CONDENSED INTERIM CONSOLIDATED STATEMENT OF FINANCIAL POSITION (unaudited)

(Canadian $ millions)		As at **June 30, 2020**		As at December 31, 2019
Net assets available for benefits				
ASSETS				
Cash	**$**	**819**	$	643
Receivable from the Province of Ontario		**2,344**		3,146
Receivable from brokers		**628**		205
Investments (note 2)		**269,254**		259,763
Premises and equipment		**124**		130
		273,169		263,887
LIABILITIES				
Accounts payable and accrued liabilities		**430**		563
Due to brokers		**2,153**		195
Investment-related liabilities (note 2)		**65,871**		55,717
		68,454		56,475
Net assets available for benefits	**$**	**204,715**	$	207,412
Accrued pension benefits and deficit				
Accrued pension benefits (note 3)	**$**	**236,630**	$	224,669
Deficit		**(31,915)**		(17,257)
Accrued pension benefits and deficit	**$**	**204,715**	$	207,412

The accompanying notes are an integral part of these Interim Financial Statements.

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

For the six-month period ended June 30 (Canadian $ millions)		**2020**		2019
Net assets available for benefits, as at January 1	**$**	**207,412**	**$**	**191,112**
Investment operations				
Net investment income (note 4)		**(598)**		12,075
Administrative expenses		**(297)**		(278)
Net investment operations		**(895)**		11,797
Member service operations				
Contributions (note 6)		**1,562**		1,646
Benefits (note 7)		**(3,327)**		(3,157)
Administrative expenses		**(37)**		(36)
Net member service operations		**(1,802)**		(1,547)
(Decrease)/increase in net assets available for benefits		**(2,697)**		10,250
Net assets available for benefits, as at June 30	**$**	**204,715**	$	201,362

The accompanying notes are an integral part of these Interim Financial Statements.

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

For the six-month period ended June 30 (Canadian $ millions)		2020		2019
Accrued pension benefits, as at January 1	**$**	**224,669**	$	192,281
Increase in accrued pension benefits				
Interest on accrued pension benefits		**2,811**		3,076
Benefits accrued		**3,824**		3,099
Changes in actuarial assumptions and methods (note 3a)		**8,653**		25,320
		15,288		31,495
Decrease in accrued pension benefits				
Benefits paid (note 7)		**3,327**		3,156
		3,327		3,156
Net increase in accrued pension benefits		**11,961**		28,339
Accrued pension benefits, as at June 30	**$**	**236,630**	$	220,620

The accompanying notes are an integral part of these Interim Financial Statements.

CONDENSED INTERIM CONSOLIDATED STATEMENT OF CHANGES IN DEFICIT (unaudited)

For the six-month period ended June 30 (Canadian $ millions)		2020		2019
Deficit, as at January 1	**$**	**(17,257)**	$	(1,169)
(Decrease)/increase in net assets available for benefits		**(2,697)**		10,250
Net increase in accrued pension benefits		**(11,961)**		(28,339)
Deficit, as at June 30	**$**	**(31,915)**	$	(19,258)

The accompanying notes are an integral part of these Interim Financial Statements.

DESCRIPTION OF ONTARIO TEACHERS' AND THE PLAN

The following description of the Ontario Teachers' Pension Plan Board (Ontario Teachers') and 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 and other governing documents.

(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) 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 Ontario Teachers'. Under the TPA, Ontario Teachers' is constituted as a corporation without share capital to which the *Corporations Act (Ontario)* does not apply.

Ontario Teachers' is overseen by independent, professional board members (the board). The co-sponsors each appoint five board members and they jointly select the chair.

(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 from age 65 or when the sum of a member's age and qualifying service equals 85 if earlier.

(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, Ontario Teachers' functional currency, in accordance with the accounting standards for pension plans in Part IV of the Chartered Professional Accountants (CPA) Canada Handbook (Section 4600). Section 4600 provides specific accounting guidance on investments and pension obligations. For accounting policies that do not relate to either investments or pension obligations, Ontario Teachers' must consistently comply with either International Financial Reporting Standards (IFRS) in Part I or Accounting Standards for Private Enterprises in Part II of the CPA Canada Handbook. Ontario Teachers' has elected to comply with IFRS in Part I of the CPA Canada Handbook. To the extent that IFRS in Part I is inconsistent with Section 4600, Section 4600 takes precedence.

The Interim Financial Statements should be read in conjunction with the annual consolidated financial statements and the accompanying notes included in the Plan's 2019 Annual Report. The Interim Financial Statements follow the same accounting policies and methods used in preparation of the audited 2019 annual consolidated financial statements.

Ontario Teachers' real estate investments are either owned or managed on behalf of Ontario Teachers' by The Cadillac Fairview Corporation Limited (CFCL), a wholly owned subsidiary that is consolidated. Ontario Teachers' also consolidates Ontario Teachers' Finance Trust (OTFT) and Ontario Teachers' Cadillac Fairview Properties Trust (CFPT), two entities that support Ontario Teachers' investing and funding strategies, and wholly owned investment holding companies managed by either Ontario Teachers' or CFCL. Investment holding companies that are managed by external parties are recognized as Ontario Teachers' investment assets. Under Section 4600, investment assets, including those over which Ontario Teachers' 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 24, 2020.

(b) Future changes in accounting policies

Developments and changes in accounting standards from the International Accounting Standards Board are actively monitored. There were no adoptions of issued IFRS standards, changes in existing standards or new interpretations during the six-month period ended June 30, 2020 that had a material impact on the Interim Financial Statements. There are no issued IFRS standards, changes in existing standards or new interpretations with effective dates on or after January 1, 2020 that are expected to have a significant impact on the Interim Financial Statements.

