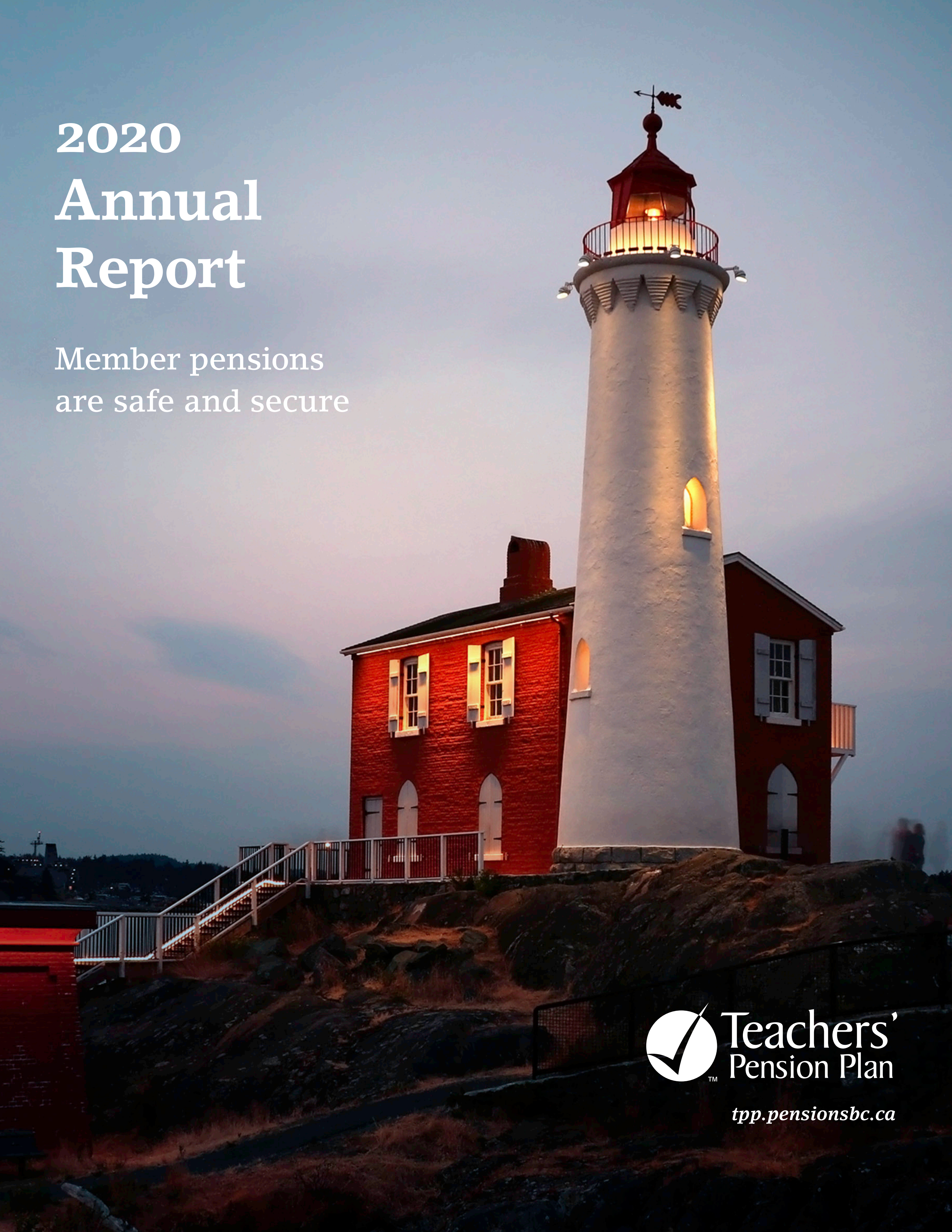
2020 Annual Report

Member pensions are safe and secure



Teachers' Pension Plan

tpp.pensionsbc.ca

Contents

Trustees' Message

The Teachers' Pension Plan: safe and secure

There is no doubt that the past 18 months have been extremely difficult for all of us as we continue to find our way through the pandemic.

Collectively, Teachers' Pension Plan members—teachers, principals and superintendents—have demonstrated an extraordinary commitment to public education in BC. They continue to show flexibility, dedication and a willingness to go "above and beyond" to provide vital educational services to students.

We are honoured to govern the plan and, in doing so, help provide retirement security for these 100,000 dedicated plan members.

The last thing members need to worry about during a pandemic is the health of their pension. That's why we regularly remind members that their pension benefit is safe and secure, and is financially well positioned to withstand market downturns. As a defined benefit pension plan, the Teachers' Pension Plan is based on a formula that includes the length of time working and salary, and will not change with fluctuations in investment returns.

How can members be confident about the plan's sustainability?

- The plan's most recent valuation showed the plan was 102.5 per cent funded. This shows the plan has more than enough money needed to fund all current and future pensions. The results of the next valuation, as at December 31, 2020, will be announced later this year.
- The plan, which has a long-term investment horizon of decades, not months, showed a 10-year annual average return of 9.2 per cent up to December 31, 2020. Despite the pandemic, the plan's one-year return was an even stronger 10.7 per cent.
- The plan has been around for more than 90 years and has provided retirement security through many economic crises, including the 1987 market crash, the collapse of the dot-com bubble in 2000 and the financial crisis of 2008–2009. Over time, the economic challenges caused by the COVID-19 pandemic will also pass.

When the worst of the pandemic finally does pass, we will look back and remember how our plan members supported the province's students through the pandemic. We will also look forward as the plan continues to ensure retirement safety and security for all its members for generations to come.

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Executive summary

2020 by the numbers

Net assets

(as at December 31)

2018
$28.4 billion

2019
$31.5 billion

2020
$34.3 billion

Benefits

The plan paid out
$1.3 billion
in benefits in 2020

As at December 31, 2020, there were
39,803 pensions being paid

Membership

The plan has more than
101,600
members

Growth of active members in 2020 1.7%

Growth of retired members in 2020 1.7%

Performance

10.7%
2020 annual rate of return
below the performance benchmark of 11.2%

8.7%
5-year annualized rate of return
exceeds the performance benchmark of 8.3%

Teachers' Pension Plan

Plan financials

Report on investments

As we all know, 2020 was an eventful year, and the capital markets were no exception. The global economy experienced significant disruptions in the first quarter as the outbreak of COVID-19 spread, and then rebounded in the second quarter with support from unprecedented fiscal and monetary stimulus.

Despite these extraordinary events, the plan's investment portfolio remains secure. The plan's investment agent, the British Columbia Investment Management Corporation (BCI) has been preparing for a market downturn for some time. As a result, when the markets fell in early 2020, the plan was in a strong financial position, with ample liquidity, and was not forced to sell assets.

The plan's assets increased to $34.3 billion in 2020 from $31.5 billion the year before with a return on investment of 10.7 per cent, which is lower than the benchmark return of 11.2 per cent. Over the past five years up to December 31, 2020, the plan has achieved an annualized return of 8.7 per cent, performing well above its actuarial return objective of 6.0 per cent and above the benchmark of 8.3 per cent. Strong long-term returns underscore the financial health and stability of the plan.

Underperformance over the one-year period was due to a weak real estate market, the hardest-hit sector during the pandemic, impacted by a decrease in commercial leasing. Real estate returned 0.0 per cent against a benchmark of 6.0 per cent over one year, and 5.7 per cent against a benchmark of 5.9 per cent over five years. The plan has always maintained a low exposure to retail—the real estate sector most impacted by physical distancing measures. In addition to avoiding weak sectors, the plan had increased its exposure to warehouse and e-commerce properties, which benefited from the accelerated shift to e-commerce due to COVID-19. During the first quarter of 2021, the real estate sector saw increased activity as markets stabilized in reaction to vaccine developments.

Private equity delivered strong returns of 23.4 per cent over the one-year period ending December 31, 2020, beating the benchmark of 16.2 per cent.

Private equity returns have been strong, returning 23.4 per cent against a benchmark of 16.2 per cent over one year, and 16.5 per cent against a benchmark of 12.3 per cent over five years.

Infrastructure and renewable resources (IRR) achieved returns of 7.3 per cent over the one-year period, and 8.4 per cent over the five-year period ending December 31, 2020, exceeding the 7.0 per cent benchmark for both periods. IRR investments have the longest horizon within the plan's portfolio, and BCI's focus on investing with caution enabled the portfolio to weather the market volatility throughout 2020.

The plan's public equity investments outperformed in 2020, returning 16.2 per cent against a 14.0 per cent benchmark. BCI's strategy of transitioning public equity asset management in house, away from more expensive external managers, and pursuing concentrated, high-performing strategies contributed to the outperformance. Over the five-year period ending December 31, 2020, the plan's public equity portfolio has performed close to the benchmark, returning 10.6 per cent against the benchmark of 10.7 per cent.

16.2%

Public equity investments beat the performance benchmark of 14.0 per cent.

Fixed income returned 6.8 per cent in 2020, against a 7.9 per cent benchmark. Strong returns in the corporate bond fund were offset by underperformance in mortgages due to the weak underlying real estate market. Meanwhile, the mortgage benchmark, a short-term investment grade index, rallied as investors looked for lower-risk investment alternatives. Over the five-year period, fixed income has returned 4.0 per cent, outperforming against the benchmark of 3.7 per cent.

Investment strategy

Our primary objective as the Teachers' Pension Board of Trustees is to ensure the long-term sustainability of the plan for its members. This depends on several factors, including generating sufficient investment returns over time.

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The board oversees the management of plan assets through BCI. The board outlines the investment beliefs and financial goals of the plan, and BCI is responsible for implementing the investment strategy.

Risk management is a key responsibility of the board and BCI. This includes analyzing risk and taking appropriate steps to limit exposure or capitalize on opportunities. Diversification of investments is a key principle in managing risk, and the plan invests in a broad range of assets to cushion against lower returns in any one type of asset.

The plan's asset mix reflects an increased focus on investing in regulated utilities, renewable resources and real assets. Real assets are tangible physical investments, such as land and buildings, and are ideally suited for the long-term financial objectives of the plan. These private assets typically increase in value over time, provide income and protect against inflation while reducing the short-term volatility associated with public markets. Many of these investments also allow for more direct asset management, which enables BCI to influence the strategic direction of these companies and create long-term value for the plan.

Responsible investing

Responsible investing is an integral part of the plan's investment approach. The board and BCI believe that assessing and managing risk over the long term is the cornerstone of responsible investing, and fundamental to meeting the mandate to grow and protect the value of the plan's fund. Taking environmental, social and governance matters (ESG) into account enables us, as investors, to better understand the opportunities, and manage and mitigate the risks associated with long-term investments. BCI and the board believe that companies that employ robust ESG practices are better positioned to generate long-term value for investors than are similar companies with less favourable practices.

ESG considerations are integrated into BCI's investment analysis, decisions and processes. As an active owner, BCI monitors ESG factors and engages with companies to raise awareness that good corporate governance is the overarching framework for effective management of opportunities and risks. BCI uses its influence as a shareholder to encourage companies to manage and report on ESG practices.

It is important to the board that BCI collaborate with like-minded investors and organizations. BCI is a signatory to the Principles for Responsible Investment (PRI), an international network of investors coordinated by the United Nations that share the goal of incorporating ESG elements into the processes and activities of institutional investors. BCI and the board's approach to responsible investing are aligned with the PRI, which provides a set of principles for institutional investors to consider as they integrate ESG factors into their investment processes and analysis, ownership activities and interactions with long-term investors. As part of this commitment, BCI takes part in an annual PRI assessment to measure its progress against meeting the set of principles outlined by the PRI.

In addition, the board supports BCI in responsible investing as a member of the steering committee for the 30% Club, which advocates for companies to enhance gender diversity, and the Sustainability Accounting Standards Board, which has a mandate to promote standards of sustainability reporting.

More information about responsible investing activities can be found on the BCI website at BCI.ca.

Climate change

Climate change is a concern for the board, plan members and global investors. BCI's Climate Action Plan is informed by scientific consensus and helps keep pensions secure. It also helps position assets to mitigate the associated physical and investment risks, while capitalizing on investment opportunities arising from the gradual transition to a lower-carbon economy.

BCI collaborates with a number of other organizations to advance its objectives in mitigating climate change risks. These include the International Corporate Governance Network, CDP (formerly Carbon Disclosure Project), and Investor Network on Climate Risk.

BCI is also a signatory to Climate Action 100+. This investor-organized initiative seeks to encourage the world's largest corporate greenhouse gas emitters to take meaningful action to curb their emissions. BCI leads, co-leads or serves in a supporting role in engagement with 10 North American companies in the oil and gas, mining and utility sectors.

In 2020, Gordon J. Fyfe, the CEO/CIO of BCI, issued a joint statement along with the seven other CEOs of Canada's leading pension plan investment managers. Together as the "Maple 8," they called on companies and investors to provide consistent and complete ESG information to strengthen investment decision making and better manage their collective ESG risk exposures.

Managing investment costs

BCI operates on a cost-recovery, not-for-profit basis. This means that the plan pays fees only to cover the cost of managing the investments. Since BCI manages a large amount of assets, it has access to significant economies of scale when investing on behalf of the plan. Managing investment costs is important to the board, and BCI's fees continue to be among the lowest in the pension industry. The board focuses on overall net returns, as these returns contribute to the plan's long-term sustainability.

Actuarial valuation: the plan's report card

The actuarial valuation is the most important measurement of the plan's health. It determines, using a series of economic and demographic assumptions, how much money the plan needs to pay current and future pensions. An independent actuary—a professional with specialized training in financial modelling, laws of probability and risk management—performs the valuation at least every three years.

For the valuation, the actuary compares current assets, future contributions and investment returns against the money to be paid out in the future for pension benefits. If the plan's assets are the same as or more than its liabilities, the plan is fully funded. If there is a shortfall in assets, there is an unfunded liability. The board must address an unfunded liability by adjusting contribution rates for members and employers.

The most recent complete actuarial valuation, measured as at December 31, 2017, showed the plan is 102.5 per cent funded. At the time of the valuation, the plan's basic account had actuarial assets of $26.8 billion and actuarial liabilities of $26.2 billion, with a surplus of $644 million.

The next valuation will be measured as at December 31, 2020, with results expected in the last quarter of 2021.

102.5%

The plan is 102.5 per cent funded as at December 31, 2017, the date of the most recent actuarial valuation.

