2016 FINANCIAL STATEMENTS

Independent Auditor's Report

To the Trustees of the Ontario Public Service Employees Union Pension Plan Trust Fund, Administrator of the Ontario Public Service Employees Union Pension Plan

We have audited the accompanying financial statements of Ontario Public Service Employees Union Pension Plan, which comprise the statements of financial position as at December 31, 2016 and 2015 and the statements of changes in net assets available for benefits, changes in surplus and changes in pension obligations for the years then ended, and the related notes, which comprise a summary of significant accounting policies and other explanatory information.

Management's responsibility for the financial statements

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

Auditor's responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

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

Opinion

In our opinion, the financial statements present fairly, in all material respects, the financial position of Ontario Public Service Employees Union Pension Plan as at December 31, 2016 and 2015 and the changes in its net assets available for benefits, changes in surplus and changes in its pension obligations for the years then ended in accordance with Canadian accounting standards for pension plans.

PricewaterhouseCoopers LLP

Chartered Professional Accountants, Licensed Public Accountants

March 8, 2017

Actuaries' Opinion

Towers Watson Canada Inc. (Willis Towers Watson) was retained by the Board of Trustees of the Ontario Public Service Employees Union Pension Plan (the Plan) to perform an actuarial valuation of the Plan as at December 31, 2016. The purpose of this valuation is to determine the pension obligations of the Plan as at December 31, 2016, for inclusion in the Plan's financial statements in accordance with Section 4600 of the *Chartered Professional Accountants of Canada (CPA Canada) Handbook*.

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

The results of the valuation disclosed total going concern pension obligations of $17,316 million in respect of service accrued to December 31, 2016.

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

- members' demographic data provided by OPTrust management as at September 30, 2016 projected to December 31, 2016, using management's estimates of experience for the intervening period;
- the actuarial cost method prescribed by the *CPA Canada Handbook* Section 4600; and
- assumptions about future events (for example, economic factors such as future rates of inflation and returns on the pension fund, as well as demographic factors) which were developed by OPTrust management in consultation with Willis Towers Watson and have been adopted by OPTrust management and approved by the Board.

No changes have been made to the actuarial assumptions affecting the pension obligations since the previous valuation for the purpose of the Plan's financial statements at December 31, 2015.

We have reviewed the data used for the valuation and have performed tests of reasonableness and consistency.

In our opinion,

- the membership data are sufficient and reliable for the purpose of the valuation;
- the assumptions adopted are appropriate for the purpose of the valuation;
- the methods employed in the valuation are appropriate for the purpose of the valuation; and
- the valuation has been completed in accordance with our understanding of the requirements of the *Chartered Professional Accountants of Canada (CPA Canada) Handbook* Section 4600.

Nonetheless, differences between future experience and the assumptions about such future events will result in gains or losses which will be revealed in future valuations.

Our valuation was prepared and our opinions given in accordance with accepted actuarial practice in Canada.

Towers Watson Canada Inc.

Ian Markham

Ian Markham
Fellow, Canadian Institute of Actuaries

Laura Newman.

Laura Newman
Fellow, Canadian Institute of Actuaries

Toronto, Ontario
March 8, 2017

Management's Responsibility for Financial Reporting

Management of the OPSEU Pension Plan Trust Fund (OPTrust) is responsible for the integrity and fairness of the data presented in the financial statements and the financial information presented in the funded status report. The financial statements have been prepared in accordance with Canadian accounting standards for pension plans and comply with the financial reporting requirements of the *Pension Benefits Act* of Ontario. The financial statements include amounts that must, of necessity, be based on the best estimates and judgment of management with appropriate consideration as to materiality. Financial information presented throughout the funded status report is consistent with the financial statements.

Management has recognized the importance of OPTrust maintaining and reinforcing a high standard of conduct in all of its actions, including the preparation and publication of statements fairly presenting the financial position of the OPSEU Pension Plan (the Plan). Systems of internal control and supporting procedures are maintained to provide assurance that transactions are properly authorized, assets are safeguarded against unauthorized use or disposition and proper records are maintained. The systems are augmented by the careful selection and training of qualified staff, the establishment of organizational structures providing for a well-defined division of responsibilities, and the communication of policies and guidelines of business conduct throughout OPTrust.

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

PricewaterhouseCoopers LLP, the Plan's external auditor, have conducted an independent examination of the financial statements in accordance with Canadian generally accepted auditing standards and have expressed their opinion upon completion of such examination in their report to the Board of Trustees. The auditors have full and unrestricted access to the Audit, Finance and Risk Committee to discuss their audit and related findings as to the integrity of the Plan's financial reporting and the adequacy of the internal control systems.

Hugh O'Reilly
President and CEO

Doug Michael
Chief Financial Officer

March 8, 2017

Statement of Financial Position

As at December 31 ($ millions)	**2016**	2015
ASSETS		
Investments (Note 4)	**19,945**	19,400
Contributions receivable (Note 8)	**53**	51
Other assets	**4**	5
	20,002	19,456
LIABILITIES		
Accounts payable and accrued charges	**49**	54
Investment-related liabilities (Note 4)	**908**	1,003
	957	1,057
NET ASSETS AVAILABLE FOR BENEFITS	**19,045**	18,399
PENSION OBLIGATIONS (Note 6)	**17,316**	16,756
SURPLUS (Note 7)	**1,729**	1,643
PENSION OBLIGATIONS AND SURPLUS	**19,045**	18,399

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

Statement of Changes in Surplus

For the years ended December 31 ($ millions)	**2016**	2015
SURPLUS, BEGINNING OF YEAR	**1,643**	1,544
CHANGE IN SURPLUS		
Increase in net assets available for benefits	**646**	918
Increase in net pension obligations	**(560)**	(819)
NET INCREASE IN SURPLUS	**86**	99
SURPLUS, END OF YEAR	**1,729**	1,643

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

The financial statements were authorized for issue by the Board of Trustees on March 8, 2017 and were signed on its behalf by:

Vicki Ringelberg
Chair

Tim Hannah
Vice-Chair

Statement of Changes in Net Assets Available for Benefits

For the years ended December 31 ($ millions)	2016	2015
NET ASSETS AVAILABLE FOR BENEFITS, BEGINNING OF YEAR	**18,399**	17,481
Changes due to investment activities		
Investment income (Note 5)	**541**	518
Net gain on investments (Note 5)	**584**	983
Investment management and administrative expenses (Note 5 and 10a)	**(88)**	(190)
	1,037	1,311
Changes due to pension activities		
Contributions (Note 8)	**529**	522
Benefits paid (Note 9)	**(900)**	(897)
Pension administrative expenses (Note 10b)	**(20)**	(18)
	(391)	(393)
INCREASE IN NET ASSETS AVAILABLE FOR BENEFITS	**646**	918
NET ASSETS AVAILABLE FOR BENEFITS, END OF YEAR	**19,045**	18,399