(c) Investments

Valuation of investments

Investments are either directly or indirectly owned by Ontario Teachers'. Investment-related liabilities are incurred by Ontario Teachers' 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, 2019. A valuation update of the rental property portfolio as at June 30, 2020 was conducted and reflected in these Interim Financial Statements.

COVID-19, the novel coronavirus, has created global economic disruption and uncertainty. Despite the uncertainty as to the outcome and ultimate effects of the pandemic, Ontario Teachers' has continued to follow its strong valuation governance process (as outlined in the 2019 Annual Report, Financial Reporting section, "Valuation of Level 3 Investments"). This comprehensive process used extensive sources of available information in providing its best estimate of the impact that the COVID-19 pandemic has had on the valuations of its investments and investment liabilities as of the date of these Interim Financial Statements. However, these estimates are sensitive to key assumptions and drivers that are subject to material changes. Please see note 2b for sensitivity analysis. We are monitoring developments relating to the global spread of COVID-19 and continuing to assess the ongoing impact on Ontario Teachers'.

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 Ontario Teachers' 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. Premises and equipment also include the right-of-use asset recognized under IFRS 16, Leases.

(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 and note 1c explains how estimates and assumptions are used to derive the fair value of investments and investment-related receivables and liabilities.

(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 Ontario Teachers'. 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

Ontario Teachers' invests, directly or through derivatives, in equities, fixed income, inflation sensitive and real asset investments.

(a) Investments before allocating the effect of derivative contracts

The schedule below summarizes Ontario Teachers' investments and investment-related liabilities, including net accrued interest and dividends of $785 million (December 31, 2019 - $656 million), before allocating the effect of derivative contracts:

	As at June 30, 2020		As at December 31, 2019	
(Canadian $ millions)	**Fair Value**	**Cost**	Fair Value	Cost
Equity				
Publicly traded				
Canadian	**$ 1,163**	**$ 1,173**	$ 1,725	$ 1,573
Non-Canadian[1]	**18,102**	**13,797**	25,361	21,948
Non-publicly traded				
Canadian	**5,355**	**3,806**	5,641	3,642
Non-Canadian	**32,415**	**27,460**	34,573	26,050
	57,035	**46,236**	67,300	53,213
Fixed income[1]				
Bonds	**57,468**	**50,163**	54,501	51,552
Short-term investments	**21,293**	**21,290**	8,622	8,616
Canadian real-rate products	**18,736**	**13,190**	20,248	14,932
Non-Canadian real-rate products	**15,654**	**12,264**	13,939	11,618
	113,151	**96,907**	97,310	86,718
Alternative investments[1]	**18,313**	**16,117**	18,475	16,101
Inflation sensitive				
Commodities	**1,207**	**853**	985	853
Timberland	**2,394**	**1,300**	2,340	1,300
Natural resources	**5,070**	**6,515**	5,859	5,985
	8,671	**8,668**	9,184	8,138
Real assets				
Real estate	**30,168**	**21,628**	33,768	21,442
Infrastructure	**16,101**	**11,530**	17,044	10,419
	46,269	**33,158**	50,812	31,861
	243,439	**201,086**	243,081	196,031

[1] Alternative investments have been re-classified out of Fixed Income to more appropriately reflect the nature of these assets. Additionally, Non-Canadian publicly traded equity has been re-stated to re-classify some fund assets to Alternative investments. Alternative Investments is comprised primarily of hedge funds and public equity funds.

(Canadian $ millions)	As at June 30, 2020 Fair Value	Cost	As at December 31, 2019 Fair Value	Cost
Investment-related receivables				
Securities purchased under agreements to resell	**$ 19,530**	**$ 19,527**	$ 11,230	$ 11,293
Cash collateral deposited under securities borrowing arrangements	**278**	**278**	901	901
Cash collateral paid under credit support annexes	**—**	**—**	56	56
Derivative-related, net	**6,007**	**1,882**	4,495	2,251
	25,815	**21,687**	16,682	14,501
Total investments	**269,254**	**222,773**	259,763	210,532
Investment-related liabilities				
Securities sold under agreements to repurchase	**(24,347)**	**(24,282)**	(19,821)	(19,983)
Securities sold but not yet purchased				
Equities	**(233)**	**(252)**	(900)	(866)
Fixed income	**(11,200)**	**(10,250)**	(9,917)	(8,990)
Real estate[2]	**(5,093)**	**(4,360)**	(5,228)	(4,723)
Commercial paper	**(5,918)**	**(5,772)**	(8,490)	(8,576)
Term debt	**(11,497)**	**(10,662)**	(7,187)	(6,986)
Cash collateral received under credit support annexes	**(1,669)**	**(1,669)**	(988)	(988)
Derivative-related, net	**(5,914)**	**(1,171)**	(3,186)	(1,232)
	(65,871)	**(58,418)**	(55,717)	(52,344)
Net investments	**$ 203,383**	**$ 164,355**	$ 204,046	$ 158,188

[2] Real estate liabilities include the liabilities of real estate subsidiaries and trusts. These include $779 million fair value and $764 million cost (December 31, 2019 - $783 million fair value and $764 million cost) of the 4.31% Series B Debenture with principal amount of $750 million which is guaranteed by Ontario Teachers' as described in note 10. The remaining liabilities held in real estate entities are not guaranteed by Ontario Teachers'.