Valuation history ($ millions)
as at December 31

	Basic pension benefit surplus (unfunded liability)		
	2017	**2014**	**2011**
For funding purposes (entry-age basis)	$ 644	$ 449	$ (855)
Funding ratio	102.5%	102.0%	96.0%

Tables, charts and graphs

Investment asset mix and performance (%)
as at December 31, 2020

	Approved range	Target asset mix	Actual asset weight	Rate of return	Performance benchmark
Fixed income					
Short-term	0–10	2	2.2	(1.7)	(2.4)
Mortgages	0–10	4	3.3	2.7	5.5
Credit[1]	0–20	14	6.8	3.9	3.7
Bonds	5–35	26	15.0	8.6	8.7
	15–60	**46**	**27.3**	**6.8**	**7.9**
Equity					
Canadian equities	0–10	3	4.0	6.8	5.6
Global equities	5–30	13	21.3	16.9	14.2
Emerging markets	0–10	4	8.0	19.8	16.2
Private equity	5–25	13	13.3	23.4	16.2
	25–55	**33**	**46.6**	**20.6[2]**	**16.7[3]**
Real estate	**10–25**	**17**	**14.6**	**0.0**	**6.0**
Infrastructure and renewable resources	**5–20**	**14**	**11.4**	**7.3**	**7.0**
Other	**0–5**	**0**	**0.1**	**—**	**—**
Total asset mix		**110**	**100.0**	**10.7**	**11.2**

1 Rates of return are for the period October 1, 2020 to December 31, 2020
2 Rate of return is for the period July 1, 2020 to December 31, 2020
3 Performance benchmark is for the period July 1, 2020 to December 31, 2020

Investment performance (%)
year ended December 31, 2020

	Market value	Rates of return
	Investment returns	Performance benchmark
Annual rates		
2020	**10.7**	**11.2**
2019	13.0	13.1
2018	2.3	0.8
2017	11.8	10.5
2016	6.0	6.4
Five-year annualized rates		
2020	**8.7**	**8.3**
2019	8.4	7.6
Ten-year annualized rated		
2020	**9.2**	**8.1**
2019	9.1	7.8

Five-year financial summary ($ millions)
year ended December 31

	2020	2019	2018	2017	2016
Increase in assets					
Investment income	**$ 3,392**	$ 3,712	$ 720	$ 3,038	$ 1,488
Contributions					
Members	**384**	365	404	381	362
Employers	**387**	368	413	392	403
Transfers from other plans	**11**	6	6	10	9
Total increase in assets	**4,174**	**4,451**	1,543	3,821	2,262
Decrease in assets					
Pension benefits	**1,293**	1,248	1,203	1,166	1,124
Transfers to other plans	**6**	3	9	7	7
Investment and administration costs[1]	**95**	64	81	61	62
Total decrease in assets	**1,394**	1,315	1,293	1,234	1,193
Increase in net assets	**2,780**	3,136	250	2,587	1,069
Net assets available for benefits at beginning of year	**31,502**	28,366	28,116	25,529	24,460
Net assets available for benefits at end of year	**$ 34,282**	$ 31,502	$ 28,366	$ 28,116	$ 25,529
Investment and administration costs as a percentage of net assets (%)[1, 2]					
Investment management[1, 2]	**0.37**	0.35	0.35	0.29	0.26
Benefits administration	**0.05**	0.05	0.05	0.05	0.06

1 Investment costs as a percentage of net assets include certain external investment management costs totalling $36.9 million (2019—$55.7 million; 2018—$32.0 million; 2017—$28.7 million; 2016—$15.0 million; 2015—$10.6 million) that are netted against investment income; they are not included in investment and administration costs in the financial statements.

2 Investment costs as a percentage of net assets exclude external indirect investment management costs netted against investment income on the statement of changes in net assets available for benefits. This is consistent with current industry practice; including these costs using the budgeted amount would have increased investment management costs as a percentage of net assets by an estimated 32 basis points in 2020. External indirect investment management costs include limited partnership management fees and other fees principally incurred within investments held in the private equity, infrastructure and global real estate asset classes.

Investments held
as at December 31, 2020

	Market value ($ millions)	Asset mix market value (%)
Short-term		
Money market	$ 743	2.2
Bonds (1–5 years)	—	0.0
	743	**2.2**
Bonds		
Canadian bonds universe	4,920	14.3
Leverage bond fund	227	0.7
Corporate bond fund	1,124	3.3
	6,271	**18.3**
Mortgages	**1,145**	**3.3**
Canadian equities		
Indexed	462	1.3
Active	919	2.7
	1,381	**4.0**
Global equities		
Global indexed	2,950	8.6
Global active	4,346	12.7
	7,296	**21.3**
Emerging markets	2,723	8.0
Real estate[1]	**5,005**	**14.6**
Private equity[1]	**4,570**	**13.3**
Infrastructure and renewable resources		
Infrastructure	3,230	9.4
Renewable resources	685	2.0
	3,915	**11.4**
Other	**1,222**	**3.6**
Total investments	**34,271**	**100.0**
2019 comparison	**$31,525**	

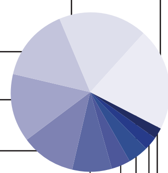
1 Asset classifications vary from the financial statements for the purpose of performance reporting.

Top 25 security holdings
total public equity exposure—worldwide

Security	% of portfolio calculated	% of public equity calculated	Total exposure ($ millions)
Apple Inc	0.7	2.0	$ 231
Microsoft Corp	0.6	1.7	194
Samsung Electronics Co Ltd	0.5	1.4	162
Taiwan Semiconductor Manufacturing	0.5	1.4	162
Amazon.com Inc	0.5	1.4	157
Tencent Holdings Ltd	0.4	1.3	153
Royal Bank of Canada	0.3	0.8	90
Mastercard Inc - Class A	0.2	0.7	77
UnitedHealth Group Inc	0.2	0.7	76
Facebook Inc - Class A	0.2	0.6	72
Shopify Inc - Class A	0.2	0.6	70
Toronto-Dominion Bank	0.2	0.6	69
Alphabet Inc - Class C	0.2	0.6	68
FraPort Ag Frankfurt Airport	0.2	0.6	66
Alphabet Inc - Class A	0.2	0.6	64
Brookfield Asset Management - Class A	0.2	0.5	54
Tesla Inc	0.2	0.5	54
Visa Inc - Class A	0.2	0.5	52
Iberdrola Sa	0.1	0.5	51
CVS Health Corp	0.1	0.4	51
Nike Inc - Class B	0.1	0.4	50
Canadian Pacific Railway Ltd	0.1	0.4	48
AIA Group Ltd	0.1	0.4	45
Housing Development Finance	0.1	0.4	41
Ping An Insurance Group Co-H	0.1	0.3	39
Total top 25	6.4	19.3	$ 2,196
Total public equity			$11,399
Total portfolio			$34,271

Investment holdings—market value
($ billions)
as at December 31, 2020

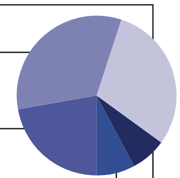
Global equities	7.3	21%
Bonds	6.3	18%
Real estate	5.0	15%
Private equities	4.6	14%
IRR[1]	3.9	11%
Emerging markets	2.7	8%
Canadian equities	1.4	4%
Other	1.2	4%
Mortgages	1.1	3%
Short-term	0.7	2%



1 Infrastructure and renewable resources

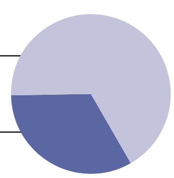
Domestic real estate, by type (%)
as at December 31, 2020

Residential	30
Office	33
Industrial	22
Retail	8
Alternatives	7



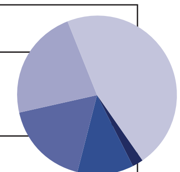
Canadian equities (%)
market value as at December 31, 2020

Actively managed	67
Indexed	33



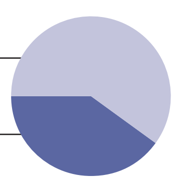
Real estate, by location (%)
as at December 31, 2020

International	45
Ontario	22
British Columbia	17
Alberta	12
Rest of Canada	2



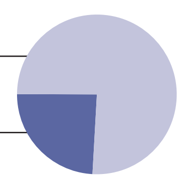
Global equities (%)
market value as at December 31, 2020

Actively managed	60
Indexed	40

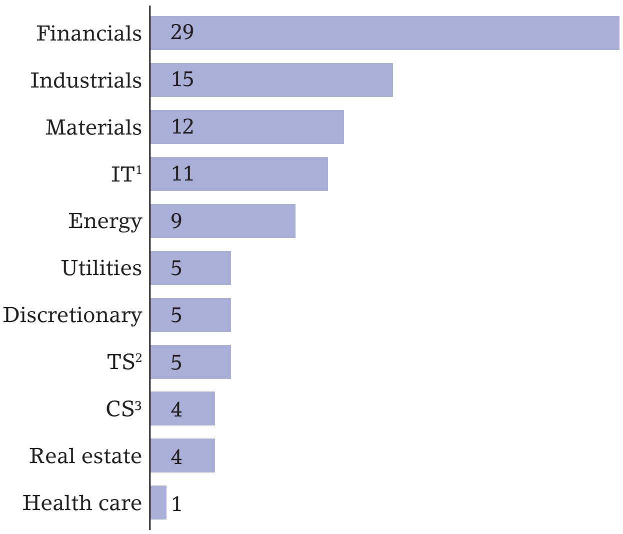


Bonds (%)
market value as at December 31, 2020

Government	76
Corporate	24

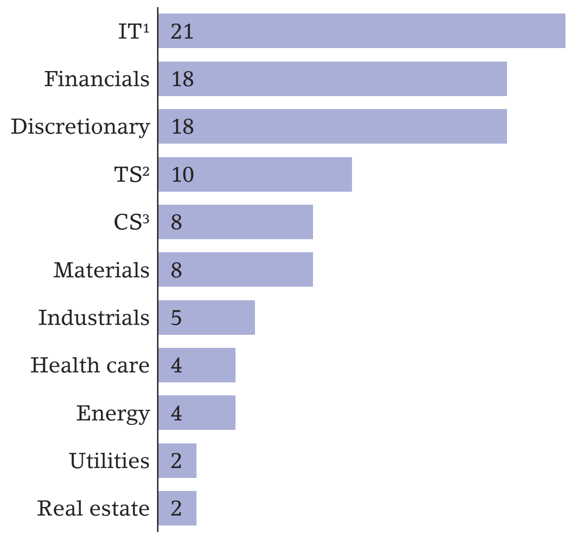


Canadian equities, by sector (%)
as at December 31, 2020



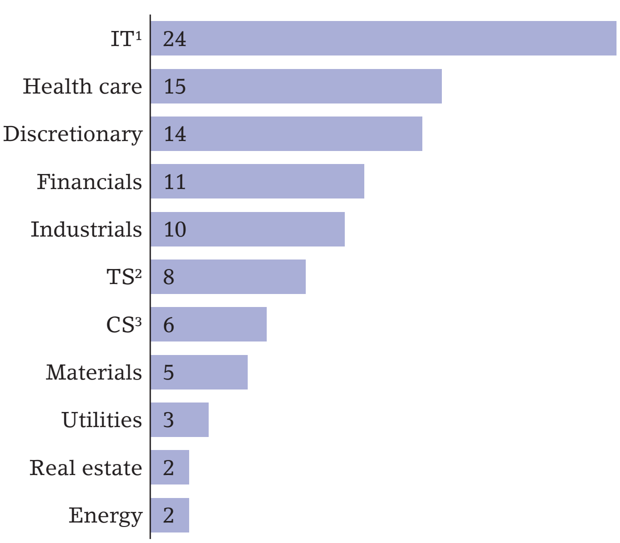
1 Information technology
2 Telecommunication services
3 Consumer staples

Emerging markets equities, by sector (%)
as at December 31, 2020



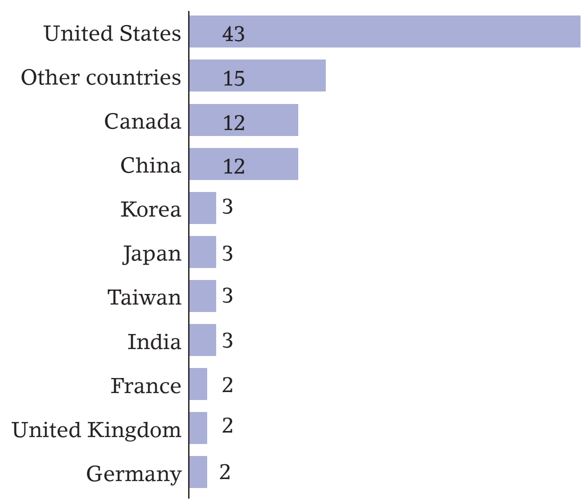
1 Information technology
2 Telecommunication services
3 Consumer staples

Global equities, by sector (%)
as at December 31, 2020

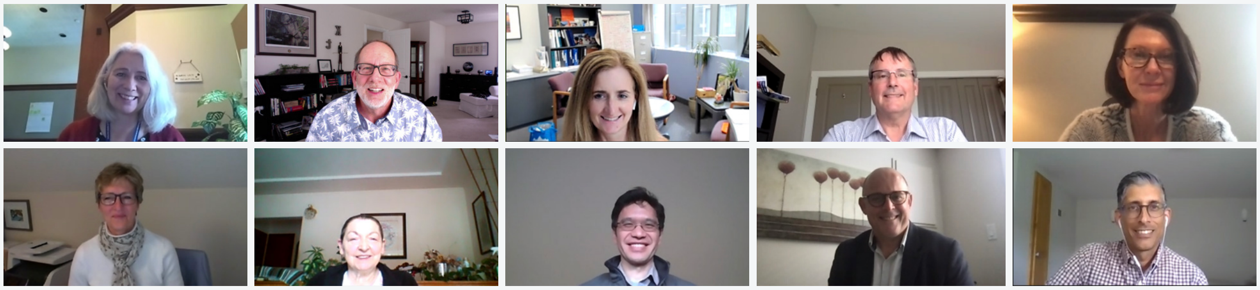


1 Information technology
2 Telecommunication services
3 Consumer staples

Public equities, by country (% of public equity)
as at December 31, 2020



Who we are



Top row, left to right: Hilary Woodward, Ken Tannar (vice-chair), Elizabeth Baverstock, Rob Taylor (chair), Lynda Reeve
Bottom row, left to right: Cheryl Eason, Leslie Roosa, Chung Yan Ip, Brad Underwood, Reg Bawa

The Teachers' Pension Board of Trustees

We are made up of trustees appointed by the employer partner (Province of British Columbia) and the member partner (BC Teachers' Federation). We appoint a board chair and a vice-chair.

Our mission is "To provide retirement income to plan members by effectively and efficiently meeting the pension promise and fulfilling the joint trust placed on us by the Plan Partners."

As part of our responsibilities, we appoint directors to the boards of British Columbia Investment Management Corporation (BCI), which provides investment management services, and British Columbia Pension Corporation, which provides pension administration services.

Meet the trustees

as at December 31, 2020

Rob Taylor, chair

Appointed by: British Columbia Teachers' Federation
Committees: Benefits and communications, executive forum, interplan audit, interplan coordination, interplan investment, interplan trustee education
Appointed in 2015

Ken Tannar, vice-chair

Appointed by: British Columbia Teachers' Federation
Boards: BCI Board of Directors
Committees: Benefits and communications, executive forum, governance, interplan coordination, interplan investment, interplan trustee education
Appointed in 2008

Elizabeth Baverstock
Appointed by: British Columbia Teachers' Federation
Boards: BC Pension Corporation Board of Directors
Committees: Benefits and communications
Appointed in 2018

Reg Bawa
Appointed by: Province of British Columbia
Committees: Governance
Appointed in 2010

Cheryl Eason
Appointed by: Province of British Columbia
Committees: Governance, interplan investment
Appointed in 2018

Chung Yan Ip
Appointed by: British Columbia Teachers' Federation
Committees: Benefits and communications (chair), governance
Appointed in 2011

Lynda Reeve
Appointed by: Province of British Columbia
Appointed in 2020

Leslie Roosa
Appointed by: British Columbia Teachers' Federation
Committees: Benefits and communications, governance
Appointed in 2019

Brad Underwood
Appointed by: Province of British Columbia
Boards: BC Pension Corporation Board of Directors
Committees: Benefits and communications, governance (chair)
Appointed in 2011

Hilary Woodward
Appointed by: Province of British Columbia
Committees: Interplan audit (vice-chair)
Appointed in 2019

Trustee remuneration

The plan compensates trustees or their employers for time spent on board business. Guidelines and rates are set out in the board's remuneration policy. Under the policy, remuneration may be adjusted annually by an amount equal to the cost-of-living adjustment made to pension payments.