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

Statement of Changes in Pension Obligations

For the years ended December 31 ($ millions)	2016	2015
PENSION OBLIGATIONS, BEGINNING OF YEAR	**16,756**	15,937
INCREASE IN PENSION OBLIGATIONS		
Interest accrued on benefits	**951**	958
Benefits accrued	**469**	438
Assumption changes (Note 6)	**–**	649
	1,420	2,045
DECREASE IN PENSION OBLIGATIONS		
Benefits paid (Note 9)	**900**	897
Experience (losses)/gains (Note 6)	**(40)**	329
	860	1,226
INCREASE IN NET PENSION OBLIGATIONS	**560**	819
PENSION OBLIGATIONS, END OF YEAR	**17,316**	16,756

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

Notes to the Financial Statements

1. Description of the OPSEU Pension Plan

The OPSEU Pension Plan (the Plan) is a jointly sponsored pension plan that provides pension benefits for employees of the Province of Ontario (the Province or Government of Ontario) in bargaining units represented by the Ontario Public Service Employees Union (OPSEU) and certain other bargaining units and employers. The Plan was established under the terms of the April 18, 1994 *Sponsorship Agreement* between the Province and OPSEU (the sponsors), which also provided for the establishment of the OPSEU Pension Plan Trust Fund (OPTrust or the Trust) to hold the assets of the Plan, and implemented by the *OPSEU Pension Act, 1994*.

The *Sponsorship Agreement* establishes the Province and OPSEU as joint sponsors of the Plan. The Trustees of the Plan are responsible for the administration and management of both the Plan, as described in the October 25,1994 *Trust Agreement* between the sponsors, and the Trust. The Board of Trustees is composed of 10 persons, five appointed by each of the Province and OPSEU.

The Plan is registered under the *Pension Benefits Act* (Ontario) and the *Income Tax Act* (Canada) under registration number 1012046. The Plan is a Registered Pension Plan as defined in the *Income Tax Act* and is not subject to income tax in Canada. However, the Trust and its subsidiaries are subject to other federal, provincial and municipal tax in Canada, and may be subject to tax in other countries.

These financial statements reflect the aggregate financial position of the Trust, including the net assets available for benefits, pension obligations, and surplus/deficit.

A. MEMBERSHIP

The Plan's membership is comprised of mandatory permanent (full-time, part-time and seasonal) and optional fixed-term contract employees represented by OPSEU, certain permissible bargaining agents, and other designated employees, employed by the following organizations:

- The Province of Ontario (civil servants and crown employees)
- Alcohol and Gaming Commission of Ontario
- Centre for Addiction and Mental Health
- Legislative Assembly of Ontario
- Liquor Control Board of Ontario
- Niagara Parks Commission
- North Bay Regional Health Centre (Northeast Mental Health Centre)
- Ontario Agency for Health Protection and Promotion
- Ontario Lottery and Gaming Corporation
- Ontario Pension Board
- Ontario College of Trades
- Ontario Public Service Employees Union (seconded or acting employees)
- Ontario Shores Centre for Mental Health Sciences
- Ontario Teachers' Pension Plan Board
- OPSEU Pension Plan Trust Fund (includes non-bargaining unit employees)
- Providence Continuing Care Centre
- St. Joseph's Care Group – Lakehead Psychiatric Hospital
- Waypoint Centre for Mental Health Care
- Workplace Safety and Insurance Appeals Tribunal

B. FUNDING

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

C. CONTRIBUTIONS

The Plan's contributions and benefits are integrated with the Canada Pension Plan (CPP).

The contribution rate for both employers and employees was 9.4% (2015 – 9.4%) of salary up to the Year's Maximum Pensionable Earnings (YMPE) under the CPP and 11% (2015 – 11%) of salary above the YMPE. Sponsors have agreed that the contribution rate, except in extenuating circumstances, will not exceed this level until at least December 31, 2017.

D. PURCHASE OR BUY BACK OF PAST SERVICE

Eligible members of the Plan can purchase or "buy back" past service for leaves of absences or employment service before joining the Plan (e.g. contract, casual or non-Ontario Public Service employment), subject to *Income Tax Act* limits. Member payments are required for all buyback types and for some, employers make a matching payment.

E. PENSION BENEFITS

Members' benefits become immediately vested upon Plan enrolment. The Plan provides for the payment of a pension benefit equal to 2% of the average of the best five consecutive years of salary, for each year of pension service; which at age 65 is reduced by an amount that roughly estimates the amount of CPP benefits earned during membership, as reflected by the lower contributions made for earnings up to the YMPE. The reduction at age 65 equals 0.655% multiplied by the lesser of the best five-year average annual salary or the final five-year average of the YMPE, multiplied by the member's years of pension service after 1965 (maximum of 35 years).

An unreduced pension is payable at age 65 (the Plan's normal retirement age), or before age 65, if the member's age and years of pension service total 90 (Factor 90), or when the member reaches age 60 and has 20 or more years of pension service. Reduced pensions are available to members who retire at or after age 55 and before age 65 and are not entitled to unreduced benefits. The pension reduction is equal to 5% for each year that the member is under age 65 when he or she retires.

F. INFLATION PROTECTION

An adjustment to pension benefits to account for inflation is made annually based on changes to the Consumer Price Index to a maximum of 8% in any one year. Where the inflation adjustment exceeds 8% in any one year, the excess is carried forward to any subsequent year when the adjustment is less than 8%. The adjustment is made to both current and deferred pensions. The inflation adjustment was 1.3% at January 1, 2017 (January 1, 2016 – 1.3%).

G. DEATH BENEFITS

Upon the death of a member or pensioner, death benefits are available to a surviving eligible spouse, eligible children, designated beneficiary, or estate. The death benefit may be in the form of a survivor pension, a lump sum payment or both. The Plan provides a 60% survivor pension to an eligible spouse at no cost to the pensioner. Survivor pensions are also available to the member's or pensioner's children in certain circumstances.

In the case of limited life expectancy, provisions exist to access lump sum payouts, provided eligible spouses waive their entitlement to a survivor pension.

H. DISABILITY PENSIONS

A disability pension is available to members with a minimum of 10 years of pension service in the Plan and who meet the established criteria. The amount of the disability pension depends on the years of pension service and the average salary of the disabled member.

I. DEFERRED PENSIONS

Members, who terminate membership in the Plan before retirement, have the option of leaving their money in the Plan and receiving a pension at retirement age. In addition, members who are moved to other employers in a divestment situation and are enrolled in a new pension plan will be set up for a special deferred pension where transfer options do not exist or are not desired. The value of deferred pensions increases annually by the annual inflation adjustment. As of January 1, 2014, changes to the *Pension Benefits Act* allow previously divested persons to transfer their deferred pensions to another pension plan, where a transfer agreement is in place.

J. TERMINATION PAYMENTS

Subject to certain restrictions, a member who terminates Plan membership before retirement may be entitled to transfer the commuted value of his or her pension to a registered retirement savings plan (RRSP) or use these funds to purchase a life annuity. Excess contributions may also be transferred to an RRSP or paid directly to the former member, subject to withholding of income tax and applicable limits under the *Income Tax Act*.

K. TRANSFERS

In certain circumstances, a member who terminates employment before retirement may be entitled to transfer the value of his or her pension to another pension plan, if OPTrust has a reciprocal transfer agreement with that plan. In addition, members who are promoted to management or certain professional groups are subject to a mandatory transfer of benefits to the Public Service Pension Plan (administered by the Ontario Pension Board).

