deducted from the gross Total Plan return.

| What we did | Why it matters |
|---|---|
| Continued to increase our exposure to private markets investments by adding approximately $832 million | Private markets investments help insulate the Plan from public markets volatility and enable us to generate a larger proportion of returns from ongoing cash flow versus capital appreciation. |
| Invested in our first U.S. multi-residential real estate investment ($67 million) | Multi-residential is an attractive asset class because of its consistent cash flow and inflation hedge characteristics. As entry can be expensive, we have been selective and are utilizing our existing relationships to access better quality properties. |
| Increased our investment in private equity by almost 70% on a gross basis, including the addition of over $100 million in co-investments | Co-investments help the Plan deploy dollars more quickly to reach our Private Equity SAA phase-in targets. They also help reduce fee drag and mitigate the J-curve (i.e., mitigate against lower returns in the early years – paying fees to managers before they have actually made investments) by investing in assets directly or in more mature funds. |
| Made infrastructure investment commitments of approximately $357 million to two key global partnerships | Working with trusted partners provides access to high-quality assets that may not otherwise be available. Additionally, OPB can leverage their deal execution and investment management experience. |

## Asset mix

Asset mix is the single most important driver of investment performance. At OPB, asset mix is broadly defined in our SAA, with deviations based on our TAA strategy.

OPB's asset mix for investment purposes comprises:

- Fixed Income (cash, short-term investments and fixed income investments);
- Equities (stocks in both public and private investments, and emerging market debt); and
- Real Assets (Real Estate and Infrastructure).

## Asset mix

As at December 31, 2016


## Bond offerings

Issuing bonds allows us to enhance the return on our Real Estate portfolio in a cost-effective manner; the financing allows OPB to add high-quality assets to its Real Estate portfolio that generate cash flows greater than the amounts needed to cover the interest payments on the OPB bonds. In February 2016, OPB completed its fifth private placement of bonds in the amount of $250 million (Series "E"). The 10-year offering was priced with a 2.95% annual coupon (interest payment to bondholders) and was distributed across 29 institutional buyers, which included seven new buyers of OPB's bonds. Net proceeds from this bond issue were loaned to a wholly owned real estate subsidiary that, in turn, partially repaid an amount loaned to it by OPB for the acquisition of a 30% co-ownership interest in the Toronto TD Centre.

Also, in January 2017, OPB issued $750 million (Series "F") of 10-year bonds priced with a 2.98% annual coupon in conjunction with the purchase of a 25% interest in a portfolio of properties located in Vancouver.

Bond issues are rated by credit agencies, and we are very pleased that our bond issue again received strong ratings from both Standard & Poor's (S&P) and Dominion Bond Rating Service (DBRS), which confirmed our ratings at AA+ (S&P) and AA (high) (DBRS).

## Investment performance

Investment excellence continues to be a top priority for OPB. OPB is pleased with the performance of the Plan in 2016. Our overall annual return of 8.1%[1] exceeded the portfolio benchmark by 1.5% and helped maintain the current funded status of the Plan. The Plan's return, net of all fees and operating expenses, for 2016 was 7.6%, which was 1.0% above the benchmark.

1 For 2016, the investment fees of external managers for private assets were deducted from the gross Total Plan return.

A number of factors positively impacted our results in 2016. The Infrastructure and Private Equity portfolios experienced favourable absolute returns and, as a group, the Plan's public market managers outperformed their benchmarks, enhancing returns. The Plan's TAA strategy also contributed to strong returns. Timely decisions throughout the year helped to preserve stakeholder capital in down markets and enhance returns in rising markets. Our Real Estate portfolio was also a strong contributor to returns. Property values increased on a number of holdings including Halifax Shopping Centre, following the completion of renovations, and TD Centre.

While interest rates remain close to historic lows, they started to trend up in the second half of 2016, reflecting improved global growth and rising inflation expectations. Management's decision to implement a shorter duration strategy mitigated the impact of the interest rate increase on the Plan. On an absolute basis, the rise in interest rates hurt total portfolio returns as, when interest rates rise, bond prices decline, resulting in a decline in the value of fixed income holdings.

Given that pensions are accrued and paid out over decades, pension plans need to take a long-term perspective. As such, our investment approach emphasizes capital preservation and seeks to generate stable, long-term investment returns within an acceptable risk framework by minimizing unrewarded risk; reducing Total Risk; focusing on fundamental research and analysis to make investment decisions; and sourcing diversified investment opportunities that provide predictable cash flow. On a four-year basis, our compounded annualized return has exceeded the portfolio benchmark by 1.1% per year.

**Public Markets investments**

OPB continued shifting assets from Public Markets to Private Markets, as part of the SAA shift initiated in 2011 and confirmed in the 2014 asset/liability study. As of December 31, 2016, public markets investments accounted for 73.0% of OPB's net assets, compared to 74.0% at year-end 2015. We in-sourced select public markets assets identified as part of OPB's Internalization Program (e.g., money markets, a second absolute return strategy, and prepared for passive government Fixed Income), which better positions us for value-added portfolio management, lower costs and greater control and transparency.

Additionally in 2016, we:

- continued to transition from universe to long bonds, which provide a better match for the Plan's long-term cash flow needs;
- prepared to fund two Chinese Renminbi bond strategies to capitalize on the higher spreads available (versus Canadian Government Bonds) and increase our exposure to what we believe to be a currency with potential to appreciate over the long term;
- committed approximately $250 million in a number of well-diversified investments targeting returns in excess of 10%; and
- entered into agreements to sell three Public-Private Partnership investments resulting in an approximate 30% internal rate of return (IRR) and 1.42x multiple of capital.

**Interest-bearing investments** – Interest-bearing investments give the Plan a stable source of cash flow. They also help preserve capital in times of market volatility. As of December 31, 2016, interest-bearing investments accounted for 25.4% of the Plan's net assets and included:

- **Fixed Income** – The Plan's Fixed Income portfolio, including global bonds, real return bonds, and private debt with currency hedging, but excluding emerging market debt, provided a solid return of 4.2% in 2016, ending the year valued at $6.2 billion. That compares to a 3.3% return in 2015, when the year-end value was $6.6 billion.
- **Private Debt**[1] – Established as an internally managed strategy within OPB's Public Fixed Income portfolio in 2009, Private Debt assets consist mostly of high-quality, investment-grade, income-bearing fixed income products of various maturities that are unavailable in the public market. This gives OPB the capability to invest in private credit across the risk spectrum (investment and non-investment grade) and capitalize on market opportunities while maintaining a focus on capital preservation and current cash yield. Private Debt has a flexible allocation that can be up to 4.5% of the Fund (to a maximum of 25% of the Fixed Income portfolio). The portfolio returned 9.0% in 2016 on a currency hedged basis, with a year-end value of $456 million. That compares to a return of 8.2% and a year-end value of $390 million in 2015. Since inception, Private Debt has generated a compounded annual return of 9.4%.

**Public Equities** – The Plan's Canadian equity portfolio returned 25.6% in 2016. That compares to -9.3% in 2015. The year-end market value of the portfolio was $2.8 billion, compared to $2.2 billion at year-end 2015.

The Plan's foreign developed market equity portfolio generated a return of 2.7% in 2016. That compares to 21.7% in 2015. At year-end 2016, the portfolio held a market value of $5.0 billion, compared to $4.7 billion at year-end 2015.

The Plan's emerging markets equity portfolio, which includes emerging market debt, returned 6.1% in 2016, compared to 5.0% in 2015. As of December 31, 2016, the portfolio's market value was $3.8 billion, compared to $3.5 billion at year-end 2015.

Seeking to diversify the management of OPB's developed market equity currency overlay program, management initiated an external foreign currency (FX) manager search, ultimately hiring two additional high-calibre managers. The new portfolio of FX strategies includes allocating specified portions of the Plan's overall FX exposure to three unique investment management styles (quantitative, discretionary and fundamental).