Trustee remuneration
year ended December 31, 2020

Board member	Meeting days	Per diem	Annual stipend	Chair and vice-chair remuneration	Total payments	Paid to
Rob Taylor (chair)	51.0	$21,718.00	$4,260.00	$4,260.00	$30,238.00	Board member
Ken Tannar (vice-chair)	36.0	15,320.00	4,260.00	2,130.00	21,710.00	Board member
Elizabeth Baverstock	14.5	6,177.00	4,260.00		10,437.00	Richmond Teachers' Association
Reg Bawa	13.0	5,538.00	4,260.00		9,798.00	Minister of Finance
Cheryl Eason	16.0	6,808.00	4,260.00		11,068.00	Royal Roads University
Chung Yan Ip	20.0	8,512.00	—		8,512.00	BC Teachers' Federation
	—	—	4,260.00		4,260.00	Board member
Wayne Jefferson	1.0	418.00	—		418.00	Board member
Lynda Reeve	13.0	5,538.00	—		5,538.00	Surrey School District
	—	—	4,260.00		4,260.00	Board member
Leslie Roosa	20.0	8,520.00	—		8,520.00	BC Teachers' Federation
	—	—	4,260.00		4,260.00	Board member
Brad Underwood	21.0	8,938.00	4,260.00		13,198.00	Public Sector Employers' Council Secretariat
Hilary Woodward	13.5	5,751.00	4,260.00		10,011.00	Legislative Assembly of British Columbia
Total		**$56,200.00**	**$34,080.00**	—	**$90.280.00**	

Trustee activities

During 2020, the board held four meetings, virtually or in person, over eight days. Trustees also participated in standing and ad hoc committees. In-person educational and conference activities were curtailed due to the pandemic.

Teachers' Pension Board of Trustees committees

Benefits and Communications Committee

This committee provides advice and recommendations to the board on benefits and communications issues, and makes decisions under authority delegated by the board. It meets to address the following:

› Post-retirement group benefits
› Plan rule amendments
› Reciprocal transfer agreements
› Communications products, including *Report to Members* for active members, *Pension Life* for retired members and the annual report

This committee met three times in 2020.

Governance Committee

This committee assists the board in fulfilling its governance responsibilities by considering issues that include the following:

› Board policy development and review
› Risk management review
› Board strategic planning mechanisms
› Development of the board's assessment tools
› Succession planning
› Any other item referred by the board

This committee met three times in 2020.

Interplan committees and forums

Interplan committees and forums address issues common to the four BC public sector pension plans: Teachers' Pension Plan, College Pension Plan, Municipal Pension Plan and Public Service Pension Plan. Members are made up of trustees from three or four of these pension plans (some committees do not include the Municipal Pension Plan).

Executive Forum

This forum is designed to share areas of common interest among the Teachers', College, Municipal and Public Service pension plans, and provides an opportunity for plan board chairs, vice-chairs and senior administrators to keep up with the activities of the boards.

The forum met twice in 2020.

Interplan Audit Committee

This committee meets on behalf of the Teachers', College, Municipal and Public Service pension boards of trustees to help provide the following:

› A timely and cost-effective system of accounting and reporting
› Financial statements consistent with Canadian accounting standards for pension plans
› An independent audit of the financial statements
› An annual report with audited financial statements

This committee met four times in 2020, including a special meeting to introduce new trustees to the concepts above.

Interplan Executive Committee

This committee facilitates communication to ensure that the Teachers', College and Public Service pension boards of trustees meet their common governance and operational requirements. Additionally, it oversees the operation of the Pension Board Secretariat.

This committee met four times in 2020.

Interplan Investment Committee

This committee examines investment issues common to the Teachers', College and Public Service pension boards of trustees. It makes recommendations to each board on generic investment policy and procedure statements, and on investment issues identified by a board, BCI or the committee itself. It considers the following:

› Investment industry trends
› Regulatory and legal developments
› Responsible investing issues
› Asset class reviews
› Updates on capital markets
› New investment products

This committee met four times in 2020.

Interplan Trustee Education Committee

This committee allows the Teachers', College, Municipal and Public Service pension boards of trustees to develop trustee knowledge and skills, work together on common educational issues and provide information on trends in a variety of jurisdictions (e.g., benefits, pensions, investments). This group organizes the annual BC Public Sector Pension Conference (cancelled in 2020 due to the COVID-19 pandemic).

This committee met three times in 2020.

Agents and service providers

British Columbia Investment Management Corporation (BCI)
BCI provides investment management services to the plan. As a global investor supported by industry-leading investment expertise and one of Canada's largest investment managers, BCI offers fund management services for all major asset classes, including real estate and infrastructure investments. It manages more than $170 billion in net assets on behalf of public sector pension plans, the Province of British Columbia, publicly administered trust funds and public bodies.

British Columbia Pension Corporation
The corporation provides professional pension services to the board. One of Canada's largest pension service providers, the corporation serves the largest public sector pension plans in British Columbia, representing more than 640,000 members and their employers. Services include providing plan information to members and employers, managing contributions and member records, paying pensions, and providing policy, financial and communication services to the board.

Eckler Ltd.
Eckler is the plan's independent actuary. It conducts an actuarial valuation on the plan's funding every three years and supports the board in its decision making as appropriate. The results of the next valuation, as at December 31, 2020, will be published in the last quarter of 2021.

Green Shield Canada
Green Shield Canada provides retired plan members' access to voluntary group extended health care and dental coverage.

KPMG LLP
KPMG provides external audit services to the plan.

Lawson Lundell LLP
Lawson Lundell is the plan's legal counsel.

Pension Board Secretariat
Pension Board Secretariat, a branch within BC Pension Corporation, provides day-to-day professional and operational support to help the board meet its governance and fiduciary obligations.

Willis Towers Watson
Willis Towers Watson is the plan's benefits advisor.

Plan details

How the plan works

The foundation of member pensions: contributions
Members and employers both make contributions to the Teachers' Pension Plan.

Contributions are automatically deducted from member pay and sent directly to the plan along with employer contributions.

Contributions are based on a percentage of salary (shown below, effective since January 1, 2019):

- Members contribute 11.17 per cent of salary
- Employers contribute 11.30 per cent of salary

An independent actuary regularly monitors the plan's financial health. If the actuary finds that contributions are insufficient, they will recommend increased contributions.

When the member and employer contributions are received by the plan, they are pooled and invested.

Investments: building on the foundation
British Columbia Investment Management Corporation (BCI), the plan's investment management agent, determines how best to invest the plan's assets within guidelines determined by the plan's board of trustees. These guidelines include environmental, social and governance factors.

BCI's fees (about 0.4 per cent of net assets) are among the lowest in the pension industry and help maximize the amount of money going toward pensions.

Over time, long-term investments form the basis of the plan's financial health, making up the largest portion of the money needed to pay pensions. About 75 per cent of a member's pension is generated from investments.

Time to retire: calculating the pension
The plan provides members a defined benefit pension calculated based on:

- Years of pensionable service
- The average of the member's five highest years of salary (not necessarily the last five years)

The monthly pension payment the member receives also depends on factors that include:

- The member's age at retirement
- The pension option they choose on retirement

Members receive a pension for their lifetime.

In retirement: COLAs and extended health care and dental coverage
Once retired, members may receive non-guaranteed cost-of-living adjustments (COLAs). Once granted, each year's COLA becomes part of the basic lifetime pension, and bridge benefits and temporary annuities, if applicable.

Retired plan members also have access to unsubsidized extended health care and dental coverage.

Why the plan is valuable

Beyond providing 100,000 education professionals a secure, predictable lifetime retirement income now and in the future, the plan is valuable to members and employers for many other reasons.

An impressive return on contributions
The average retired member receives far more in pension payments than they contribute (interest included) during their teaching career.

Protection for loved ones
Depending on the pension option chosen, a pension may continue to the member's spouse or beneficiaries after the member dies.

Portability
Members can move seamlessly between any of the employers in the plan with no effect on their pension. They may also have the opportunity to transfer service into and out of pension plans in other Canadian jurisdictions.

Ability to increase the pension
When a member goes on an approved leave of absence, they can buy the leave, meaning they can increase their pension, which may allow them to retire earlier.

A strong recruitment and retention tool
By offering a defined benefit pension, plan employers have a powerful tool to recruit new teachers; the employer becomes an employer of choice.

Intergenerational fairness
Member lifetime pensions are pre-funded; the plan is designed fairly to ensure each generation pays in advance for its own benefits.

Tables, charts and graphs

Average and median value of pensions in pay[1]
as at December 31, 2020

Number of pensions	39,803
Average value[2]	$31,857
Median value[3]	$31,944

1 Includes bridge benefit for those receiving the pension before age 65
2 The average value reflects the total value of all pensions paid by the plan divided by the total number of recipients in the plan
3 The median value denotes the halfway point: half of the pensions paid by the plan are greater than this amount and half are smaller

Contribution rates as a percentage of salary
effective since January 1, 2019

Flat rate on all salary	
Member	11.17
Employer	11.30
Total	22.47

Pensions 2011–2020
year ended December 31

	New pensions during year	Pension terminations	In force at end of year	Basic pensions paid ($ millions)	Inflation supplements paid ($ millions)	Total pensions paid ($ millions)
2020	**1,258**	**601**	**39,803**	**$ 1,014.3**	**$ 239.8**	**$ 1,254.1**
2019	1,290	609	39,146	991.9	224.6	1,216.5
2018	1,333	438	38,465	969.9	206.0	1,175.9
2017	1,586	526	37,570	938.9	194.9	1,133.8
2016	1,518	607	36,510	906.2	187.8	1,094.0
2015	1,432	488	35,599	877.4	184.2	1,061.6
2014	1,687	482	34,655	846.7	171.4	1,018.1
2013	1,651	363	33,450	810.9	167.4	978.3
2012	1,544	365	32,162	773.6	162.3	935.9
2011	1,574	412	30,983	739.3	140.9	880.2

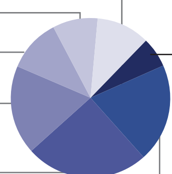
Average value of new pensions[1]
year ended December 31, 2020

Service (years)	Total new pensions	Average annual salary base	Average annual pension	Median annual pension	Average present value	Total present value of new pensions ($ millions)
< 10	133	$67,000	$ 5,500	$ 4,600	$ 98,000	$ 13.0
10 < 15	114	81,000	18,100	17,700	352,000	40.1
15 < 20	137	83,000	26,400	27,400	512,000	70.1
20 < 25	232	85,000	34,800	35,100	703,000	163.1
25 < 30	310	89,000	44,700	45,100	914,000	283.3
30 < 35	257	93,000	54,400	53,600	1,157,000	297.3
≥ 35	75	92,000	54,500	50,900	1,107,000	83.0
Total	**1,258**	**$86,000**	**$36,900**	**$38,300**	**$751,000**	**$949.9**

1 Average value reflects the total value of new pensions granted during the year divided by the total number of recipients—in the case of median pensions, half of retirees receive more than this amount and half receive less; pensions started before age 65 typically include a bridge benefit, which ends at age 65

New pension recipients, by years of service (%)
year ended December 31, 2020

< 10 years	11
10 < 15 years	9
15 < 20 years	11
20 < 25 years	18
25 < 30 years	25
30 < 35 years	20
≥ 35 years	6



New pensions, by age at retirement
year ended December 31, 2020

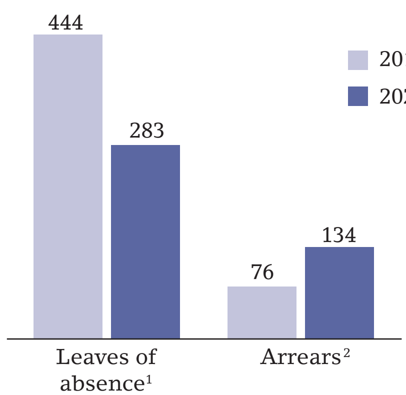
Years of service	< 55	55 < 60	60 < 65	≥ 65	Total
< 10	3	33	39	58	**133**
10 < 15	1	42	33	38	**114**
15 < 20	2	43	64	28	**137**
20 < 25	2	93	86	51	**232**
25 < 30	1	135	130	44	**310**
30 < 35	3	142	86	26	**257**
≥ 35	—	2	29	44	**75**
Total	**12**	**490**	**467**	**289**	**1,258**
Average service	19	24	24	21	**23**
Average age					**61**

New pensions, by type 2011–2020[1]
year ended December 31

	Regular	Limited members[1]	Survivor	Disability	LTD[2] to pension	Deferred	Total
2020	**989**	**28**	**15**	**—**	**83**	**143**	**1,258**
2019	1,033	34	13	—	82	128	1,290
2018	1,080	38	17	—	82	116	1,333
2017	1,317	49	16	—	98	106	1,586
2016	1,256	36	12	—	92	122	1,518
2015	1,148	50	13	1	114	106	1,432
2014	1,421	54	13	—	108	91	1,687
2013	1,334	70	13	—	113	121	1,651
2012	1,278	37	19	1	117	92	1,544
2011	1,389	—	22	1	108	54	1,574

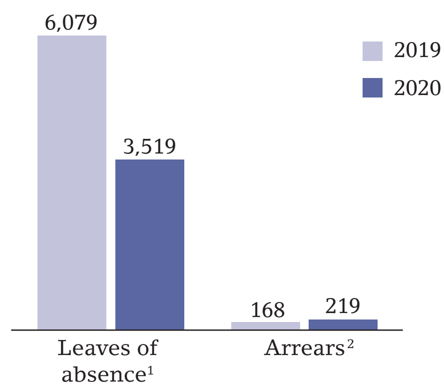
1 Prior to 2012, new limited members were included as part of new regular pensions
2 Long-term disability

Number of purchases of service
year ended December 31



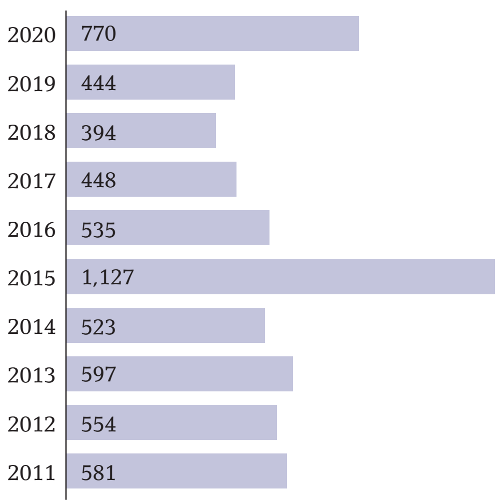
1 A leave of absence is an employer-approved absence from work
2 Arrears occur when contributions should have been made on a member's behalf but were not

Value of purchases of service
($ thousands)
year ended December 31



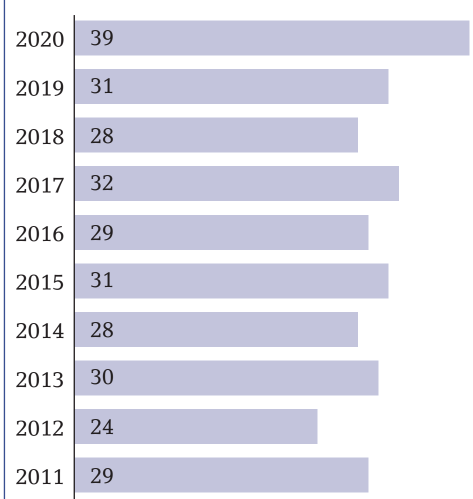
1 A leave of absence is an employer-approved absence from work
2 Arrears occur when contributions should have been made on a member's behalf but were not

Number of termination and refund benefits[1] paid[2]
year ended December 31



1 A member who ends their participation in the plan may, if eligible, choose to receive a refund or termination benefit
2 Includes death benefits paid

Value of termination and refund benefits[1] paid[2] ($ million)
year ended December 31



1 A member who ends their participation in the plan may, if eligible, choose to receive a refund or termination benefit
2 Includes death benefits paid

Plan membership and services

Plan membership is open to the following:

- Members of:
  - BC Principals' and Vice-Principals' Association
  - BC School Superintendents Association
  - BC Teachers' Federation
- Associated professionals appointed by a board of education in BC's public school system
- Eligible employees of employers approved by the board

New employees are immediately enrolled in the plan and cannot opt out.