2. Significant Accounting Policies

A. BASIS OF PRESENTATION

These financial statements are prepared in accordance with *Chartered Professional Accountants of Canada (CPA Canada) Handbook* Section 4600 – Pension Plans (s4600). This standard is the basis for Canadian accounting standards for pension plans. The recognition and measurement of OPTrust's assets and liabilities are consistent with the requirements of s4600.

In the selection or change of accounting policies that do not relate to its investment portfolio or pension obligations, OPTrust has chosen to comply on a consistent basis with International Financial Reporting Standards (IFRS) to the extent that those standards do not conflict with the requirements of s4600.

The financial statements present the aggregate financial position of the Trust as a separate financial reporting entity independent of the participating employers, bargaining units, plan members and pensioners. Certain prior year financial information has been reclassified to conform with the presentation adopted in the current year.

B. USE OF ESTIMATES

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

C. INVESTMENTS

Investments, investment receivables, investment payables and investment-related obligations are financial instruments, and are recognized on a trade date basis and stated at fair value. OPTrust uses IFRS 13 Fair Value Measurement in determining fair value whereby fair value is the most representative price within the bid-ask spread.

i) Valuation of investments

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

Fair values are determined as follows:

Short-term Investments
For short-term investments, fair value is determined using cost plus accrued interest or the average of market quotes of closing bid and ask prices. Short-term investments comprise direct investments and include reinvested cash collateral that is comprised of fixed rate instruments.

Bonds and Real Return Bonds
Fair value is the average of market quotes of closing bid and ask prices. Where quoted prices are not available, estimated values are calculated using discounted cash flows based on current market yields for comparable securities or market information.

Pooled Funds
For pooled fixed income and equity funds, fair value is determined through reference to the net asset values as reported by the external fund manager and reviewed by management.

Bank Loan Notes
Bank loan notes that are arranged by banks are comprised of debt from companies and are backed with collateral assets. The average of the institutional bid and ask evaluation prices is used when both are present. In the absence of institutional bid evaluation, vendor pricing based on proprietary models are used, which approximate the price a dealer would pay for a security.

Public Equity
Generally, closing quoted market price is the most representative of fair value. Where a market price is not available, fair value is determined using comparable market information.

Hedge Funds
Hedge funds are recorded at fair value based on net asset values provided by each of the funds' external administrators and are reviewed by management.

Real Estate
Fair value is determined using appropriate valuation techniques and management's and/or third party best estimates. Income producing properties are valued based on independent appraisals that are conducted at least once every three years. Where external appraisers are engaged to perform the valuation, management reviews the assumptions used by the appraisers.

Investments held through limited partnerships or fund investments are valued using the values reported by the external fund managers and updated for any specific market and other investment factors known to OPTrust that could affect the fair value of the investment.

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

Private Markets
Private markets include private equity and infrastructure investments that are held directly or through ownership in limited partnership arrangements or via fund investments. Fair value is determined using appropriate valuation techniques and management's and/or third party best estimates. For investments held through limited partnerships or funds, fair value is generally determined by the external investment manager using accepted valuation methods and other relevant information, which is reviewed by management and updated for any specific market and other investment factors known to OPTrust that could affect the fair value of the investment.

Derivatives
Derivative contracts are financial contracts, the value of which is derived from changes in underlying assets, interest rates, foreign exchange rates, commodities or indices. Market prices are used for exchange-traded derivatives such as futures. Where quoted market prices are not available, appropriate valuation techniques are used to determine fair value. Derivative contracts are transacted by OPTrust either directly with counter-parties in the over-the-counter (OTC) market or on regulated exchanges, and include the following types of contracts:

Interest rate swaps
An interest rate swap is a contractual agreement between two parties to exchange a series of fixed for floating cash flows based on a notional amount of principal. OPTrust utilizes interest rate swaps to manage interest rate exposures and duration exposures.

Total return swaps
A total return swap is a contractual agreement between two parties to exchange cash flows based on changes in the value and cash flows of the referenced asset. OPTrust uses total return swaps to gain exposure and benefit from referenced assets without directly owning the asset.

Credit default swaps
A credit default swap is a contractual agreement between two parties to provide protection against a change in value of referenced debt instruments. The purchaser pays premiums to the seller on the credit default swap in return for payment related to a change in the value of the referenced asset in case of a credit event. OPTrust utilizes credit default swaps to promote credit diversification and for risk diversification.

Inflation swaps
An inflation swap is a contractual agreement between two parties to exchange cash flows based on changes in the rate of inflation. OPTrust uses inflation swaps to manage its exposure to inflation risks.

Currency swaps
A currency swap is a contractual agreement between two parties to exchange cash flows based on changes in one currency versus another. OPTrust uses currency swaps to manage its interest rate and currency exposures for both hedging and active purposes.

Foreign exchange forwards
A foreign exchange forward contract is a contractual agreement between two parties to exchange a notional amount of one currency for another at a specified price for settlement on a predetermined date in the future. OPTrust uses foreign exchange forward contracts to modify currency exposure for both hedging and active currency management.

Bond forwards
A bond forward is a contractual agreement to buy or sell bonds or a bond index at a specified price and date in the future. OPTrust utilizes bond forward contracts to manage its interest rate and duration exposure in specific bond markets.

Equity and bond futures
Equity and bond futures are standardized contracts to either buy or sell specified equity/bond indices at a specific price and date in the future. Futures are transacted between counterparties on regulated futures exchanges and are subject to daily cash settlement of changes in fair value. OPTrust utilizes equity and bond index futures contracts to manage its exposure to public equity and bond markets.

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

Securities Sold Under Resell and Repurchase Agreements

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

Collateral

Cash collateral provided by OPTrust as cash margin is included as a component of cash and short-term investments. For collateral other than cash, if the party to whom the collateral is provided does not have the right to sell or re-pledge, the asset remains as an investment in OPTrust's financial statements.

ii) Income recognition

Net investment income includes interest and dividends, income from real estate and private market investments, realized gains and losses on disposal of investments, and unrealized gains and losses resulting from changes in the fair value of investments. Investment income is recognized on an accrual basis when earned.

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

iii) Transaction fees

Transaction fees include incremental costs attributable to the acquisition, issue or disposal of investment assets or liabilities, and are expensed as incurred.

iv) External management fees

External management fees for portfolio management are expensed and included in investment management expenses.

D. PENSION OBLIGATIONS

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

For financial reporting purposes, the *CPA Canada Handbook* requires that pension plans report the actuarial value of pension obligations using management's best estimate assumptions and the projected unit credit method, prorated on service.

This method calculates the actuarial value of pension benefits accrued up to the financial reporting date, after the projected benefits have been attributed equally to each year of a member's service. This method differs from the modified aggregate method used for funding purposes, which includes current members' expected future contributions and margins of conservatism in the setting of economic assumptions.

E. CONTRIBUTIONS

Contributions from members and employers that are due at year-end, including those relating to purchases of credit for prior employment or leave, and transfers into the Plan, are recorded as a receivable. The carrying value of the receivable approximates fair value due to their short-term nature.