1 For 2016, the investment fees of external managers for all private assets were deducted from gross returns. Management did not adjust the 2015 gross returns for all private asset fees as the information was not immediately available. Currency hedging for Private Debt assets began June 1, 2015. Prior to that date, hedging for Private Debt was executed at the Total Plan level. Accordingly, the 2015 returns for Private Debt have been updated to reflect partially unhedged returns.

## Private Markets investments[1]

While demand for quality private markets assets remains high, OPB's reputation as a trusted and respected partner provides access to high-quality deal flow and assets that may not otherwise come to market. This enables the Plan to increase exposure to private markets asset classes by deploying dollars more quickly via direct and co-investment opportunities versus investing only via private funds. This strategy helps reduce fee drag and mitigate the J-curve.

As previously indicated, the SAA phase-in targets continued to shift assets from public to private markets in 2016. Real assets such as real estate and infrastructure assets help partially protect the Plan from public markets volatility as a larger proportion of their returns are generated from predictable ongoing cash flows versus capital appreciation. Private equity offers attractive risk-adjusted returns and allows improved diversification by asset type, industry and geography. OPB's Private Markets investment strategy involves acquiring first-class real estate properties, core infrastructure assets and private equity buyouts through a combination of direct investment, fund investments and co-investments.

OPB increased its gross exposure to private markets investments by approximately $832 million in 2016, increasing our Private Equity portfolio by almost 70%. All three private market asset classes were close to or exceeded their phase-in SAA target weights in 2016. Infrastructure and Private Equity were above weight. Real Estate met the target interim weight when it was phased in mid-year. As a result of strategic dispositions, Real Estate was under target weight benchmark at year-end, but exceeded benchmark after a significant investment in Vancouver closed in early 2017. We will continue to move forward in our search for global private markets opportunities in 2017 in-line with our current strategy, and seek out assets that complement our existing holdings.

As of December 31, 2016, Private Markets investments accounted for 27.0% of OPB's net assets, up from 26.0% at year-end 2015. The market value of these investments as of December 31, 2016 was $6.6 billion, up from $6.0 billion at year-end 2015.

Our Private Markets portfolio continued to generate strong returns in 2016. The portfolio's success can be attributed to several factors:

- our disciplined approach to investing;
- our success in avoiding the J-curve effect;
- strong relationships with partners who continue to give us access to top-quality investment opportunities; and
- our ability to negotiate the best possible investment fees.

1 Currency hedging of foreign Real Estate, Private Equity and Infrastructure investments at the asset class level began April 1, 2015. Prior to that date, hedging for all foreign private assets was executed at the Total Plan level. Accordingly, the 2015 returns for Real Estate, Private Equity and Infrastructure have been updated to reflect partially unhedged returns.

Following is a more detailed breakdown of Private Markets by asset class.

**Real Estate** – OPB's Real Estate portfolio is presented net of financings and made up of:

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

Real estate assets provide strong cash-flow generation, more stable returns than equity market assets, and a hedge against inflation, which makes them a good match for the Plan's long-term pension liabilities. Our allocation to real estate assets as of December 31, 2016 stood at 18.0%. The portfolio's net market value at year-end 2016 was $4.4 billion, compared to $4.3 billion a year earlier.

OPB's Real Estate portfolio returned 9.5%[1] in 2016, compared to 10.2% in 2015 on a hedged basis. Since 1994, when OPB made its initial investment in real estate, the portfolio has generated an average annual return of 10.4%. The Real Estate portfolio return is measured net of privately issued bonds guaranteed by OPB of $1.5 billion (par value) at the end of 2016 ($1.25 billion (par value) as at December 31, 2015) and any property-specific mortgages. The objectives of the Plan's financing strategy are:

- improving returns on OPB's rental property portfolio;
- improving the funded status of the Plan over the longer term; and
- creating a partial hedge against a decline in the market value of the Plan's rental properties arising from higher interest rates in the future.

OPB continued the active expansion of its Real Estate portfolio in 2016. Our Investments team added to our Manhattan office property holdings by co-investing in an additional office tower in Times Square. In addition, OPB co-invested in an office redevelopment project in Brooklyn and in a portfolio of three multi-residential development projects across the New York Tri-State area through a structured co-investment consisting of mezzanine debt and participating equity. Additionally, the Real Estate portfolio realized significant profits from the partial sale of our co-investment interests in two Manhattan office buildings.

OPB invested $65 million into upgrades and renovations in its Canadian shopping centre portfolio in 2016, further increasing its valuation. It is expected that the renovated centres will attract higher-quality tenants, drive traffic to the centre, improve sales productivity and allow higher rents to be charged as sales performance improves and GROC (gross rent/occupancy cost) declines.

The major portion of our Real Estate holdings consist of rental properties located in Canada. As of December 31, 2016, our Canadian holdings included ownership interests in approximately 8.5 million square feet of retail space and 6.3 million square feet of office space. A list of our Canadian real estate holdings can be found on page 96.

1 For 2016, the investment fees of external managers for Real Estate were deducted from gross Real Estate returns. Management did not adjust the gross returns for Real Estate fees for prior years as the information was not immediately available.

**Infrastructure** – OPB's Infrastructure portfolio was first introduced in 2011. OPB's Infrastructure portfolio consists of equity investments in assets that provide an essential service to the communities in which they operate. The Infrastructure strategy focuses on core infrastructure assets that provide predictable and ongoing cash flow, stable returns during periods of equity market volatility, and some degree of inflation protection, which provides a good correlation with the Plan's inflation-linked long-term pension liabilities.

On a hedged basis, the Infrastructure portfolio generated a 2016 return of 9.8%[1] compared to 9.4% in 2015. The portfolio received $40 million in income distribution during the year with a year-end value of $1.24 billion, compared to $1.17 billion at the end of 2015. As of December 31, 2016, OPB had remaining unfunded commitments of $506 million to Infrastructure, up from $290 million at December 31, 2015.

The Infrastructure portfolio has good diversification with respect to revenue source, geography and industry sector. In 2016, we increased our commitments to Infrastructure by 27% and acquired interests in gas transmission networks, a water utility, a district heating business and broadcasting and telecommunications assets. OPB continued to diversify our geographic exposure and explore investments in emerging economies and new geographic areas.

Infrastructure assets remain highly sought after and many investors are increasing their allocations to the asset class. In this challenging environment, OPB will stay consistent in our investment approach and remain patient and disciplined in our underwriting of investment opportunities. We will continue to focus on building relationships with our existing partners, with emphasis on developing new strategic relationships with fund managers and other investment partners, increasing the capital amount invested in individual assets and co-investments.

**Private Equity** – Private equity consists of equity securities not publicly traded on a stock exchange. Private equity tends to be illiquid and returns are generated principally from capital appreciation over the mid- to long term. Because of the added liquidity risk, returns for private equity are typically higher than those expected from public equities. OPB's long-term timeline positions us well to earn value-added returns from this increasingly important asset class.

By focusing on more mature investments since entering the asset class in 2012, we have achieved vintage year diversification and the portfolio began receiving distributions (in the form of income and capital gains) almost immediately.

Our Private Equity portfolio returned 21.8%[2] in 2016, compared to 27.6% in 2015 on a hedged basis. The portfolio had a year-end value of $946.7 million, compared to $561.8 million at the end of 2015.

1 For 2016, the investment fees of external managers for Infrastructure were deducted from gross Infrastructure returns. Management did not adjust the gross returns for Infrastructure fess for prior years as the information was not immediately available.

2 For 2016, the investment fees of external managers for Private Equity were deducted from gross Private Equity returns. Management did not adjust the gross returns for Private Equity fees for prior years as the information was not immediately available.