Member types

Active members

Active members are currently contributing to the plan, receiving benefits from an approved group disability plan or are on an approved leave of absence. There are 49,352 active members in the plan—a 1.7 per cent increase from 2019.

Inactive members

Members in this group have ended their employment with a plan employer but are entitled to receive a benefit from the plan because they have chosen to leave their contributions in the plan. They may return to work for a plan employer, make contributions and accrue additional service. There are 12,451 inactive members in the plan—a 2.4 per cent decrease from 2019.

Retired members

Retired members are those receiving a pension, including a survivor pension. For the purposes of this report, members receiving disability benefits from the plan are also counted in this group. There are 39,803 retired plan members—a 1.7 per cent increase from 2019.

Limited members

Former spouses of plan members fall into this category. Limited members are entitled to a portion of the plan member's pension. A person must apply to become a limited member, whereas enrolment in other membership types is automatic. Limited members are included in the retired members total if they are receiving a pension.

Benefits for members

Basic lifetime pension benefit

The Teachers' Pension Plan is a defined benefit pension plan. Each time a member is paid their salary, both the member and employer contribute to the plan. These contributions are pooled and invested so that members receive a lifetime monthly pension when they retire.

A member's lifetime monthly pension will be based on a specific formula that includes:

› Years of pensionable service
› The average of the member's five highest years of salary (not necessarily the last five years)

After a member dies, depending on the pension option they chose at retirement, the plan may continue to pay:

› A pension to the member's spouse (if the member has one)
› Pension benefits to other beneficiaries
› A lump-sum payment to the member's estate or an organization the member has named as their beneficiary

Once a member has made their first contribution to the plan, they can receive a pension at their earliest retirement age.

Bridge benefit

Members who retire before age 65 may receive a temporary monthly payment called a bridge benefit. The bridge benefit is earned on pensionable service accumulated in the plan up to and including December 31, 2017.

This benefit is designed to bridge the gap between early retirement income and income after the member turns 65, which may also include Canada Pension Plan and old age security (OAS). The bridge benefit ends when the member turns 65 or dies, whichever happens first.

Pensionable service earned on or after January 1, 2018, does not add to a member's bridge benefit. Changes to the formula used to calculate pensions converted the bridge benefit to a lifetime pension benefit. This means members will receive a higher lifetime pension, since there is no bridge benefit that will stop at age 65.

Cost-of-living adjustments

Cost-of-living adjustments (COLAs) help retired members' pensions keep pace with increases in the cost of living.

COLAs are granted subject to available funds in the inflation adjustment account (IAA); they are not guaranteed.

Both member and employer contributions, and the investment income on those contributions, fund the IAA.

Once a COLA is granted to retired members, it becomes part of their lifetime pension.

The board is dedicated to ensuring COLAs are sustainable over the long term to equitably support all members—past, present and future.

Traditionally, COLAs have been granted for the full consumer price index (CPI) increase each year. However, the board may grant a COLA that is lower than the CPI increase.

COLAs add up over time. For example, if a member started receiving an annual pension of $25,000 in 2001, their annual pension in 2021 would be $35,654 as a result of COLAs approved by the board.

Access to post-retirement group benefits

The plan provides access to group coverage, including extended health and dental care, to eligible members. Coverage is not guaranteed. This means the board may change coverage at any time.

Temporary annuities

If a member retires before age 65, they may choose a temporary annuity to top up their pension. A temporary annuity increases a member's monthly payment until they reach age 65 or their death, whichever comes first. A temporary annuity reduces a member's lifetime pension after age 65.

There are a few reasons a member may choose a temporary annuity:

› Buying a temporary annuity may help members meet the initial expenses of retirement, such as paying off a mortgage
› For those with significant taxable assets such as RRSPs, a temporary annuity can help lower income after age 65 and therefore reduce tax on income

Members must remember:

› A temporary annuity reduces lifetime pensions. The younger the member is when they retire, the bigger the impact on their pension after age 65.

- A reduced lifetime pension might have a significant impact on a member's spouse or dependants.
- The temporary annuity amount is based on the maximum OAS benefit. Amounts may change from year to year to reflect fluctuations in the OAS, but payments will remain stable from the member's retirement date onwards.

Termination and refund benefits

A member who leaves the plan but has not yet reached the earliest retirement age may choose to do one of the following:

- Defer their pension. A member can keep their pension contributions with the plan until their earliest retirement age or later. With a deferred pension, members may receive inflation adjustments and access to group extended health care and dental coverage. Although these benefits are not guaranteed, members may be able to take advantage of them when they eventually apply for their pension.
- Transfer the commuted value of their pension to a locked-in retirement vehicle, such as a registered pension plan or a life income fund. The commuted value is the amount of money that would need to be set aside to pay for the member's future pension when they retire.

A member who leaves the plan and has reached the earliest retirement age may choose to take an immediate pension (which may be reduced) at any time. A member who leaves the plan with enough service to receive an unreduced pension will see no financial benefit to leaving their money with the plan.

Service purchases

Members may be able to increase their future pension by buying service—which means paying for periods of employment not already counted as service with the plan.

Examples include:

- Leaves of absence (such as pregnancy, parental, COVID-19-related leaves and general leaves)
- Arrears contributions (occurring if a member was not enrolled properly or if their contributions were not deducted and remitted)
- Non-contributory service (employment service with a plan employer from before an employee became a member)

Depending on the type of service they choose to buy, members may be responsible for paying both the employee and employer portions, or just the employee portion. For more information on buying service, visit the plan website.

Services and communications

Plan website and My Account
The plan website is an excellent source of pension plan information, providing the resources and tools members need to make the most of their plan.

Members can sign in to My Account on the plan website for instant access to their personal pension information. My Account offers members personalized pension and purchase cost estimators to help with their planning, service and salary summaries, the ability to update their beneficiary information, and the ability to apply for their pension online once they are ready to retire. Members can now opt in to paper-free communications through My Account. This option will allow them to receive important notifications and pension information online.

Message Centre in My Account is a secure channel for sending and receiving personal messages and attachments online. It's a convenient, safe way of keeping online pension interactions in one place.

Member services
Some aspects of pensions and retirement planning are complicated. In cases where members need more personalized support, the plan has skilled staff available through Message Centre, email and phone to assist with specific issues like marital breakdowns, the death of a spouse, retirement planning questions, employment transfers and more.

Member education
Educational resources for plan members include the online introduction *Getting to Know Your Pension* and two online (or instructor-led) workshops: *Making the Most of Your Pension* and *Approaching Retirement.* Designed to help educate members at all career stages, these workshops make important information available to members at their convenience.

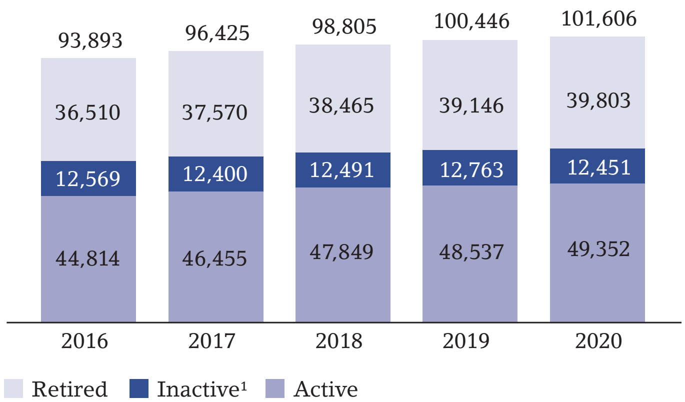
Employers

The following are the plan employers:

- School districts, including the Conseil scolaire francophone de la Colombie-Britannique
- BC Principals' and Vice-Principals' Association
- BC Public School Employers' Association
- BC School Superintendents Association
- BC Teachers' Federation
- Teacher Qualification Service (BC)

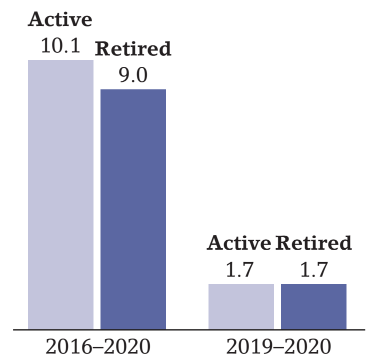
Tables, charts and graphs

Number of members
as at December 31



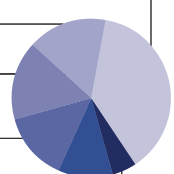
1 Members no longer employed with a plan employer but with money in the plan

Membership growth, active versus retired (%)



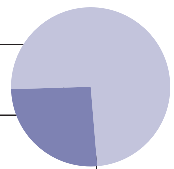
Active members, by age
as at December 31, 2020

< 40 years	18,868	38%
40 < 45 years	7,706	16%
45 < 50 years	7,752	16%
50 < 55 years	7,084	14%
55 < 60 years	5,262	11%
≥ 60 years	2,680	5%



Active members, by gender
as at December 31, 2020

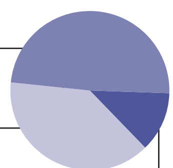
Female	36,684	74%
Male	12,666	26%
X[1]	2	<1%
Total	**49,352**	



1 People who do not identify as female or male

Membership profile
as at December 31, 2020

Active	49,352	49%
Retired	39,803	39%
Inactive[1]	12,451	12%
Total	**101,606**	



1 Members no longer employed by a plan employer but with money in the plan

Plan rule changes

New option for buying service

[Effective May 1, 2020]

The plan rules have been amended to allow members to make pension contributions during an approved leave of absence under the *Employment Standards Act* (ESA). Members can now either make pension contributions during their ESA leave or buy back service in a lump sum after the leave.

New leave types

[Effective March 23, 2020]

The ESA was amended to allow leaves for personal illness or injury and for COVID-19-related reasons (needing to quarantine in accordance with public health orders, child care responsibilities or being diagnosed with COVID-19, for example). If a member takes a COVID-19-related leave for any of the prescribed reasons, the member can buy the service for that time. The member and employer will share the cost.

Medical Services Plan administrative update

[Effective January 1, 2020]

The post-retirement group benefit rules were amended to remove references to the Medical Services Plan.

Financial statements

June 14, 2021

Re: Teachers' Pension Plan

Administrative agent's responsibility for financial reporting

The financial statements of the Teachers' Pension Plan were prepared by British Columbia Pension Corporation, the administrative agent for the Teachers' Pension Board of Trustees in accordance with Canadian accounting standards for pension plans. The Board is responsible for approving the Plan's financial statements. The Board is assisted by the Interplan Audit Committee, which is made up of representatives from the Public Service, Municipal, Teachers' and College pension boards of trustees. As part of its responsibility, the Committee reviews the financial statements, and performs steps and procedures, as necessary, prior to recommending them to the Board for approval.

Pension Corporation prepares the financial statements and is responsible for the integrity and fairness of the data presented, including significant accounting judgments and estimates. This responsibility includes selecting appropriate accounting policies consistent with Canadian accounting standards for pension plans. In discharging its responsibility, Pension Corporation maintains a system of internal controls designed to provide reasonable assurance that transactions are properly authorized, reliable financial records are maintained, and assets are adequately safeguarded, ensuring the fair presentation of the financial statements. Pension Corporation has assessed that the Plan will continue as a going concern, and ensured that other financial information contained in the Teachers' Pension Plan *Annual Report* is consistent with these financial statements.

The Board appointed KPMG LLP as the independent auditor to the Plan. The role of the auditor is to perform an independent audit of the financial statements of the Plan in accordance with Canadian generally accepted auditing standards. The resulting audit opinion is set out in the independent auditors' report attached to these financial statements.

Trevor Fedyna, CPA, CGA, C. Dir.

Vice-president, Strategy, Insights
and Chief Financial Officer
British Columbia Pension Corporation

Allan Chen, CPA, CA

Controller, Financial Services
British Columbia Pension Corporation

Executive Offices

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Fax (604) 691-3031

INDEPENDENT AUDITORS' REPORT

To the Members of the Teachers' Pension Plan

Opinion

We have audited the financial statements of the Teachers' Pension Plan (the "Plan"), which comprise:

- the statement of financial position as at December 31, 2020
- the statement of changes in net assets available for benefits for the year then ended
- the statement of changes in accrued pension obligations for the year then ended
- and notes to the financial statements, including a summary of significant accounting policies.

(hereinafter referred to as the "financial statements").

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Plan as at December 31, 2020, and the changes in its net assets available for benefits and the changes in its accrued pension obligations for the year then ended in accordance with Canadian accounting standards for pension plans.

Basis for Opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the "***Auditors' Responsibilities for the Audit of the Financial Statements***" section of our auditors' report.

We are independent of the Plan in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada and we have fulfilled our other ethical responsibilities in accordance with these requirements.

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

Responsibilities of Management and Those Charged with Governance for the Financial Statements

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

In preparing the financial statements, management is responsible for assessing the Plan's ability to continue as a going concern, disclosing as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Plan or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Plan's financial reporting process.

Other Information

Management is responsible for the other information. Other information comprises the information, other than the financial statements and the auditors' report thereon, included in the annual report.

Our opinion on the financial statements does not cover the other information and we do not and will not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit and remain alert for indications that the other information appears to be materially misstated.

We obtained the information, other than the financial statements and the auditors' report thereon, included in the annual report as at the date of this auditors' report.

If, based on the work we have performed on this other information, we conclude that there is a material misstatement of this other information, we are required to report that fact in the auditors' report.

We have nothing to report in this regard.

Auditors' Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit.

We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion.

  The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Plan's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Plan's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Plan to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.

- Communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

KPMG LLP

Chartered Professional Accountants

Vancouver, Canada
June 23, 2021

TEACHERS' PENSION PLAN

Statement of financial position

($ millions)

As at December 31	Note	2020	2019
Assets			
Investments	3a	$ **34,091**	$ 31,525
Directly held derivatives	3b	**213**	73
Contributions receivable		**30**	45
Interest receivable		**5**	-
Due from sale of investments		-	7
Total assets		**34,339**	31,650
Liabilities			
Directly held derivatives	3b	**38**	14
Taxes payable		**14**	14
Accounts payable and accrued expenses		**5**	1
Payable for purchase of investments		-	119
Total liabilities		**57**	148
Net assets available for benefits		**$ 34,282**	**$ 31,502**
Accrued pension obligations			
Accrued basic pension obligations	4a	$ **22,317**	$ 21,516
Non-guaranteed pension obligations	4b	**6,486**	5,918
Accrued pension obligations		**28,803**	27,434
Surplus			
Funding surplus	5a	**1,863**	1,274
Measurement differences between funding and accounting positions	5a	**3,616**	2,794
Surplus		**5,479**	4,068
Accrued pension obligations and surplus		**$ 34,282**	**$ 31,502**

All accompanying notes are an integral part of the financial statements including:

Commitments (note 14)

Subsequent event (note 16)

Approved by the Teachers' Pension Board of Trustees:

Rob Taylor, Chair
Teachers' Pension Board of Trustees

Reg Bawa, Vice-chair
Teachers' Pension Board of Trustees

Hilary Woodward, Trustee
Teachers' Pension Board of Trustees

TEACHERS' PENSION PLAN

Statement of changes in net assets available for benefits

($ millions)

For the year ended December 31	Note	Basic account	Inflation adjustment account	Supplemental benefits account	Totals 2020	2019
Increase in assets						
Investment income	8	$ 2,776	$ 616	$ -	**$ 3,392**	$ 3,712
Contributions						
Member	9	281	103	-	**384**	365
Employer	9	279	107	1	**387**	368
		560	210	1	**771**	733
Transfers from other plans		9	2		**11**	6
Total increase in assets		3,345	828	1	**4,174**	4,451
Decrease in assets						
Benefits	10	1,287	5	1	**1,293**	1,248
Transfers to other plans		5	1	-	**6**	3
Investment and administration costs	11	80	15	-	**95**	64
Total decrease in assets		1,372	21	1	**1,394**	1,315
Increase in net assets before transfers		**1,973**	**807**	-	**2,780**	**3,136**
Account transfers	12	239	(239)		**-**	-
Increase in net assets		**$ 2,212**	**$ 568**	**$ -**	**$ 2,780**	**$ 3,136**
Net assets available for benefits at beginning of year		$ 25,584	$ 5,918	$ -	**$ 31,502**	$ 28,366
Net assets available for benefits at end of year		**$ 27,796**	**$ 6,486**	**$ -**	**$ 34,282**	**$ 31,502**

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

TEACHERS' PENSION PLAN

Statement of changes in accrued pension obligations

($ millions)

For the year ended December 31	Note	2020	2019
Increase in accrued pension obligations			
Interest on accrued pension obligations		$ **1,284**	$ 1,238
Benefits accrued		**585**	553
Account transfers		**239**	269
Total increase in accrued pension obligations		**2,108**	2,060
Decrease in accrued pension obligations			
Benefits paid		**1,307**	1,260
Total decrease in accrued pension obligations		**1,307**	1,260
Net increase in accrued pension obligations		**801**	800
Accrued basic pension obligations at beginning of year		**21,516**	20,716
Accrued basic pension obligations at end of year	4a	**22,317**	21,516
Increase in non-guaranteed pension obligations	4b	**568**	597
Non-guaranteed pension obligations at beginning of year		**5,918**	5,321
Non-guaranteed pension obligations at end of year	4b	**6,486**	5,918
Total accrued pension obligations		**$ 28,803**	**$ 27,434**

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

TEACHERS' PENSION PLAN

Notes to the financial statements for the year ended December 31, 2020

($ millions except as otherwise noted)

1. DESCRIPTION OF THE TEACHERS' PENSION PLAN

The following description of the Teachers' Pension Plan (Plan) is a summary provided for general information only. For more information, please refer to the Joint Trust Agreement (Agreement) and the Teachers' Pension Plan Rules (pension plan rules).

a) General

The Plan is a jointly trusteed pension plan continued under a joint trust agreement authorized by the *Public Sector Pension Plans Act*, SBC 1999, c. 44 (Act). The Act enabled the establishment of the Agreement. Joint trusteeship was established effective April 5, 2001. The partners to the Agreement are the Provincial Government and the B.C. Teachers' Federation (Partners). The Agreement describes the composition, appointment, powers, functions and duties of the Teachers' Pension Board of Trustees (Board) and provides the authority for the Board to make the pension plan rules.

The Plan is registered with the Superintendent of Pensions, who administers and enforces the *Pension Benefits Standards Act* (PBSA). The PBSA governs employment pension plans registered in British Columbia that have active, inactive and retired members.

Membership in the Plan is mandatory for all certified teachers (including teachers teaching-on-call), principals, vice-principals, superintendents, assistant superintendents, directors of instruction, associated professionals and certified professionals who are appointed by a board of education in the British Columbia public school system.

b) Roles and responsibilities

Partners

The Partners representing the plan members and employers are responsible for appointing 10 trustees to the Board. The Partners have responsibility for resolving trustee disputes and, if certain conditions are met, may direct amendments to the pension plan rules.

Board

The Board is responsible for the management of the Plan, including the investment of assets and administration of the Plan. The Board may amend the pension plan rules as long as changes can be funded by the Plan's surpluses or are cost-neutral to the Plan (subject to transitional funding provisions in note 5a). Unless required to ensure compliance with regulatory enactments applicable to the Plan, only the Partners can initiate pension plan rule changes that result in contribution rate increases. The Chair and Vice-chair are appointed by the trustees.

British Columbia Pension Corporation (Pension Corporation)

Pension Corporation provides benefit administration services as an agent of the Board. The Board appoints two members to the eight-member board of directors of Pension Corporation.

British Columbia Investment Management Corporation (BCI)

BCI provides investment management services, including the valuation of investments, as an agent of the Board. The Board appoints one member to the seven-member board of directors of BCI.

TEACHERS' PENSION PLAN

Notes to the financial statements for the year ended December 31, 2020

($ millions except as otherwise noted)

1. DESCRIPTION OF THE TEACHERS' PENSION PLAN (CONTINUED)

c) Funding

Contributions and investment earnings fund plan benefits. Contributions are made by active members and employers of the Plan. The determination of the value of the benefits and required contributions is based on triennial actuarial valuations for funding purposes.

The Board's funding policy is intended to secure the pension benefit obligation and achieve long-term stability in contribution rates for both employers and members.

d) Contributions

Basic Account

Members contributed 8.17% of salaries and employers contributed 8.17% of salaries, less amounts allocated to the Supplemental Benefits Account (SBA).

Inflation Adjustment Account

Members contributed 3.00% of salaries to the Inflation Adjustment Account (IAA). Employers contributed 3.13% of salaries to the IAA, less amounts allocated to the SBA.

e) Pension benefits

All members are eligible for a pension benefit.

For service on or after January 1, 2018, the Plan provides a defined basic plan benefit of 1.85% of pensionable earnings for each year of pensionable service with no maximum. The defined basic plan benefit increased to 1.90% effective January 1, 2019. From January 1, 2018, onward, the increased rate applies to all service, but only for members who remain active on or after January 1, 2019.

Members are eligible for unreduced pension benefits

- at age 65;
- at age 61, with at least two years contributory service; or
- at age 55 or older, with at least 35 years of contributory service.

The early retirement reduction applicable for service accrued after 2017 is 4.5% for each year where members do not meet the unreduced pension benefit criteria above.

Effective January 1, 2019, the default normal form of the pension changed from single-life no guarantee to single-life 10-year guarantee, but only for members who remain active on or after January 1, 2019.

Future cost-of-living adjustments are not guaranteed. These adjustments are granted at the discretion of the Board and may not exceed the annual increase in the Canada consumer price index as at the previous September 30, subject to the availability of funds in the IAA. Any cost-of-living adjustment the Board grants is applied in January. The Board annually considers relevant factors to determine if an adjustment will be granted.

TEACHERS' PENSION PLAN

Notes to the financial statements for the year ended December 31, 2020

($ millions except as otherwise noted)

1. DESCRIPTION OF THE TEACHERS' PENSION PLAN (CONTINUED)

f) Termination and portability benefits

Terminating members who have not yet reached the earliest retirement age, may choose

- a deferred pension, or
- a transfer of the commuted value of the pension benefit (the minimum value is the member's contributions with interest) to a locked-in retirement vehicle or similar tax-sheltered plan.

Terminating members may also choose to leave their benefit on deposit in anticipation of future re-employment with a plan employer.

Where there are portability arrangements between the Plan and other pension plans, members may be able to transfer service to another pension plan.

g) Other benefits

Disability and survivor benefits are also available under the Plan. A disability benefit is available to a member under age 61 who has terminated employment, becomes totally and permanently disabled as defined by the Plan, has at least two years of contributory service, is not eligible to receive benefits from an approved long-term group disability plan and meets other eligibility requirements.

The disability benefit is calculated using a member's years of pensionable service to the date of termination of employment and highest average salary. Disability benefits continue for the member's lifetime unless the member is no longer totally and permanently disabled before age 61 (since January 1, 2018) or returns to work.

A death benefit may be available to a surviving spouse or designated beneficiary upon the death of an active member. Depending on eligibility requirements, the benefit may be paid in the form of a survivor pension or lump-sum payment.

h) Tax registration

The Plan is a Registered Pension Plan (RPP) as defined in the *Income Tax Act* (Canada) (registration number 0227462), except for any supplemental benefits, which are funded in addition to the RPP. The Plan is not subject to income tax but is subject to indirect taxes, including British Columbia provincial sales tax (PST) and Canadian federal goods and services tax (GST). The Plan receives a 33% rebate of GST paid.

TEACHERS' PENSION PLAN

Notes to the financial statements for the year ended December 31, 2020

($ millions except as otherwise noted)

2. SIGNIFICANT ACCOUNTING POLICIES

a) Basis of presentation

These financial statements are prepared on the going-concern basis in accordance with Canadian accounting standards for pension plans, Part IV of the *Chartered Professional Accountants of Canada Handbook* (CPA Canada Handbook), and present the Plan as a separate financial reporting entity, independent of the Plan's contributing employers and members, and independent of any associated retired member group benefit plans.

Accounting standards for private enterprises in Part II of the CPA Canada Handbook have been chosen for accounting policies that do not relate to the Plan's investment portfolio or accrued pension obligations.

b) Investments

Investments are stated at fair value. Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

Investment purchases and sales are recorded on the trade date (the date upon which the substantial risks and rewards of ownership have been transferred).

c) Accrued pension obligations

Accrued pension obligations are determined based on an actuarial valuation prepared by an independent actuarial consulting firm. The Plan actuary is Eckler Ltd. The valuation of accrued pension obligations is based on data extrapolated to the financial statement date. The valuation uses the projected benefit method pro-rated on service that incorporates the independent actuary's estimate of various economic and demographic assumptions. These assumptions are the same as those used in the determination of the actuarial position of the Plan for funding purposes.

d) Investment income

Income from investments is recorded on the accrual basis and represents pooled investment portfolio income attributable to the Plan as a unit holder and income from directly held investments. The current period change in fair value includes realized and unrealized gains and losses that are included in investment income.

Within the pools, dividends are accrued on the ex-dividend date and interest is recognized on an accrual basis. Gains and losses on derivative contracts are recognized concurrently with changes in their fair values.

e) Foreign currency translation

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

TEACHERS' PENSION PLAN

Notes to the financial statements for the year ended December 31, 2020

($ millions except as otherwise noted)

2. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

f) Use of estimates

The preparation of financial statements, in conformity with Canadian accounting standards for pension plans, requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of increases and decreases in assets and liabilities during the period. Significant areas requiring the use of management estimates relate to the valuation of investments based on unobservable inputs, as further described in note 7, and the calculation of the accrued pension obligations of the Basic Account for accounting and funding purposes as further described in notes 4 and 5. Actual results could differ materially from these estimates.

3. INVESTMENTS

a) Investments

Fair value of investment holdings			2020			2019
	Basic account	Inflation adjustment account	Total	Basic account	Inflation adjustment account	Total
Short-term	$ 621	$ 139	$ 760	$ 921	$ 210	$ 1,131
Bonds	6,084	1,361	7,445	3,927	894	4,821
Canadian equities	1,129	252	1,381	1,382	315	1,697
Global equities	5,962	1,334	7,296	6,625	1,510	8,135
Emerging markets equities	2,209	495	2,704	2,566	584	3,150
Mortgages	921	206	1,127	828	189	1,017
Real estate	4,056	907	4,963	3,848	877	4,725
Private equity	3,733	835	4,568	2,746	626	3,372
IRR*	3,144	703	3,847	2,832	645	3,477
	$ 27,859	$ 6,232	$ 34,091	$ 25,675	$ 5,850	$ 31,525

* Infrastructure and renewable resources

Plan investments consist primarily of direct ownership in units of pooled investment portfolios. Each unit gives its holder a proportionate share in the value of the net assets of the pooled investment fund. The Basic and IAA accounts are combined for investment management purposes.

One or more pooled investment portfolios exist for different types of investments, such as short-term investments; bonds; Canadian, global and emerging markets equities; mortgages; real estate; private equity; and infrastructure and renewable resources. While the purpose of each fund is to invest in a particular type of investment, at any time, given the timing of trading activities, the fund may hold a certain amount of cash, short-term investments, accrued interest income and net accounts receivable or payable from outstanding sales and purchases of investments.

TEACHERS' PENSION PLAN

Notes to the financial statements for the year ended December 31, 2020

($ millions except as otherwise noted)

3. INVESTMENTS (CONTINUED)

a) Investments (continued)

Short-term investments consist of Canadian and U.S. money market securities such as treasury bills with maturities of 15 months or less, and short-term bonds with one-year to five-year terms. Short-term investments are valued using current market yields.

Bonds consist of government bonds, investment grade and non-investment grade corporate bonds, and debentures. Bonds are valued based on current market yields and, in some cases, quoted market prices. Equities consist primarily of publicly traded shares and are valued based on quoted market prices on the primary exchanges on which they are traded.

Mortgages consist mainly of Canadian construction, commercial and multi-family residential mortgages. The mortgages are secured by real estate and valued using current market yields. Real estate investments consist mainly of diversified Canadian and U.S. income-producing properties. Real estate investments are valued quarterly by external investment managers and, at least once every 10 to 18 months, by accredited independent appraisers to establish current market values.

Private equity consists mainly of equity investments made outside the structure of public markets. Private equity is valued annually based on audited financial statements from external investment managers using a discounted cash flow approach or net asset value method.

Infrastructure and renewable resources consist of privately owned and managed infrastructure assets, as well as timber, agriculture and other renewable assets. Infrastructure and renewable resources investments are valued annually using a discounted cash flow approach or net asset value method.

TEACHERS' PENSION PLAN

Notes to the financial statements for the year ended December 31, 2020

($ millions except as otherwise noted)

3. INVESTMENTS (CONTINUED)

b) Derivatives

Derivatives contracts are directly and indirectly held by the Plan. The details of these contracts are as follows:

Fair value of derivative contracts	2020		2019	
	Positive fair value	Negative fair value	Positive fair value	Negative fair value
Directly held				
Foreign currency forwards	$ 213	$ (38)	$ 73	$ (14)
	$ 213	**$ (38)**	**$ 73**	**$ (14)**
Indirectly held in pooled investment portfolios				
Foreign currency forwards	$ 50	$ (8)	$ 8	$ (1)
Futures	-	-	1	-
Options	-	-	9	(9)
Interest rate swaps	-	(21)	6	(7)
Total return swaps	256	(56)	242	(40)
	306	**(85)**	**266**	**(57)**
Total derivatives	**$ 519**	**$ (123)**	**$ 339**	**$ (71)**
Derivatives by investment asset classification				
Bonds	$ 91	$ (9)	$ 18	$ (1)
Canadian equities	3	(1)	2	(1)
Global equities	183	(49)	177	(42)
Emerging markets equities	79	(27)	82	(14)
Mortgages	17	-	9	-
Real estate	56	(14)	18	(10)
Private equity	-	-	-	-
IRR*	90	(23)	33	(3)
Total derivatives	**$ 519**	**$ (123)**	**$ 339**	**$ (71)**

*Infrastructure and renewable resources

Derivative contracts consist of foreign currency forward contracts, repurchase agreements, options, futures, interest rate swaps and total return swaps held directly by the Plan or indirectly through various pooled investment portfolios. Directly held and indirectly held derivative contracts are reflected at fair value based on expected settlement amounts at the date of the Statement of Financial Position. Directly held derivatives are disclosed on the face of the Statement of Financial Position while indirectly held derivatives are included in investments.

A foreign currency forward contract is a privately negotiated contractual obligation to exchange one currency for another at a specified price for settlement on a predetermined date in the future. Foreign currency forward contracts are held by the Plan to manage exposure to foreign currency risk.