F. BENEFIT PAYMENTS

Payments of pensions, refunds and transfers are recorded in the period in which they are incurred; amounts due at year-end are recorded in accounts payable and accrued charges.

G. SURPLUS/DEFICIT

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

H. FOREIGN CURRENCY TRANSLATION

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

I. FAIR VALUE DISCLOSURES

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

Level 1 – inputs are unadjusted quoted prices of identical assets or liabilities in active markets.

Level 2 – inputs are other than quoted prices included in Level 1 that are observable for the asset or liability, either directly or indirectly.

Level 3 – one or more significant inputs used in a valuation technique are unobservable in determining fair values of the assets or liabilities.

Determination of fair value and the resulting hierarchy requires the use of observable market data whenever available. The classification of a financial instrument in the hierarchy is based upon the lowest level of input that is significant to the measurement of fair value.

J. ACCOUNTING STANDARDS ISSUED BUT NOT APPLIED

On January 13, 2016 the International Accounting Standards Board (IASB) issued *IFRS 16 Leases* (IFRS 16) replacing *IAS 17 Leases*. IFRS 16 brings most leases on the Statement of Financial Position and eliminates the distinction between operating and finance leases. The new standard will come into effect for periods beginning on or after January 1, 2019 with early adoption permitted. OPTrust does not expect any material impact of adopting IFRS 16 on future financial results.

On July 24, 2014 the International Accounting Standards Board issued *IFRS 9 Financial Instruments* (IFRS 9) replacing *IAS 39 Financial Instruments: Recognition and Measurement*. IFRS 9 includes new classification and measurement requirements for financial assets and liabilities. The new standard will come into effect for periods beginning on or after January 1, 2018 with early adoption permitted. OPTrust does not expect any material impact of adopting IFRS 9 on future financial results.

3. Risk Management

A. INVESTMENT RISK

The Trust is subject to certain investment risks and engages in risk management practices to help ensure that sufficient assets will be available to fund pension benefits. Investment risks include market risk (interest rate risk, foreign currency risk, equity price risk, commodity risk and inflation risk), credit risk and liquidity risk.

The management of these investment risks is addressed in OPTrust's *Risk Appetite Statement* and management policies, and is monitored at the Investment Strategy and Risk Committee.

Investment risk includes the following types of risk:

i) Market risk

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

Interest Rate Risk

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates. The potential exposure results from either changes in floating interest rates reducing cash flows or changes in the asset values for fixed rate securities (e.g. bonds). During periods of rising interest rates, the market value of the existing fixed income securities will generally decrease. See Note 4 for sensitivity to changes in assumptions.

The Trust manages interest rate risk relative to its liabilities, investing so that there is an appropriate mix between interest-sensitive investments and those subject to other risks. There are also certain private market and real estate investments which may have interest rate components making them subject to interest rate exposure.

Duration is a measure of the sensitivity of portfolios subject to interest rates to parallel shifts in the yield curve. The duration of the fixed income portfolio is 15.6 years as at December 31, 2016 (2015 – 8.6 years). A 1% increase/(decrease) in interest rates, with all other variables held constant, would result in a (decrease)/increase in the value of the fixed income portfolio of $648 million (2015 – $406 million).

Foreign Currency Risk

Foreign currency risk is the risk that the value of foreign investments will be affected by changes in foreign currency exchange rates for Canadian dollars. Currency risk is managed at the total Trust level by targeting currency exposures that help to diversify risk.

The Trust's market value exposure to foreign exchange risk is as follows:

As at December 31 ($ millions)	2016 Gross exposure	2016 Impact of derivatives[a]	2016 Net exposure	2015 Net exposure
Canadian Dollar	**10,076**	**3,955**	**14,031**	14,084
Investments subject to currency risk				
Developed markets				
United States Dollar	**5,325**	**(1,644)**	**3,681**	1,606
British Pound Sterling	**656**	**(568)**	**88**	196
Euro	**1,221**	**(1,248)**	**(27)**	418
Hong Kong Dollar	**222**	**–**	**222**	391
Australian Dollar	**354**	**(211)**	**143**	29
Europe – Other	**213**	**(55)**	**158**	308
Asia Pacific – Other	**271**	**(279)**	**(8)**	299
Emerging markets	**699**	**50**	**749**	1,066
	8,961	**(3,955)**	**5,006**	4,313
NET INVESTMENTS	**19,037**	**–**	**19,037**	18,397

a The impact of derivatives represents the foreign currency exposure represented by the notional amount hedged using forward currency contracts.

The impact of a 5% absolute change in the Canadian dollar against the top five currencies held at year-end, holding all other variables constant would have resulted in a $208 million change in the net assets available for benefits as at December 31, 2016 (2015 – $115 million).

As at December 31 ($ millions)	Change versus Canadian Dollar	2016 Change in net assets available for benefits	2015 Change in net assets available for benefits
United States Dollar	**+/- 5%**	**+/- 177**	+/- 74
Hong Kong Dollar	**+/- 5%**	**+/- 11**	+/- 19
Indian Rupee	**+/- 5%**	**+/- 7**	+/- 11
New Taiwan Dollar	**+/- 5%**	**+/- 7**	+/- 10
Australian Dollar	**+/- 5%**	**+/- 6**	+/- 1
TOTAL		**+/- 208**	+/- 115

Equity Price Risk

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

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

As at December 31 ($ millions)

Equity market[a]	Market index	Change in market index[b]	2016 Change in net assets available for benefits	2015 Change in net assets available for benefits
Developed	**MSCI World Index**	**+/- 10%**	**+/- 214**	+/- 173
Private equity	**MSCI World Index**	**+/- 10%**	**+/- 86**	+/- 121
Canadian	**S&P/TSX Composite Index**	**+/- 10%**	**+/- 39**	+/- 103
Emerging	**MSCI EMF Index**	**+/- 10%**	**+/- 61**	+/- 50
TOTAL			**+/- 400**	+/- 447

a Equity market is based on the portfolio mandates of the investment managers.
b For each equity category, the expected effect of a 10% change in the market index is estimated using the most recent four years of market data.
Currency exchange rates are not affected by the change in market indices.

Commodity Price Risk

Commodity price risk is the risk that the fair value of investments will fluctuate due to changes in market prices of commodities. In 2016 and 2015, OPTrust had no direct exposure to commodities.

Inflation Risk

Inflation risk is the risk that fair value or future cash flows of an instrument will fluctuate because of changes in current inflation or expected future inflation. OPTrust has direct inflation risk through investments in Canadian real return bonds and indirect inflation risk through infrastructure and real estate investments where inflation inputs are used to determine the fair value of investments.

Value at Risk

OPTrust uses Value at Risk (VaR) methodology to monitor market risk in the overall fund. VaR is a statistical technique that is used to estimate the potential loss in a portfolio as a result of movements in market risk factors over a specified time period and for a specified confidence level. The VaR methodology uses at least 10 years of weekly returns to estimate VaR at the given confidence level scaled to a one-year holding period.

VaR is a valid measure under normal market conditions and assumes that historic market data can be used to estimate future risk. If future market behaviour is significantly different from the past, or if severe market events occur, the actual losses could be materially different from the VaR estimates.

