

CONDENSED INTERIM CONSOLIDATED STATEMENTS OF FINANCIAL POSITION (unaudited)

(Canadian \$ millions)	As at June 30, 2019	As at December 31, 2018
Net assets available for benefits		
ASSETS		
Cash	\$ 708	\$ 534
Receivable from the Province of Ontario	2,358	3,224
Receivable from brokers	578	189
Investments (note 2)	255,906	256,891
Premises and equipment	122	63
	259,672	260,901
LIABILITIES		
Accounts payable and accrued liabilities	426	458
Due to brokers	445	22
Investment-related liabilities (note 2)	57,439	69,309
	58,310	69,789
Net assets available for benefits	\$ 201,362	\$ 191,112
Accrued pension benefits and deficit		
Accrued pension benefits (note 3)	\$ 220,620	\$ 192,281
Deficit	(19,258)	(1,169)
Accrued pension benefits and deficit	\$ 201,362	\$ 191,112

CONDENSED INTERIM CONSOLIDATED STATEMENTS OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS (unaudited)

For the six-month period ended June 30 (Canadian \$ millions)	2019	2018
Net assets available for benefits, as at January 1	\$ 191,112	\$ 189,478
Investment operations		
Net investment income (note 4)	12,075	6,159
Administrative expenses	(278)	(247)
Net investment operations	11,797	5,912
Member service operations		
Contributions (note 6)	1,646	1,592
Benefits (note 7)	(3,157)	(3,031)
Administrative expenses	(36)	(31)
Net member service operations	(1,547)	(1,470)
Increase in net assets available for benefits	10,250	4,442
Net assets available for benefits, as at June 30	\$ 201,362	\$ 193,920

CONDENSED INTERIM CONSOLIDATED STATEMENTS OF CHANGES IN ACCRUED PENSION BENEFITS (unaudited)

For the six-month period ended June 30 (Canadian \$ millions)	2019	2018
Accrued pension benefits, as at January 1	\$ 192,281	\$ 204,322
Increase in accrued pension benefits		
Interest on accrued pension benefits	3,076	3,018
Benefits accrued	3,099	3,563
Changes in actuarial assumptions and methods (note 3a)	25,320	—
	31,495	6,581
Decrease in accrued pension benefits		
Benefits paid (note 7)	3,156	3,029
Changes in actuarial assumptions and methods (note 3a)	—	2,091
	3,156	5,120
Net increase in accrued pension benefits	28,339	1,461
Accrued pension benefits, as at June 30	\$ 220,620	\$ 205,783

CONDENSED INTERIM CONSOLIDATED STATEMENTS OF CHANGES IN DEFICIT (unaudited)

For the six-month period ended June 30 (Canadian \$ millions)	2019	2018
Deficit, as at January 1	\$ (1,169)	\$ (14,844)
Increase in net assets available for benefits	10,250	4,442
Net increase in accrued pension benefits	(28,339)	(1,461)
Deficit, as at June 30	\$ (19,258)	\$ (11,863)

NOTES TO CONDENSED INTERIM CONSOLIDATED FINANCIAL STATEMENTS (unaudited)

For the six-month period ended June 30, 2019

DESCRIPTION OF PLAN

The following description of the Ontario Teachers' Pension Plan (the Plan) is a summary only. For more complete information, reference should be made to the *Teachers' Pension Act (Ontario)* (the TPA) as amended.

(a) General

The Plan is a contributory defined benefit pension plan co-sponsored by the Province of Ontario (the Province) and Ontario Teachers' Federation (OTF) (the co-sponsors). The principal terms of the Plan are set out in Schedule 1 to the TPA.

The Plan is registered with the Financial Services Regulatory Authority of Ontario (FSRA) (formerly, with the Financial Services Commission of Ontario), and under the *Income Tax Act (Canada)* (the ITA) (registration number 0345785) as a Registered Pension Plan (RPP) which is exempt from income taxes in Canada. The Plan may be liable for taxes on income earned in other jurisdictions.

The Plan is administered and the investments are managed by the Ontario Teachers' Pension Plan Board (the Board). Under the TPA, the Board is constituted as a corporation without share capital to which the *Corporations Act (Ontario)* does not apply.

(b) Funding

Plan benefits are funded by contributions and investment earnings. Contributions are made by active members of the Plan and are matched by either the Province or designated employers. The determination of the value of the accrued pension benefits and required contributions is made on the basis of periodic actuarial valuations.

(c) Retirement pensions

A retirement pension is available based on the number of years of credited service, the average of the best five annual salaries and the age of the member at retirement. A member is eligible for a reduced retirement pension from age 50. An unreduced retirement pension is available at either age 65 or when the sum of a member's age and qualifying service equals 85.

(d) Disability pensions

A disability pension is available at any age to a member with a minimum of 10 years of qualifying service, who becomes disabled while employed in education and who ceases to be employed in education as a result of the disability. The type of disability pension is determined by the extent of the disability.

(e) Death benefits

Death benefits are available on the death of an active member and may be available on the death of a retired member. The benefit may take the form of a survivor pension, lump-sum payment or both.

(f) Escalation of benefits

Pension benefits are adjusted in January each year for inflation, subject to an upper limit of 8% and a lower limit of 0% in any one year with any excess above or below those limits carried forward. For pension credit earned up to December 31, 2009, inflation protection is 100% of the change in the Consumer Price Index. Pension credit earned after December 31, 2009, is subject to conditional inflation protection (CIP). For pension credit earned between January 1, 2010, and December 31, 2013, the minimum indexation level is set at 50% of the change in the Consumer Price Index. There is no minimum level of inflation protection for pension credit earned after 2013. The indexation level stated in the most recent funding valuation filing remains in effect until a subsequent filing updates the amount. Inflation protection of up to 100% for pension credit earned after 2009 can be restored on a go-forward basis, depending on the Plan's funded status.

NOTE 1.

SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

(a) Basis of presentation

These condensed interim consolidated financial statements (Interim Financial Statements) are prepared in Canadian dollars, the Plan's functional currency, in accordance with Part IV of the Chartered Professional Accountants (CPA) Canada Handbook (Section 4600) and International Accounting Standard (IAS) 34, Interim Financial Reporting. They do not include all the information and disclosure required in the annual consolidated financial statements. The Interim Financial Statements should be read in conjunction with the annual consolidated financial statements and the accompanying notes included in the Plan's 2018 Annual Report. The Interim Financial Statements follow the same accounting policies and methods used in preparation of the audited 2018 annual consolidated financial statements.

The Plan's real estate investments are either owned or managed on behalf of the Plan by The Cadillac Fairview Corporation Limited (CFCL), a wholly owned subsidiary that is consolidated. The Plan also consolidates Ontario Teachers' Finance Trust (OTFT) and Ontario Teachers' Cadillac Fairview Properties Trust (CFPT), two entities that support the Plan's investing and funding strategies, and wholly owned investment holding companies managed by either the Plan or CFCL. Investment holding companies that are managed by external parties are recognized as the Plan's investment assets. Under Section 4600, investment assets, including those over which the Plan has control or significant influence, are measured at fair value and presented on a non-consolidated basis.

The Interim Financial Statements were authorized for issue through a resolution of the Board on August 19, 2019.