(b) Fair value hierarchy

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

(Canadian $ millions)	Level 1	Level 2	Level 3	As at June 30, 2020 Total
Equity	**$ 17,361**	**$ 2,955**	**$ 36,719**	**$ 57,035**
Fixed income	**103,360**	**9,195**	**596**	**113,151**
Alternative investments	**—**	**—**	**18,313**	**18,313**
Inflation sensitive	**1,207**	**—**	**7,464**	**8,671**
Real assets	**963**	**183**	**45,123**	**46,269**
Investment-related receivables	**519**	**25,106**	**190**	**25,815**
Investment-related liabilities	**(13,899)**	**(49,836)**	**(2,136)**	**(65,871)**
Net investments	**$ 109,511**	**$ (12,397)**	**$ 106,269**	**$ 203,383**

(Canadian $ millions)				As at December 31, 2019
	Level 1	Level 2	Level 3	Total
Equity[3]	$ 27,086	$ 220	$ 39,994	$ 67,300
Fixed income[3]	84,801	11,934	575	97,310
Alternative Investments[3]	—	—	18,475	18,475
Inflation sensitive	985	—	8,199	9,184
Real assets	2,192	385	48,235	50,812
Investment-related receivables	1,033	15,506	143	16,682
Investment-related liabilities	(12,030)	(41,449)	(2,238)	(55,717)
Net investments	$ 104,067	$ (13,404)	$ 113,383	$ 204,046

[3] Alternative investments have been re-classified out of Fixed Income to more appropriately reflect the nature of these assets. Additionally, Non-Canadian publicly traded equity has been re-stated to re-classify some fund assets to Alternative investments. Alternative Investments is comprised primarily of hedge funds and public equity funds.

There were no transfers between Level 2 and Level 1 during the six-month period ended June 30, 2020 (2019 - $nil).

The schedule below presents a reconciliation of investments and 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, 2020
(Canadian $ millions)	**Equity**	**Fixed Income**	**Alternative Investments**	**Inflation Sensitive**	**Real Assets**	**Investment-Related Receivables**	**Investment-Related Liabilities**	**Total**
Balance as at January 1	**$ 39,994**	**$ 575**	**$ 18,475**	**$ 8,199**	**$ 48,235**	**$ 143**	**$ (2,238)**	**$ 113,383**
Purchases	**2,590**	**757**	**3,280**	**468**	**3,016**	**63**	**413**	**10,587**
Sales	**(1,445)**	**(716)**	**(3,195)**	**(12)**	**(2,680)**	**(125)**	**(7)**	**(8,180)**
Transfers in[4]	**—**	**—**	**—**	**—**	**—**	**(25)**	**35**	**10**
Transfers out[4]	**(1,768)**	**—**	**—**	**—**	**—**	**(41)**	**25**	**(1,784)**
Gains/(losses) included in investment income								
Realized	**579**	**1**	**(69)**	**—**	**907**	**56**	**(43)**	**1,431**
Unrealized	**(3,231)**	**(21)**	**(178)**	**(1,191)**	**(4,355)**	**119**	**(321)**	**(9,178)**
Balance as at June 30	**$ 36,719**	**$ 596**	**$ 18,313**	**$ 7,464**	**$ 45,123**	**$ 190**	**$ (2,136)**	**$ 106,269**

[4] 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.

(Canadian $ millions)		Equity[6]		Fixed Income		Alternative Investments[6]		Inflation Sensitive		Real Assets		Investment-Related Receivables		Investment-Related Liabilities		Total
																For the six-month period ended June 30, 2019
Balance as at January 1	$	36,870	$	551	$	16,389	$	8,117	$	46,349	$	189	$	(2,076)	$	106,389
Purchases		3,384		734		3,293		62		2,120		26		31		9,650
Sales		(4,044)		(693)		(2,694)		—		(1,318)		(32)		(297)		(9,078)
Transfers in[5]		—		—		—		—		—		4		15		19
Transfers out[5]		—		—		—		—		—		(19)		5		(14)
Gains/(losses) included in investment income																
Realized		1,218		(6)		359		—		(77)		(19)		71		1,546
Unrealized		(2,004)		(6)		(256)		(41)		359		(5)		(28)		(1,981)
Balance as at June 30	$	35,424	$	580	$	17,091	$	8,138	$	47,433	$	144	$	(2,279)	$	106,531

[5] 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.

[6] Alternative investments have been re-classified out of Fixed Income to more appropriately reflect the nature of these assets. Additionally, Non-Canadian publicly traded equity has been re-stated to re-classify some fund assets to Alternative investments. Alternative Investments is comprised primarily of hedge funds and public equity funds.

Sensitivity to changes in assumptions for investments in Level 3

The following table illustrates the impact to fair value for certain investments in Level 3 when changing the significant inputs to reasonable alternative assumptions. While Ontario Teachers' has used all available information in providing its best estimate of the magnitude of the potential impact on Level 3 investments from the COVID-19 pandemic, the ranges noted below are based on alternate assumptions that are subject to material change.

(Canadian $ millions)	**Significant Inputs**	**Change in Significant Inputs**	**Increase / (Decrease) to Fair Value**
			As at June 30, 2020
Non-publicly traded equity	**Multiple[7]**	**+ / - 10%**	**$ 4,870 / (4,809)**
Infrastructure and Natural resources	**Discount Rate**	**+ / - 0.50%**	**1,245 / (1,161)**
Real estate	**Capitalization Rate**	**+ / - 0.25%**	**1,597 / (1,381)**

[7] Primarily reflects Enterprise Value / EBITDA multiples. However, in certain cases, other metrics were used where they were determined to be more appropriate (e.g., revenue multiples or asset based multiples).

The above analysis excludes investments where fair values are based on information provided by the general partners or the external fund managers as Ontario Teachers' does not have access to the assumptions and methodologies used to fair value the underlying investments. For other investments included in Level 3 that were not sensitized, management's judgement is that changing one or more of the inputs to a reasonable alternative assumption would not change the fair value significantly.