The table below highlights the loss, in normal markets, that could be expected in a year, based on the VaR methodology at the 95% confidence level.

	2016		2015	
As at December 31 ($ millions)	**Potential loss**	**% Potential loss**	Potential loss	% Potential loss
Net investments	**(1,264)**	**-6.6%**	(1,286)	-7.0%

In 2016, VaR decreased as a result of reducing exposure to public equities and increasing exposure to high-quality government bonds.

In addition to the management of absolute risk, the *Risk Appetite Statement* sets limits on how the funded status could change under two stress scenarios approved by the Board.

ii) Credit risk

Credit risk is the risk of financial loss due to a counterparty, borrower, endorser or guarantor failing to make payments under its contractual obligations. OPTrust has exposure to credit risk through debt securities and OTC derivatives.

OPTrust mitigates credit risk on debt securities through adherence to approved policies and guidelines, which includes guidelines on the Trust's exposure to single issuers. Issuer type credit risk from OTC derivatives is managed by only dealing with highly-rated counterparties and requiring certain counterparties to post collateral in order to back the fair value of these derivative contracts.

The fair value of the investments exposed to credit risk, by credit rating, is as follows:

	2016					
As at December 31 ($ millions)	**Short-term investments**	**Government, corporate bonds and bank loan notes**	**Real return bonds**	**Swaps**	**Forwards**	**Total**
AAA/R-1 High	**1,094**	**821**	**438**	**–**	**–**	**2,353**
AA/R-1 Mid	**1,020**	**533**	**–**	**24**	**32**	**1,609**
A/R-1 Low	**105**	**1,914**	**–**	**–**	**48**	**2,067**
BBB/R-2 Low or lower	**2**	**337**	**–**	**–**	**2**	**341**
TOTAL	**2,221**	**3,605**	**438**	**24**	**82**	**6,370**

	2015					
As at December 31 ($ millions)	Short-term investments	Government, corporate bonds and bank loan notes	Real return bonds	Swaps	Forwards	Total
AAA/R-1 High	435	1,079	462	–	–	1,976
AA/R-1 Mid	405	343	–	53	13	814
A/R-1 Low	112	1,630	–	2	7	1,751
BBB/R-2 Low or lower	14	958	6	–	–	978
TOTAL	966	4,010	468	55	20	5,519

Credit risk for investments is measured by the positive fair value of the contractual obligations with the counterparties less any collateral or margin received as at the reporting date. The Trust has exposure to derivatives as follows:

	2016			2015		
As at December 31 ($ millions)	**Notional amount[a]**	**Fair value assets**	**Fair value liabilities**	Notional amount[a]	Fair value assets	Fair value liabilities
Forwards						
Currency	**8,530**	**82**	**(52)**	10,678	3	(326)
Bond	**–**	**–**	**–**	17	18	(2)
Futures						
Equity	**132**	**–**	**–**	1,436	–	–
Bond	**746**	**–**	**–**	822	–	–
Options						
Currency	**3**	**4**	**–**	51	–	–
Equity	**2**	**–**	**(1)**	–	–	–
Interest rate	**–**	**–**	**–**	2	3	–
Swaps						
Interest rate	**120**	**1**	**(1)**	979	12	(1)
Total return	**55**	**23**	**–**	108	42	–
Credit default	**29**	**–**	**–**	94	1	–
Inflation	**–**	**–**	**–**	12	–	–
Currency	**34**	**–**	**–**	–	–	–
TOTAL DERIVATIVES	**9,651**	**110**	**(54)**	14,199	79	(329)

a The notional amounts of derivative contracts represent the nominal or face amount that is used to calculate the cash payments made on that contract.

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

The following table presents the recognized financial instruments that are offset, or subject to enforceable master netting agreements as at December 31, 2016 and 2015. Similar arrangements include repo agreements, resell agreements, security lending agreements and any related rights to financial collateral.

	2016					
				Related amounts not set off in the statement of financial position		
As at December 31 ($ millions)	**Gross amounts of recognized financial instruments**	**Gross amounts of recognized financial instruments set-off**	**Net amounts of financial instruments presented (Note 4)**	**Financial instruments**	**Financial collateral (held)/ pledged**	**Net amount**
Financial assets						
Derivative instruments	**126**	**(16)**	**110**	**(9)**	**(1)**	**100**
Resell agreements	**3**	**–**	**3**	**–**	**(3)**	**–**
Securities lending	**407**	**–**	**407**	**–**	**(407)**	**–**
TOTAL FINANCIAL ASSETS	**536**	**(16)**	**520**	**(9)**	**(411)**	**100**
Financial liabilities						
Derivative instruments	**(70)**	**16**	**(54)**	**9**	**5**	**(40)**
Repo agreements	**(793)**	**–**	**(793)**	**–**	**791**	**(2)**
TOTAL FINANCIAL LIABILITIES	**(863)**	**16**	**(847)**	**9**	**796**	**(42)**

	2015					
				Related amounts not set off in the statement of financial position		
As at December 31 ($ millions)	Gross amounts of recognized financial instruments	Gross amounts of recognized financial instruments set-off	Net amounts of financial instruments presented (Note 4)	Financial instruments	Financial collateral (held)/ pledged	Net amount
Financial assets						
Derivative instruments	94	(15)	79	–	(12)	67
Securities lending	1,045	–	1,045	–	(1,045)	–
TOTAL FINANCIAL ASSETS	1,139	(15)	1,124	–	(1,057)	67
Financial liabilities						
Derivative instruments	(344)	15	(329)	–	38	(291)
Repo agreements	(565)	–	(565)	–	565	–
TOTAL FINANCIAL LIABILITIES	(909)	15	(894)	–	603	(291)

Collateral is collected from counterparties to manage credit risk from OTC derivatives in accordance with the Credit Support Annex (CSA), which forms part of the International Swaps and Derivative's Association (ISDA) master agreements. It is common practice to execute a CSA in conjunction with an ISDA master agreement. Under the ISDA master agreement for OTC derivatives, OPTrust has a right to offset in the event of default, insolvency, bankruptcy or other early termination. In the case of exchange-traded derivatives subject to derivative clearing agreements with the exchanges and clearing-houses, there is no provision to offset against obligations to the same counterparty. As at December 31, 2016, collateral of $1 million (2015 – $12 million) was held and $5 million (2015 – $38 million) was pledged by OPTrust. OPTrust had $17 million (2015 – $63 million) in cash margin for its futures contracts.

The Trust pledges and receives securities collateral to/from counterparties for resell and repo agreements. As at December 31, 2016, collateral held for resell agreements was $3 million (2015 – nil) and collateral pledged for repo agreements was $791 million (2015 – $565 million), with an associated liability of $793 million (2015 – $565 million) and a receivable of $3 million (2015 – nil).

iii) Liquidity risk

Liquidity risk is the potential that OPTrust will not be able to meet payment obligations from pension payments, operating expenses or investment activities as they come due. OPTrust has exposure to liquidity risk through its investment commitments which are required to be funded in future periods, as well as through holding certain investments including funds, private market and real estate investments, which by nature are less liquid than public market assets (see Note 11). An additional source of liquidity risk exposure is OPTrust's use of leverage and derivatives.