(b) Changes in accounting policies

The impact of IFRS 16 Leases has been incorporated effective January 1, 2019 and is not material to the overall financial statements. The asset value of capitalized leases for office premises, previously treated as operating leases is included in Premises and equipment and the related liabilities is included in Accounts payable and accrued liabilities. Investment assets and investment-related liabilities include the impact of capitalized leases related to the real estate portfolio. Prior periods have not been re-stated.

(c) Investments

Valuation of investments

Investments are either directly or indirectly owned by the Plan. Investment-related liabilities are incurred by the Plan directly. Details of investments and investment-related liabilities are presented in note 2a and are stated at fair value. Fair value is the price that would either be received to sell an asset or be paid to transfer a liability in an orderly transaction (i.e., an exit price) between market participants at the measurement date. In an active market, fair value is best evidenced by an independent quoted market price. In the absence of an active market, fair value is determined by valuation techniques that make maximum use of inputs observed from markets.

Details of the valuation methodologies are disclosed in the most recent audited annual consolidated financial statements. There have been no changes to the valuation methodologies since December 31, 2018. A valuation update of the rental property portfolio as at June 30, 2019 was conducted and reflected in these interim financial statements.

Fair value hierarchy

Investment assets and investment-related liabilities are classified and disclosed in one of the following categories reflecting the significance of inputs used in making the fair value measurement:

- Level 1 – quoted prices (unadjusted) in active markets for identical assets or liabilities;
- Level 2 – inputs other than quoted prices included within Level 1 that are observable for the assets or liabilities, either directly or indirectly; and
- Level 3 – unobservable inputs.

If different levels of inputs are used to measure the fair value of an investment, the classification within the hierarchy is based on the lowest level input that is significant to the fair value measurement.

Trade-date reporting

Purchases and sales of investments and derivative contracts are recorded as of the trade date.

Net investment income

Dividend income is recognized based on the ex-dividend date, and interest income and real estate income are recognized on the accrual basis as earned. Net investment income also includes both realized and unrealized gains and losses. Unrealized gains and losses are recognized only when the fair value of the investment is based on a quoted market price in an active market or a valuation using appropriate valuation techniques is performed and approved by management.

Transaction costs

Transaction costs are incremental costs directly attributable to the acquisition, issue or disposal of a financial asset or financial liability. Transaction costs are expensed as incurred. Any transaction amounts received by the Plan that are directly attributable to the acquisition of an investment are netted against transaction costs paid.

Management fees

Management and performance fees for external investment managers and administrators are expensed as incurred when directly invoiced or information is otherwise available from capital notices or other manager communications. Fees related to other externally managed investments are offset against investment income. Management fees include incremental costs incurred with external parties that are directly attributable to existing investments and are not related to acquisition or disposal.

(d) Foreign currency translation

Assets and liabilities denominated in foreign currencies are translated into Canadian dollars at the exchange rates prevailing on the period end date. Income and expenses are translated into Canadian dollars at the exchange rates prevailing on the dates of the transactions. The realized and unrealized gains and losses arising from these translations are included within net realized and unrealized gains on investments in investment income.

(e) Accrued pension benefits

The value of accrued pension benefits and changes therein during the year are based on an actuarial valuation prepared by Mercer (Canada) Limited, an independent firm of actuaries. The valuation is performed annually as at August 31 and then extrapolated to year end and to June 30 of the following year. It uses the projected benefit method pro-rated on service and management's best estimate, as at the valuation date, of various economic and non-economic assumptions.

As described in paragraph (f) of the Description of Plan note, the inflation protection level for pension credit earned after December 31, 2009 is conditional, depending on the Plan's funded status. For financial statement valuations, future pension payments are indexed at the levels stated in the most recent funding valuation filing.

(f) Contributions

Contributions from the members, the Province and designated employers are recorded on an accrual basis. Cash received from members for credited service and cash transfers from other pension plans are recorded when received.

(g) Benefits

Benefit payments to members and others, commuted value payments and refunds to former members, and transfer payments to other plans are recorded in the period in which they are paid. Any benefit payment accruals not paid are reflected in accrued pension benefits.

(h) Premises and equipment

Premises and equipment are recorded at cost and amortized on a straight-line basis over their estimated useful lives.

(i) Use of estimates

In preparing these Interim Financial Statements, management uses estimates and assumptions that primarily affect the reported values of assets and liabilities, and related income and expenses. Estimates and assumptions are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable and relevant under the circumstances. The effect of a change in an estimate or assumption is recognized in the period in which the estimate or assumption is revised. Significant estimates and assumptions are used primarily in the determination of accrued pension benefits and the fair value of investments and investment-related receivables and liabilities. Note 3 explains how estimates and assumptions are used in determining accrued pension benefits.

(j) Contingencies

A contingent liability is a possible obligation that depends on the occurrence or non-occurrence of one or more future events not controlled by the Plan. Contingent liabilities are not recognized but the nature and extent are disclosed in the notes to the Interim Financial Statements. A provision for a present obligation is recognized when a reliable estimate can be determined and the settlement of the obligation is probable.

NOTE 2. INVESTMENTS

The Plan invests, directly or through derivatives, in equities, fixed income, inflation sensitive and real asset investments in accordance with the Board's policy of asset diversification.

(a) Investments before allocating the effect of derivative contracts

The schedule below summarizes the Plan's investments and investment-related liabilities, including net accrued interest and dividends of \$910 million (December 31, 2018 - \$714 million), before allocating the effect of derivative contracts:

(Canadian \$ millions)	As at June 30, 2019		As at December 31, 2018	
	Fair Value	Cost	Fair Value	Cost
Equity				
Publicly traded				
Canadian	\$ 1,554	\$ 1,476	\$ 1,545	\$ 1,904
Non-Canadian	24,348	21,256	21,228	19,459
Non-publicly traded				
Canadian	5,129	3,749	4,881	3,482
Non-Canadian	30,426	23,835	32,149	23,444
	61,457	50,316	59,803	48,289
Fixed income				
Bonds	57,483	53,656	54,561	53,328
Short-term investments	8,729	8,723	9,111	9,094
Alternative investments	16,077	13,619	15,375	12,644
Canadian real-rate products	21,066	15,323	19,904	15,608
Non-Canadian real-rate products	11,887	9,935	14,514	12,834
	115,242	101,256	113,465	103,508
Inflation sensitive				
Commodities	923	853	875	853
Timberland	2,383	1,300	2,496	1,301
Natural resources	5,755	5,795	5,621	5,706
	9,061	7,948	8,992	7,860
Real assets				
Real estate	32,257	20,216	31,301	19,319
Infrastructure	17,773	11,399	17,842	11,549
	50,030	31,615	49,143	30,868
	235,790	191,135	231,403	190,525
Investment-related receivables				
Securities purchased under agreements to resell	13,679	13,851	15,826	15,577
Cash collateral deposited under securities borrowing arrangements	2,539	2,539	2,549	2,549
Cash collateral paid under credit support annexes	—	—	57	57
Derivative-related, net	3,898	2,100	7,056	2,684
	20,116	18,490	25,488	20,867
Investments	\$ 255,906	\$ 209,625	\$ 256,891	\$ 211,392

(Canadian \$ millions)	As at June 30, 2019		As at December 31, 2018	
	Fair Value	Cost	Fair Value	Cost
Investment-related liabilities				
Securities sold under agreements to repurchase	\$ (22,634)	\$ (22,855)	\$ (28,280)	\$ (27,869)
Securities sold but not yet purchased				
Equities	(2,587)	(2,366)	(2,617)	(2,587)
Fixed income	(9,943)	(8,934)	(12,493)	(11,573)
Real estate ¹	(5,138)	(4,651)	(3,894)	(3,471)
Commercial paper	(8,694)	(8,752)	(8,676)	(8,323)
Term debt	(4,978)	(4,668)	(5,091)	(4,669)
Cash collateral received under credit support annexes	(719)	(719)	(937)	(937)
Derivative-related, net	(2,746)	(1,534)	(7,321)	(1,797)
	(57,439)	(54,479)	(69,309)	(61,226)
Net investments	\$ 198,467	\$ 155,146	\$ 187,582	\$ 150,166

¹ Real estate liabilities include the liabilities of real estate subsidiaries and trusts. These include \$792 million fair value and \$764 million cost (December 31, 2018 - \$795 million fair value and \$764 million cost) which are guaranteed by the Plan as described in note 10. The remaining liabilities held in real estate entities are not guaranteed by the Plan.