(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 Ontario Teachers' 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 Ontario Teachers' derivative contracts held:

		As at June 30, 2020			As at December 31, 2019		
		Notional	**Fair Value**		Notional	Fair Value	
(Canadian $ millions)			**Assets**	**Liabilities**		Assets	Liabilities
Equity and commodity derivatives							
Swaps		**$ 47,254**	**$ 2,288**	**$ (2,006)**	$ 41,173	$ 924	$ (316)
Futures		**11,699**	**21**	**(4)**	16,499	28	(19)
Options: Listed	– purchased	**6,170**	**191**	**—**	3,666	76	—
	– written	**2,959**	**—**	**(179)**	2,643	—	(69)
OTC	– purchased	**19,192**	**571**	**—**	41,410	918	—
	– written	**22,591**	**14**	**(407)**	39,001	18	(453)
		109,865	**3,085**	**(2,596)**	144,392	1,964	(857)
Interest rate derivatives							
Swaps		**141,310**	**2,001**	**(1,227)**	140,847	925	(678)
Futures		**121,350**	**—**	**(157)**	65,830	—	(305)
Options: Listed	– purchased	**—**	**—**	**—**	5,683	—	—
	– written	**—**	**—**	**—**	6,501	—	(3)
OTC	– purchased	**19,140**	**28**	**(1)**	30,077	26	(13)
	– written	**45,946**	**3**	**(41)**	50,324	4	(24)
		327,746	**2,032**	**(1,426)**	299,262	955	(1,023)
Currency derivatives							
Swaps		**670**	**2**	**(27)**	3,814	8	(12)
Forwards[8]		**75,971**	**520**	**(1,354)**	78,201	1,011	(642)
Options: OTC	– purchased	**3,744**	**31**	**—**	4,366	40	—
	– written	**2,934**	**—**	**(17)**	3,699	—	(22)
		83,319	**553**	**(1,398)**	90,080	1,059	(676)
Credit derivatives							
Credit default swaps	– purchased	**19,610**	**93**	**(217)**	24,955	37	(690)
	– written	**30,705**	**216**	**(429)**	17,364	508	(169)
		50,315	**309**	**(646)**	42,319	545	(859)
		571,245	**5,979**	**(6,066)**	576,053	4,523	(3,415)
Net cash collateral (received)/paid under derivative contracts			**28**	**152**		(28)	229
Notional and net fair value of derivative contracts		**$ 571,245**	**$ 6,007**	**$ (5,914)**	$ 576,053	$ 4,495	$ (3,186)

[8] 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 Ontario Teachers'. Ontario Teachers' effective net investments reflecting these classifications are summarized in Canadian dollars below:

	As at June 30, 2020		As at December 31, 2019	
	Effective Net Investments at Fair Value ($ millions)	**Asset Mix %**	Effective Net Investments at Fair Value ($ millions)	Asset Mix %
Equity				
Publicly traded	**$ 31,668**	**16%**	$ 35,844	18%
Non-publicly traded	**36,194**	**18**	39,344	19
	67,862	**34**	75,188	37
Fixed income				
Bonds	**29,237**	**14**	72,668	36
Real-rate products	**19,155**	**9**	20,440	10
	48,392	**23**	93,108	46
Inflation sensitive				
Commodities	**15,163**	**7**	17,588	9
Natural resources	**7,464**	**4**	8,199	4
Inflation hedge	**11,101**	**5**	10,277	5
	33,728	**16**	36,064	18
Real assets				
Real estate	**25,558**	**13**	28,692	14
Infrastructure	**16,020**	**8**	16,984	8
	41,578	**21**	45,676	22
Innovation	**2,284**	**1**	—	—
Credit	**17,159**	**8**	16,305	8
Absolute return strategies	**17,504**	**9**	16,561	8
Overlay	**(1,027)**	**—**	272	—
Money Market	**(24,097)**	**(12)**	(79,128)	(39)
Net investments	**$ 203,383**	**100%**	$ 204,046	100%

(e) Risk management

Ontario Teachers' primary long-term risk is that Ontario Teachers' assets will fall short of its liabilities (i.e., benefits owed to members). Therefore, Ontario Teachers' follows an approach of asset diversification. The objective 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.

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

There have been no significant changes to the risk management policies and processes for credit, market and liquidity 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 March 18, 2020. 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	4%	67%
Inflation sensitive	12%	22%
Real assets	19%	29%
Innovation	0%	7%
Credit	3%	13%
Absolute return strategies	4%	14%
Money Market[9]	(92)%	0%

[9] 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

Ontario Teachers' 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, 2020				
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)	$ 55,397	$ 31,706	$ —	$ —	$ —
AA/R-1 (mid)	5,182	948	4,561	—	184
A/R-1 (low)	9,722	1,694	9,025	—	1,082
BBB/R-2	3,898	—	343	—	4
Below BBB/R-2	2,787	—	—	—	—
Unrated[10]	1,775	42	5,601	12,470	—
	$ 78,761	$ 34,390	$ 19,530	$ 12,470	$ 1,270

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

Credit rating (Canadian $ millions)	Bonds and Short-term investments	Real-rate products	Securities purchased under agreements to resell	Loans and Private debt	OTC Derivatives
					As at December 31, 2019
AAA/R-1 (high)	$ 36,196	$ 31,159	$ —	$ —	$ —
AA/R-1 (mid)	4,530	934	2,056	—	614
A/R-1 (low)	10,838	2,046	3,922	—	1,069
BBB/R-2	5,345	—	324	—	—
Below BBB/R-2	3,358	—	—	—	—
Unrated[11]	2,856	48	4,928	12,644	—
	$ 63,123	$ 34,187	$ 11,230	$ 12,644	$ 1,683

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

Ontario Teachers' is also exposed to credit risk through off-balance sheet arrangements as shown in the table below. For off-balance sheet guarantees, the maximum exposure to credit risk is the maximum amount that Ontario Teachers' 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, 2020**	As at December 31, 2019
Guarantees	**$ 442**	$ 274
Loan commitments	**9**	11
Notional amount of written credit derivatives	**30,705**	17,364
Total off balance sheet credit risk exposure	**$ 31,156**	$ 17,649

While Ontario Teachers' 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 Ontario Teachers') and other actions taken to mitigate Ontario Teachers' exposure, as described previously.