The Trust forecasts and manages cash flows to ensure it meets its obligations when due, without unintended early liquidation of assets. The Trust's cash and liquidity positions are monitored daily against guidelines established in a liquidity framework. Both short-term and longer-term cash and liquidity requirements are assessed within this framework. Liquidity risk is managed by holding unencumbered securities that can be sold under repo agreements in order to raise funds. Additionally, 87% (2015 – 94%) of public market investments are marketable and can be liquidated in a timely manner. These measures protect the Trust against unforeseen cash requirements such as capital call obligations and movements in the market that result in losses.

The remaining terms to contractual maturity or repricing dates, whichever dates are earlier, of interest bearing investments, including derivatives, mortgages and repo agreements are as follows:

	2016				
	Term to maturity				
As at December 31 ($ millions)	Within 1 year	1 to 5 years	5 to 10 years	Over 10 years	Total
Short-term investments	2,221	–	–	–	2,221
Bonds and bank loan notes					
Federal government	–	35	270	887	1,192
Provincial government	–	1	223	2,739	2,963
Corporate	1	97	130	12	240
Real return	–	–	–	438	438
	2,222	133	623	4,076	7,054
Due to brokers and other liabilities	(24)	(32)	–	–	(56)
Derivative instruments	55	1	–	–	56
Mortgages related to real estate	(22)	(124)	(229)	(83)	(458)
Repo and resell agreements	(790)	–	–	–	(790)
	(781)	(155)	(229)	(83)	(1,248)
TOTAL	1,441	(22)	394	3,993	5,806

	2015				
	Term to maturity				
As at December 31 ($ millions)	Within 1 year	1 to 5 years	5 to 10 years	Over 10 years	Total
Short-term investments	966	–	–	–	966
Bonds and bank loan notes					
Federal government	–	550	279	322	1,151
Provincial government	–	195	455	888	1,538
Corporate	–	558	475	288	1,321
Real return	–	4	2	462	468
	966	1,307	1,211	1,960	5,444
Due to brokers and other liabilities	(23)	(28)	–	–	(51)
Derivative instruments	(305)	48	4	3	(250)
Mortgages related to real estate	(117)	(230)	(276)	(108)	(731)
Repo agreements	(565)	–	–	–	(565)
	(1,010)	(210)	(272)	(105)	(1,597)
TOTAL	(44)	1,097	939	1,855	3,847

OPTrust maintains $130 million (2015 – $130 million) of unsecured credit facilities to meet potential liquidity requirements primarily for investment purposes. The interest charged on the drawn portion of the credit facility is 0.75% (2015 – 0.75%). As at December 31, 2016, the total amount drawn on the credit facilities in the form of letters of credit was $32 million (2015 – $41 million).

B. SECURITIES LENDING

The Trust participates in a securities lending agreement whereby it lends securities to approved borrowers. OPTrust secures its exposure through the receipt of security or cash collateral starting at 102% of the value of the securities lent. All securities lent are recallable on demand at the option of OPTrust.

Credit risk associated with the borrower is mitigated by requiring the borrower to provide collateral with market values exceeding the market value of the loaned securities. Credit risk associated with the reinvestment of cash collateral is mitigated by the investment policies and practices agreed to with the lending agent, which emphasize preservation of capital.

As at December 31, 2016, the Trust's investments included loaned securities with a fair value of $407 million (2015 – $1,045 million). The fair value of collateral received in respect of these securities on loan was $432 million (2015 – $1,106 million). In 2016, collateral consisted of securities, while in 2015, collateral consisted of cash collateral of $24 million and other securities of $1,082 million.

4. Investments

The following schedule presents the fair value of the Trust's investments categorized within the fair value hierarchy as described in Note 2 and their cost before allocating the market exposure related to derivative financial instruments to the asset classes to which they relate.

	2016					2015				
As at December 31 ($ millions)	Level 1	Level 2	Level 3	Fair value	Cost	Level 1	Level 2	Level 3	Fair value	Cost
Fixed income										
Cash	196	–	–	196	196	494	–	–	494	494
Short-term investments	–	2,221	–	2,221	2,220	–	966	–	966	964
Government and corporate bonds										
Canadian	–	4,034	–	4,034	4,178	–	3,474	–	3,474	3,459
Foreign	–	193	–	193	195	–	380	–	380	367
Real return bonds										
Canadian	–	438	–	438	302	–	462	–	462	327
Foreign	–	–	–	–	–	–	6	–	6	6
Bank loan notes	–	168	–	168	154	–	156	–	156	135
	196	7,054	–	7,250	7,245	494	5,444	–	5,938	5,752
Public equity										
Canadian	483	–	–	483	330	1,271	–	–	1,271	1,049
Foreign	2,928	11	–	2,939	2,403	4,205	21	–	4,226	3,228
	3,411	11	–	3,422	2,733	5,476	21	–	5,497	4,277
Pooled funds	81	314	549	944	889	55	153	39	247	206
Hedge funds	–	–	1,653	1,653	1,478	–	–	712	712	564
Real estate	–	(465)	3,349	2,884	2,310	(4)	(731)	3,592	2,857	2,228
Private markets										
Private equity	8	–	1,587	1,595	1,078	16	–	1,675	1,691	1,215
Infrastructure	115	–	1,950	2,065	1,711	140	–	2,210	2,350	1,692
	123	–	3,537	3,660	2,789	156	–	3,885	4,041	2,907
Investment-related assets										
Accrued income	36	–	–	36	36	37	–	–	37	37
Due from brokers	3	3	–	6	6	7	27	–	34	34
Derivative instruments	–	87	–	87	6	–	37	–	37	21
Resell agreements	–	3	–	3	3	–	–	–	–	–
	39	93	–	132	51	44	64	–	108	92
INVESTMENT ASSETS	3,850	7,007	9,088	19,945	17,495	6,221	4,951	8,228	19,400	16,026
Investment-related liabilities										
Due to brokers and other liabilities	(48)	(13)	–	(61)	(61)	(27)	(58)	–	(85)	(85)
Derivative instruments	–	(54)	–	(54)	–	–	(329)	–	(329)	–
Repo agreements	–	(793)	–	(793)	(793)	–	(565)	–	(565)	(565)
Obligation under securities lending agreements	–	–	–	–	–	(24)	–	–	(24)	(24)
	(48)	(860)	–	(908)	(854)	(51)	(952)	–	(1,003)	(674)
NET INVESTMENTS	3,802	6,147	9,088	19,037	16,641	6,170	3,999	8,228	18,397	15,352

The following table presents a reconciliation of financial instruments included in Level 3 of the fair value hierarchy:

For the year ended December 31 ($ millions)	2016 Hedge and pooled funds	Real estate	Private markets	Total
Balance, beginning of year	751	3,592	3,885	8,228
Investment income	–	125	157	282
Realized gains	12	127	398	537
Unrealized gains/(losses)[a]	38	(31)	(273)	(266)
Purchases	1,527	270	540	2,337
Sales	(126)	(734)	(1,170)	(2,030)
Transfers into/(out of) Level 3[b]	–	–	–	–
BALANCE, END OF YEAR[c]	**2,202**	**3,349**	**3,537**	**9,088**

For the year ended December 31 ($ millions)	2015 Hedge and pooled funds	Real estate	Private markets	Total
Balance, beginning of year	567	3,080	3,318	6,965
Investment income	–	90	150	240
Realized gains	14	97	196	307
Unrealized gains[a]	114	175	446	735
Purchases	163	594	355	1,112
Sales	(107)	(444)	(449)	(1,000)
Transfers into/(out of) Level 3[b]	–	–	(131)	(131)
BALANCE, END OF YEAR[c]	751	3,592	3,885	8,228

a Unrealized gains/(losses) are attributable to investments held at December 31, 2016 and December 31, 2015.
b Transfers into/(out of) Level 3 are assumed to occur at the end of the year. The transfer out of Level 3 for the year ended December 31, 2015 is due to a reclassification of infrastructure and private equity investments that became publicly traded.
c There were no settlements of Level 3 financial instruments for the years ended December 31, 2016 and 2015.