Strong returns from funds and even better returns from the co-investments continued in 2016, with $122 million in income distributions since 2012, bolstered by $50 million in income distributions in 2016 alone. Since inception, the Private Equity portfolio has generated a net return of more than 20%.

## Investment outlook

After years of quantitative easing and increasing monetary stimulus to encourage economic growth, central banks globally are starting to ease up on the strategy. Global economic growth is accelerating, signs of inflation are re-emerging and risk assets (equity and credit markets) are at the higher end of valuations. It is no wonder that central banks are making monetary accommodation decreasingly available – from the European Central Bank that has held stimulus flat for over a year, to the U.S. and China where the respective central banks have started to raise interest rates. In the U.S., consumer confidence is at a cycle peak, unemployment is at a cycle trough and, with the Trump presidency promising significant fiscal stimulus, equity markets have surpassed all-time highs.

Strengthening global growth should continue to be positive for equity markets for the near term. This environment, however, is less attractive for fixed income markets due to the prospects of rising interest rates to curtail inflation.

While the investment environment will remain challenging, it will also provide investment opportunities. OPB is well positioned to manage through these challenges and, more importantly, we have the strategies and expertise needed to generate value-added results in today's investment climate.

## Return on investments and benchmarks

OPB has adopted a Statement of Investment Policies & Procedures (SIP&P) which defines:

- the Plan's investment objectives;
- permitted categories for investments;
- asset mix targets; and
- rate of return expectations.

The SIP&P is reviewed annually and was last amended on March 3, 2017.

The Plan's expected long-term real rate of return, as set out in the SIP&P, is a minimum of 3.85% per year, net of expenses. This figure is equal to the Plan's discount rate (the assumed interest rate used to calculate, in today's dollars, the value of the Plan's future liabilities) of 5.95%, which is the rate used for the long-term funding of the Plan less an assumed inflation rate of 2.10% per annum. Given the outlook for the investment and capital market environment, we expect to make a recommendation to the Plan sponsor to lower the assumptions we use for the funding valuation – lowering our inflation rate assumption to 2.00% and our discount rate assumption to 5.70%, resulting in an expected long-term real rate of return of 3.70%.

OPB's total annual rate of return is measured against a composite index, referred to as the Total Benchmark. The Total Benchmark takes the weighted average of the benchmark returns for each of the different investment categories, using the target phase-in allocation of the SAA to determine the weightings. The Plan's relative rate of return expectation for the year is set to equal or exceed the Total Benchmark (net of fees). The Plan's rate of investment return for 2016 was 8.1%[1], above the Plan's Total Benchmark return of 6.6%.

## Annual rate of investment return

| | | Annual Rate of Investment Return (%)[2] | | | |
|---|---|---|---|---|---|
| | | | **2016** | | 2015 |
| Asset Categories | Benchmark | **Actual** | **Benchmark** | Actual[3] | Benchmark |
| Cash and Equivalents | FTSE TMX 91-Day T-Bill | **2.6%** | **0.5%** | 7.0% | 0.6% |
| Fixed Income | Custom bond index | **4.2%** | **1.4%** | 3.3% | 3.5% |
| Canadian Equities | S&P/TSX Composite Index | **25.6%** | **21.1%** | -9.3% | -8.3% |
| Foreign Developed Equities | MSCI World Index (C$) | **2.7%** | **4.4%** | 21.7% | 19.5% |
| Emerging Equities | MSCI Emerging Equity Index (C$) | **6.1%** | **7.7%** | 5.0% | 2.4% |
| Real Estate | Custom Real Estate Benchmark | **9.5%** | **5.7%** | 10.2% | 7.0% |
| Infrastructure | Custom Infrastructure Benchmark | **9.8%** | **6.9%** | 9.4% | 5.0% |
| Private Equity | Custom Private Equity Benchmark | **21.8%** | **21.7%** | 27.6% | 16.8% |
| Total Investments | Composite Index | **8.1%** | **6.6%** | 6.1% | 5.4% |

1 For 2016, the investment fees of external managers for private assets were deducted from the gross Total Plan return.

2 For 2016, the investment fees of external managers for all private assets were deducted from gross returns. Management did not adjust the 2015 gross returns for all private asset fees as the information was not immediately available.

3 Certain 2015 returns have been restated to conform to the presentation adopted for 2016. Fixed income now includes Private Debt, and Emerging Equities now includes emerging market debt. In addition, currency hedging of foreign private assets at the asset class level began April 1, 2015 (June 1, 2015 for Private Debt, which is grouped within Fixed Income). Prior to that date, hedging for all foreign private assets was executed at the Total Plan level. Accordingly, the 2015 returns for each of the private asset classes reflect partially unhedged returns. The benchmark returns for each of Private Equity and Infrastructure are shown on a currency hedged basis, assuming perfect currency hedging for the entire year.

## Responsible Investing

OPB supports Responsible Investing (RI) through a number of investment initiatives that align well with OPB's broader investment objectives *and* are resource-efficient in terms of both time and money. The combination of OPB's investment objectives and RI beliefs translates into an RI approach that:

1. adopts a pragmatic approach to integrating environmental, social and governance (ESG) considerations into the investment decision process led by both internal and external investment managers (both Public and Private Markets investments);
2. supports collaborative initiatives, such as the Canadian Coalition for Good Governance and the Carbon Disclosure Project, that aim to enhance corporate governance practices and improve corporate disclosures; and
3. utilizes proxy voting as a mechanism to engage with public companies.

In 2016, in order to further support its Responsible Investing initiative, OPB hired a dedicated person to lead the Plan's RI development. As part of OPB's commitment to exercising our proxy voting rights to support long-term corporate performance, in January 2016, we consolidated the voting across all public equity mandates and began implementing an OPB Proxy Voting Policy. In 2016, OPB voted at over 1,000 public company meetings in more than 50 countries, reflecting OPB's globally diversified public equity portfolio.

Voting proxies allows OPB to convey our views to the Boards of Directors and management of public corporations in which we invest. This year, we voted against the management recommendation on 8% of agenda items at shareholder meetings. This includes election of Directors, advisory votes on executive compensation and shareholder proposals, among other items.

As a long-term investor, we encourage companies to adopt practices that support long-term shareholder value creation. Climate change was a key theme for shareholder proposals this year. OPB supported 22 shareholder proposals seeking enhanced disclosure and/or performance related to climate change risks and opportunities at companies in our portfolio.

OPB is a signatory to the United Nations-backed Principles for Responsible Investment (PRI). This international network of investors is collaborating to put RI into practice and help build a more sustainable global financial system.

## IMCO

### Introduction

Many years of work by OPB and the Workplace Safety and Insurance Board (WSIB) on the Government of Ontario's broader public sector (BPS) asset pooling initiative culminated in the proclamation, on July 1, 2016, of the *Investment Management Corporation of Ontario (IMCO) Act* and OPB and WSIB named by Regulation as IMCO's initial members. Asset pooling through IMCO strongly positions OPB to deliver on the long-term pension promise for PSPP members. By providing immediate economies of scale, IMCO will allow OPB and other members of IMCO to capitalize on opportunities that we otherwise wouldn't have access to, including:

- participation in asset pooling is estimated to boost OPB's investment returns, and even a small increase could have a significant impact; for example, if OPB were able to increase its annual investment returns by 25 basis points (1/4 of 1%) above the Plan's discount rate, this would add approximately $2.0 billion to the funded status of the Plan at the end of 15 years; and
- reduction of external fees through internalization and stronger negotiating position for better deal terms.

This arrangement will provide economies of scale resulting from an initial pool of capital under management of more than $50 billion that will allow OPB to access larger and higher-quality investments capable of generating higher incremental returns at a lower unit cost. It should also open the door to a broader range of investment and partnership opportunities.