Credit risk concentrations

As at June 30, 2020, Ontario Teachers' 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 $57.8 billion (December 31, 2019 – $44.4 billion), U.S. Treasury issued securities of $17.9 billion (December 31, 2019 – $10.4 billion), Province of Ontario bonds of $8.2 billion (December 31, 2019 – $7.7 billion), and receivable from the Province of Ontario of $2.3 billion (December 31, 2019 – $3.1 billion).

(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. Ontario Teachers' is exposed to market risk through its investing activities. The level of market risk to which Ontario Teachers' 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.

Due to the COVID-19 pandemic, financial markets experienced exceptional volatility in the first half of 2020. Ontario Teachers’ exposures across all risk parameters including market, credit, liquidity and leverage, remained within all risk limits set by the board.

Market and credit risk measurement

Ontario Teachers' 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, Ontario Teachers' 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 Ontario Teachers'.

(Canadian $ billions)[12]		As at June 30, 2020		As at December 31, 2019
Equity				
Publicly traded	**$**	**8.0**	$	9.5
Non-publicly traded		**15.0**		16.5
Fixed income				
Bonds		**10.0**		12.0
Real-rate products		**4.0**		4.5
Inflation sensitive				
Commodities		**3.5**		4.5
Natural resources		**1.5**		2.0
Inflation hedge		**3.0**		3.5
Real assets				
Real estate		**4.0**		4.5
Infrastructure		**3.0**		3.5
Innovation		**1.0**		0.0
Credit		**3.0**		2.5
Absolute return strategies		**2.0**		1.5
Overlay		**12.0**		8.5
Money Market		**6.5**		18.0
Total Asset Risk ETL Exposure[13]	**$**	**43.0**	$	47.5

[12] Rounded to the nearest $0.5 billion.

[13] 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 Ontario Teachers' assets and liabilities due to fluctuations in interest rates. The value of Ontario Teachers' 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.

Ontario Teachers' measures interest rate risk of relevant asset classes in its asset mix (note 2d). Ontario Teachers' 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 $7.3 billion (December 31, 2019 – $9.5 billion). Similarly, Ontario Teachers' 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 $2.6 billion (December 31, 2019 – $2.7 billion).

Ontario Teachers' also measures the sensitivity of nominal and real-rate securities and derivative contracts that are included in the Inflation hedge category of Ontario Teachers' 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 $2.2 billion (December 31, 2019 – $2.1 billion).

As at June 30, 2020, 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 23% or $54.7 billion (December 31, 2019 – 23% or $50.6 billion).

Foreign currency risk

Foreign currency exposure arises from Ontario Teachers' holdings of foreign currency-denominated investments and related derivative contracts.

Ontario Teachers' has investments exposed to foreign currency. In Canadian dollars this exposure is as follows:

(Canadian $ millions)		As at June 30, 2020		As at December 31, 2019
Currency		**Net Exposure**		Net Exposure
United States Dollar	**$**	**36,138**	$	38,161
Euro		**5,070**		4,709
Chinese Renminbi		**4,531**		2,367
Chilean Peso		**2,926**		3,347
Mexican Peso		**1,936**		2,023
Danish Krone		**1,842**		1,994
Japanese Yen		**1,679**		3,056
Brazilian Real		**1,520**		3,538
Indian Rupee		**646**		973
British Pound Sterling		**617**		2,361
Other		**3,772**		11,812
	$	**60,677**	$	74,341

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, 2020**	As at December 31, 2019
Currency	**Change in Net Investment Value**	Change in Net Investment Value
United States Dollar	**$ 1,807**	$ 1,908
Euro	**253**	236
Chinese Renminbi	**227**	118
Chilean Peso	**146**	167
Other	**601**	1,288
	$ 3,034	$ 3,717

(h) Liquidity risk

Liquidity risk is the risk of being unable to obtain sufficient cash or cash equivalents at a reasonable cost to meet Ontario Teachers' financial obligations in a timely manner, or to support new investment opportunities, under a range of stressed conditions. By maintaining a structurally sound liquidity profile, Ontario Teachers' seeks to ensure sufficient liquidity is available to cover potential cash and collateral outflows under stressed conditions without adversely impacting Ontario Teachers' asset mix while allowing for opportunistic investments.

Liquid assets

Available liquid assets primarily consist of sovereign, provincial or territorial government debt, other liquid investment grade debt, publicly traded equity securities, and physical gold after considering the impact of collateral pledged and received, repurchase agreements and securities lending and borrowing arrangements. As at June 30, 2020, Ontario Teachers' maintains $90.4 billion of available liquid assets (December 31, 2019 - $78.6 billion).

Contractual maturity

Ontario Teachers' 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 Ontario Teachers' 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.