Sensitivity to changes in assumptions

Sensitivity information is available for direct investments in real estate and certain private equity and infrastructure, and is presented in the table below. The fair value of certain fund investments where OPTrust does not have access to the underlying investment information is based on the value provided by the external manager, and therefore, no other reasonably possible alternative assumptions could be applied.

As at December 31, 2016 ($ millions)	Key factor	Fair value	+0.25%	-0.25%
Real estate	Capitalization rate[a]	1,374	(53)	58
Mortgages related to real estate	Interest rate	465	(6)	6
Infrastructure	Discount rate[b]	696	(23)	24
Private equity	Discount rate[b]	52	(2)	2

a A rate of return to derive the value of an investment property based on its expected income stream.
b The interest rate used in a discounted cash flow analysis to determine the present value of future cash flows.

A. SIGNIFICANT INVESTMENTS

As at December 31, the Trust held certain investments having a fair value or cost exceeding 1% of the fair value or cost of net investment assets.

As at December 31 ($ millions)	2016 Number of investments	2016 Fair value	2016 Cost	2015 Number of investments	2015 Fair value	2015 Cost
Fixed income	9	1,950	1,854	2	443	307
Pooled fund	1	510	500	–	–	–
Hedge fund	2	869	831	–	–	–
Private markets	4	1,399	1,174	6	1,817	1,257

The investments where the individual issue has a cost or fair value exceeding 1% of the cost or fair value of net investment assets were comprised of one or more holdings of the following:

Fixed income:
Government of Canada, Government of Ontario

Pooled fund:
Aviva Investors Multi-Strategy Target Return Private Pooled

Hedge fund:
AQR Offshore Multi-Strategy Fund XVIII LP, Bridgewater Pure Alpha Major Markets, Ltd.

Private markets:
Globalvia Infraestructuras, S.A., Kemble Water Holdings Limited, Firelight Infrastructure Partners L.P. and Harvest Pipeline Company

5. Net Investment Income

For the years ended December 31 ($ millions)	2016 Investment income	2016 Net gain/(loss) on investments[a]	2016 Net investment income/(loss)[b]	2015 Investment income	2015 Net gain/(loss) on investments[a]	2015 Net investment income/(loss)
Fixed income						
Cash and short-term investments	9	(3)	6	8	23	31
Government and corporate bonds						
Canadian	110	(104)	6	83	(4)	79
Foreign	14	(6)	8	19	19	38
Real return bonds						
Canadian	10	1	11	10	2	12
Foreign	–	(1)	(1)	–	–	–
Bank loans notes	7	1	8	8	22	30
	150	(112)	38	128	62	190
Public equity						
Canadian	24	128	152	40	(74)	(34)
Foreign	79	75	154	88	549	637
	103	203	306	128	475	603
Pooled funds	–	21	21	7	12	19
Hedge funds	–	33	33	–	133	133
Real estate	125	96	221	111	272	383
Private markets						
Private equity	37	186	223	15	382	397
Infrastructure	126	(66)	60	129	260	389
	163	120	283	144	642	786
Derivative instruments	–	223	223	–	(613)	(613)
	541	584	1,125	518	983	1,501
Investment management expenses						
External manager fees and other			(34)			(109)
Transaction fees			(9)			(17)
			(43)			(126)
NET INVESTMENT INCOME			1,082			1,375

a Includes realized gain of $1,233 million and unrealized loss of $649 million in 2016 and realized gain of $623 million and unrealized gain of $360 million in 2015.
b For the 2016 presentation only, certain investment-related disbursements of $48 million have been netted against net investment income/(loss).

6. Pension Obligations

A. FINANCIAL STATEMENT VALUATION

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

As at December 31	**2016**	2015
Inflation rate	**2.00%**	2.00%
Discount rate (real)	**3.75%**	3.75%
Discount rate (nominal)	**5.75%**	5.75%
Salary increases (nominal)	**(1.4% for 2017 and 2.75% thereafter)**	(0% for 2016, 1.4% for 2017 and 2.75% thereafter)

Experience (loss)/gains of ($40) million (2015 – $329 million) on the Plan's pension obligations are due to differences between actuarial experience and assumptions. There were no changes to the economic and demographic assumptions as at December 31, 2016. The loss due to changes in economic assumptions was $649 million in 2015.

Salary increases reflect the agreement between the Government of Ontario and OPSEU for general wage increases going forward.

The annual valuation nominal discount rate remained at 5.75% as at December 31, 2016.

B. FUNDING VALUATION

The funding valuation is based on the modified aggregate method. This method considers a time horizon that includes accumulation of benefits and receipt of contributions in respect of current members in future periods. Generally, the actuarial assumptions used to determine the pension obligations for funding purposes are more conservative than those used for the financial statement valuation. The funding valuation is used to identify gains or losses, which are allocated equally between members and the Government of Ontario. Gains are allocated at the discretion of the sponsors to fund benefit improvements, reduce contributions, or reduce any existing funding deficiencies. Funding deficiencies resulting from losses are funded over a maximum of 15 years from increased contributions. Pension obligations are valued using economic assumptions developed by reference to long-term market conditions.

In accordance with the *Pension Benefits Act* and the *Income Tax Act* and regulations, an actuarial valuation for funding purposes is required to be filed at least every three years to estimate the Plan's gains or losses, and to determine the Plan's funding requirements. In 2017, OPTrust is expected to file the Plan's December 31, 2016 funding valuation, as prepared by Towers Watson Canada Inc., with the regulator showing that it is fully funded, and the next funding valuation will not be required to be filed until December 31, 2019.

7. Capital

OPTrust is not under regulatory requirements as it relates to capital. OPTrust defines capital as the funded position of the Plan, whether in surplus or deficit. Surplus is generated during periods of strong economic performance and drawn down during periods of poor economic performance in order to maintain the Trust's capacity to pay its pension obligations without unduly affecting contribution levels. The surplus was $1,729 million as of December 31, 2016 (2015 – $1,643 million).

The objective of managing capital is to ensure the Plan is fully funded to pay the plan benefits over the long term. A funding valuation is used to manage capital by identifying gains or losses as described in Note 6. OPTrust prudently manages its investments to satisfy its long-term funding requirement in accordance with its *Statement of Investment Policies and Procedures* (SIP&P) and other policies and guidelines. The SIP&P was established in 1995 and was last amended in 2016 to accommodate the new member-driven investing strategy.