The opportunity for OPB in today's challenging pension environment is to take advantage of IMCO's scale to achieve economies that will facilitate improved access to investment opportunities within a wider array of asset classes, enhanced risk management and the optimal use of internal versus external management with the expectation of delivering enhanced risk-adjusted returns.

Through IMCO's scale, OPB will benefit from:

- the ability to retain superior leadership and investment management talent;
- the incorporation of a more robust risk management and monitoring system into its investment decisions and processes;
- being more able to invest in advanced investment and investment finance systems cost effectively;
- achieving cost advantages from the continued internalization of investment expertise for selective public and new private markets investments;
- access to greater research capabilities;
- access to new asset classes; and
- lower relative costs and enhanced investment returns.

## IMCO-OPB relationship

Once operational in 2017, IMCO will be appointed OPB's sole and exclusive discretionary investment manager subject to the terms of an investment management agreement (IMA) and a service level agreement (SLA) between OPB and IMCO. The SLA will detail OPB's expectations of IMCO in terms of investment performance, performance measurement and reporting capabilities, and compliance reporting.

The IMA will also establish the governing regulations of the IMCO investment management relationship. This includes the process in which OPB will hold IMCO accountable for its investment decisions, including a dispute resolution process, the requirements for an independent review of IMCO's operations after a predetermined period of time, and under which conditions OPB can terminate its IMA with IMCO and replace IMCO as investment manager.

## Role and responsibilities of OPB

OPB will be responsible for overseeing IMCO as the investment manager for its existing and future assets once operational in 2017. As the custodian of the PSPP, and in line with its fiduciary duties, OPB will continue to:

- own its assets and be responsible only for PSPP liabilities;
- own its Statement of Investment Principles and Beliefs (SIP&B) and Statement of Investment Policies & Procedures (SIP&P);
- establish IMCO performance benchmarks and targets;
- conduct its triennial asset/liability (A/L) study; and
- establish its own SAA policy.

OPB will also retain significant influence over decisions in respect of its assets to be managed by IMCO existing on the commencement of IMCO's operations. In accordance with the *IMCO Act*, OPB was pleased to nominate two of our longest-serving Board members, Vincenza Sera and Hugh Mackenzie, to the IMCO Board of Directors.

### Asset/liability (A/L) study

OPB is responsible for conducting an asset/liability (A/L) study approximately every three years to ensure that OPB's asset mix, designated as the Strategic Asset Allocation (SAA), is keeping pace with the Plan's ever evolving liabilities, and is still the right blend of targeted investments by asset class (e.g., public equities, fixed income and private markets investments) for the desired risk profile of the Plan. This responsibility will continue to reside with OPB once IMCO is operational, by using the A/L study to establish an effective investment strategy for the Plan.

An A/L study involves the projections of a pension plan's assets and liabilities using numerous economic and capital markets scenarios and models several investment portfolios with varying levels of risk and return characteristics. OPB's A/L study process is designed to allow OPB to have a full understanding of the investment strategies available to the Plan and their inherent benefits and risks.

By conducting an A/L study on a three-year cycle, OPB allows for any course correction required based on current economic assumptions in the years between studies. To ensure that the asset mix is appropriate for the Plan under IMCO management, OPB undertook an A/L study in 2016 to determine which SAA would be the best fit to maintain the vitality of the Plan given projected future liability streams.

**Strategic Asset Allocation (SAA)**

OPB will remain responsible for setting the Strategic Asset Allocation (SAA) for the Plan's investment portfolio as it marries OPB's investment strategy with its pension liabilities. Establishing the SAA is the single most important decision on the asset side of the Plan's balance sheet as it determines the risk profile of the investment program and lays the foundation for the types and size of investments that should and should not be made. This is especially important considering that the bulk of the Plan's actual investment returns are driven by the SAA-derived asset mix.

As the SAA is determined by OPB's pension liabilities, OPB will continue to establish its own SAA under IMCO, as determined by its triennial asset/liability (A/L) study. IMCO's role will be to execute on OPB's SAA and deliver the targeted investments returns and then some on a cost-recovery basis.

## Role and responsibilities of IMCO

As OPB's sole and exclusive discretionary investment manager, IMCO will be required to invest and reinvest the Plan's assets in accordance with the OPB/IMCO IMA and OPB's investment policies and applicable legislation and regulatory policies including the OPB-set Strategic Asset Allocation (SAA), which is underpinned by the triennial asset/liability (A/L) study conducted by OPB.

IMCO will build a relationship team to address the requirements of its members and to foster communication and full transparency between itself and OPB as a founding client of IMCO, and will comply with a set of fundamental principles deemed by OPB and WSIB to be critical to the success of IMCO, including a high-calibre investment team and high-calibre Board of Directors.

In addition to this, the responsibilities of IMCO include:

- acting honestly and in good faith in the best interest of its members such as OPB;
- complying with the standard of care of the *Pension Benefits Act* including prudence and special knowledge and skill;
- utilizing best industry practices for risk management, including enterprise risk;
- establishing a separate and senior independent risk management function, including a Chief Risk Officer;
- adopting industry best practices governance policies; and
- providing quarterly compliance certificates to OPB.

## Service excellence

At OPB we believe that delivering on the pension promise goes beyond simply paying pensions and processing transactions. Protecting members means providing them with the support, services and tools they need to make sound pension decisions in the context of their broader personal and financial circumstances.

That's why in 2015, we led the industry by introducing Advisory Services for our members. In 2016, to the best of our knowledge we remain the only defined benefit pension plan in the world that offers this service. In our second year, our team of in-house Certified Financial Planners® helped over 3,000 clients navigate critical pension decisions by helping them understand how those decisions fit into their broader financial and life circumstances. Client Service Advisors are designated Certified Financial Planners® (CFP®) or are accredited Registered Retirement Consultants® (RRC®) and in the process of completing their CFP® designation. We are very pleased with how members have responded to our Advisory Services and our advisory tools.

In 2016, we experienced higher-than-normal service demands, due to significant increases in retirements, buybacks and information requests stemming from changes to post-retirement benefits. In total, OPB handled 3,027 member retirements in 2016, more than twice the number of retirements that occurred in 2015. We are pleased that even with significant higher service demands we continued to provide our clients with excellent service, without any substantive cost increases to handle this higher demand for service.

In 2016:

Advisory Services Excellence:

- Our Advisors met one-on-one with more than 3,000 members and helped them navigate complex pension decisions.
- We held eight in-house retirement advisory workshops – all with high attendance.
- 49% of clients going through a buyback, retirement or termination used our Advisory Services.

Client Service Excellence:

- 98% of client care calls were answered within 30 seconds – the average wait time for clients calling in is five seconds.
- E-services usage increased by 38%.
- Top services being used include updates to beneficiaries (48%), marital status (30%) and current address (21%).
- 16,992 members used our suite of online retirement planning tools in e-services.
- We launched the ability for members to initiate and manage their retirement from the PSPP online.

In response to emerging technology and evolving client needs and preferences, we continue to enhance our digital services – and to become more mobile-responsive and interactive across our web channels. We recently hired a Digital Writer to develop additional member-focused content as we shift to more targeted digital communication with members. As our clients become more sophisticated, we need the tools to be able to support their service demands as we continue to provide a secure online environment with a strong focus on the privacy of our members' data.

To help members make sound pension decisions, we need to deliver the personalized advisory services and tools they need to help them navigate those decisions. Pension Modernization will focus on the creation of a pension administration system that prepares OPB for the future, reassessing our processes and systems to meet the needs of our members today and tomorrow.

Increasingly, members expect to be able to exchange information, complete transactions and receive their communications online. While we have a number of services and excellent planning tools available online, our current IT infrastructure and systems aren't capable of fully meeting the evolving service demands and expectations of our clients. As we modernize our system we will be able to add additional transactions and advisory tools online.