TEACHERS' PENSION PLAN

Notes to the financial statements for the year ended December 31, 2020

($ millions except as otherwise noted)

3. INVESTMENTS (CONTINUED)

b) Derivatives (continued)

Repurchase agreements (repo) are short-term agreements to sell securities in order to buy them back at a slightly higher price. The one selling the repo is effectively borrowing and the other party is lending, since the lender is credited the implicit interest in the difference in prices. Repos are used in the leveraged bond pool fund to borrow funds and create leverage.

Options are contracts that give the buyer the right, but not the obligation, to buy or sell a certain security or index at an agreed-upon price on or before a specified date. Futures contracts are exchange-traded contractual obligations to take or make delivery of an asset at a predefined price and date in the future. Options and futures are held for synthetic indexing, a modern technique used to replicate the performance of a security or index without directly purchasing or selling the underlying assets and for risk control.

An interest rate swap is an agreement between two counterparties in which one stream of future interest payments is exchanged for another based on a specified principal amount. Interest rate swaps usually involve the exchange of a fixed interest rate for a floating interest rate, or vice versa, to reduce or increase exposure to fluctuations in interest rates or to obtain a marginally better interest rate than would have been possible without the swap.

A total return swap is a swap agreement in which one party makes payments based on a set rate, either fixed or variable, while the other party makes payments based on the return of an underlying asset, including both the income it generates and any capital gains. In total return swaps, the underlying asset (referred to as the reference asset) is usually an equity index or basket of equity securities. Interest rate swaps and total return swaps are held indirectly through various pooled investment portfolios for synthetic indexing purposes.

Derivative transactions are supported with collateral to mitigate counterparty credit risk. A single net fair value amount is used to determine the value of collateral with each counterparty. Collateral approximately equal to the positive fair value of each derivative contract has been provided by counterparties, and collateral approximately equal to the negative fair value of each derivative contract has been delivered to counterparties. Acceptable forms of collateral are Canadian federal or provincial bonds, and U.S. federal government treasury bills and bonds.

The notional value of derivatives is the total value of a position, how much value a position controls, or an agreed upon amount in a contract.

TEACHERS' PENSION PLAN

Notes to the financial statements for the year ended December 31, 2020

($ millions except as otherwise noted)

3. INVESTMENTS (CONTINUED)

b) Derivatives (continued)

Notional value of derivatives			2020	2019
Terms to maturity	**Within 1 year**	**1 to 5 years**	**Total**	**Total**
Derivatives by type of contract				
Foreign currency forwards	$ 7,079	$ -	$ 7,079	$ 4,981
Repurchase agreements	3,253	-	3,253	-
Futures	92	-	92	9
Options	-	-	-	470
Interest rate swaps	246	1,692	1,938	3,030
Total return swaps	7,062	129	7,191	9,458
	$ 17,732	$ 1,821	$ 19,553	$ 17,948
Derivatives by investment asset classification				
Bonds	$ 5,398	$ -	$ 5,398	$ 955
Canadian equities	162	2	164	622
Global equities	5,955	1,361	7,316	9,792
Emerging markets equities	1,547	458	2,005	2,764
Mortgages	547	-	547	516
Real estate	2,043	-	2,043	1,595
Private equity	1	-	1	2
IRR*	2,079	-	2,079	1,702
	$ 17,732	$ 1,821	$ 19,553	$ 17,948

* Infrastructure and renewable resources

4. ACTUARIAL VALUATION OF THE BASIC ACCOUNT FOR ACCOUNTING PURPOSES

a) Basic Account

In accordance with the Agreement and PBSA, an actuarial valuation is performed at least every three years. Its primary objective is to assess the financial position and adequacy of funding for the Basic Account of the Plan as described in note 5a. As part of the actuarial valuation, the Plan actuary also calculates values, for accounting purposes, of the Basic Account assets as at, and pension liabilities accrued to, the financial statement date. For this purpose, contributions and benefits for future service are not included, in contrast to their inclusion in the valuation for funding purposes as described in note 5a. Also, for accounting purposes, the full impact of investment fair value changes is reflected in the financial statements as at the financial statement date compared with the deferral and amortization of fair value gains or losses in the valuation for funding purposes. The liability for accrued basic pension obligations at the valuation date is determined using the projected benefit method pro-rated on service.

TEACHERS' PENSION PLAN

Notes to the financial statements for the year ended December 31, 2020

($ millions except as otherwise noted)

4. ACTUARIAL VALUATION OF THE BASIC ACCOUNT FOR ACCOUNTING PURPOSES (CONTINUED)

a) Basic Account (continued)

The latest full actuarial valuation for accounting purposes was prepared as at December 31, 2017, by Eckler Ltd. This valuation calculated the liability for accrued basic pension obligations for financial statement purposes to be $20,032 (2014:$17,526).

Between valuations, an estimate of the actuarial position is required. This estimate, an extrapolation, has been made to December 31, 2020, using the following long-term actuarial assumptions:

- Annual investment return 6.00%
- Annual salary escalation rate 3.25%

The extrapolation calculated the liability for accrued basic pension obligations to be $22,317 (2019: $21,516).

Extrapolations may not be reliable indicators of the next valuation results, nor do they necessarily reflect the overall trend of results. Between valuations, actual wage increases, investment earnings, and the incidence of retirements, withdrawals and changes in other factors may vary significantly from the long-term assumptions used in the extrapolation. In the event of a major change to the Plan, a new valuation or review of assumptions may be required.

The next full actuarial valuation will be carried out as at December 31, 2020, with the results included in the December 31, 2021, financial statements.

Actuarial liabilities are also affected by changes in the assumed investment return. Based on the actuarial valuation completed as at December 31, 2017, a reduction in the investment return assumption from 6.00% to 5.75% would have increased the December 31, 2020, liability for accrued basic obligations of $22,317 by $658 or 2.95%. Changes to assumptions included in the actuarial valuation are interrelated and the cumulative impact of changed assumptions may be offsetting.

b) Inflation Adjustment Account (IAA), non-guaranteed pension obligations

No unfunded liability exists for the IAA, since the obligation for future cost-of-living adjustments is limited to the amount of the available assets in the account. There is no minimum level of inflation adjustment required to be paid under the pension plan rules, nor is there any Plan provision to fund the IAA to any minimum level of future potential inflation adjustments (note 5b). The non-guaranteed pension obligations is therefore equal to the net assets available for benefits in the IAA, 2020: $6,486 (2019: $5,918). The net increase of $568 (2019: $597) in the IAA balance consists of employee and employer contributions, investment income and net transfers reduced by payments out of the account. (See note 12 for details on amounts transferred.)

TEACHERS' PENSION PLAN

Notes to the financial statements for the year ended December 31, 2020

($ millions except as otherwise noted)

5. ACTUARIAL VALUATION OF THE BASIC ACCOUNT FOR FUNDING PURPOSES

a) Basic Account

The Basic Account is the account from which the defined basic benefits of the Plan are paid. In accordance with the Agreement and PBSA, an actuarial valuation of the Plan's assets and pension obligations is performed at least every three years by an independent actuary to determine an appropriate combined employer and member contribution rate to fund the Basic Account. For this purpose, the Plan's actuary values both accrued assets and accrued pension obligations to the financial statement date, and contributions and benefits for future service. The contribution requirements are calculated by the actuary using the entry-age normal cost method (entry-age method).

This method produces the long-term rate of member and employer contributions sufficient to provide benefits for the average future new entrants to the Plan. This rate may be adjusted for the amortization of any actuarial funding surplus, and this rate will be adjusted for the amortization of any unfunded actuarial liability. Future contribution rate determinations will exclude consideration of the assets in the Rate Stabilization Account (RSA); if contribution rate increases are considered, funds will be transferred from the RSA to keep the rate at its current level or to minimize the increase.

The Basic Account is also the account from which any cost-of-living adjustments granted to retired members are paid. Future cost-of-living adjustments are not guaranteed within the Plan provisions and are granted to retired members only to the extent that sufficient assets are available from the IAA to fund those benefits (note 5b). As cost-of-living adjustments are granted, the Basic Account receives from the IAA the present value funding necessary for the cost-of-living adjustments granted. Therefore, accrued basic pension obligations for valuation purposes include the liability for all cost-of-living adjustments granted to the date of the valuation, but not for as-yet-unknown future cost-of-living adjustments.

Actuarial valuation

An estimate of the actuarial position of the Plan for funding purposes has been made to December 31, 2020, using the following long-term actuarial assumptions:

- Annual investment return 6.00%
- Annual salary escalation rate 3.25%

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Notes to the financial statements for the year ended December 31, 2020

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5. ACTUARIAL VALUATION OF THE BASIC ACCOUNT FOR FUNDING PURPOSES (CONTINUED)

a) Basic Account (continued)

This estimate, an extrapolation, produced an estimated funding surplus of $1,863 as at December 31, 2020 (2019: $1,274 surplus), as follows:

Funding extrapolation	**2020**	**2019**
Net assets available for basic pension benefits	$ **27,796**	$ 25,584
Actuarial asset value adjustment	**(2,224)**	(1,473)
Smoothed assets for basic pension benefits	**25,572**	24,111
Rate stabilization account	**(821)**	(760)
Smoothed assets excluding rate stabilization account	**24,751**	23,351
Present value of future contributions (entry-age method)	**6,651**	6,297
Net actuarial assets for basic pension benefits	**31,402**	29,648
Actuarial liability for accrued and future basic pension benefits	**(29,539)**	(28,374)
Entry-age method actuarial surplus	**$ 1,863**	**$ 1,274**

Changes in the extrapolated entry-age method funded status	**2020**	**2019**
Extrapolated entry-age method actuarial surplus, beginning of year	$ **1,274**	$ 631
Extrapolated change in actuarial liability for accrued and future basic pension benefits	**(1,165)**	(1,060)
Extrapolated change in actuarial assets for basic pension benefits	**1,754**	1,703
Entry-age method actuarial surplus, end of year	**$ 1,863**	**$ 1,274**

Extrapolations may not be reliable indicators of the next valuation results, nor do they necessarily reflect the overall trend of results. Between valuations, various factors, including actual wage increases, investment earnings, and the incidence of retirements and withdrawals, may vary significantly from the long-term assumptions used in the extrapolation.

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Notes to the financial statements for the year ended December 31, 2020

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5. ACTUARIAL VALUATION OF THE BASIC ACCOUNT FOR FUNDING PURPOSES (CONTINUED)

a) Basic Account (continued)

Measurement differences between funding and accounting positions

The primary components of the measurement differences between the extrapolated entry-age method funding surplus and the financial statement accounting surplus are as follows:

Measurement differences between funding and accounting positions	2020	2019
Entry-age method actuarial surplus	$ **1,863**	$ 1,274
Actuarial asset value adjustment	**2,224**	1,473
Rate stabilization account	**821**	760
Difference in actuarial methods – present value of future contributions	**(6,651)**	(6,297)
Difference in actuarial methods – present value of future liabilities	**7,222**	6,858
Measurement differences between funding and accounting positions	**3,616**	2,794
Surplus for financial statement purposes	$ **5,479**	$ **4,068**

Actuarial asset value adjustment

For the purposes of determining the entry-age method surplus for funding purposes, the actuarial value of net assets available for benefits is determined on an adjusted value basis that smooths the difference between the actual investment return and the expected return based on a long-term real return rate over a five-year period.

The funding policy requires that the value of the assets be smoothed within a certain corridor. In the 2017 valuation, the corridor required that the smoothed value be no more than 108% and no less than 92% of the market value of the assets. The unconstrained smoothed value of the assets at December 31, 2020, was 91.8%, accordingly the smoothed value was adjusted to be 92.0% of the market value of the assets (2019: 94.2%).

The following schedule indicates the year the components of the actuarial asset value adjustment will be recognized in the entry-age method actuarial surplus. The amounts are based on that proportion of the total fund related to the Basic Account assets.

Actuarial asset value adjustment	2020	2019
Adjustment to 92% of market value	$ **(53)**	$ -
2020	**-**	492
2021	**779**	455
2022	**516**	191
2023	**659**	335
2024	**323**	-
Total adjustment	$ **2,224**	$ **1,473**

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Notes to the financial statements for the year ended December 31, 2020

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5. ACTUARIAL VALUATION OF THE BASIC ACCOUNT FOR FUNDING PURPOSES (CONTINUED)

a) Basic Account (continued)

Rate Stabilization Account

As a result of the December 31, 2017, actuarial funding valuation surplus and allowed by the Agreement, assets were transferred to the RSA that is held notionally within the Basic Account. Interest on the RSA is determined by applying the smoothed rate of return to the fiscal year-end balance. For 2020, $61 (2019: $61) of interest was transferred from the Basic Account to the RSA based on the 2020 smoothed rate of return of 8.10% (2019: 8.71%).

Rate stabilization account	2020	2019
Opening balance	$ **760**	$ 699
Interest applied to balance	**61**	61
Ending balance	$ **821**	$ **760**

Difference in actuarial methods

While the accrued pension benefit liability for financial statement purposes uses the projected benefit method pro-rated on service, the pension liability for funding purposes uses an entry-age funding method, where the present value of future normal cost contributions, basic pension benefits for future service and future amortization amounts are included in the determination of the funded status of the Plan.

If an actuarial valuation indicates that increased basic contribution rates are required, the increase must be shared equally by members and employers. The Agreement also describes the manner in which the Board can elect to apply surplus assets.

b) Inflation Adjustment Account (IAA)

No unfunded liability exists for the IAA, since the obligation for future cost-of-living adjustments is limited to the amount of the available assets in the account. As cost-of-living adjustments are granted to retired members, full funding for the granted cost-of-living adjustments, on a net present value basis, is transferred from the IAA to the Basic Account, from which the pensions are paid. There is no minimum level of cost-of-living adjustment required to be paid under the pension plan rules, nor is there any Plan provision to fund the IAA to any minimum level for future potential cost-of-living adjustments.

The Board annually considers all relevant factors and its IAA funding policy to determine if a cost-of-living adjustment will be granted on pensions in pay and the amount of the cost-of-living adjustment, if any.

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6. FINANCIAL RISK MANAGEMENT

The Board approves the long-term asset mix policy for investment assets through its Statement of Investment Policies and Procedures (SIPP) and oversees the management of these assets through the Board's investment management agent, BCI. The SIPP requires diversification of investments among asset classes, sets guidelines on investment categories, and limits the exposure to individual investments and counterparties.

Significant risks are regularly monitored and managed by BCI, and actions are taken when appropriate, according to the Plan's SIPP. In addition, these risks are reviewed periodically with the Board. Such risks include liquidity risk, as well as other financial risks, which comprise currency risk, interest rate risk, other price risk and credit risk.

Financial risks are disclosed on a unit-of-account basis (note 6b), which represents the legal ownership of securities held, and at the underlying securities level (note 6c), which provides additional insight to other risks that may impact the financial instruments of the Plan. Both forms of disclosure provide valuable perspectives into the financial risks that may directly or indirectly impact the financial statements and the funded status of the Plan. These two forms of risk disclosure are not additive to each other.

a) Liquidity risk

Liquidity risk is the risk of not being able to meet the Plan's cash requirements in a timely and cost-effective manner. Expenditures relate primarily to pensions, termination and refund benefits, and investment and administration costs. The Plan's approach to mitigating liquidity risk is to forecast its cash requirements over the near and long term to determine whether sufficient funds are available.