(b) Fair value hierarchy

The schedule below presents the Plan's investments and investment-related liabilities within the fair value hierarchy as outlined in note 1c:

(Canadian \$ millions)	As at June 30, 2019			
	Level 1	Level 2	Level 3	Total
Equity	\$ 24,695	\$ 324	\$ 36,438	\$ 61,457
Fixed income	86,377	12,208	16,657	115,242
Inflation sensitive	923	—	8,138	9,061
Real assets	2,245	352	47,433	50,030
Investment-related receivables	2,670	17,302	144	20,116
Investment-related liabilities	(13,317)	(41,843)	(2,279)	(57,439)
Net investments	\$ 103,593	\$ (11,657)	\$ 106,531	\$ 198,467

(Canadian \$ millions)	As at December 31, 2018			
	Level 1	Level 2	Level 3	Total
Equity	\$ 21,757	\$ 162	\$ 37,884	\$ 59,803
Fixed income	85,455	12,084	15,926	113,465
Inflation sensitive	875	—	8,117	8,992
Real assets	2,485	309	46,349	49,143
Investment-related receivables	2,830	22,469	189	25,488
Investment-related liabilities	(16,095)	(51,138)	(2,076)	(69,309)
Net investments	\$ 97,307	\$ (16,114)	\$ 106,389	\$ 187,582

There were no transfers between Level 2 and Level 1 during the six month period ended June 30, 2019 (2018 - \$155 million).

The schedule below presents a reconciliation of investments and net investment-related receivables/(liabilities) measured at fair value using significant unobservable inputs (Level 3) for the six-month period ended June 30. Realized and unrealized gains/(losses) are included in investment income.

For the six-month period ended June 30, 2019							
(Canadian \$ millions)	Equity	Fixed Income	Inflation Sensitive	Real Assets	Investment-Related Receivables	Investment-Related Liabilities	Total
Balance as at January 1	\$ 37,884	\$ 15,926	\$ 8,117	\$ 46,349	\$ 189	\$ (2,076)	\$ 106,389
Purchases	3,384	4,027	62	2,120	26	31	9,650
Sales	(4,094)	(3,337)	—	(1,318)	(32)	(297)	(9,078)
Transfers in ²	—	—	—	—	4	15	19
Transfers out ²	—	—	—	—	(19)	5	(14)
Gains/(losses) included in investment income							
Realized	1,251	320	—	(77)	(19)	71	1,546
Unrealized	(1,987)	(279)	(41)	359	(5)	(28)	(1,981)
Balance as at June 30	\$ 36,438	\$ 16,657	\$ 8,138	\$ 47,433	\$ 144	\$ (2,279)	\$ 106,531

For the six-month period ended June 30, 2018							
(Canadian \$ millions)	Equity	Fixed Income	Inflation Sensitive	Real Assets	Investment-Related Receivables	Investment-Related Liabilities	Total
Balance as at January 1	\$ 34,864	\$ 14,390	\$ 6,553	\$ 45,305	\$ 97	\$ (1,830)	\$ 99,379
Purchases	3,095	2,331	185	1,119	103	147	6,980
Sales	(4,926)	(1,729)	(9)	(1,149)	(25)	(88)	(7,926)
Transfers in ²	—	—	—	—	(2)	1	(1)
Transfers out ²	—	—	—	—	(1)	2	1
Gains/(losses) included in investment income							
Realized	2,440	310	—	288	(5)	30	3,063
Unrealized	(204)	639	551	958	59	(152)	1,851
Balance as at June 30	\$ 35,269	\$ 15,941	\$ 7,280	\$ 46,521	\$ 226	\$ (1,890)	\$ 103,347

² Transfers in and transfers out of Level 3 are due to the change in the availability of observable inputs used for fair value measurement of investment assets or related liabilities. See note 1c Fair value hierarchy.

(c) Derivative contracts

Derivative contracts are financial contracts, the value of which is derived from the value of underlying assets, commodities, indices, interest rates or currency rates. Derivative contracts are transacted either in the over-the-counter (OTC) market or on regulated exchanges.

Notional amounts of derivative contracts represent the contractual amount to which a rate or price is applied for computing the cash to be paid or received. Notional amounts are the basis upon which the returns from, and the fair value of, the contracts are determined. They do not necessarily indicate the amounts of future cash flow involved or the current fair value of the derivative contracts and, therefore, do not indicate the Plan's exposure to credit or market risks. The derivative contracts become favourable (assets) or unfavourable (liabilities) as a result of fluctuations in either market rates or prices relative to their terms. The aggregate notional amounts and fair values of derivative contracts can fluctuate significantly.

Description of the derivative contracts, transacted either in the OTC market or on regulated exchanges, is disclosed in the most recent audited annual consolidated financial statements.

The following schedule summarizes the notional amounts and fair value of the Plan's derivative contracts held:

	As at June 30, 2019			As at December 31, 2018		
	Notional	Fair Value		Notional	Fair Value	
		Assets	Liabilities		Assets	Liabilities
(Canadian \$ millions)						
Equity and commodity derivatives						
Swaps	\$ 51,287	\$ 725	\$ (596)	\$ 57,105	1,215	\$ (2,370)
Futures	15,862	87	—	11,288	15	(49)
Options: Listed						
– purchased	3,332	45	—	139	2	—
– written	2,125	—	(39)	404	—	(32)
OTC						
– purchased	30,584	362	—	33,201	2,265	—
– written	24,532	19	(309)	24,999	28	(781)
	127,722	1,238	(944)	127,136	3,525	(3,232)
Interest rate derivatives						
Swaps	126,635	882	(618)	185,629	976	(865)
Futures	68,837	340	—	126,127	317	—
Options: Listed						
– purchased	167,580	4	—	399,686	21	—
– written	17,429	—	(4)	15,890	—	(20)
OTC						
– purchased	59,607	64	(18)	79,879	189	(78)
– written	101,761	12	(61)	94,110	81	(148)
	541,849	1,302	(701)	901,321	1,584	(1,111)
Currency derivatives						
Swaps	5,897	15	(20)	13,367	25	(53)
Forwards ³	80,590	922	(281)	89,968	1,391	(2,149)
Options: OTC						
– purchased	9,565	51	—	19,225	256	(12)
– written	9,191	—	(44)	17,603	12	(224)
	105,243	988	(345)	140,163	1,684	(2,438)
Credit derivatives						
Credit default swaps						
– purchased	25,744	54	(630)	41,934	147	(356)
– written	29,508	661	(126)	38,108	308	(231)
	55,252	715	(756)	80,042	455	(587)
	830,066	4,243	(2,746)	1,248,662	7,248	(7,368)
Net cash collateral (received)/paid under derivative contracts		(345)	—		(192)	47
Notional and net fair value of derivative contracts	\$ 830,066	\$ 3,898	\$ (2,746)	\$1,248,662	\$ 7,056	\$ (7,321)

³ Excludes currency forwards related to Real Estate assets.