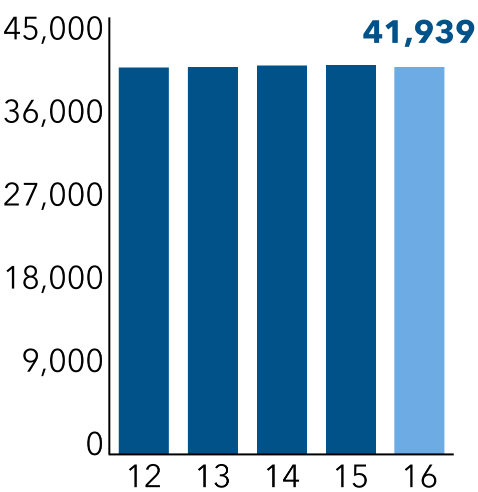
As part of Pension Modernization, we will also re-engineer business processes to help us improve our service and streamline our practices to create service efficiencies that will allow us to improve both our responsiveness and our cost effectiveness.

## Client services

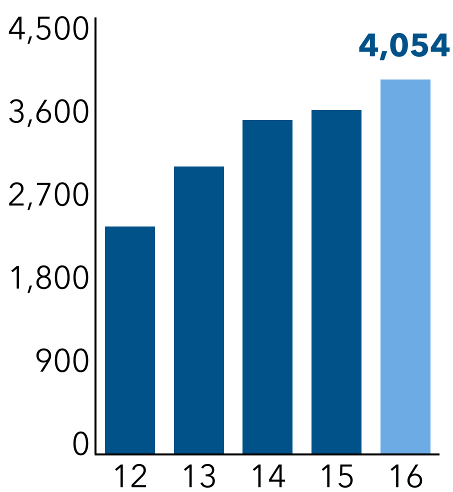
### 2016 initiatives

| What we did | Why it matters |
|---|---|
| Continued to grow our Advisory Services program and help our members build better financial literacy | Pension issues are complex, and decisions can potentially have a significant impact on an individual's financial future. This is why we continue to expand our Advisory Services offering, which provides our clients with access to Certified Financial Planners® and Registered Retirement Consultants®. Our goal is to help members make sound decisions about their pensions by educating them about how their pension fits into their broader financial circumstances. We believe protecting our members means helping them avoid costly mistakes that could negatively impact their retirement security. |
| Managed significantly higher service demands | We handled significant service demands due to notable increases in retirements, buybacks, enrolments and information requests stemming from changes to retiree insured benefits. |

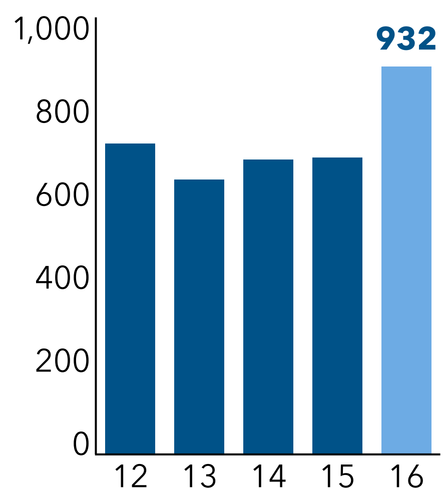
### Number of active members




### Enrolments




### Buybacks completed



## Advocating for retirement security

Pension and retirement security issues have gained growing attention from governments, media and Canadians. At OPB, we believe that well-designed, well-managed DB pension plans remain the best option for delivering efficient, affordable and sustainable retirement income. Increasingly, pension administrators around the world are looking to Ontario's model of DB-style management as a model to emulate.

Fewer and fewer Canadians have access to a workplace pension and the reality is that most Canadians are not able to save adequately for their retirement on their own. Ultimately, our goal is to advocate for a viable and meaningful retirement system for all Canadians and to promote the importance of long-term financial planning, which is why we continue to promote these issues in a wide array of public, private and government forums.

OPB continues to advocate strongly for the DB model as well as shared-risk or DB-type plans that are sustainable and could easily be made accessible to a broader range of working Canadians. We also advocate to ensure that policy-makers and thought leaders understand the many socio-economic advantages that the DB model provides. Studies show that DB plans play an important role in stimulating our economy by providing retirees with disposable income that is pumped back into the economy. Just as important, these plans provide an important source of investment capital.

OPB applauds the agreement to expand the CPP, which will help more Canadians achieve financial security in retirement – this is in keeping with OPB's philosophy that all Canadians have an adequate retirement.

In 2016, after working with the Government of Ontario and the Workplace Safety and Insurance Board (WSIB) for the past few years on creating an asset pooling arrangement, our vision was realized. On July 1, 2016, the *Investment Management Corporation of Ontario (IMCO) Act* was proclaimed, with OPB and WSIB named as IMCO's initial members. Pooling the assets of smaller public sector plans can create important economies of scale, generate larger and higher-quality investment opportunities, and improve investment returns, which in turn provides for greater retirement security for the members of these pension plans.

### Advocacy

| What we did | Why it matters |
|---|---|
| Continued to promote the DB pension model | We believe DB plans are the best option for providing retirement security and adequate income for retired Canadians. With that in mind, we continued to publicly promote the value of the DB model – ensuring that decision-makers and thought leaders understand the model's many advantages. |

| What we did | Why it matters |
|---|---|
| Continued to advocate for regulators to allow sustainable shared-risk plans (i.e., DB-type plans) for all Canadians | Shared-risk plans, which retain the best features of the DB model and divide the risk of unfunded liabilities between members and plan sponsors, are a sustainable option that could be used to provide meaningful retirement income for all working Canadians. |
| Continued to lay the groundwork for asset pooling | On July 1, 2016, the *Investment Management Corporation of Ontario (IMCO) Act* was proclaimed, with OPB and WSIB named as IMCO's initial members.<br>Asset pooling will open the door to a broader range of investments and partnerships, which we believe will boost our long-term returns. The resulting incremental investment returns would contribute to maintaining the stability of benefits and contribution rates and support the long-term sustainability of the Plan. |

## Outstanding stakeholder relations

OPB's "shared governance" model helps to ensure that all key stakeholders have (1) the information they need to make informed decisions and (2) a meaningful voice in Plan administration. It's an open, collaborative approach that has earned us the dual role of trusted advisor to the Plan Sponsor and the bargaining agents that represent our members.

OPB works closely with the Government of Ontario to ensure that politicians and senior civil servants fully understand the issues that impact the Plan. We also conduct regular and ongoing discussions with bargaining agent groups – keeping them informed about the health of the Plan and emerging trends and issues, and ensuring that they understand the value of the Plan.

Stakeholders have been supportive of the IMCO announcement, and are pleased by the appointment of two long-standing OPB Board members to the IMCO Board and three senior OPB executives to the IMCO executive team.

In 2016, our strong relationships with the Plan Sponsor, bargaining groups and our stakeholders helped us navigate a challenging and high-service demand year smoothly – ensuring we were able to continue providing our members with the level of service they expect from us.

In 2016, we also:

- delivered 131 presentations to Plan members across Ontario, providing them with information about the value of their pension, Plan provisions, and key decision points; held eight retirement advisory workshops;
- participated in the Government of Ontario Chief Administrative Officer forum; and
- presented at the Annual General Meetings (AGMs) of bargaining agents.

We had almost 181,000 visits to OPB's public website in 2016, up 13.8% over the previous year. We also saw substantial growth in mobile traffic throughout 2016 – with nearly one in five visitors accessing opb.ca and our e-services websites via smartphone or tablet.

Interest in the interactive online 2015 Annual Report drove 320% more visitor traffic in the 90-day launch period compared to 2014.

