College Pension Plan™

2019 Annual Report

Peter Borschawa
College Pension Plan member

Surplus reaches $300 million PAGE 1

Contents

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Trustees' message

The plan's recent valuation shows a surplus

The College Pension Plan is healthy, strong and ready for the future.

How do we know this? Because the plan's most recent valuation shows a funding ratio of 106.1 per cent. This means the money available for current and future pensions exceeds the projected costs of paying for those pensions. The plan's surplus is $300 million, based on actuarial assets of $5.2 billion and actuarial liabilities of $4.9 billion, and was measured as at August 31, 2018.

What is the plan going to do with the surplus?

When there is a valuation surplus, we use the College Pension Plan Joint Trust Agreement (JTA) to guide our decisions in the use of that surplus.

The JTA is established by the plan partners: Federation of Post-Secondary Educators of BC, BC Government and Services Employees' Union, Post-Secondary Employers' Association and Government of BC. The JTA serves as a governance framework, giving us guidelines on how to manage the plan.

We and the plan partners are carefully examining the options available under the JTA. It is important that whatever decision we make be sustainable and equitable to all members (active and retired) and employers. We hope to make a decision in early 2020.

We will let members and employers know when we have made a decision on the use of the surplus.

Why is there a surplus?

The surplus is mainly the result of investment returns being higher than expected.

What is a valuation and why is it important?

Getting a regular valuation checkup is just one of the steps we take to ensure the plan maintains its value and remains healthy and financially sustainable. The valuation helps us assess the financial position of the plan and its funding requirements so we can ensure there are enough funds available for the current and future pensions of all members, whether active, inactive or retired.

At least every three years, an independent actuary performs this valuation. (An actuary is a professional with specialized knowledge in finance, statistics and risk theory.)

The next valuation will be measured as at August 31, 2021.

To read the full valuation report, visit the Reports page under *About us* on the plan website.

COVID-19 update

Information found in this report is current as at the plan's year end of August 31, 2019. Since then, the COVID-19 pandemic has adversely affected financial markets around the world. BC Investment Management Corporation (BCI, our investment management agent) had anticipated a correction in the rising financial market for some time and, as a result, the pension fund's investments were adjusted to reduce risk.

The College Pension Plan is healthy and sustainable. Our long-term view ensures the security of the basic lifetime pension for every member, from long-time retirees to newly contributing active members.

Investments

Report on fiscal year 2018/19 investment results

The College Pension Plan continues to deliver strong long-term results, despite a challenging 2018/19 fiscal year due to market volatility driven by concerns of slowing economic growth. Investments earned 5.8 per cent net of fees, outperforming the plan's benchmark return of 4.5 per cent. The plan ended its fiscal year on August 31, 2019, with a portfolio value of $5.3 billion (compared to $5.1 billion at the end of the previous fiscal year). While one-year results are helpful indicators, the plan continues to be focused on adding value over a long-term investment horizon. Over a 10-year period, the investment portfolio earned 8.7 per cent on an annualized basis, exceeding its benchmark return of 7.6 per cent and its long-term actuarial return objective of 6.25 per cent.

Over the last year, public equity markets experienced two periods of pronounced volatility, one in December 2018 and another in August 2019, both of which impacted total returns. These periods were primarily a result of the ongoing trade dispute between China and the United States. Markets subsequently rebounded in September 2019 following the August decline, but the effects of this recovery are not captured in this report given the timing of the fiscal year-end.

Given the inverse relationship between bond prices and yields, one-year fixed income returns benefited from falling yields and signs of weakening global economic growth. Canadian bond yields have been steadily falling since December 2018, compressed by trade tensions with the U.S., a retreat in the oil price recovery and expectations of an interest rate cut by the Bank of Canada. In response to slowing economic activity, the central bank shifted to a cautious outlook and has held the policy interest rate steady at 1.75 per cent since October 2018.

Market outlook for 2019/20

The plan holds a long-term investment outlook. The College Pension Board of Trustees (board) and the plan's investment management agent, British Columbia Investment Management Corporation (BCI), have built a diverse portfolio that follows a disciplined, long-term approach to managing the plan's investments.