(d) Investment asset mix

Direct investments, derivative contracts, and investment-related receivables and liabilities are classified by asset mix category based on the intent of the investment strategies of the underlying portfolios of the Plan. The Plan's effective net investments reflecting these classifications are summarized in Canadian dollars below:

	As at June 30, 2019		As at December 31, 2018	
	Effective Net Investments at Fair Value (\$ millions)	Asset Mix %	Effective Net Investments at Fair Value (\$ millions)	Asset Mix %
Equity				
Publicly traded	\$ 33,498	17%	\$ 31,602	17%
Non-publicly traded	34,302	17	33,354	18
	67,800	34	64,956	35
Fixed income				
Bonds	71,936	36	58,243	31
Real-rate products	20,885	11	19,473	10
	92,821	47	77,716	41
Inflation sensitive				
Commodities	14,303	7	10,612	6
Natural resources	8,138	4	8,117	4
Inflation hedge	9,025	5	8,709	5
	31,466	16	27,438	15
Real assets				
Real estate	27,228	14	27,444	15
Infrastructure	17,141	9	17,801	9
Real-rate products	—	—	4,332	2
	44,369	23	49,577	26
Credit	16,242	8	15,232	8
Absolute return strategies	14,623	7	12,547	7
Overlay	569	—	(375)	—
Money Market	(69,423)	(35)	(59,509)	(32)
Net investments	\$ 198,467	100%	\$ 187,582	100%

(e) Risk management

The Plan's primary long-term risk is that the Plan's assets will fall short of its liabilities (i.e., benefits owed to members). Therefore, the objective of investment risk management is to achieve a diversification of risks and returns in a fashion that minimizes the likelihood of an overall reduction in total fund value and maximizes the opportunity for gains over the entire portfolio. This is achieved through asset diversification so that the market and credit exposure to any single issuer and to any single component of the capital markets is reduced to an acceptable level.

The Plan also manages its liquidity risk so that there is sufficient liquidity to enable the Plan to meet all of its future obligations as they become payable, which includes pension payments, meeting short-term mark-to-market payments resulting from the Plan's derivative exposure and to give the Plan the ability to adjust the asset mix in response to the changes in the market conditions.

There have been no significant changes to the risk management policies and processes for credit and market risk as presented in the most recent audited annual consolidated financial statements, except the following:

- Statement of Investment Policies and Procedures - The statement, posted on the Plan's website addresses the manner in which the fund shall be invested. The statement is subject to the Board's review at least annually; the last review date was November 15, 2018 with an effective date of January 1, 2019. The Plan's investments are selected and held in accordance with the criteria and limitations set forth in the statement and in accordance with all relevant legislation. The statement includes changes to the asset class exposure limits as reflected in the following table:

	Asset Mix % Minimum	Asset Mix % Maximum
Equities	30%	40%
Fixed income	23%	77%
Inflation sensitive	11%	21%
Real assets	19%	29%
Credit	3%	13%
Absolute return strategies	4%	14%
Money Market ⁴	(94)%	0%

⁴ The money market asset class provides funding for investments in other asset classes.

- Board Investment Policy - This policy applies to the total-fund and aggregate asset classes. The policy addresses the risks that are relevant and material at the total-fund level. The policy sets ranges for allocations to the asset classes and foreign currency. Management determines exposure within these approved ranges. The policy also specifies the risk budget allocation and lists investment constraints such as maximum exposures permitted for different types of investments and liquidity requirements. The Board approves this policy and reviews it regularly.

(f) Credit risk

The Plan is exposed to the risk that a counterparty defaults or becomes insolvent. Credit risk is the risk of loss associated with a counterparty's inability to fulfill its payment obligations. Credit risk may arise directly from an obligor, an issuer of securities, or indirectly from a guarantor of a credit obligation.

Maximum exposure to credit risk before collateral held

The credit risk exposure of debt investments and OTC derivatives, by credit rating category, without taking account of any collateral held or other credit enhancements is as follows:

As at June 30, 2019					
Credit rating (Canadian \$ millions)	Bonds and Short-term investments	Real-rate products	Securities purchased under agreements to resell	Loans and Private debt	OTC Derivatives
AAA/R-1 (high)	\$ 38,526	\$ 29,779	\$ —	\$ —	\$ —
AA/R-1 (mid)	2,006	45	2,520	—	368
A/R-1 (low)	13,914	3,073	7,714	—	677
BBB/R-2	5,910	—	327	—	—
Below BBB/R-2	2,944	—	—	—	—
Unrated ⁵	2,912	56	3,118	13,095	—
	\$ 66,212	\$ 32,953	\$ 13,679	\$ 13,095	\$ 1,045

As at December 31, 2018					
Credit rating (Canadian \$ millions)	Bonds and Short-term investments	Real-rate products	Securities purchased under agreements to resell	Loans and Private debt	OTC Derivatives
AAA/R-1 (high)	\$ 37,520	\$ 31,377	\$ —	\$ —	\$ —
AA/R-1 (mid)	2,267	77	5,277	—	82
A/R-1 (low)	12,575	2,901	7,945	—	1,124
BBB/R-2	5,742	—	248	—	66
Below BBB/R-2	3,016	—	—	—	—
Unrated ⁵	2,552	63	2,356	12,958	—
	\$ 63,672	\$ 34,418	\$ 15,826	\$ 12,958	\$ 1,272

⁵ Unrated comprises securities that are either privately held, managed externally, or not rated by the rating agencies.

The Plan is also exposed to credit risk through off-balance sheet arrangements. For off-balance sheet guarantees, the maximum exposure to credit risk is the maximum amount that the Plan would have to pay if the guarantees were to be called upon. For loan commitments, the maximum exposure is the committed amount under the agreements. For credit derivatives, the maximum exposure is the notional amount of written credit derivatives as presented in note 2c.

(Canadian \$ millions)	As at June 30, 2019	As at December 31, 2018
Guarantees	\$ 278	\$ 280
Loan commitments	16	18
Notional amount of written credit derivatives	29,508	38,108
Total off balance sheet credit risk exposure	\$ 29,802	\$ 38,406

While the Plan's maximum exposure to credit risk is the carrying value of the assets, or, in the case of off-balance sheet items, the amount guaranteed or committed, in most cases the likely exposure is far less due to collateral, credit enhancements (e.g., guarantees in favour of the Plan) and other actions taken to mitigate the Plan's exposure, as described previously.

Credit risk concentrations

As at June 30, 2019, the Plan has a significant concentration of credit risk with the Government of Canada, the Province of Ontario and the U.S Treasury. This concentration relates primarily to holding Government of Canada issued securities of \$45.9 billion (December 31, 2018 – \$42.5 billion), U.S. Treasury issued securities of \$10.5 billion (December 31, 2018 – \$10.8 billion), Province of Ontario bonds of \$7.6 billion (December 31, 2018 – \$6.5 billion), receivable from the Province of Ontario of \$2.4 billion (December 31, 2018 – \$3.2 billion) and future provincial funding requirements of the Plan.