The Plan's primary source of liquidity is income generated from the Plan's investments, and employer and employee contributions. Investments are primarily held in pooled funds, and the securities held are traded in active markets and can be readily sold, and where the pooled fund units can thereby be redeemed to fund cash requirements. Accounts payable of $5 (2019: $1) and payable for purchase of investments of nil (2019: $119) are generally due within one month. Derivatives payable of $38 (2019: $14) are due within the next fiscal year.

b) Financial risks on a unit-of-account basis

Plan investments consist primarily of direct ownership in units of pooled investment portfolios. Each unit gives its holder a proportionate interest in the value of the net assets of the respective pooled investment fund. The unit-of-account for the majority of the Plan's investments is the units of the pooled investment funds.

Investments by unit-of-account		**2020**			**2019**	
Pooled investment fund units	$	**33,487**	**98.2%**	$	30,862	97.9%
Directly held equity		**411**	**1.2%**		477	1.5%
Directly held debt		**193**	**0.6%**		186	0.6%
Investments	**$**	**34,091**	**100.0%**	**$**	**31,525**	**100.0%**

Market risk is the risk that the fair values of an investment will fluctuate as a result of changes in market conditions, whether those changes are caused by factors specific to the individual investment or factors affecting all securities traded in the market. Market risk consists of currency, interest rate and other price risks.

($ millions except as otherwise noted)

6. FINANCIAL RISK MANAGEMENT (CONTINUED)

b) Financial risks on a unit-of-account basis (continued)

Currency risk

Currency risk is the risk that the value of financial instruments denominated in currencies other than the functional currency of the fund will fluctuate due to changes in foreign exchange rates. The Plan holds primarily Canadian dollar denominated investment pooled fund units and is exposed to currency risk through holdings of small amounts of foreign currency denominated private equity, agricultural, bond and debt investments. See note 6c for currency exposure related to underlying securities.

Foreign denominated investments held as a percentage of investments

		2020			2019	
United States	$	**702**	**2.1%**	$	637	2.0%
Australia		**88**	**0.3%**		81	0.3%
	$	**790**	**2.4%**	$	718	2.3%

As at December 31, 2020, if the Canadian dollar strengthened or weakened by 10% in relation to all foreign currencies, with all other factors remaining constant, net assets available for benefits would have decreased or increased by approximately $79 (2019: $72).

Interest rate risk

Interest rate risk is the risk that the fair value or future cash flows of plan investments will change as a result of future fluctuations in market interest rates. The majority of the Plan's investment assets are non-interest bearing and not subject to interest rate risk. See note 6c for interest rate risk related to underlying securities.

Other price risk

Other price risk is the risk that the fair value of a financial instrument will fluctuate because of changes in market prices (other than those arising from currency risk or interest rate risk), whether those changes are caused by factors specific to the individual financial instrument, its issuer, or factors affecting all similar financial instruments traded in the market. The Plan's investments are subject to other price risk through its public equity investments and private market investments, including equity in real estate companies, held directly and through pooled investment portfolios. This risk is managed by diversifying investments across asset classes based on criteria established in the SIPP.

As at December 31, 2020, if the pooled investment fund unit and directly held equity prices increased or decreased by 10%, with all other factors remaining constant, net assets available for benefits would have increased or decreased by approximately $3,390 (2019: $3,134).

On March 11, 2020, the COVID-19 outbreak was declared a pandemic by the World Health Organization. The situation continues and remains dynamic with various cities and countries around the world responding in different ways to address the outbreak. As a result of the COVID-19 pandemic, global financial markets have experienced significant volatility. Given the extent of the crisis, it is difficult to estimate the ultimate impact or duration of the volatility on the Plan.

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Notes to the financial statements for the year ended December 31, 2020

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6. FINANCIAL RISK MANAGEMENT (CONTINUED)

b) Financial risks on a unit-of-account basis (continued)

Credit risk

Credit risk is the risk that the counterparty to a financial instrument will fail to discharge an obligation or commitment it has entered into, resulting in a financial loss to the Plan. The majority of the Plan's investments are held in securities that are not subject to credit risk. See note 6c for credit risk related to underlying securities.

Credit exposure exists for members' and employers' contributions receivable directly held by the Plan totalling $30 (2019: $45), for the derivatives $213 (2019: $73) and for the due from sale of investments of nil (2019: $7).

c) Financial risks of underlying securities held through pooled investment funds

Pooled investment funds exist for different types of investments, such as short-term investments; bonds; Canadian, global and emerging markets equities; mortgages; real estate; private equity; and infrastructure and renewable resources. Examining the risks of the underlying securities contained in pooled investment funds provides additional disclosure to assess the overall financial risks of the plan investments. Viewing the financial risks of underlying securities is an alternative way of disclosing financial risks from the unit-of-account basis in note 6b. These risks are not considered additive to the financial risks already disclosed in note 6b.

Market risks are reduced through asset class diversification, diversification within each asset class and credit quality requirements on investments.

Currency risk

Currency exposure also arises from foreign currency denominated investments held directly and from underlying investments held indirectly in pooled investment funds. BCI has currency exposure management programs under which it enters into economic hedges of foreign currency exposure through the use of forward foreign currency contracts.

($ millions except as otherwise noted)

6. FINANCIAL RISK MANAGEMENT (CONTINUED)

c) Financial risks of underlying securities held through pooled investment funds (continued)

Currency risk (continued)

The Plan's total currency exposure, the impact of economic hedging activities, and its net exposure as at December 31 are as follows:

Fair value of foreign denominated investment holdings (Cdn dollar equivalent)	Total exposure	Economic hedging	Net exposure	% of total
			2020	
United States	$ **11,094**	$ **5,788**	$ **5,306**	**54%**
Euro countries	**2,478**	**453**	**2,025**	**20%**
Asia-Pacific, excluding Japan	**1,885**	**288**	**1,597**	**16%**
Other	**518**	**-**	**518**	**5%**
Other Europe	**381**	**-**	**381**	**4%**
Japan	**167**	**102**	**65**	**1%**
United Kingdom	**471**	**448**	**23**	**0%**
	$ **16,994**	$ **7,079**	$ **9,915**	**100%**
			2019	
United States	$ 9,387	$ 3,653	$ 5,734	53%
Asia-Pacific, excluding Japan	2,309	331	1,978	18%
Euro countries	1,977	381	1,596	15%
Other	937	-	937	9%
Other Europe	299	-	299	3%
Japan	430	265	165	1%
United Kingdom	455	351	104	1%
	$ 15,794	$ 4,981	$ 10,813	100%

The net foreign currency exposure of its underlying investments represents 29% (2019: 34%) of the Plan's total investments.

Interest rate risk

The Plan's pooled investment funds hold interest-bearing financial instruments in short-term investments, bonds and mortgages. The risk of adverse changes in interest rates is reduced within the underlying investment pools through management of duration in exposure to fixed income securities, the use of floating rate notes and interest rate swaps, and general diversification by security type and geographic region. During the year the Plan entered into a leveraged bond strategy using repurchase agreements and is included in the terms to maturity table below.

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Notes to the financial statements for the year ended December 31, 2020

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6. FINANCIAL RISK MANAGEMENT (CONTINUED)

c) Financial risks of underlying securities held through pooled investment funds (continued)

Interest rate risk (continued)

The terms to contractual maturity of interest-bearing financial instruments held directly and through pooled investment, portfolios, as at December 31, are as follows:

Terms to maturity of interest-bearing financial instruments

	Within 1 year	1 to 5 years	6 to 10 years	Over 10 years	Total	Effective yield to maturity
			2020			
Short-term	$ 752	$ 2	$ 6	$ -	$ 760	0.24%
Bonds	(2,443)	3,846	2,788	3,254	7,445	1.59%
Mortgages*	269	674	184	-	1,127	2.55%
Debt	-	-	193	-	193	5.71%
	$ (1,422)	$ 4,522	$ 3,171	$ 3,254	$ 9,525	
			2019			
Short-term	$ 899	$ 232	$ -	$ -	$ 1,131	1.87%
Bonds	445	1,349	1,760	1,267	4,821	1.98%
Mortgages*	379	506	132	-	1,017	3.45%
Debt	1	-	185	-	186	5.70%
	$ 1,724	$ 2,087	$ 2,077	$ 1,267	$ 7,155	

* Yield based on mortgages in the fixed term mortage fund. Other mortgage funds contain variable rate mortgages.

As at December 31, 2020, if the prevailing interest rates increased or decreased by 1%, assuming a parallel shift in the yield curve, with all other variables remaining constant, the fair value of interest-bearing financial instruments and net assets available for benefits would have decreased or increased by approximately $519 (2019: $364).

Other price risk

Other price risk associated with the underlying investments held in pooled investment funds is consistent with that described earlier in note 6b, which describes financial risks on a unit-of-account basis.

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Notes to the financial statements for the year ended December 31, 2020

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6. FINANCIAL RISK MANAGEMENT (CONTINUED)

c) Financial risks of underlying securities held through pooled investment funds (continued)

Credit risk

The Plan's underlying investment assets held in pooled investment funds attract credit risk. This is the risk that a loss may occur from the failure of another party to perform according to the terms of a contract. It's also the risk of losses when issuers and debtors are downgraded by credit rating agencies, usually leading to a fall in the market value of the debtors' obligations. Credit risk is managed by establishing specific investment criteria, such as minimum credit ratings for investees and counterparties, and maximum concentration limits with given counterparties.

Credit risk ratings on financial instruments (short-term investments, bonds, mortgages and debt) held directly and through pooled investment portfolios are as follows:

Credit rating of financial instruments	2020		2019	
AAA/AA	$ 5,100	54%	$ 3,010	42%
A	238	2%	1,602	22%
BBB	941	10%	434	6%
Non-investment grade	760	8%	406	6%
	7,039	74%	5,452	76%
Unrated	2,486	26%	1,703	24%
	$ 9,525	100%	$ 7,155	100%

The ratings used are defined by Standard & Poor's rating agency. Obligations rated AAA/AA have the highest rating assigned. The lender's capacity to meet its financial commitment on the obligation is very strong. Bonds rated A, BBB or non-investment grade are weaker, with the BBB rating denoting an obligation with adequate protection parameters and a non-investment grade rating denoting major ongoing uncertainties or exposure to adverse business, financial or economic conditions that could lead to the debtor's inadequate capacity to meet its financial commitment on the obligation. Unrated financial instruments consist mainly of mortgages secured by real estate, debt, and corporate bonds.

TEACHERS' PENSION PLAN

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7. FAIR VALUE OF FINANCIAL INSTRUMENTS

a) Fair value hierarchy

Fair value measurements of the investment assets and liabilities are based on inputs from one or more levels of a fair value hierarchy. Each level is based on the transparency of the inputs used to measure the fair values of assets and liabilities. The three levels of the fair value hierarchy are as follows:

Level 1

Inputs that are unadjusted quoted prices in active markets for identical assets or liabilities

Level 2

Inputs other than quoted prices that are observable for the asset or liability either directly or indirectly

Level 3

Inputs that are not based on observable market data

Plan investments are carried at fair value in the financial statements. The following table details the classification of the Plan's investments based on the fair value hierarchy as at December 31:

Fair value hierarchy	Level 1	Level 2	Level 3	Total
		2020		
Pooled fund units	$ 787	$ 21,235	$ 11,465	$ 33,487
Directly held equity	-	-	411	411
Directly held debt	-	-	193	193
Investments	**$ 787**	**$ 21,235**	**$ 12,069**	**$ 34,091**
Derivatives	**$ -**	**$ 175**	**$ -**	**$ 175**
		2019		
Pooled fund units	$ 895	$ 20,935	$ 9,032	$ 30,862
Directly held equity	-	-	477	477
Directly held bond and debt	-	-	186	186
Investments	**$ 895**	**$ 20,935**	**$ 9,695**	**$ 31,525**
Derivatives	**$ -**	**$ 59**	**$ -**	**$ 59**

During 2020 and 2019, there were no significant transfers of investments between levels.

TEACHERS' PENSION PLAN

Notes to the financial statements for the year ended December 31, 2020

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7. FAIR VALUE OF FINANCIAL INSTRUMENTS (CONTINUED)

a) Fair value hierarchy (continued)

The following table reconciles the Plan's level 3 fair value measurements:

Level 3 fair value hierarchy	Pooled fund units	Direct equity	Direct debt	Total
			2020	
Balance, beginning of year	$ 9,032	$ 477	$ 186	$ 9,695
Gains (loss) included in investment income	1,012	(16)	4	1,000
Purchases	12,534	1	3	12,538
Sales	(11,113)	(51)	-	(11,164)
Balance, end of year	**$ 11,465**	**$ 411**	**$ 193**	**$ 12,069**
Unrealized gain (loss) included in investment income	$ 1,025	$ (16)	$ 4	$ 1,013
			2019	
Balance, beginning of year	$ 7,261	$ 501	$ 86	$ 7,848
Gains (loss) included in investment income	547	(19)	-	528
Purchases	2,333	269	102	2,704
Sales	(1,109)	(274)	(2)	(1,385)
Balance, end of year	**$ 9,032**	**$ 477**	**$ 186**	**$ 9,695**
Unrealized gain (loss) included in investment income	$ 220	$ (19)	$ -	$ 201

7. FAIR VALUE OF FINANCIAL INSTRUMENTS (CONTINUED)

b) Valuation models

The objective of valuation techniques is to arrive at a fair value measurement that reflects the price that would be received to sell the asset or paid to transfer the liability in an orderly transaction between market participants at the measurement date.

BCI uses widely recognized valuation methods for determining the fair value of common and less complex financial instruments such as investments in pooled funds, where fair value is based on the underlying net asset value of the respective pooled fund as determined by the underlying fund manager. Observable prices and model inputs are usually available in the market for listed equity and debt securities, simple derivatives such as forward or future currency contracts, and pooled funds.

The availability of observable market prices and model inputs reduces the need for management judgment and estimation, and reduces the uncertainty associated with the determination of fair values. The availability of observable market prices and inputs varies depending on the financial instrument and is subject to change based on specific events and general conditions in the financial markets.

For more complex financial instruments, such as direct private equity investments held by the Plan, BCI uses proprietary valuation models, which are usually developed from recognized valuation models. Some or all of the significant inputs into these models may not be observable in the market and are derived from market prices or rates, or estimated based on assumptions. Valuation models that employ significant unobservable inputs require a higher degree of judgment and estimation in the determination of fair value. BCI's judgment and estimation are usually required for the selection of the appropriate valuation model to be used, determination of expected future cash flows of the financial instrument being valued, determination of the probability of counterparty default and prepayments, and selection of appropriate discount rates.

Fair value estimates obtained from models are adjusted for any other factors, such as liquidity risk or model uncertainties, to the extent that BCI believes that a third-party market participant would take them into account in pricing a transaction. Fair values reflect the credit risk of the instrument and include adjustments to take account of the credit risk of the Plan and the counterparties where appropriate.

c) Valuation framework

BCI has an established framework with respect to the measurement of fair values of financial instruments. Where possible, for direct private equity investments held by the Plan, external independent valuation specialists are engaged annually to assist in the determination of fair value. In those circumstances where BCI relies on the third-party manager for the determination of fair value, BCI reviews the appropriateness of such valuations using audited financial statements of the underlying investments, where available, and other information from the underlying third-party manager or other sources.

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7. FAIR VALUE OF FINANCIAL INSTRUMENTS (CONTINUED)

c) Valuation framework (continued)

In addition, BCI applies the following specific controls in relation to the determination of fair values:

- Verification of observable pricing inputs
- Appraisal of domestic real estate properties once every 10 to 18 months by accredited independent appraisers
- Analysis and investigation of significant valuation movements
- Review of unobservable inputs and valuation adjustments

When third-party information such as broker quotes or pricing services is used to measure fair value, BCI assesses and documents the evidence obtained from the third parties to support the conclusion that such valuations are appropriate. This includes:

- Verifying that the broker or pricing service is approved by BCI for use in pricing the relevant type of financial instrument
- Understanding how the fair value has been arrived at and the extent to which it represents actual market transactions
- Understanding how the fair value has been determined when a number of quotes for similar financial instruments have been obtained
- Understanding how prices for similar financial instruments used to measure fair value have been adjusted to reflect the characteristics of the financial instrument subject to measurement

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7. FAIR VALUE OF FINANCIAL INSTRUMENTS (CONTINUED)

d) Significant unobservable inputs used in measuring fair value

The following table sets out information about significant unobservable inputs used at year-end in measuring financial instruments categorized as level 3 in the fair value hierarchy.