Investment highlights

- The plan's investment assets increased from $5.1 billion as at August 31, 2018, to $5.3 billion as at August 31, 2019
- The plan's investments earned 5.8 per cent net of fees for the 2018/19 fiscal year, exceeding the benchmark return of 4.5 per cent, but falling short of the actuarial return objective of 6.25 per cent
- Over a 10-year period, the plan's investments earned 8.7 per cent on an annualized basis, exceeding the benchmark return of 7.6 per cent and its long-term actuarial return objective of 6.25 per cent
- The plan's private markets portfolio (consisting of real estate, infrastructure and renewable resources, and private equity) returned 10.2 per cent, outperforming the benchmark return of 5.9 per cent
- The plan's bond portfolio returned 10.0 per cent, outperforming the benchmark return of 9.6 per cent
- The plan's combined public equities portfolio returned 1.5 per cent (slightly below the combined benchmark return of 1.7 per cent); Canadian, global and emerging market equities earned 2.7, 2.0 and –1.9 per cent, respectively, weighed down by geopolitical-driven volatility

Investments

Expectations of future global economic growth continue to be adjusted downward, and are now expected to be below three per cent for both 2019 and 2020. Weakness in the manufacturing sector, heightened geopolitical risks, fading fiscal stimulus and an aging U.S. business cycle are all contributing to the slowdown and adding to the uncertainty. Amid this backdrop, investor sentiment is cautious and focused on closely managing risk.

To help the plan meet its return objectives and provide long-term stability for plan members, BCI will continue to emphasize managing risk, expanding investment strategies and increasing efficiencies through initiatives that include managing more assets in-house.

Risk management

The board takes a long-term approach to investment as the plan's obligations are long term in nature. To achieve the plan's long-term investment goal, the board and BCI have built a diversified investment portfolio. Diversification is a key principle in managing risk. The portfolio is diversified across asset types (e.g., bonds, mortgages, equities, real estate, infrastructure, private equity), industry sectors and global markets.

The plan's overall framework for managing the assets is governed by the plan's Statement of Investment Policies and Procedures (SIPP). BCI is responsible for implementing the investment strategy and achievement of goals, as outlined in the SIPP. The board oversees and monitors the performance of BCI.

Risk management is a fiduciary responsibility of the board and BCI. BCI's business plan and risk management activities include anticipating risk and taking appropriate steps to limit exposure to risk while capitalizing on investment opportunities.

Responsible investing

Responsible investing is an integral part of the plan's investment approach. The board and BCI share the same fundamental belief that assessing and managing risk over the long term is a cornerstone of responsible investing and central to growing and protecting the value of the plan's fund.

Taking environmental, social and governance (ESG) matters into account allows investors to better understand, manage and mitigate risks associated with long-term investments. Companies that have robust ESG practices are better positioned to generate long-term value for investors than similar companies with less favourable practices.

As an active owner, BCI analyzes ESG factors and engages with companies to raise awareness that good corporate governance is the overarching framework for effective risk management. BCI's investment teams integrate ESG considerations into their analysis and decision making, and use their influence as shareholders to encourage companies to manage and report on ESG risks.

BCI is a signatory to the Principles for Responsible Investment (PRI), an international network of investors coordinated by the United Nations who share the goal of ESG integration in institutional investing. PRI comprises a set of guidelines for institutional investors to consider as they incorporate ESG factors into their investment processes, stewardship activities and interactions with long-term investors. BCI is also a member of the steering committee for the 30% Club, which advocates for companies to enhance gender diversity, and the Sustainability Accounting Standards Board, whose mandate is to promote standards of sustainability reporting.

For more information about responsible investment activities, such as social considerations, occupational health and safety, and stakeholder relations, see BCI's responsible investing discussion and resources at BCI.ca.

Climate change

Climate change remains a concern for the board, plan members and global investors. BCI's Climate Action Plan helps position client assets to mitigate the associated physical and investment risks, while capitalizing on investment opportunities arising from the gradual transition to a lower-carbon economy. By measuring the exposure to climate-related risks, assessing market trends and managing investments, BCI is able to limit its climate change risk.

BCI collaborates with a number of other organizations to advance its objectives in mitigating climate change risks, including:

- The International Corporate Governance Network, CDP (formerly Carbon Disclosure Project) and Investor Network on Climate Risk.
- The investor-organized Climate Action 100+ initiative, which seeks to encourage the world's largest corporate greenhouse gas emitters to take meaningful action to curb their emissions. BCI is leading the engagement effort for four companies: Marathon Petroleum, Suncor, Canadian Natural Resources and Teck Resources.
- BCI joined a group of investors to co-sign letters to 47 of the largest greenhouse gas emitters in the U.S. The letters expressed our collective expectations on corporate lobbying for climate change, calling on the companies to review their lobbying practices, including to lobby in line with the Paris Agreement.