(g) Market risk

Market risk is the risk of loss that results from fluctuations in various market factors such as equity and commodity prices, interest and foreign exchange rates, and credit spreads. The Plan is exposed to market risk through its investing activities. The level of market risk to which the Plan is exposed varies depending on considerations such as market conditions, expectations of future price movements, the occurrence of certain catastrophic events (e.g., hurricanes and earthquakes) affecting the prices of insurance linked securities, expectations of future yield movements and the composition of the asset mix.

Market and credit risk measurement

The Plan uses a statistical Value-at-Risk (VaR)-type approach, the expected tail loss (ETL) methodology, to measure investment risk comprising market and credit risk over a one-year horizon at a 99% confidence level. The ETL methodology captures more of the effect of extreme loss events than VaR for the same confidence level as it is the average of all the losses in the tail.

Total Asset Risk is prepared using the ETL methodology which captures the investment risk exposure by asset class and reflects the risk of potential losses in net assets due to both market and credit risk factors. Statistically, the Plan would expect to see losses approximate to the risk exposure on the report only 1% of the time over a one year period, subject to certain assumptions and limitations. Further details of the ETL methodology are disclosed in the most recent audited annual consolidated financial statements.

The table below shows Total Asset Risk ETL of the Plan.

(Canadian \$ billions) ⁶	As at June 30, 2019	As at December 31, 2018
Equity		
Publicly traded	\$ 9.5	\$ 8.5
Non-publicly traded	14.5	14.0
Fixed income		
Bonds	12.0	9.5
Real-rate products	4.5	4.0
Inflation sensitive		
Commodities	4.0	3.0
Natural resources	2.0	2.0
Inflation hedge	3.5	3.5
Real assets		
Real estate	4.0	4.5
Infrastructure	3.5	3.0
Real-rate products	0.0	1.0
Credit	2.5	2.0
Absolute return strategies	1.0	1.5
Overlay	8.5	5.5
Money Market	16.0	14.5
Total Asset Risk ETL Exposure⁷	\$ 43.5	\$ 38.0

⁶ Rounded to the nearest \$0.5 billion.

⁷ Total Asset Risk ETL Exposure does not equal the sum of ETL exposure for each asset class because diversification reduces total risk exposure.

Interest rate risk

Interest rate risk refers to the effect on the market value of the Plan's assets and liabilities due to fluctuations in interest rates. The value of the Plan's assets is affected by short-term changes in nominal and real interest rates. Pension liabilities are exposed to fluctuations in long-term interest rates as well as expectations for salary escalation.

The Plan measures interest rate risk of relevant asset classes in its asset mix (note 2d). The Plan measures the sensitivity to changes in nominal interest rates of bonds and derivative contracts included in its Fixed Income and Credit asset classes - a 1% increase in nominal interest rates would result in a decline in the value of these investments of \$9.3 billion (December 31, 2018 - \$7.6 billion). Similarly, the Plan measures the sensitivity to changes in real interest rates of real-rate products and derivative contracts included in its Fixed Income and Real Assets asset classes - a 1% increase in real interest rates would result in a decline in the value of these investments of \$2.9 billion (December 31, 2018 - \$3.1 billion).

The Plan also measures the sensitivity of nominal and real-rate securities and derivative contracts that are included in the Inflation hedge category of the Plan's Inflation sensitive asset class to changes in market-implied inflation. A 1% increase in the market-implied rate of inflation would result in an increase in the value of these investments of \$2.1 billion (December 31, 2018 - \$2.0 billion).

As at June 30, 2019, holding the inflation and salary escalation assumptions constant, a 1% decrease in the assumed long-term real rates of return would result in an increase in the pension liabilities of approximately 22% or \$49.5 billion (December 31, 2018 - 21% or \$40.1 billion).

Foreign currency risk

Foreign currency exposure arises from the Plan's holdings of foreign currency-denominated investments and related derivative contracts.

The Plan has investments exposed to foreign currency. In Canadian dollars this exposure is as follows:

(Canadian \$ millions)	As at June 30, 2019	As at December 31, 2018
Currency	Net Exposure	Net Exposure
United States Dollar	\$ 32,870	\$ 35,150
Chilean Peso	3,630	3,425
Japanese Yen	3,512	2,331
Brazilian Real	3,279	2,747
Euro	3,257	2,976
Mexican Peso	2,108	1,394
Danish Krone	2,081	2,049
British Pound Sterling	1,469	2,730
South Korean Won	1,272	(229)
Indian Rupee	1,251	1,242
Other	10,715	7,984
	\$ 65,444	\$ 61,799

With all other variables and underlying values held constant, a 5% increase/decrease in the value of the Canadian dollar against major foreign currencies would result in an approximate decrease/increase in the value of net investments as follows:

(Canadian \$ millions)	As at June 30, 2019	As at December 31, 2018
Currency	Change in Net Investment Value	Change in Net Investment Value
United States Dollar	\$ 1,643	\$ 1,758
Chilean Peso	181	171
Japanese Yen	176	117
Brazilian Real	164	137
Other	1,108	907
	\$ 3,272	\$ 3,090

(h) Liquidity risk

Liquidity risk is the risk of not being able to obtain sufficient cash or cash equivalents at a reasonable cost to meet the Plan's financial obligations in a timely manner, or to support new investment opportunities as they appear, under a range of liquidity stress. By maintaining a structurally sound liquidity profile, the Plan seeks to ensure that sufficient liquidity is available to cover potential cash and collateral outflows under stressed conditions without undesired changes to the Plan's asset mix while allowing for opportunistic investments.

Liquidity risk management

The Plan monitors its liquidity position on a daily basis to ensure sufficient liquid assets are available to meet potential collateral requirements and other potential contingent payments over a one-year horizon. In determining the available liquid assets, factors such as fair value, collateral pledged and received, repurchase agreements and securities lending and borrowing arrangements are considered. A portion of the available liquid assets are earmarked to meet contractual cash flows and other projected cash flows (such as pension payments). Potential collateral requirements under stress are estimated by a historical simulation of market movements and their impact on the Plan's repurchase agreements, derivatives contracts, and securities lending and borrowing agreements over a one-year horizon.

Liquid assets

The Plan maintains a portfolio of highly marketable assets including Canadian and U.S. government bonds that can be sold or used for funding on a secured basis as protection against any unforeseen interruption to cash flow. The fair value of the Canadian and U.S. government bonds is \$56,433 million as at June 30, 2019 (December 31, 2018 – \$53,216 million). The Plan also has publicly traded equities of \$23,314 million net of short positions (December 31, 2018 – \$20,156 million) which are listed on major recognized stock exchanges. These securities are readily realizable and convertible to cash.

Contractual maturity

The Plan's liabilities include accrued pension benefits, investment-related liabilities, due to brokers, accounts payable and accrued liabilities. Due to brokers, accounts payable and accrued liabilities are all due within one year. As the Plan may settle securities sold but not yet purchased, cash collateral received under credit support annexes and derivatives at fair value before contractual maturity, they are considered to mature within one year.