Ontario Teachers' investment-related liabilities by maturity are as follows:

(Canadian $ millions)				**As at June 30, 2020**
	Within One Year	**One to Five Years**	**Over Five Years**	**Total**
Securities sold under agreements to repurchase	**$ (17,121)**	**$ (7,226)**	**$ —**	**$ (24,347)**
Securities sold but not yet purchased				
Equities	**(233)**	**—**	**—**	**(233)**
Fixed income	**(11,200)**	**—**	**—**	**(11,200)**
Real estate	**(1,848)**	**(1,024)**	**(2,221)**	**(5,093)**
Commercial paper	**(5,918)**	**—**	**—**	**(5,918)**
Term debt	**(2,790)**	**(8,707)**	**—**	**(11,497)**
Cash collateral received under credit support annexes	**(1,669)**	**—**	**—**	**(1,669)**
Derivative-related, net	**(5,914)**	**—**	**—**	**(5,914)**
	$ (46,693)	**$ (16,957)**	**$ (2,221)**	**$ (65,871)**

(Canadian $ millions)								As at December 31, 2019
		Within One Year		One to Five Years		Over Five Years		Total
Securities sold under agreements to repurchase	$	(13,648)	$	(6,173)	$	—	$	(19,821)
Securities sold but not yet purchased								
Equities		(900)		—		—		(900)
Fixed income		(9,917)		—		—		(9,917)
Real estate		(1,115)		(1,888)		(2,225)		(5,228)
Commercial paper		(8,490)		—		—		(8,490)
Term debt		—		(7,187)		—		(7,187)
Cash collateral received under credit support annexes		(988)		—		—		(988)
Derivative-related, net		(3,186)		—		—		(3,186)
	$	(38,244)	$	(15,248)	$	(2,225)	$	(55,717)

(i) Collateral pledged and received

Ontario Teachers' 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 Ontario Teachers' retains substantially all risks and rewards, including credit risk, settlement risk and market risk. Ontario Teachers' is not allowed to either pledge the same securities with other financial institutions or to sell them to another entity unless Ontario Teachers' substitutes such securities with other eligible securities. Ontario Teachers' holds the collateral received as long as Ontario Teachers' 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. Ontario Teachers' 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, 2020 is $nil (December 31, 2019 - $nil).

Ontario Teachers' engages in securities borrowing and lending transactions and pledges and receives associated collateral. Ontario Teachers' does not recognize any securities borrowed as its investment assets or derecognize securities lent because 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, 2020**		As at December 31, 2019
Securities purchased under agreements to resell and sold under agreements to repurchase				
Gross amounts of securities purchased under agreements to resell[14]	**$**	**23,763**	$	12,204
Collateral held[15]		**24,566**		12,259
Gross amounts of securities sold under agreements to repurchase[14]		**28,580**		20,795
Collateral pledged		**29,803**		20,983
Securities borrowing and lending				
Securities borrowed		**1,341**		2,796
Securities lent		**—**		—
Collateral pledged[16]		**1,468**		2,965
Derivative-related				
Collateral received[17]		**2,113**		1,842
Collateral pledged[18]		**4,588**		1,587

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

[15] Includes cash collateral of $12 (December 31, 2019 - $nil).

[16] Includes cash collateral of $278 (December 31, 2019 - $901).

[17] Includes cash collateral of $1,657 (December 31, 2019 - $988).

[18] Includes cash collateral of $nil (December 31, 2019 - $56).

(j) Offsetting financial assets and financial liabilities

Financial assets and financial liabilities are offset and the net amount is reported in the Condensed Interim Consolidated Statement 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. Ontario Teachers' 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 Statement of Financial Position.

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

(Canadian $ millions)						**As at June 30, 2020**
	Gross amounts	**Less: Amounts offset**	**Net amount presented in note 2a**	**Amounts subject to netting agreements**	**Securities and cash collateral[19]**	**Net Exposure**
Financial assets						
Securities purchased under agreements to resell	**$ 23,763**	**$ (4,233)**	**$ 19,530**	**$ (15,268)**	**$ (4,245)**	**$ 17**
Derivative-related receivables	**6,007**	**—**	**6,007**	**(2,652)**	**(1,748)**	**1,607**
	$ 29,770	**$ (4,233)**	**$ 25,537**	**$ (17,920)**	**$ (5,993)**	**$ 1,624**
Financial liabilities						
Securities sold under agreements to repurchase	**$ (28,580)**	**$ 4,233**	**$ (24,347)**	**$ 15,268**	**$ 9,072**	**$ (7)**
Derivative-related liabilities	**(5,914)**	**—**	**(5,914)**	**2,652**	**3,200**	**(62)**
	$ (34,494)	**$ 4,233**	**$ (30,261)**	**$ 17,920**	**$ 12,272**	**$ (69)**

(Canadian $ millions)						As at December 31, 2019
	Gross amounts	Less: Amounts offset	Net amount presented in note 2a	Amounts subject to netting agreements	Securities and cash collateral[19]	Net Exposure
Financial assets						
Securities purchased under agreements to resell	$ 12,204	$ (974)	$ 11,230	$ (7,121)	$ (3,918)	$ 191
Derivative-related receivables	4,495	—	4,495	(1,608)	(1,600)	1,287
	$ 16,699	$ (974)	$ 15,725	$ (8,729)	$ (5,518)	$ 1,478
Financial liabilities						
Securities sold under agreements to repurchase	$ (20,795)	$ 974	$ (19,821)	$ 7,121	$ 12,649	$ (51)
Derivative-related liabilities	(3,186)	—	(3,186)	1,608	1,454	(124)
	$ (23,981)	$ 974	$ (23,007)	$ 8,729	$ 14,103	$ (175)

[19] 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 $236,630 million (December 31, 2019 – $224,669 million, June 30, 2019 – $220,620 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 obligations under the Plan. 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, 2020	As at December 31, 2019	As at June 30, 2019
Discount rate	**1.90%**	2.50%	2.50%
Salary escalation rate[1]	**2.00%**	2.35%	2.35%
Inflation rate	**1.00%**	1.35%	1.35%
Real rate[2]	**0.90%**	1.15%	1.15%

[1] In 2020, the salary escalation rate is revised to be 1% per year for the period from September 1, 2019 through to August 31, 2022 and 2% per year commencing September 1, 2022.