We built upon the successful launch of our employer portal in 2015; by the end of 2016 more than 12,000 transactions had been submitted by employers through the employer portal.

We know that protecting the long-term sustainability of the Plan requires maintaining strong relationships with our members and stakeholders and OPB remains committed to doing so.

### Stakeholder relations

| What we did | Why it matters |
|---|---|
| Continued to build a strong working relationship with the Plan Sponsor | The Plan Sponsor is responsible for major decisions governing the Plan. We believe a strong working relationship will earn us a place at the table during future discussions related to Plan design and funding. |

## Strategic and responsible financial management

As an agency of the government, OPB remains mindful of the financial pressures facing the Government of Ontario. We are committed to managing costs and offering value-added service at a cost-effective price. Our track record of operational excellence and effective cost management has positioned OPB as a highly respected government agency.

In 2016, OPB's budget came in slightly above expectations in part due to higher than planned expenses related to the establishment of the Investment Management Corporation of Ontario (IMCO). Although we've expanded our range of member services in recent years, especially on the digital services side – and added to the breadth, depth and sophistication of our investment program – our operating expense ratio remains among the lowest in the industry. We've accomplished this by:

- focusing on priorities and working smart;
- automating and redeploying resources where it makes sense to do so;
- negotiating prudent agreements with investment managers and suppliers;
- enhancing our abilities, through staffing and training, to perform more value-added services in-house rather than pay premiums in the open markets; and
- focusing on increasing our digital offerings.

Our total operating expenses for 2016 increased by 9.5% over 2015. This increase is related primarily to OPB's ongoing investment in the people and technology needed to support our strategy of generating superior risk-adjusted returns and the costs associated with the set-up of IMCO that contributed to this increase.

In 2016, we continued to make prudent technology investments in pension and investment applications and cybersecurity, which are critical to OPB's continued success – including our ability to deliver a superior member experience that is consistent with our Advisory Services strategy. Those investments will be complemented with the appropriate people (talent) resources needed to ensure the continuing efficiency of OPB operations.

Our overall consolidated (investments and pension administration) expense ratio for 2016 was 50 basis points, slightly below our expense ratio in 2015.

## Financial management

| What we did | Why it matters |
|---|---|
| Continued to make cost constraint a priority while delivering excellent customer service | OPB is committed to managing costs. During 2016, we continued to enhance our ability to provide value-added services in-house, expanded our focus on digital service delivery, and made smart and prudent investments in both talent and technology. |

### Costs

At OPB, we are committed to disciplined cost management. Our goal is to streamline our costs and to ensure we spend strategically where it is in the best interests of our members and stakeholders. To properly illustrate the Plan's status and our ability to pay the pension promise, we need to compare our returns against all plan operating expenses, from investments to pension administration. This is because the funds available to pay pensions are determined by our investment returns after all expenses have been deducted. Our Plan operating costs are broken down into investment management costs and pension administration expenses.

**Our Investment management costs** are made up of:

- **Investment fees** – includes fees paid to **external** fund managers[1] and custodial fees associated with managing and investing the Plan's assets. These costs are deducted from total investment income. The "**Investment fees**" disclosed in Note 8 to the financial statements include "**Transaction costs**". These costs are also already included in our gross returns and, accordingly, are not deducted for purposes of calculating the ratios noted below.
  - In 2016, our Investment fees decreased to 0.28% (compared to 0.30% for 2015) as a percentage of average net assets available for benefits[2].

[1] The investment fees of external managers for certain private assets are already deducted directly at source by the respective managers and deducted from gross returns. For 2016, the investment fees of external managers for all private assets were deducted from gross returns. Management did not adjust the 2015 gross returns for all private asset fees as the information was not immediately available.

[2] The average net assets available for benefits is the four-quarter average of the quarterly averages, where the quarterly averages are based on net assets available for benefits at the beginning and end of each quarter.

- **Investment operating expenses** – These are the **internal** costs associated with managing our investment portfolio, including costs related to internal investment staff (front-, middle- and back-office), technology, risk management and performance, financial reporting, investment research initiatives, as well as a portion of general overhead for executives, communications and other general and administrative costs):
  - In 2016, our Investment operating expenses were 0.12% (compared to 0.10% for 2015) as a percentage of average net assets available for benefits.

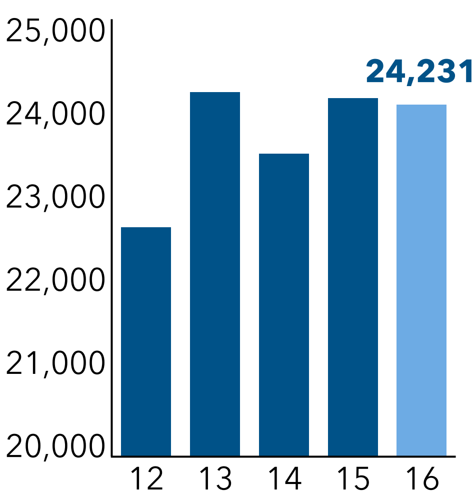
Our total investment management expense ratio (which includes investment fees and investment operating expenses compared to average net assets available for benefits) remains among the lowest in the industry. It held steady at 0.40% (or 40 cents per $100 of average net assets available for benefits) at the end of 2016. Investment fees, excluding the Transaction costs of $8.3 million for 2016 ($9.7 million for 2015) already deducted from gross returns, decreased to $66.6 million (or 28 cents per $100 of average net assets available for benefits) compared to $69.8 million (or 30 cents per $100 of average net assets available for benefits) in 2015. Investment operating expenses for 2016 increased to $27.1 million (or 12 cents per $100 of average net assets available for benefits) compared to $22.6 million (or 10 cents per $100 of average net assets available for benefits) in 2015.

**Our Pension administration expenses** are made up of:

- the internal costs associated with operating and administering the Plan, including costs related to providing client service, processing member transactions (retirements, terminations, etc.) and maintaining our pension administration system.

In 2016, the Plan's pension administration expenses were $24.2 million (or 0.10% of average net assets available for benefits), in line with the $24.3 million for 2015 (or 0.11% of average net assets available for benefits).

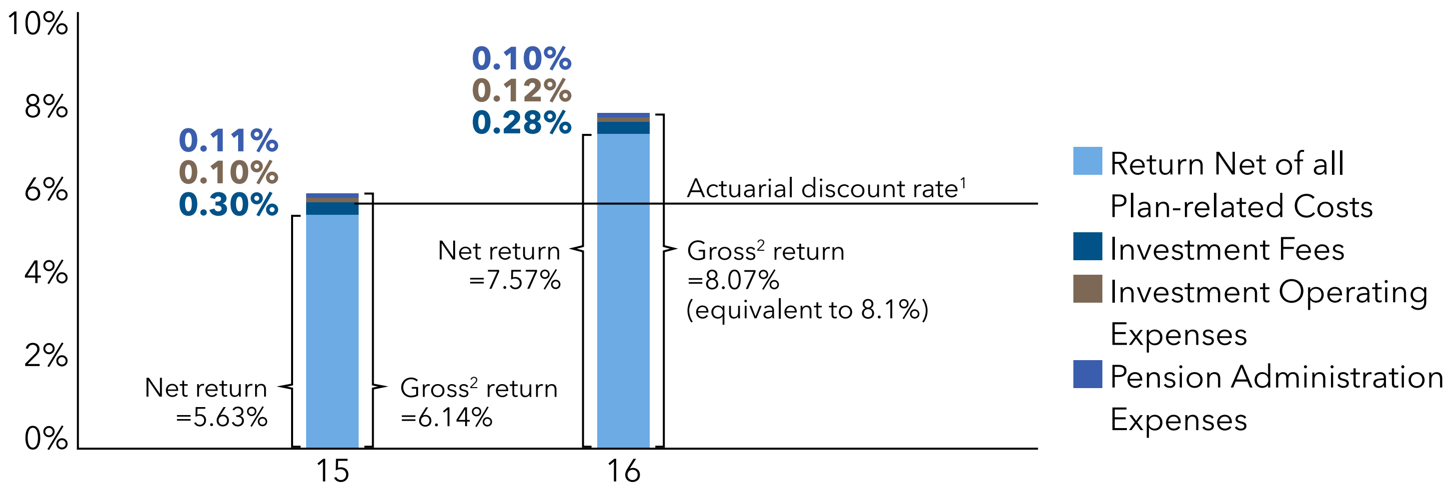
## Pension administration operating expenses
(in thousands of dollars)



Our overall organizational expense ratio, factoring in all expenses, decreased slightly to 0.50% in 2016 compared to 0.51% in 2015. In 2017, we will continue to manage our costs by keeping overall staffing costs in check, deferring some non-critical strategic initiatives and continuing to negotiate competitive contracts with service providers.