The Plan's investment-related liabilities by maturity are as follows:

(Canadian \$ millions)	As at June 30, 2019			
	Within One Year	One to Five Years	Over Five Years	Total
Securities sold under agreements to repurchase	\$ (15,540)	\$ (7,094)	\$ —	\$ (22,634)
Securities sold but not yet purchased				
Equities	(2,587)	—	—	(2,587)
Fixed income	(9,943)	—	—	(9,943)
Real estate	(893)	(2,160)	(2,085)	(5,138)
Commercial paper	(8,694)	—	—	(8,694)
Term debt	—	(4,978)	—	(4,978)
Cash collateral received under credit support annexes	(719)	—	—	(719)
Derivative-related, net	(2,746)	—	—	(2,746)
	\$ (41,122)	\$ (14,232)	\$ (2,085)	\$ (57,439)

(Canadian \$ millions)	As at December 31, 2018			
	Within One Year	One to Five Years	Over Five Years	Total
Securities sold under agreements to repurchase	\$ (21,040)	\$ (7,240)	\$ —	\$ (28,280)
Securities sold but not yet purchased				
Equities	(2,617)	—	—	(2,617)
Fixed income	(12,493)	—	—	(12,493)
Real estate	(587)	(2,257)	(1,050)	(3,894)
Commercial paper	(8,676)	—	—	(8,676)
Term debt	—	(5,091)	—	(5,091)
Cash collateral received under credit support annexes	(937)	—	—	(937)
Derivative-related, net	(7,321)	—	—	(7,321)
	\$ (53,671)	\$ (14,588)	\$ (1,050)	\$ (69,309)

(i) Collateral pledged and received

The Plan pledges and receives cash and security collateral in the ordinary course of managing net investments. Security collateral consists primarily of Canadian and U.S. government securities. Generally, additional collateral is provided if the value of the securities falls below a predetermined level. The securities transferred are recognized as assets when the Plan retains substantially all risks and rewards, including credit risk, settlement risk and market risk. The Plan is not allowed to either pledge the same securities with other financial institutions or to sell them to another entity unless the Plan substitutes such securities with other eligible securities. The Plan holds the collateral received as long as the Plan is not a defaulting party or an affected party in connection with a specified condition listed on the contractual agreements and there is no early termination of the contractual agreement. The Plan is permitted to either sell or repledge the collateral in the absence of default by the owner of the collateral. The fair value of collateral sold or repledged as at June 30, 2019 is \$nil (December 31, 2018 - \$nil).

The Plan engages in securities borrowing and lending transactions and pledges and receives associated collateral. The Plan does not recognize any securities borrowed as its investment assets or derecognize securities lent because in substance the risks and rewards of the borrowed securities remain with the lenders.

The fair value of collateral pledged and received, as well as the securities purchased under agreements to resell and sold under agreements to repurchase and securities borrowed and lent are as follows:

(Canadian \$ millions)	As at June 30, 2019	As at December 31, 2018
Securities purchased under agreements to resell and sold under agreements to repurchase		
Gross amounts of securities purchased under agreements to resell ⁸	\$ 18,548	\$ 16,216
Collateral held	18,914	16,498
Gross amounts of securities sold under agreements to repurchase ⁸	(27,503)	28,670
Collateral pledged	(28,000)	29,016
Securities borrowing and lending		
Securities borrowed	5,302	5,442
Securities lent	—	288
Collateral pledged ⁹	5,678	5,535
Derivative-related		
Collateral received ¹⁰	1,561	1,505
Collateral pledged ¹¹	1,365	2,600

⁸ See note 2j for reconciliation of total gross amount to net amounts presented in note 2a.

⁹ Includes cash collateral of \$2,539 (December 31, 2018 - \$2,549).

¹⁰ Includes cash collateral of \$719 (December 31, 2018 - \$937).

¹¹ Includes cash collateral of \$nil (December 31, 2018 - \$57).

(j) Offsetting financial assets and financial liabilities

Financial assets and financial liabilities are offset and the net amount is reported in the Consolidated Statements of Financial Position when there is a legally enforceable right to offset the recognized amounts and there is an intention to settle on a net basis, or realize the asset and settle the liability simultaneously. Certain repurchase agreement transactions settled through a central clearing counterparty satisfy the offsetting criteria. The Plan enters into agreements with counterparties such as ISDA Master Agreements and Global Master Repurchase Agreements (GMRA's) in order to mitigate its exposure to credit losses (see note 2f). These agreements provide rights to allow the parties to settle obligations on a net basis when certain predetermined events occur. When these rights of offset are conditional, the related amounts are not netted in the Condensed Interim Consolidated Statements of Financial Position.

The impact of these arrangements is presented in the following table:

		As at June 30, 2019				
(Canadian \$ millions)						
	Gross amounts	Less: Amounts offset	Net amount presented in note 2a	Amounts subject to netting agreements	Securities and cash collateral ¹²	Net Exposure
Financial assets						
Securities purchased under agreements to resell	\$ 18,548	\$ (4,869)	\$ 13,679	\$ (9,885)	\$ (3,689)	\$ 105
Derivative-related receivables	3,898	—	3,898	(1,448)	(1,275)	1,175
	\$ 22,446	\$ (4,869)	\$ 17,577	\$ (11,333)	\$ (4,964)	\$ 1,280
Financial liabilities						
Securities sold under agreements to repurchase	\$ (27,503)	\$ 4,869	\$ (22,634)	\$ 9,885	\$ 12,740	\$ (9)
Derivative-related liabilities	(2,746)	—	(2,746)	1,448	1,261	(37)
	\$ (30,249)	\$ 4,869	\$ (25,380)	\$ 11,333	\$ 14,001	\$ (46)

		As at December 31, 2018				
(Canadian \$ millions)						
	Gross amounts	Less: Amounts offset	Net amount presented in note 2a	Amounts subject to netting agreements	Securities and cash collateral ¹²	Net Exposure
Financial assets						
Securities purchased under agreements to resell	\$ 16,216	\$ (390)	\$ 15,826	\$ (13,476)	\$ (2,314)	\$ 36
Derivative-related receivables	7,056	—	7,056	(4,489)	(1,284)	1,283
	\$ 23,272	\$ (390)	\$ 22,882	\$ (17,965)	\$ (3,598)	\$ 1,319
Financial liabilities						
Securities sold under agreements to repurchase	\$ (28,670)	\$ 390	\$ (28,280)	\$ 13,476	\$ 14,785	\$ (19)
Derivative-related liabilities	(7,321)	—	(7,321)	4,489	2,461	(371)
	\$ (35,991)	\$ 390	\$ (35,601)	\$ 17,965	\$ 17,246	\$ (390)

¹² Securities and cash collateral exclude over-collateralization and collateral in transit. See note 2i for the total amount of collateral.

NOTE 3. ACCRUED PENSION BENEFITS

(a) Actuarial assumptions

The actuarial assumptions used in determining the value of accrued pension benefits of \$220,620 million (December 31, 2018 – \$192,281 million, June 30, 2018 - \$205,783 million) reflect management's best estimate of future economic events and involve both economic and non-economic assumptions. The non-economic assumptions include considerations such as mortality as well as withdrawal and retirement rates. The primary economic assumptions include the discount rate, the salary escalation rate and the inflation rate. The discount rate is based on market rates, as at the valuation date, of bonds issued by the Province of Ontario, which have characteristics similar to the Plan's liabilities. The discount rate was determined by applying a weighted

average discount rate that reflects the estimated timing and amount of benefit payments. The inflation rate is the geometric difference between the yield on Government of Canada long-term nominal bonds and Government of Canada real-return bonds. The salary escalation rate incorporates the inflation rate assumption and long-term expectation of growth in real wages.