8. Contributions

For the years ended December 31 ($ millions)	2016	2015
Members		
Current service[a]	229	229
Prior service	16	15
Long-term income protection[b]	14	13
	259	257
Employers		
Current service	229	229
Prior service	7	7
Long-term income protection	14	13
	250	249
Transfers from other plans	20	16
TOTAL CONTRIBUTIONS	529	522

a All contributions paid by members for current service are required contributions.
b The employer pays member contributions for long-term income protection.

As at December 31, 2016, employers' and members' contributions receivable were in the amount of $33 million (2015 – $32 million) and $20 million (2015 – $19 million), respectively. OPTrust has a reconciliation process which reconciles contributions for each employer on a member-by-member basis. This detailed process ensures that contributions are consistent with member information supplied by the employers.

9. Benefit Payments

For the years ended December 31 ($ millions)	2016	2015
Retirement pensions	740	691
Transfers to Public Service Pension Plan	80	99
Transfers to other plans	8	35
Refunds, commuted value transfers and deaths	72	72
TOTAL BENEFIT PAYMENTS	900	897

10. Administrative Expenses

(a) Investment administrative expenses[a]

For the years ended December 31 ($ millions)	2016	2015
Administration	39	57
Professional and consulting services	4	5
Custodial fees	2	2
TOTAL INVESTMENT ADMINISTRATIVE EXPENSES	45	64

(b) Pension administrative expenses[a]

For the years ended December 31 ($ millions)	2016	2015
Administration	19	17
Professional and consulting services	1	1
TOTAL PENSION ADMINISTRATIVE EXPENSES	20	18

Total professional and consulting services include external audit expense of $268 thousand in 2016 (2015 – $268 thousand) and actuarial expense of $420 thousand in 2016 (2015 – $440 thousand).
a Includes allocations of corporate expenses.

11. Guarantees, Commitments and Contingencies

In the normal course of business, OPTrust may, from time to time, provide guarantees to various counterparties and enter into commitments which may be considered material within the context of the Trust. The Trust has committed to fund certain investments over the next several years in accordance with the terms and conditions agreed to. As at December 31, 2016, these commitments totalled $2,287 million (2015 – $2,817 million).

As at December 31, 2016, OPTrust's lease commitments for premises totalled $16 million (2015 – $20 million).

OPTrust indemnifies its Trustees and staff against certain claims that may be made against them to the extent that these individuals are not covered under other arrangements. There are no guarantees that might be considered material and outstanding as at December 31, 2016 and December 31, 2015.

As at December 31, 2016, OPTrust was involved in litigation and claims which arise in the normal course of business. The outcome of such litigation and claims are often inherently difficult to predict. Any liability that may arise from these litigations have been recognized as appropriate or have been determined to have an immaterial impact on the financial statements.

12. Related Party Disclosures

OPTrust, in the normal course of business, purchased bonds at the prevailing market prices that were issued by the Province of Ontario, a joint sponsor of the Plan and whose employees are members of the Plan. The fair market value of the bonds as at December 31, 2016, was $1,313 million (2015 – $889 million). Earned income recorded on the bonds amounted to $35 million for the year-ended December 31, 2016 (2015 – $30 million).

The Trustees of the Plan do not receive compensation from OPTrust. Reimbursement for Trustee-related incidental expenses and education received by Trustees totalled $58 thousand in 2016 (2015 – $70 thousand). The Trustees appointed by the Province of Ontario receive $200 per meeting that they attend and are paid directly by the Province. Trustees appointed by OPSEU are compensated by the union for any loss of regular income as a result of time spent fulfilling their duties as a member of the Board.

13. Key Management Personnel Compensation

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

For the years ended December 31 ($ thousands)	**2016**	2015
Salaries and short-term employee benefits	**3,497**	2,198
Post-employment benefits	**149**	136
Other long-term benefits	**799**	393
Termination benefits	**–**	873
	4,445	3,600

Ten-Year Financial Review

As at December 31 ($ millions)	**2016**	2015	2014	2013	2012	2011	2010*	2009	2008	2007
CHANGES IN NET ASSETS										
Changes due to investment activities	**1,037**	1,311	1,818	1,615	1,237	578	1,530	1,348	(2,435)	659
Changes due to pension activities	**(391)**	(393)	(289)	(368)	(235)	(192)	(202)	(346)	(179)	(197)
INCREASE/DECREASE IN NET ASSETS	**646**	918	1,529	1,247	1,002	386	1,328	1,002	(2,614)	462
NET ASSETS										
Investments										
Cash and short-term investments	**2,417**	1,460	2,750	2,275	2,251	2,296	1,395	2,149	3,251	3,165
Government and corporate bonds and debentures	**4,227**	3,854	2,001	1,629	1,887	2,201	2,282	2,242	2,405	2,782
Real return bonds	**438**	468	446	577	1,177	1,495	1,280	1,179	1,234	1,257
Bank loan notes	**168**	156	145	90	–	–	–	–	–	–
Pooled funds	**944**	247	200	291	126	–	170	156	60	79
Public equity – Canadian and foreign	**3,422**	5,497	5,738	5,749	4,664	4,213	5,731	5,051	3,976	7,038
Hedge funds	**1,653**	712	532	165	–	–	–	–	–	–
Real estate	**2,884**	2,857	2,394	2,167	2,148	1,802	1,419	1,582	1,521	1,201
Private markets	**3,660**	4,041	3,339	3,131	2,460	1,516	1,079	862	686	466
Investment-related assets	**132**	108	154	151	149	265	142	131	231	76
	19,945	19,400	17,699	16,225	14,862	13,788	13,498	13,352	13,364	16,064
Contributions receivable	**53**	51	52	58	56	50	44	39	39	40
Other assets	**4**	5	4	5	5	6	2	2	3	3
TOTAL ASSETS	**20,002**	19,456	17,755	16,288	14,923	13,844	13,544	13,393	13,406	16,107
Liabilities										
Accounts payable and accrued charges	**(49)**	(54)	(78)	(69)	(64)	(64)	(57)	(79)	(41)	(32)
Investment-related liabilities	**(908)**	(1,003)	(196)	(267)	(154)	(77)	(170)	(1,325)	(2,378)	(2,474)
TOTAL LIABILITIES	**(957)**	(1,057)	(274)	(336)	(218)	(141)	(227)	(1,404)	(2,419)	(2,506)
NET ASSETS AVAILABLE FOR BENEFITS	**19,045**	18,399	17,481	15,952	14,705	13,703	13,317	11,989	10,987	13,601
Pension obligations	**17,316**	16,756	15,937	14,958	14,189	13,499	12,923	12,313	11,631	11,114
Actuarial asset value adjustment	**–**	–	–	–	–	–	–	(1,523)	(2,428)	565
SURPLUS	**1,729**	1,643	1,544	994	516	204	394	1,199	1,784	1,922

* Starting with 2010, amounts are presented in accordance with *Chartered Professional Accountants (CPA) Canada Handbook* Section 4600-Pension Plans and IFRS.