In the past, OPB has reported returns without netting out investment fees, investment operating expenses and pension administration expenses. However, in the spirit of full transparency, starting this year we are providing a return net of all expenses. We believe this is appropriate because it allows for better alignment between our expressed return and the discount rate used to value the plan, which is also net of expenses. Accordingly, it is the approach we will be taking going forward. Comparing the Plan's net return versus the 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?" The graphs below show how the Plan's net returns for 2015 and 2016 compared to the actuarial discount rate we use to value the Plan's liabilities. In other words, it shows how our net returns in 2015 and 2016 compare to the long-term rate of return we need to meet our pension obligations based on our valuation assumptions.

### How the Plan's net return compares to its discount rate




## Contributions

Contribution rates for the PSPP are set by the *Public Service Pension Act (PSP Act)*, 1990. They remain among the lowest rates for major pension plans in Canada.

Members currently contribute 6.4% of their salary below the Year's Maximum Pensionable Earnings (YMPE) and 9.5% of their salary above the YMPE. Employers contribute a matching amount. Contributions for members receiving Long Term Income Protection benefits are paid by their employers.

1 The actuarial discount rate assumption during 2015 and 2016 was 5.95%. At the end of 2016, it was reduced to 5.7%.

2 For 2016, the investment fees of external managers for all private assets were deducted from the gross Total Plan return. Management did not adjust the 2015 gross returns for all private asset fees as the information was not immediately available.

Ontario Provincial Police (OPP) officers 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 highest 36 consecutive months for officers and highest 48 consecutive months for civilians). The contribution rates for OPP officers are 9.2% of salary up to the YMPE and 12.3% of salary above the YMPE. For civilians, the contribution rates are 6.775% of salary up to the YMPE and 9.875% of salary above the YMPE. These higher contribution rates are matched by the employer.

During 2016, contributions for all OPB members and employers totalled $765 million, up from $732 million in 2015. This increase is attributable to modest salary changes and an increase in past service purchases from members.

## Pensions paid

Monthly pension payments for December 2016 totalled $96.4 million, up from $87.7 million in December 2015. Part of the increase is attributable to a 1.3% inflation protection adjustment (Escalation Factor) that was applied to pensions on January 1, 2016. The remainder is attributable to increases in the average pensions and number of new retired members.

## Executive compensation

OPB recognizes compensation as a key component in achieving its long-term strategies and organizational effectiveness. The compensation programs as they pertain to the senior executives are described in this section. OPB is an Ontario public sector agency, a distinction which is incorporated into its compensation philosophy. In addition, OPB is very aware that the Province is in an era of cost constraint. While OPB's executive compensation is benchmarked against Ontario's other public sector pension plan administrations, it does not exceed that of any of its peers.

Compensation for the President and CEO is approved by the Board. Compensation for the executives reporting directly to the CEO is approved by the Human Resources Committee of the Board. Incentives are performance based.

A long-term incentive plan (LTIP) was introduced for key investment personnel only, in 2014. The LTIP uses a mix of performance metrics that include total fund returns against benchmark, client service and PSPP funded status and measures these over a four-year timeline. The use of these metrics supports the alignment of interests of senior investment staff with those of PSPP members. There is an upper limit of incentive payout, dependent upon position, ranging from 30% to 55% of base salary at the time of payout. A transitional provision in the LTIP places a ceiling on the amount that can be paid out in the first three years of the program. Commencing in 2014, the ceiling was set at 25% of the maximum otherwise payable, and increases by 25% in each of the subsequent three years.

The table below sets out the compensation for the CEO and the six executives who report directly to the CEO. This list does not reflect the top five earners, but does include the top earner, who is the Chief Investment Officer. The figures set out in the table include the components of compensation and the total compensation (excluding only retirement benefits) paid to the listed executives.

## Compensation in 2016

| For the year ended December 31 | Year | Base Salary[1] | Short-Term Incentive[2] | Long-Term Incentive[3] | Taxable Benefits & Allowances[4] | Total |
|---|---|---|---|---|---|---|
| Mark J. Fuller, President and CEO | 2016 | $ 473,000 | $ 258,077 | n/a | $ 699 | $ 731,776 |
| | 2015 | 459,223 | 196,992 | n/a | 721 | 656,936 |
| Valerie Adamo, Chief Technology Officer | 2016 | 316,758 | 139,057 | n/a | 508 | 456,323 |
| | 2015 | 298,973 | 104,531 | n/a | 514 | 404,018 |
| R. Paul Edmonds, Chief Legal & Governance Officer | 2016 | 316,758 | 129,125 | n/a | 513 | 446,396 |
| | 2015 | 316,793 | 108,266 | n/a | 534 | 425,593 |
| Gayle Fisher, Chief Administrative Officer | 2016 | 316,758 | 139,057 | n/a | 508 | 456,323 |
| | 2015 | 297,823 | 104,531 | n/a | 445 | 402,799 |
| Michel Paradis, Chief Financial Officer | 2016 | 323,888 | 142,188 | 97,500 | 522 | 564,098 |
| | 2015 | 323,888 | 113,242 | 65,000 | 546 | 502,676 |
| Jill Pepall, Executive Vice-President and Chief Investment Officer | 2016 | 492,708 | 259,560 | 203,940 | 728 | 956,936 |
| | 2015 | 492,878 | 206,721 | 135,960 | 749 | 836,308 |
| Peter Shena, Executive Vice-President and Chief Pension Officer | 2016 | 316,758 | 139,057 | n/a | 513 | 456,328 |
| | 2015 | 316,793 | 110,749 | n/a | 534 | 428,076 |

1 Base salary is based upon amounts paid during the year. In 2016 and 2015, there were 26 bi-weekly pays.

2 Short-term incentive earned is paid in March of the following year.

3 LTIP payments are only applicable to the Chief Investment Officer and Chief Financial Officer on this list. These are paid in March of the year following the completion of the measurement period. The figures shown are the amount vested and expected to be paid in the subsequent year.

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

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.

The listed executives 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 or allowances, club memberships, personal use equipment or personal services.

## Sound risk management

At OPB, we understand that innovation can carry a degree of risk. That's why sound risk management is embedded in everything we do. Defined benefit pension plans like the PSPP face a wide range of risks, including operational risk, investment risk, funding risk and liquidity risk, to name a few. To manage that risk, OPB has implemented a comprehensive Enterprise Risk Management (ERM) program.

ERM provides an integrated approach to risk management. Specifically, it prescribes a formal framework for identifying, reporting and monitoring risks that could adversely affect the Plan. It also helps identify mitigation strategies. As part of our program, we have:

- strengthened our governance over risk management and compliance to enhance oversight;
- made it our practice to review risk and risk mitigation strategies on a quarterly basis to ensure we have the people, policies and procedures needed to protect the Plan;
- integrated risk management into our strategic planning process;
- put in place a comprehensive risk-based internal audit process; and
- started reviewing actuarial valuation assumptions on an annual basis to ensure they continue to reflect Plan experience.