A summary of the primary economic assumptions is as follows:

	As at June 30, 2019	As at December 31, 2018	As at June 30, 2018
Discount rate	2.50%	3.20%	3.05%
Salary escalation rate	2.35%	2.40%	2.75%
Inflation rate	1.35%	1.40%	1.75%
Real rate ¹	1.15%	1.80%	1.30%

¹ Real rates shown as the geometric difference between the discount rate and the inflation rate.

The primary economic assumptions were changed as a result of changes in capital markets between December 31, 2018 and June 30, 2019. These changes in economic assumptions resulted in a net increase in the value of accrued pension benefits of \$25,320 million for the six months ended June 30, 2019 (June 30, 2018 - \$2,091 million decrease).

There were no changes to the non-economic assumptions as at June 30, 2019, December 31, 2018 or as at June 30, 2018.

(b) Indexation levels

Pension credit earned after December 31, 2009 is subject to conditional inflation protection as described in paragraph (f) of the Description of Plan note. Indexation levels vary between 50% and 100% of the change in the Consumer Price Index (CPI) for pension credit earned between January 1, 2010, and December 31, 2013, and vary between 0% and 100% of the change in the CPI for pension credit earned after 2013. Conditional inflation protection can only be invoked and changes to indexation levels can only be made when a funding valuation is filed. The Ontario government and designated employers participating in the Plan will make extra contributions to the Plan to match the inflation protection benefits members forego up to a maximum foregone inflation of 50% of CPI.

For financial statement valuations, future pension payments are indexed at the levels stated in the most recent funding valuation filing. As a result, the June 30, 2019 accrued pension benefits reflect the indexation levels as stated in the January 1, 2018 funding valuation report.

As noted in the filed January 1, 2018 funding valuation, indexation levels will remain at 100% of CPI for pension credit earned after 2009. This level will remain in effect until the next actuarial valuation is filed with the regulatory authorities at which time the level may be reduced depending on the funded status of the Plan.

The indexation levels reflected in accrued pension benefits are as follows:

	Valuation as at June 30, 2019²	Valuation as at June 30, 2018 ²
Pension credit	Inflation protection level	Inflation protection level
Earned before 2010	100% of CPI	100% of CPI
Earned during 2010 – 2013	100% of CPI	100% of CPI
Earned after 2013	100% of CPI	100% of CPI

² Inflation protection level per the January 1, 2018 funding valuation.

NOTE 4.
NET INVESTMENT INCOME

Net investment income/(loss) after allocating net realized and unrealized gains on investments, management fees and transaction costs to asset classes

Net investment income is reported net of management fees, transaction costs, and is grouped by asset class. Net investment income, after giving effect to derivative contracts, is as follows:

Net Investment Income		For the six-month period ended June 30, 2019						
(Canadian \$ millions)	Income ¹	Realized ²	Unrealized ²	Investment Income ³	Management Fees	Transaction Costs	Net Investment Income	
Equity								
Publicly traded								
Canadian	\$ 18	\$ (266)	\$ 411	\$ 163	\$ —	\$ (1)	\$ 162	
Non-Canadian	331	972	334	1,637	(37)	(17)	1,583	
Non-publicly traded								
Canadian	86	195	(19)	262	(16)	(29)	217	
Non-Canadian	451	1,033	(2,121)	(637)	(154)	(24)	(815)	
	886	1,934	(1,395)	1,425	(207)	(71)	1,147	
Fixed income								
Bonds	649	1,448	4,071	6,168	—	(6)	6,162	
Short-term investments	—	(142)	400	258	(1)	—	257	
Alternative investments	36	60	30	126	(23)	—	103	
Canadian real-rate products	239	9	1,447	1,695	—	—	1,695	
Non-Canadian real-rate products	83	498	282	863	—	—	863	
	1,007	1,873	6,230	9,110	(24)	(6)	9,080	
Inflation sensitive								
Commodities	(135)	19	1,062	946	—	(4)	942	
Timberland	24	—	(113)	(89)	—	—	(89)	
Natural resources	132	—	45	177	(2)	(2)	173	
	21	19	994	1,034	(2)	(6)	1,026	
Real assets								
Real estate	529	193	(5)	717	(1)	(16)	700	
Infrastructure	337	(280)	81	138	(8)	(8)	122	
	866	(87)	76	855	(9)	(24)	822	
	\$ 2,780	\$ 3,739	\$ 5,905	\$ 12,424	\$ (242)	\$ (107)	\$ 12,075	

¹ Income includes interest, dividends, real estate operating income (net of interest expense), and other investment-related income and expenses.

² Includes net foreign currency gains of \$1,717 million (impacting both realized and unrealized).

³ Net of certain management and performance fees.

Net Investment Income

For the six-month period ended June 30, 2018

(Canadian \$ millions)	Income ⁴	Realized ⁵	Unrealized ⁵	Investment Income ⁶	Management Fees	Transaction Costs	Net Investment Income
Equity							
Publicly traded							
Canadian	\$ 13	\$ 30	\$ (33)	\$ 10	\$ (1)	\$ (2)	\$ 7
Non-Canadian	360	2,225	(1,804)	781	(41)	(41)	699
Non-publicly traded							
Canadian	75	187	(112)	150	(12)	(18)	120
Non-Canadian	400	2,042	116	2,558	(123)	(23)	2,412
	848	4,484	(1,833)	3,499	(177)	(84)	3,238
Fixed income							
Bonds	695	(1,240)	(786)	(1,331)	—	(20)	(1,351)
Short-term investments	(6)	(34)	(314)	(354)	—	—	(354)
Alternative investments	54	207	260	521	(12)	(1)	508
Canadian real-rate products	229	—	432	661	(1)	(7)	653
Non-Canadian real-rate products	90	620	157	867	—	—	867
	1,062	(447)	(251)	364	(13)	(28)	323
Inflation sensitive							
Commodities	(148)	1,080	(401)	531	—	(3)	528
Timberland	40	—	143	183	—	—	183
Natural resources	101	—	393	494	(2)	2	494
	(7)	1,080	135	1,208	(2)	(1)	1,205
Real assets							
Real estate	529	(68)	15	476	—	(14)	462
Infrastructure	425	281	257	963	(7)	(25)	931
	954	213	272	1,439	(7)	(39)	1,393
	\$ 2,857	\$ 5,330	\$ (1,677)	\$ 6,510	\$ (199)	\$ (152)	\$ 6,159

⁴ Income includes interest, dividends, real estate operating income (net of interest expense), and other investment-related income and expenses.

⁵ Includes net foreign currency losses of \$1,378 million (impacting both realized and unrealized).

⁶ Net of certain management and performance fees.

NOTE 5. FUNDING VALUATIONS

Funding valuations are prepared annually and must be filed at least once every three years with the regulatory authorities. Once filed, these valuations are used to determine the funding requirements of the Plan. The Funding Management Policy established by the co-sponsors provides guidance for the co-sponsors in determining contributions and benefit levels.