Investment diversification

The plan's long-term asset mix policy reflects an increased focus on real assets, such as land, buildings, infrastructure, regulated utilities and renewable resources, and private market assets, such as private equity. These assets typically provide capital appreciation, income and inflation protection. As such, they are ideally suited to meet the plan's long-term financial objectives.

Managing investment costs

The types of assets under management, the plan's asset mix and BCI's investment strategy affect investment management fees. To increase the probability of generating the plan's required long-term actuarial rate of return, the plan is moving into more illiquid assets. By nature, real assets and private market assets are more expensive to manage than publicly traded stocks and bonds.

BCI operates on a cost-recovery, not-for-profit basis. Its large asset size provides access to substantial economies of scale, and BCI is moving to a more cost-effective model by managing a greater percentage of assets in-house. Managing investment costs is important to the board, and BCI's fees continue to be much lower than those available in the private sector. The board focuses on overall net returns, as these returns contribute to the plan's long-term sustainability.

Investment holdings

Real estate continues to be an integral part of the plan's portfolio. Since 1991, BCI's real estate program has included ownership, operation and development of real estate assets, such as land and buildings. Similarly, infrastructure investments, which were added to the portfolio in 2005, operate in business sectors with high barriers to entry and an established regulatory framework, such as regulated utility companies.

Private equity is another core holding of the portfolio, which typically involves acquiring ownership in private equity companies. This form of direct investment provides BCI with board seats and, as a result, the ability to influence the company's strategic direction and best ESG practices.

Collectively, all these assets help contribute to long-term growth, investment returns and diversification in the portfolio.

Here are some examples of the plan's holdings:

Verifone Systems Inc.

Verifone is a global provider of innovative payment (point-of-sale terminals) and commerce solutions. They serve customers in retail, restaurants, hospitality, health care, petrol and other markets. Verifone is a market leader with quality products, strong market share, robust and globally diversified cash flows, and attractive growth prospects. With the investment, BCI holds seats on the board.

Springs Window Fashions

Springs Window Fashions (Springs) is North America's second-largest window covering company, serving both residential and commercial markets. It specializes in customizable, made-to-order products. Springs' highly experienced senior management has established a defensible market position through low-cost operations and long-standing relationships across the physical retail, dealer and online channels. With the investment, BCI holds seats on the board.

The Post

The Post is an office and retail heritage development taking shape at the site of the former Canada Post building in downtown Vancouver. The development will include 1.13 million square feet of state-of-the-art office space in two new towers, surrounded by retail and public spaces. Located at the convergence of Yaletown, Downtown, Gastown and Chinatown neighbourhoods, The Post will provide convenient access to a best-in-class shopping experience for a growing and diverse community catering to thousands of technology workers, businesses and residents in the Crosstown neighbourhood.

Profile of international investments

Real assets (including real estate and infrastructure) and private equity are investments typically transacted in private markets; they are an important and growing part of pension plan portfolios. These tangible assets provide consistent cash flows, protect against inflation and appreciate in value over the long term, making them ideal holdings for any pension plan that has future pension obligations and a long-term investment horizon.

Governance

Meet the trustees

The College Pension Plan is governed through the Joint Trust Agreement (JTA), an agreement between the four plan partners: BC Government and Service Employees' Union (BCGEU), Federation of Post-Secondary Educators of BC (FPSE), Post-Secondary Employers' Association (PSEA) and the provincial government. Each partner appoints trustees to the College Pension Board of Trustees. The board ensures the plan is sustainable and well governed. The agreement outlines the responsibilities and duties of the board, and provides the framework for managing the plan and the pension fund.

Candace Fertile, chair

Appointed by: Federation of Post-Secondary Educators of BC

Committees: Benefits, communications, governance, interplan executive, interplan executive forum, interplan website review

Board term: 2014–current

Candace Fertile was appointed to the board in September 2014 by FPSE.

Before her appointment to the board, Candace served on the FPSE Pension Advisory Committee and as chair of the FPSE Status of Women Committee. She has also completed the Shareholder Association for Research and Education Pension Boot Camp and the Foundations of Trust Management Standards and Advanced Trust Management Standards programs.