Significant unobservable inputs used in measuring fair value

Description	Fair value	Valuation technique	Unobservable input	Amount / range	Sensitivity to change in significant unobservable input
			2020		
					The estimated fair value would increase if:
Pooled fund units	**$ 11,465**	**Net asset value**	**Net asset value**	**$ 11,465**	**The net asset value increased**
Direct private equity	**$ 330**	**Discounted cash flows**	**Discount rate**	**7.1%**	**The discount rate decreased**
Direct private agriculture investments	**$ 81**	**Net asset value**	**Net asset value**	**$ 81**	**The net asset value increased**
Direct debt	**$ 193**	**Discounted cash flows**	**Discount rate**	**4.8% - 17.0%**	**The discount rate decreased**
			2019		
					The estimated fair value would increase if:
Pooled fund units	$ 9,032	Net asset value	Net asset value	$ 9,032	The net asset value increased
Direct private equity	$ 345	Discounted cash flows	Discount rate	7.2%	The discount rate decreased
Direct private agriculture investments	$ 132	Net asset value	Net asset value	$ 132	The net asset value increased
Direct debt	$ 186	Discounted cash flows	Discount rate	4.8% - 17.0%	The discount rate decreased

Net asset value

Net asset value is determined by BCI based on the fair value of assets less liabilities. Such investments are closed funds with significant restrictions on redemptions and, accordingly, BCI is unable to dispose of the pooled fund investment until the maturity or wind-up and liquidation of the respective pooled fund. In such cases, it is the Plan's policy to categorize the pooled fund investment as level 3 within the fair value hierarchy.

($ millions except as otherwise noted)

7. FAIR VALUE OF FINANCIAL INSTRUMENTS (CONTINUED)

d) Significant unobservable inputs used in measuring fair value (continued)

Discount rate

This represents the discount rate applied to the expected future cash flows of the direct private equity and direct debt investments. For the discount rates used, the underlying investment manager assesses both the risk premium and the appropriate risk-free rate based on the economic environment in which the investee entity operates. The discount rate is adjusted for such matters as liquidity differences, credit and market factors. The estimated future cash flows are then discounted using the discount rate determined. Cash flows used in the discounted cash flow model are based on projected cash flows or earnings of the respective investee entity.

e) Effects of unobservable input on fair value measurement

The use of different methodologies or assumptions could lead to different measurements of fair value. For fair value measurements in level 3, changing one or more of the assumptions used for a reasonable alternative assumption could have the following effects on net assets attributable to holders of redeemable units.

The pooled fund units, direct private agriculture investments and direct debt investments were valued based on information received from BCI, the manager of the respective investments. The fair value of these investments fluctuates in response to changes to specific assumptions for these particular investments, as determined by BCI. The favourable and unfavourable effects of reasonable alternative assumptions for the valuation of pooled fund units, direct private agriculture investments and direct debt investments have been calculated by adjusting the respective underlying net asset value by 10%.

Effects of unobservable input on level 3 fair value measurement

	2020		2019	
	Favourable	Unfavourable	Favourable	Unfavourable
Pooled fund units	$ 1,147	$ (1,147)	$ 903	$ (903)
Direct private equity	33	(33)	24	(24)
Direct private agriculture investments	8	(8)	13	(13)
Direct debt	19	(19)	19	(19)
	$ 1,207	$ (1,207)	$ 959	$ (959)

($ millions except as otherwise noted)

7. FAIR VALUE OF FINANCIAL INSTRUMENTS (CONTINUED)

e) Effects of unobservable input on fair value measurement (continued)

For direct private equity investments, BCI engages third-party independent valuators to estimate the fair market value. The valuators produce comprehensive reports for each applicable investment. The favourable and unfavourable effects of reasonable alternative assumptions for the valuation of direct investments have been calculated by recalibrating the model values using unobservable inputs based on the upper and lower threshold of the respective investment's range of possible estimates.

f) Financial instruments not measured at fair value

The carrying value of members' contributions receivable, employers' contributions receivable, due from sale of investments, accounts payable and accrued expenses and payable for purchase of investments approximate their fair value given their short-term nature. These financial instruments are classified as level 2 in the fair value hierarchy because, while prices are available, there is no active market for these instruments.

8. INVESTMENT INCOME

			2020			2019
	Income allocation	Change in fair value	Total	Income allocation	Change in fair value	Total
Short-term	$ 9	$ (19)	$ (10)	$ 18	$ (2)	$ 16
Bonds	120	310	430	107	212	319
Canadian equities	35	31	66	59	224	283
Global equities	129	869	998	171	1,516	1,687
Emerging markets equities	56	637	693	69	197	266
Mortgages	35	(13)	22	33	18	51
Real estate	54	(77)	(23)	304	16	320
Private equity	24	852	876	203	265	468
IRR*	57	223	280	171	(36)	135
	519	2,813	3,332	1,135	2,410	3,545
Directly held derivatives	-	60	60	-	167	167
	$ 519	$ 2,873	$ 3,392	$ 1,135	$ 2,577	$ 3,712

* Infrastructure and renewable resources

Investment income represents realized and unrealized pooled investment portfolio income attributable to the Plan, as a unit holder, and income from directly held investments. Income allocation is composed of interest, dividends and other investment payments. Change in fair value is composed of realized gains and losses on the disposal of investments and derivatives, and unrealized gains and losses on investments and derivatives held at year-end. All income earned within a pooled investment portfolio is reinvested within the portfolio.

TEACHERS' PENSION PLAN

Notes to the financial statements for the year ended December 31, 2020

($ millions except as otherwise noted)

9. CONTRIBUTIONS

	Basic account	Inflation adjustment account	Supplemental benefits account	Total
		2020		
Member contributions				
Regular	$ 279	$ 102	$ -	$ 381
Past service purchases	2	1	-	3
	281	103	-	384
Employer contributions				
Regular	278	107	1	386
Past service purchases	1	-	-	1
	279	107	1	387
	$ 560	$ 210	$ 1	$ 771
		2019		
Member contributions				
Regular	$ 264	$ 97	$ -	$ 361
Past service purchases	3	1	-	4
	267	98	-	365
Employer contributions				
Regular	264	101	1	366
Past service purchases	1	1	-	2
	265	102	1	368
	$ 532	$ 200	$ 1	$ 733

Member and employer contributions are as defined under the pension plan rules. Members' past service purchases are voluntary contributions.

10. BENEFITS

	Basic account	Inflation adjustment account	Supplemental benefits account	Total
		2020		
Regular pension benefits	$ 1,013	$ -	$ 1	$ 1,014
Indexing – regular pension benefits	240	-	-	240
Termination and refund benefits	24	4	-	28
Death benefit payments	10	1	-	11
	$ 1,287	$ 5	$ 1	$ 1,293
		2019		
Regular pension benefits	$ 991	$ -	$ 1	$ 992
Indexing – regular pension benefits	225	-	-	225
Termination and refund benefits	16	2	-	18
Death benefit payments	11	2	-	13
	$ 1,243	$ 4	$ 1	$ 1,248

TEACHERS' PENSION PLAN

Notes to the financial statements for the year ended December 31, 2020

($ millions except as otherwise noted)

11. INVESTMENT AND ADMINISTRATION COSTS

	2020	2019
Investment management	$ 80.4	$ 49.7
Benefit administration	13.6	12.9
Board secretariat costs	0.3	0.3
Other professional services	0.3	0.4
Board remuneration and expenses	0.2	0.3
Actuarial and audit	0.1	0.1
	$ 94.9	$ 63.7

BCI and Pension Corporation are related parties to the Plan. The Board appoints members to each of the respective corporate boards. Investment management and benefit administration costs are approved by the Board.

Investment management costs represent amounts charged to recover internal and external management costs incurred by BCI, except those external management fees related to investments managed by an underlying external manager, where management fees are embedded in the net assets of the respective investment. Underlying external investment management fees of $36.9 (2019: $55.7) were netted against investment income.

Benefit administration costs represent amounts charged to recover benefit administration costs incurred by Pension Corporation. These transactions are in the normal course of operations and are measured at the exchange amount of consideration established and agreed to by the related parties.

Board secretariat costs represent amounts directly incurred by the Board for costs associated with supporting the Board.

Other professional services costs include insurance and legal fees incurred directly by the Plan.

Board remuneration and expenses represent amounts for trustee compensation and direct expenses.

12. ACCOUNT TRANSFERS

	2020		2019	
	Basic account	Inflation adjustment account	Basic account	Inflation adjustment account
Indexing supplements	$ 237	$ (237)	$ 267	$ (267)
Indexing deferred pensions	2	(2)	2	(2)
	$ 239	$ (239)	$ 269	$ (269)

The IAA is a separate account maintained for funding current and future cost-of-living adjustments. The IAA is funded through a portion of ongoing contributions from employers and members, investment income earned and excess investment return earned in the Basic Account.

TEACHERS' PENSION PLAN

Notes to the financial statements for the year ended December 31, 2020

($ millions except as otherwise noted)

12. ACCOUNT TRANSFERS (CONTINUED)

Cost-of-living adjusted pension payments are made from the Basic Account. Each year, if members' pension payments are adjusted for the current cost-of-living adjustment, monies are transferred from the IAA to the Basic Account to cover the present value of all future payments arising from the current cost-of-living adjustment. The Board considers all relevant factors and its IAA funding policy to determine if a cost-of-living adjustment will be granted on pensions in pay and the amount of the cost-of-living adjustment, if any. As at January 1, 2020, retired members received a cost-of-living adjustment of 1.90% (2019: 2.2%), and indexing supplements were transferred.

When a deferred pension commences, the present value of the cost-of-living adjustments during the deferral period is transferred from the IAA to the Basic Account. Approximately $31 (2019: $28) of the current IAA balance is for cost-of-living adjustments already granted for deferred pensions but not yet transferred to the Basic Account.

Excess investment return is based on investment income earned on those assets in the Basic Account required for pensions currently being paid, approximately $13.1 billion of assets for 2020 (2019: $12.8 billion). The excess investment return rate is determined by taking the difference between the actual five-year annualized market rate of return (8.7%) and the rate of return used by the Plan actuary (6.0%) in valuing the Plan's liabilities. The calculated excess investment return rate for 2020 was 2.7% (2019: 2.4%), resulting in a positive excess investment return amount of $354 (2019: $307).

Plan rules allow the positive excess investment return transfer to occur at the discretion of the Board. Should the excess investment return in any year not be transferred to the IAA, it will be carried forward cumulatively with interest and be available for transfer to the IAA at the discretion of the Board, in the future. If the balance is ever negative, it will be offset against future positive excess investment returns before transfers to the IAA will recommence. The excess investment interest is an amount determined by applying the five-year annualized market rate of return to the fiscal year opening balance.

Excess investment return	**2020**	**2019**
Cumulative excess investment return, beginning of year	$ 1,161	$ 788
Interest applied to beginning of year amount	101	66
Excess investment return	354	307
Cumulative excess investment return, end of year	**$ 1,616**	**$ 1,161**

TEACHERS' PENSION PLAN

Notes to the financial statements for the year ended December 31, 2020

($ millions except as otherwise noted)

13. SUPPLEMENTAL BENEFITS ACCOUNT

The Supplemental Benefits Account funds certain supplemental benefits. For example, pension benefits that exceed *Income Tax Act* limits for registered pension plans are paid through this account.

14. COMMITMENTS

The Plan participates in private equity, international real estate, mortgages and infrastructure and renewable resource pools. As at December 31, 2020, the Plan's share of commitments for future investment contracts in these pools over the next several years is approximately $4,864 (2019: $4,844).

15. CAPITAL DISCLOSURES

Capital is defined as the funded status (surplus or deficit) of the Plan as determined by the actuary. The Plan's objective for managing capital is to ensure that the assets of the Plan are invested prudently and effectively, and with contributions adequate to meet the obligations of the Plan. Management of the Plan's funded status is achieved by adjusting member and employer contribution rates, through implementation of the SIPP, which affects the earnings of the Plan, and, in the case of the IAA, by changing the benefits paid. The Board has a funding policy that outlines the principles that provide guidance in managing this process. The investment performance of the Plan's assets is reviewed by the Board on a regular basis and compared to relevant industry benchmarks. Benefit entitlement is based on the provisions of the Agreement and the pension plan rules. Funding deficits must be funded over a period not to exceed 15 years.

An actuarial valuation must be prepared at least once every three years. The latest actuarial valuation for funding purposes was prepared as at December 31, 2017, and has two components: the Basic Account non-indexed benefits and, by considering the valuation of the entire Plan, the non-guaranteed IAA benefits. The next full actuarial valuation will be carried out as at December 31, 2020, with the results included in the December 31, 2021, financial statements.

The Act and the Board's funding policy require that contribution rates comply with the going-concern requirements of PBSA.

TEACHERS' PENSION PLAN

Notes to the financial statements for the year ended December 31, 2020

($ millions except as otherwise noted)

16. SUBSEQUENT EVENTS

Agreement

A change to the Agreement was reached in principle by the Partners in 2019 but has not yet been formalized by passage of a restated Agreement as of December 31, 2020. The Agreement was amended in principle to shift 1% of member and 1% of employer IAA contributions to the RSA effective January 1, 2020. Interest on contributions in the RSA is determined by applying the smoothed rate of return. The impact of the change to the fiscal 2020 statements would be a transfer of $71 million of IAA assets ($68 contributions plus $3 interest) to the RSA which is held notionally within the Basic Account. There would also be an increase of the accounting surplus of the same amount. There is no change to funding surplus as it uses the Basic Account assets that excludes the RSA in its calculation.

BCI GST

Subsequent to the Supreme Court of Canada decision of December 13, 2019, it was unclear whether BCI's pooled investment portfolios would be entitled to a rebate of amounts paid in lieu of goods and services tax (GST) under the Reciprocal Tax Agreement (RTA) between the British Columbia Government and Federal Government. As such, BCI's RTA liability for the years ended December 31, 2017 to 2020 was recorded with no offsetting receivable in respect of a rebate.

On March 10, 2021, the BC Ministry of Finance and the Department of Finance Canada agreed to amend schedule A of the RTA to more explicitly acknowledge BCI's pooled investment portfolios entitlement to a rebate of the amounts paid under the RTA. Furthermore, Finance Canada has confirmed that prior year GST assessments will be vacated by the Canada Revenue Agency and no further assessments will be issued against BCI for past filing periods in respect of costs recovered from the pooled investment portfolios

Therefore, the RTA liability will be reversed in April 2021. The impact on the net assets value of pooled investment portfolio units held by the Plan is estimated to be $31.

17. PRIOR YEAR COMPARATIVES

The prior year comparatives have been reclassified to conform to the current year presentation.

COVER PHOTO

Our cover shows Fisgard Lighthouse at the mouth of Esquimalt Harbour in Colwood, BC. Built in 1860, and now a National Historic Site, Fisgard Lighthouse has acted as a beacon of safety and security for thousands of mariners for more than 160 years.

Teachers' Pension Plan

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MISSION STATEMENT

To provide retirement income to plan members by effectively and efficiently meeting the pension promise and fulfilling the joint trust placed on us by the Plan Partners.

1998-067 TPP AR 2021.08.16