[2] Real rate 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, 2019 and June 30, 2020 and the new salary agreements reached in 2020 noted below. These changes in economic assumptions resulted in a net increase in the value of accrued pension benefits of $8,653 million as at June 30, 2020 (December 31, 2019 – $25,855 million increase, June 30, 2019 – $25,320 million increase).

Under the three-year collective agreements ratified with the Province of Ontario in 2020, active teachers receive a one per cent increase to wages and salaries per year, for three school years, effective from September 1, 2019 through to August 31, 2022.

The non-economic assumptions were updated in 2019 to reflect recent experience of Plan members related to mortality rates, expected rates of improvement in future mortality, retirement, termination of plan membership and reinstatement rates (movement from inactive status back to active status). The changes in non-economic assumptions decreased the accrued pension benefits by $340 million as at December 31, 2019. There were no changes to the non-economic assumptions as at June 30, 2020 or as at June 30, 2019.

The changes in economic and non-economic assumptions resulted in a net increase in the value of accrued pension benefits of $8,653 million as at June 30, 2020 (December 31, 2019 – $25,515 million net increase, June 30, 2019 – $25,320 million net increase).

(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 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, 2020 accrued pension benefits reflect the indexation levels as stated in the January 1, 2020 funding valuation report.

As noted in the filed January 1, 2020 funding valuation, indexation levels are 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, 2020[3]	Valuation as at June 30, 2019[4]
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

[3] Inflation protection levels per the January 1, 2020 funding valuation.

[4] Inflation protection levels per the January 1, 2018 funding valuation.

NOTE 4.
NET INVESTMENT INCOME

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, 2020			
(Canadian $ millions)	Income [1]	Realized	Unrealized	Investment Income [2]	Management Fees	Transaction Costs	Net Investment Income
Equity							
Publicly traded							
Canadian	$ 1	$ 37	$ (198)	$ (160)	$ —	$ (1)	$ (161)
Non-Canadian	209	2,293	936	3,438	(36)	(25)	3,377
Non-publicly traded							
Canadian	71	—	(450)	(379)	(7)	(16)	(402)
Non-Canadian	398	590	(3,568)	(2,580)	(143)	(4)	(2,727)
	679	2,920	(3,280)	319	(186)	(46)	87
Fixed income							
Bonds	617	(244)	4,350	4,723	(1)	(18)	4,704
Short-term investments	(6)	(263)	(235)	(504)	(1)	—	(505)
Canadian real-rate products	229	656	230	1,115	—	—	1,115
Non-Canadian real-rate products	69	1,392	1,099	2,560	—	—	2,560
	909	1,541	5,444	7,894	(2)	(18)	7,874
Alternative investments	60	(44)	(191)	(175)	(16)	(1)	(192)
Inflation sensitive							
Commodities	(45)	(794)	(170)	(1,009)	—	(4)	(1,013)
Timberland	10	—	54	64	—	—	64
Natural resources	151	—	(1,319)	(1,168)	(1)	(9)	(1,178)
	116	(794)	(1,435)	(2,113)	(1)	(13)	(2,127)
Real assets							
Real estate	337	75	(4,014)	(3,602)	—	(6)	(3,608)
Infrastructure	229	825	(2,054)	(1,000)	(13)	(26)	(1,039)
	566	900	(6,068)	(4,602)	(13)	(32)	(4,647)
Overlay	(10)	(283)	(1,300)	(1,593)	—	—	(1,593)
Total	$ 2,320	$ 4,240	$ (6,830)	$ (270)	$ (218)	$ (110)	$ (598)

[1] Income includes interest, dividends, real estate operating income (net of interest expense), and other investment-related income and expenses.
[2] Net of certain management and performance fees.

Net Investment Income — For the six-month period ended June 30, 2019

(Canadian $ millions)	Income [3]	Realized	Unrealized	Investment Income [4]	Management Fees	Transaction Costs	Net Investment Income
Equity							
Publicly traded							
Canadian	$ 18	$ (266)	$ 411	$ 163	$ —	$ (1)	$ 162
Non-Canadian [5]	331	939	318	1,588	(37)	(17)	1,534
Non-publicly traded							
Canadian	86	195	(19)	262	(16)	(29)	217
Non-Canadian	451	1,033	(2,121)	(637)	(154)	(24)	(815)
	886	1,901	(1,411)	1,376	(207)	(71)	1,098
Fixed income							
Bonds [6]	643	1,998	5,016	7,657	—	(6)	7,651
Short-term investments	—	(142)	400	258	(1)	—	257
Canadian real-rate products	239	9	1,447	1,695	—	—	1,695
Non-Canadian real-rate products	83	498	282	863	—	—	863
	965	2,363	7,145	10,473	(1)	(6)	10,466
Alternative investments [5]	36	93	46	175	(23)	—	152
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
Overlay [6]	6	(550)	(945)	(1,489)	—	—	(1,489)
Total	$ 2,780	$ 3,739	$ 5,905	$ 12,424	$ (242)	$ (107)	$ 12,075

[3] Income includes interest, dividends, real estate operating income (net of interest expense), and other investment-related income and expenses.
[4] Net of certain management and performance fees.
[5] Alternative investments have been re-classified out of Fixed Income to more appropriately reflect the nature of these assets. Additionally, Non- Canadian publicly traded equity has been re-stated to re-classify some fund assets to Alternative investments. Alternative Investments is comprised primarily of hedge funds and public equity funds.
[6] The income associated with currency overlay has been reclassified from Bonds to a separate Overlay asset class to more appropriately reflect the nature of the underlying transactions. The restatement has no impact on the net investment income for the six-month period ended June 30, 2019.