Candace has been an English instructor at Camosun College for more than 20 years. She holds her bachelor's degree, master's degree and PhD in English from the University of Alberta.

Kerry Clarke, vice-chair

Appointed by: Province of British Columbia and Post-Secondary Employers' Association

Committees: Benefits (chair), governance, interplan audit, interplan executive, interplan executive forum

Board term: 2017–current

Kerry Clarke was appointed to the board in December 2017 by the provincial government and PSEA.

Kerry is Selkirk College's vice-president of College Services and chief financial officer. Before his current role at Selkirk, Kerry was director of Facilities and Ancillary Services at Northwest Community College. He has a master of business administration from Heriot-Watt University and has worked as a police officer, business owner and coroner over the course of his career.

Doug Birtwistle

Appointed by: Federation of Post-Secondary Educators of BC

Committees: Benefits, governance (chair), interplan audit, interplan trustee education

Board term: 2014–current

Doug Birtwistle was appointed to the board in December 2014 by FPSE. A college instructor for 30 years, he currently teaches in the Department of Mathematics and Statistics at Okanagan College and is treasurer of the Okanagan College Faculty Association.

Before his appointment to the board, Doug served on the FPSE Pension Advisory Committee for four years and was the Okanagan College pension advisory representative for six years. Doug has also completed the Shareholder Association for Research and Education Pension Boot Camp and the Foundations of Trust Management Standards program.

Weldon Cowan

Appointed by: Federation of Post-Secondary Educators of BC

Committees: Benefits, communications, governance, interplan trustee education (chair)

Board term: 2005–current

Weldon Cowan was appointed to the board in September 2005 by FPSE. He has completed the Advanced Trust Management Standards program and holds the ICD.D designation from the Institute of Corporate Directors. In addition to his role with the board, Weldon is chair of the Pension Corporation Board of Directors.

Weldon holds a bachelor's degree in science with a specialization in chemistry from Concordia University and a diploma in education from McGill. He taught French immersion science for over 15 years at the secondary level before joining FPSE.

Carl Fischer

Appointed by: Province of British Columbia

Committees: Benefits, governance, interplan investment

Board term: 2007–current

Carl Fischer was appointed to the board in October 2007 by the provincial government. As part of this role, Carl sits on the interplan investment committee. A chartered professional accountant, Carl is the comptroller general for the Province of British Columbia.

Geraldine Hutchings

Appointed by: Province of British Columbia

Committees: Benefits, governance, interplan investment

Board term: 2012–current

Geraldine Hutchings was appointed to the board in March 2012 by the provincial government. In addition to her role with the board, Geraldine also sits on the BC Pension Corporation Board of Directors.

Geraldine has practised law since 1988 and is currently legal counsel for the Aboriginal Law and Litigation Group within the Ministry of the Attorney General. Before her appointment to the board, she was an executive of the Law Society of Yukon, and a member and chair of both the Yukon Human Rights Commission and the Yukon Mental Health Review Board. She also worked as an adjudicator under the *Canada Labour Code*. Geraldine has completed the Advanced Trust Management Standards program.

Michael Lancaster

Appointed by: Province of British Columbia

Committees: Benefits, communications (chair), governance

Board term: 2007–current

Michael Lancaster was appointed to the board in August 2007 by the provincial government.

Michael is a certified employee benefits specialist and a director of coaching and conflict management with the BC Public Service Agency. He holds a master's degree in political science from the University of Victoria.

Karen Maynes

Appointed by: Province of British Columbia

Committees: Benefits, governance

Board term: 2005–current

Karen Maynes was nominated to the board by PSEA and appointed to the board in April 2005 by the provincial government. In addition, Karen was appointed to the British Columbia Investment Management Corporation (BCI) Board of Directors in September 2014 as the representative for the College Pension Board of Trustees.

Karen is past chair of the provincial Senior Finance and Administration Officers Committee. She also sat as a post-secondary sector representative on the Institute of Chartered Accountants of BC's Government Organizations Accounting and Auditing Forum, and served on numerous Douglas College and provincial committees.

Karen received her chartered accountant designation in 1987 and, before retiring, was vice-president of finance and administration at Douglas College.