## Operational risk

OPB is focused on continuous improvement as part of our operational risk mitigation strategy. In 2016, OPB moved to reduce operational risk by:

- hiring an information security officer to assist with operational risk monitoring and reduction; and
- continuing to plan for the replacement of our aging pension administration systems as part of the Pension Modernization program. This important technology upgrade will help us to improve client and stakeholder outreach and support our progressive digital strategy, while improving the security of key data.

## Investment risk

To position the Plan to meet its investment objectives in an increasingly challenging environment, OPB continues to allocate more funds to private markets and to shift a growing number of investment decisions in-house. OPB's Internalization Program increases our ability to adapt quickly to changing markets and pursue opportunities that can offer better long-term returns. While these key initiatives enable OPB to manage market and currency risk more effectively, they add a level of complexity that demands an increased focus on investment risk management, compliance, monitoring, and middle- and back-office support.

Our risk-managed approach to investing integrates investment risk management into the investment decision-making process and day-to-day activities. To support this effort we have developed a comprehensive investment risk reporting tool that enables investment risk attribution, measurement and monitoring.

We believe that by being able to attribute, measure and monitor the investment risk associated with a particular investment as a contribution of the Total Plan's investment risk, this approach improves the return/risk relationship of our investment decisions by taking only those investment risks that expect to be duly rewarded. In 2016, we developed and implemented a number of initiatives designed specifically to enhance our ability to manage required risk and mitigate unrewarded risk. In 2016, we:

- further advanced the planned asset pooling initiative with WSIB with the establishment of the Investment Management Corporation of Ontario (IMCO), which, once fully operational, will offer OPB the opportunity to continue to enhance our research and risk management capabilities through access to more sophisticated information technology applications;
- incorporated trend and alert analyses providing insight on future investment risk and the likelihood of significant financial events;
- incorporated the Plan's liabilities into the risk analyses so that Surplus Risk could also be factored into the investment decision-making process;
- improved the timeliness of risk reporting by fully automating production of reporting;
- developed daily Derivative Counterparty Risk reporting, including any collateral on hand from, or provided to, counterparties that we have credit exposures with; and
- developed a diversification benefit report to assist in potential risk mitigation actions (i.e., investing in/divesting from) different asset classes.

## Risk management

| What we did | Why it matters |
|---|---|
| Enhanced risk analyses | Incorporated trend and alert analyses to help provide insight on future investment risk and the likelihood of significant financial events. Added the Plan's liabilities into risk analyses so that Surplus Risk could also be factored into the investment decision-making process. |
| Introduced Derivative Counterparty Risk reporting | This reporting permits our front- and middle-office investment teams to monitor, on a daily basis, our exposures to counterparties, net of any collateral on hand, thereby allowing us to assess the credit risk of any of our derivative counterparties defaulting. |

| What we did | Why it matters |
|---|---|
| Fully implemented a series of risk appetite statements and a risk scale | These tools enable OPB to specify and more objectively measure acceptable risk levels arising from ongoing activities as well as new business priorities across the organization. |
| Automated risk reporting | This action automates the production of our reporting mechanisms, allowing us to improve the efficiency and timeliness of our internal risk reporting. |
| Developed a diversification benefit report | This tool assists in identifying potential risk mitigation actions (i.e., investing in/divesting from) different asset classes. |
| Developed the IMCO risk dashboard for OPB's Board of Directors | The IMCO Risk Management Dashboard assists the Board of Directors in its oversight of OPB's overall risks and will be a useful oversight and governance tool once the management of OPB's investment assets is transferred to the Investment Management Corporation of Ontario (IMCO). |
| Hired a dedicated Information Security Officer | As identified in 2015, OPB hired a dedicated Information Security Officer (ISO) in September to ensure information and cybersecurity best practices are at the core of all of our information and technology decision-making. The ISO will oversee the continued enhancement of our information security capabilities and ensure timely actions in responding to the ever changing demands arising from cybersecurity risks. |

## Governance

You can't build a great house without a solid foundation. We wouldn't be able to invest successfully, offer world-class client service, adapt to changing conditions or continuously drive innovation without our strong governance structure.

## How OPB is run

A strong governance structure forms the foundation of OPB's 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 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.

Underpinning our governance framework is a series of documents that define our organizational structure, responsibilities and governance practices. Collectively referred to as the Governance Documents, these documents include a Statement of Governance Principles, a General By-law, Statements of Mandate and Authority, and a Code of Conduct.

Our Governance Documents clearly define roles and responsibilities, 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. That said, the Board has delegated responsibility for the day-to-day operations of the Plan – including administration and asset management – to OPB's management team. It has also chosen to delegate specific responsibilities to five committees of the Board: the Governance Committee, Investment Committee, Audit Committee, Pensions Committee and Human Resources Committee.

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 Strategic Asset Allocation, which drives investment management asset mix decisions both in OPB's current in-house management of investments and in the future Investment Management Corporation of Ontario (IMCO);
- supervises and approves all audit 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.

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 Commission of Ontario (the organization that oversees registered pension plans in Ontario); and
- the Government of Ontario (the Plan Sponsor).

## Continuous improvement

Good governance is an ongoing process. To ensure we stay at the forefront of industry best practices for governance, we must remain committed to continuous improvement. That's why in 2016 we:

- introduced the analysis and reporting of emerging risks (such as geopolitical risk);
- implemented a series of risk appetite statements and a risk scale to specify and more objectively measure acceptable levels of risk for specific business priorities;
- introduced the IMCO Risk Management Dashboard to assist the Board of Directors in its oversight of the transition to IMCO of OPB's investment management activities;
- introduced a Key ERM Initiatives Overview to give OPB's Senior Executive Team a line of sight to our ERM deliverables across OPB; and
- produced a high-level resource document entitled Risk Management – Integrated Framework to explain all aspects of OPB's risk management activities and their inter-relationship.

Our ERM program remains a key component of our good governance framework. This program provides an integrated, organization-wide approach to managing risk and setting our organizational strategy. Specifically, it prescribes a formal framework for identifying, reporting and monitoring any risk that could adversely affect the Plan. It also helps identify mitigation strategies.

OPB has also embraced the governance-risk-compliance (GRC) model. In short, this model looks to ensure the integration of governance, compliance and risk management functions across the organization and improve organizational effectiveness.

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.

## Five-year review

| (in millions of dollars) | **2016*** | 2015 | 2014 | 2013 | 2012 | Cumulative Since Inception |
|---|---|---|---|---|---|---|
| **Opening net assets** | **$ 23,075** | $ 22,231 | $ 20,915 | $ 18,991 | $ 17,270 | |
| Investment income (loss) | **1,751** | 1,224 | 1,642 | 2,244 | 1,964 | |
| Contributions | **765** | 731 | 719 | 709 | 714 | |
| Transfers from other plans | **85** | 111 | 81 | 91 | 104 | |
| | **2,601** | 2,066 | 2,442 | 3,044 | 2,782 | |
| Pension payments | **1,099** | 1,038 | 989 | 959 | 918 | |
| Terminations | **146** | 137 | 94 | 121 | 105 | |
| Operating expenses | **51** | 47 | 43 | 40 | 38 | |
| | **1,295** | 1,222 | 1,126 | 1,120 | 1,061 | |
| **Closing net assets** | **24,381** | 23,075 | 22,231 | 20,915 | 18,991 | |
| Annual rate of return | **8.1%** | 6.1% | 8.4% | 12.5% | 11.9% | 8.5% |

* Figures may not add up due to rounding.