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% of earnings below the CPP limit plus 12.00% of 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 Interim Financial Statements. The funding valuations use an actuarial valuation method which takes into account future benefits to be earned by Plan members and future contributions to be made by Plan members, the Province and designated employers 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 members.

The most recent funding valuation that has been filed with regulatory authorities was prepared as at January 1, 2020, by Mercer (Canada) Limited and disclosed a funding surplus of $11.7 billion. The co-sponsors classified the surplus as a contingency reserve.

NOTE 6.
CONTRIBUTIONS

For the six-month period ended June 30 (Canadian $ millions)		**2020**		2019
Members				
Current service[1]	**$**	**754**	$	799
Optional credit		**20**		19
		774		818
Province of Ontario				
Current service		**735**		783
Interest		**10**		9
Optional credit		**18**		18
		763		810
Designated employers		**18**		16
Transfers from other pension plans		**7**		2
		25		18
	$	**1,562**	$	1,646

[1] Contributions past due are less than $3 million in the six-month period ended June 30, 2020.

NOTE 7.
BENEFITS

For the six-month period ended June 30 (Canadian $ millions)		**2020**		2019
Retirement pensions	**$**	**3,015**	$	2,887
Death benefits		**231**		210
Disability pensions		**12**		12
Commuted value transfers		**49**		32
Family law transfers		**18**		12
Transfers to other plans		**2**		3
Benefits paid	**$**	**3,327**	$	3,156
Other payments[1]		**—**		1
	$	**3,327**	$	3,157

[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 Ontario Teachers' capital for the purposes of the Interim 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 Ontario Teachers' 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 the present value of 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 Ontario Teachers' 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' Agreement[1], the Plan cannot be in a deficit position when such reports are filed[2]. 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 Ontario Teachers', its 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

Ontario Teachers' 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, 2020, these commitments totaled $15,410 million (December 31, 2019 – $16,096 million).

NOTE 10.
GUARANTEES AND INDEMNIFICATIONS

Guarantees

Ontario Teachers' provides guarantees to third parties related to certain companies Ontario Teachers' invests in and will be called upon to satisfy the guarantees if the companies fail to meet their obligations. Ontario Teachers' expects most guarantees to expire unused. No payments have been made by Ontario Teachers' during the six-month period ended June 30, 2020, and the twelve-month period ended December 31, 2019.

Ontario Teachers' guarantees loan and credit agreements which will expire by 2023. Ontario Teachers' maximum exposure is $254 million as at June 30, 2020 (December 31, 2019 – $98 million). The companies have drawn $59 million under the agreements (December 31, 2019 – $33 million).

Ontario Teachers' guarantees a lease agreement for an investment company which will expire by 2059. Ontario Teachers' maximum exposure is $74 million as at June 30, 2020 (December 31, 2019 – $74 million). There were no default lease payments in either 2020 or 2019.

Ontario Teachers' also guarantees the ability of certain investee companies to settle certain financial obligations. Ontario Teachers' maximum exposure is $97 million as at June 30, 2020 (December 31, 2019 – $94 million).

The Cadillac Fairview Corporation Limited manages the real estate investments and has provided construction completion and cost overrun guarantees, for which the maximum exposure cannot be determined because the projects are not yet complete. The guarantees on the related construction loans amounted to $17 million as at June 30, 2020 (December 31, 2019 – $8 million) and have not been recognized in the real estate liabilities. These guarantees will expire by 2023.

Ontario Teachers' also guarantees the following obligations which are consolidated. The fair values of the obligations are included in Ontario Teachers' investment-related liabilities.

Ontario Teachers' guarantees the $750 million 4.31% Series B Debenture issued by a real estate trust. No payments have been made by Ontario Teachers' into the real estate trust or related to the debenture. The debenture, maturing on January 25, 2021 may be redeemed by the issuer at any time prior to maturity.

Ontario Teachers' also guarantees commercial paper and term debt issued by Ontario Teachers' Finance Trust (OTFT) which Ontario Teachers' consolidates.

The term debt issued by OTFT, as shown in the table below, is not redeemable prior to maturity at the option of the trust or Ontario Teachers' except as described in their respective Offering Memoranda. OTFT and its affiliates may at any time and from time to time purchase the senior notes in the open market or otherwise.

Issuance	Currency	Principal Amount	Maturity	Coupon
September 2017	USD	$1.75 billion	September 2022	2.125%
April 2018	USD	$2.00 billion	April 2021	2.750%
September 2019	USD	$1.75 billion	September 2024	1.625%
April 2020	USD	$1.00 billion	April 2025	1.375%
April 2020	EUR	€1.50 billion	May 2025	0.500%

The commercial paper issued by OTFT 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, 2020 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, 2020, commercial paper issued amounted to $5,919 million (December 31, 2019 – $8,517 million).

Indemnifications

Ontario Teachers' board members, employees and certain others are indemnified in relation to certain proceedings that may be commenced against them. In addition, in the normal course of operations, Ontario Teachers' may, in certain circumstances, agree to indemnify a counterparty. Under these agreements, Ontario Teachers', 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 Ontario Teachers' from making a reasonable estimate of the maximum amount that would be required to pay all such counterparties.