Cameron McRobb

Appointed by: British Columbia Government and Service Employees' Union

Committees: Benefits, governance, interplan investment, interplan website review

Board term: 2012–current

Cameron McRobb was appointed to the board in January 2012 by BCGEU. He has 10 years' experience as an Okanagan College bargaining unit chair and six years as chair of the BCGEU Provincial Instructors Bargaining Council.

Cameron is an instructor in the Motor Vehicle Trades Program at Okanagan College in Kelowna and an ASE-certified master automotive technician. He has also completed the Foundations of Trust Management Standards and Advanced Trust Management Standards programs.

Paul Ramsey

Appointed by: Federation of Post-Secondary Educators of BC and British Columbia Government and Service Employees' Union

Committees: Benefits, communications, governance

Board term: 2016–current

Paul Ramsey was appointed to the board in September 2016 by FPSE and the BCGEU. Previously, he served on the FPSE Pension Advisory Committee and as a liaison to the Association of British Columbia College Pension Plan Retirees.

Elected a member of the Legislative Assembly of British Columbia in 1991, Paul represented the Prince George North riding until 2001. During this time, he served as Minister of Health, Minister Responsible for Seniors, Minister of Education and Minister of Finance and Corporate Relations.

Paul has a master's degree in English from Western Illinois University and did PhD work at the University of British Columbia. He taught for over 30 years at universities and colleges in the United States and Canada. Paul retired in 2005 from the political science program at the University of Northern British Columbia, where he was a visiting professor and scholar in residence.

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 August 31, 2019

Trustee	Retainer	Per diem	Total remuneration	Paid to
Candace Fertile (chair)	$ 7,575.33	$ 12,376.00	$ 19,951.33	Federation of Post-Secondary Educators of BC
Kerry Clarke (vice-chair)	6,549.00	9,908.00	16,457.00	Selkirk College
Doug Birtwistle	4,134.67	9,928.00	14,062.67	Federation of Post-Secondary Educators of BC
Weldon Cowan	4,134.66	8,468.00	12,602.66	Federation of Post-Secondary Educators of BC
Carl Fischer	4,134.67	6,184.00	10,318.67	Minister of Finance
Geraldine Hutchings	4,134.67	7,016.00	11,150.67	Minister of Finance
Michael Lancaster	4,481.66	7,220.00	11,701.66	BC Public Service Agency
Karen Maynes	4,134.67	5,360.00	9,494.67	Board member
Cameron McRobb	4,134.67	6,600.00	10,734.67	BC Government & Service Employees' Union
Paul Ramsey	4,134.67	7,424.00	11,558.67	Board member
Total	**$47,548.67**	**$80,484.00**	**$128,032.67**	

Remuneration rates
Calendar year

	2018		2019	
	Per diem	Quarterly retainer	Per diem	Quarterly retainer
Chair	$408.00	$2,038.00	$416.00	$2,082.00
Vice-chair	$408.00	$1,528.50	$416.00	$1,561.50
Board member	$408.00	$1,019.00	$416.00	$1,041.00

Trustee activities

For the year ending August 31, 2019, the board met for four regularly scheduled two-day meetings. In addition, they met on four other days to conduct board business. Trustees also participated in standing and ad hoc committees, and attended a number of conferences, including the annual BC Public Sector Pension Conference. They also attended scheduled training sessions, and individual trustees participated in educational opportunities to increase their effectiveness on the board.

Board committees

Benefits committee

Chair: Kerry Clarke

Members: All trustees (committee of the whole)

This committee reviews and makes recommendations to the board on amendments to the pension plan rules that affect benefit entitlements and administration. The committee also reports to the board on group extended health care and dental coverage plan design, coverage levels and cost.

Communications committee

Chair: Michael Lancaster

Members: Weldon Cowan, Candace Fertile, Paul Ramsey

The communications committee supports the board in its commitment to provide excellent communication to plan members, employers and stakeholders. It also

- provides input on strategic messaging;
- reviews plan communications materials;
- approves some communications materials (with delegated authority from the board); and
- monitors communications materials for plan identity, best practices and principles of plain language.

Governance committee

Chair: Doug Birtwistle

Members: All trustees (committee of the whole)

The governance committee helps the board fulfil its governance responsibilities by formalizing regular consideration of issues, such as developing and reviewing board policies, risk management processes and board self-assessment tools.