Under the agreement described above between the co-sponsors, contribution rates for 2018 onwards are 10.40% for earnings below the CPP limit plus 12.00% for earnings above the CPP limit.

The actuarial methods used to prepare funding valuations are different than those used to prepare a financial statement actuarial valuation and the amounts included in these Condensed Interim Financial Statements. The funding valuations use an actuarial valuation method which takes into account future benefits to be earned and future contributions to be made by members of the Plan as at the valuation date, whereas the accrued pension benefits recognized in the financial statements represent the actuarial present value of pension obligations in respect of service accrued to date for all active and inactive members.

The most recent funding valuation that has been filed with regulatory authorities was prepared as at January 1, 2018, by Mercer (Canada) Limited and disclosed a funding surplus of \$10.3 billion. The co-sponsors allocated the surplus to a contingency reserve.

NOTE 6. CONTRIBUTIONS

For the six-month period ended June 30 (Canadian \$ millions)	2019	2018
Members		
Current service ¹	\$ 799	\$ 771
Optional credit	19	19
	818	790
Province of Ontario		
Current service	783	755
Interest	9	10
Optional credit	18	17
	810	782
Designated employers	16	16
Transfers from other pension plans	2	4
	18	20
	\$ 1,646	\$ 1,592

¹ Contributions past due are less than \$1 million in the six-month period ended June 30, 2019.

NOTE 7. BENEFITS

For the six-month period ended June 30 (Canadian \$ millions)	2019	2018
Retirement pensions	2,887	\$ 2,769
Death benefits	210	195
Disability pensions	12	13
Commuted value transfers	32	36
Family law transfers	12	11
Transfers to other plans	3	5
Benefits paid	\$ 3,156	\$ 3,029
Other payments ¹	1	2
	\$ 3,157	\$ 3,031

¹ Settlement or other claim-related payments to certain current and former beneficiaries determined on a case-by-case basis. Such payments do not reduce the accrued pension benefits.

NOTE 8. CAPITAL

Funding valuation surpluses or deficits as determined by an independent actuary are considered the Plan's capital for the purposes of the consolidated financial statements. See note 5 for an explanation of the difference between the funding valuation and the financial statement valuation.

The funding valuation is used to measure the long-term health of the Plan assessing the Plan's ability to meet its obligations to all current members and their survivors. The objective of managing the Plan's capital is to ensure the Plan is sufficiently funded to pay benefits over the long term.

One of the most important assumptions in the funding valuation is the discount rate (set by the Board) which is used to calculate the present value of future pension benefits the Plan expects to pay to members as well as contributions it anticipates receiving. The discount rate is derived from the expected rate of return on investments and takes into consideration the cost of running the Plan and provisions for plan maturity as well as major adverse events, such as the 2008 financial crisis.

Preliminary funding valuation surpluses or deficits are determined annually. At least once every three years, a formal funding valuation report is required to be filed with the regulatory authorities. As stated in the Partners' Agreement¹, the Plan cannot be in a deficit position when such reports are filed². As a result, the formal report must include adjustments to benefit and / or contribution levels as necessary to eliminate any preliminary valuation deficit. Any required adjustments are determined by the co-sponsors with guidance from the Funding Management Policy (Appendix A to the Partners' Agreement).

¹ The Partners' Agreement is the document which establishes the partnership between the co-sponsors and outlines the roles of the board and co-sponsors.

² The formal funding valuation report must be actuarially balanced such that the sum of the funding liabilities (present value of future pension benefits), the present value of the reduction in cost due to providing indexation levels below 100% and any contingency reserve is equal to the sum of the Plan's market value of assets, asset smoothing adjustment (if applicable), present value of future contributions and present value of future matching of foregone inflation adjustments.

NOTE 9. COMMITMENTS

The Plan has committed to enter into investment and other transactions, which may be funded over the next several years in accordance with the terms and conditions agreed to. As at June 30, 2019, these commitments totalled \$15,833 million (December 31, 2018 – \$15,360 million).

NOTE 10.

GUARANTEES AND INDEMNIFICATIONS

Guarantees

The Plan provides guarantees to third parties related to certain companies the Plan invests in and will be called upon to satisfy the guarantees if the companies fail to meet their obligations. The Plan expects most guarantees to expire unused. No payments have been made by the Plan during the six-month period ended June 30, 2019, and the twelve-month period ended December 31, 2018.

The Plan guarantees loan and credit agreements which will expire by 2020. The Plan's maximum exposure is \$95 million as at June 30, 2019 (December 31, 2018 – \$99 million). The companies have drawn \$11 million under the agreements (December 31, 2018 – \$11 million).

The Plan guarantees a lease agreement for an investment company which will expire by 2059. The Plan's maximum exposure is \$74 million as at June 30, 2019 (December 31, 2018 – \$74 million). There were no default lease payments in either 2019 or 2018.

The Plan also guarantees the ability of certain investee companies to settle certain financial obligations. The Plan's maximum exposure is \$92 million as at June 30, 2019 (December 31, 2018 – \$96 million).

The Cadillac Fairview Corporation Limited manages the real estate investments and has provided guarantees relating to the completion of the construction of certain residential developments. The term of these guarantees spans the lives of the development projects, which will expire by 2023. The maximum exposure cannot be determined because the projects are not yet complete. These guarantees amounted to \$17 million as at June 30, 2019 (December 31, 2018 – \$11 million) and have not been recognized in the real estate liabilities.

The Plan guarantees the \$750 million 4.31% Series B Debenture issued by a real estate trust it consolidates. No payments have been made by the Plan into the real estate trust or related to the debenture. The debenture, maturing on January 25, 2021 and included in the Plan's real estate investment-related liabilities, may be redeemed by the issuer at any time prior to maturity.

The Plan also guarantees commercial paper and term debt consisting of US\$1.75 billion 2.125% senior notes and US\$2 billion 2.75% senior notes issued by Ontario Teachers' Finance Trust which the Plan consolidates. The US\$1.75 billion 2.125% and US\$2 billion 2.75% senior notes, maturing in September 2022 and April 2021 respectively, are not redeemable prior to maturity at the option of the trust or the Plan except as described in their respective Offering Memoranda dated September 12, 2017 and April 10, 2018. The trust and its affiliates may at any time and from time to time purchase the senior notes in the open market or otherwise. The commercial paper is not redeemable prior to maturity or subject to voluntary prepayment, except as described in the U.S. Commercial Paper Private Placement Memorandum dated June 2017. The maturity terms for the commercial paper outstanding as at June 30, 2019 are up to 397 days from the date of issue in the U.S. and up to 364 days in Canada. The maximum aggregate principal amounts of the commercial paper outstanding at any one time do not exceed \$10 billion. As at June 30, 2019, commercial paper issued amounted to \$8,487 million (December 31, 2018 - \$8,726 million). The fair values of these guarantees are included in the Plan's investment-related liabilities.

Indemnifications

The Plan provides that Board members, employees and certain others are to be indemnified in relation to certain proceedings that may be commenced against them. In addition, in the normal course of operations, the Plan may, in certain circumstances, agree to indemnify a counterparty. Under these agreements, the Plan, its subsidiaries and joint ventures may be required to compensate counterparties for costs incurred as a result of various contingencies such as legal claims or changes in laws and regulations. The number of such agreements, the variety of indemnifications and their contingent character prevents the Plan from making a reasonable estimate of the maximum amount that would be required to pay all such counterparties.