Interplan audit committee

Members: Doug Birtwistle, Kerry Clarke

This committee, which includes representatives from the College, Municipal, Public Service and Teachers' pension boards of trustees,

- monitors and reports to the boards on the compliance of financial statements with Canadian accounting standards for pension plans,
- recommends and monitors the performance of an independent auditor, and
- identifies, monitors and reports to the pension plan boards on the management of the principal risks that could affect the financial reporting of the pension plans.

Interplan executive committee

Members: Kerry Clarke, Candace Fertile

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

Interplan executive forum

Members: Kerry Clarke, Candace Fertile

The executive forum discusses areas of common interest among the College, Municipal, Public Service and Teachers' pension plans, and provides an opportunity for board chairs, vice-chairs and senior administrators from their secretariats to keep up with the activities of the boards.

Interplan investment committee

Members: Carl Fischer, Geraldine Hutchings, Cameron McRobb

This committee provides a forum for considering investment issues common to the College, Public Service and Teachers' pension boards of trustees.

Interplan trustee education committee

Chair: Weldon Cowan

Members: Doug Birtwistle

This committee provides advice to trustees on developing knowledge and skills, as well as opportunities to do so. It also works on common educational issues.

Interplan website review committee

Members: Candace Fertile, Cameron McRobb

This committee provides feedback to Pension Corporation on website integration, design, format and functionality.

Plan agents and service providers

- **British Columbia Investment Management Corporation** (BCI) provides investment management services to the College Pension Plan as an agent of the board. BCI is one of Canada's largest investment managers, with a portfolio of $145.6 billion as at March 31, 2019. It offers investment options across a range of asset classes, including infrastructure, renewable resources and long-term strategic themes.
- **BC Pension Corporation** provides professional pension services to the plan. One of Canada's largest pension service providers, BC Pension Corporation serves the largest public sector pension plans in British Columbia, representing more than 600,000 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.** serves as the plan's independent actuary. Eckler conducts an actuarial valuation on the plan's funding every three years and supports the board in its decision making as appropriate.
- **Green Shield Canada** provides retired plan members access to voluntary group extended health care and dental coverage.
- **Lawson Lundell LLP** is the plan's legal counsel.
- **KPMG LLP** provides external audit services to the plan.
- **Willis Towers Watson** is the plan's benefits advisor.

Pension board secretariat

Pension board secretariat provides day-to-day professional and operational support to help the board meet its governance and fiduciary obligations.

Plan partners

The plan partners negotiate the JTA, which sets out how the plan is to be managed. Joint trusteeship is shared pension plan management by appointees of the plan partners:

- BC Government and Service Employees' Union
- Federation of Post-Secondary Educators of BC
- Government of British Columbia
- Post-Secondary Employers' Association

Membership

The plan's members are employees and senior administrators providing educational services to students at any of the plan's 23 employers.

Who's in the plan?

Active members are those currently contributing to the plan, on an approved leave of absence or receiving benefits from an approved long-term disability plan. There are **14,971** active plan members—**50** per cent of the membership.

Inactive members have ended their employment and kept their benefit in the plan. They are entitled to a pension from the plan but are not currently receiving one. There are **6,644** inactive plan members—**22** per cent of the membership.

Retired members are those who receive a pension, including a survivor pension. For the purposes of this report, members receiving disability benefits are also counted in this group. There are **8,435** retired plan members—**28** per cent of the membership.

Limited members are members' former spouses who applied to the plan following a separation or divorce and are entitled to a portion of a pension.

Employers

Participating employers
as at August 31, 2019

Employer	Location	Effective date	Website
British Columbia Institute of Technology	Burnaby	January 12, 1978	bcit.ca
Camosun College	Victoria	June 1, 1971	camosun.ca
Capilano University	North Vancouver	September 1, 1968	capilanou.ca
Coast Mountain College[1]	Dawson Creek	September 1, 1975	coastmountaincollege.ca
College of New Caledonia	Prince George	September 1, 1968	cnc.bc.ca
College of the Rockies	Cranbrook	May 8, 1975	cotr.bc.ca
Douglas College	New Westminster	April 1, 1970	douglascollege.ca
Emily Carr University of Art and Design	Vancouver	January 19, 1978	ecuad.ca
Justice Institute of British Columbia	New Westminster	April 27, 1978	jibc.ca
Knowledge Network Corporation	Burnaby	June 1, 1976	knowledge.ca
Kwantlen Polytechnic University	Surrey	July 1, 1981	kpu.ca
Langara College	Vancouver	April 1, 1994	langara.ca
Lester B. Pearson College of the Pacific	Victoria	January 31, 1974	pearsoncollege.ca
Nicola Valley Institute of Technology	Merritt	September 1, 1995	nvit.ca
North Island College	Courtenay	August 1, 1975	nic.bc.ca
Northwest Community College	Terrace	September 1, 1975	nwcc.bc.ca
Okanagan College[2]	Kelowna	September 1, 1968	okanagan.bc.ca
Royal Roads University	Victoria	January 1, 1998	royalroads.ca
Selkirk College	Castlegar	September 1, 1968	selkirk.ca
Thompson Rivers University	Kamloops	November 1, 1974	tru.ca
University of the Fraser Valley	Abbotsford	November 1, 1974	ufv.ca
Vancouver Community College	Vancouver	September 1, 1968	vcc.ca
Vancouver Island University[3]	Nanaimo	September 1, 1968	viu.ca

1 Formerly Northwest Community College
2 Formerly a part of Okanagan University College
3 Formerly Malaspina University College and Malaspina Regional College

Contributions

Plan members and employers pay contributions to fund future pensions; plan members contribute through automatic deductions from their employment earnings. When members retire, their pension is funded by these contributions and investment returns. Approximately 30 cents of every dollar retired members receive comes from their contributions and their employers' contributions; the remaining 70 cents comes from investment returns.

As a retirement savings vehicle for more than 30,000 plan members, the plan holds over $5 billion in net assets available for benefits.

Benefits

Basic lifetime pension benefit

The plan's basic lifetime pension benefit is based on an accrual rate, the years of pensionable service members accrued in the plan and members' highest average salary (highest five years, not necessarily the last five years). Plan members are immediately vested, meaning they are entitled to a pension benefit as soon as they make their first contribution to the plan. The plan also provides survivor and disability benefits.

Cost-of-living adjustments (not guaranteed)

Over and above lifetime pensions, the plan may also grant cost-of-living adjustments (COLAs). Future increases are not guaranteed; however, once granted, COLAs become part of members' lifetime pensions.

Access to post-retirement group benefits

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

Bridge benefit for service earned before January 1, 2016

If members retire before age 65, their pension may include a temporary payment called the bridge benefit. Based on any service earned before January 1, 2016, this benefit is paid from members' retirement dates until age 65 (or death, whichever is earlier).

Plan rule updates

The following plan rule updates were effective in 2018, 2019 or 2020.

Better inflation protection

To strengthen the inflation adjustment account (IAA), member and employer contribution rates increased $0.90 each for every $1,000 of salary earned, effective April 1, 2019.

Member and employer contributions, along with investment income, fund the IAA, which is used to pay for cost-of-living adjustments (COLAs) for retired members. Yearly contribution increases will continue until the IAA is sufficiently funded for retired members to receive full and ongoing cost-of-living indexing.

COLAs are not guaranteed; however, once granted, they become part of a member's guaranteed lifetime pension.

Employment Standards Act and Medical Services Plan

The plan updated its rules twice to reflect two changes to the provincial *Employment Standards Act*. Both updates included new and expanded types of approved leaves for employees. The first update was approved on December 11, 2018 (retroactive to May 17, 2018), and the second on December 12, 2019 (retroactive to May 30, 2019). Under these updates, members taking a leave of absence due to domestic or sexual violence, a family member with critical illness or injury, or the death or disappearance of a child now have the ability to buy service for the time they were on leave.

The post-retirement group benefit rules were amended to reflect the elimination of provincial Medical Services Plan premiums, effective January 1, 2020 (approved by the board on June 21, 2019).

Administrative amendments

Effective December 11, 2018, plan rule terminology was amended to ensure consistent use and compliance with the BC *Pension Benefits Standards Act*.

Breach abatement and prevention

In fall 2018, a box of microfiche containing College Pension Plan member public and personal payroll information from the 1980s and 1990s went missing during a move at the offices of our administrative agent, BC Pension Corporation. After an extensive search, the corporation declared a privacy breach and contacted BC's Office of the Information and Privacy Commissioner (OIPC). The corporation worked with the OIPC to implement breach abatement procedures, including contacting all affected plan members and offering credit-monitoring services. While the board and the corporation have no indication any missing information was used illegally, important lessons have been learned, which will help prevent future breaches.

Graphs, tables and charts

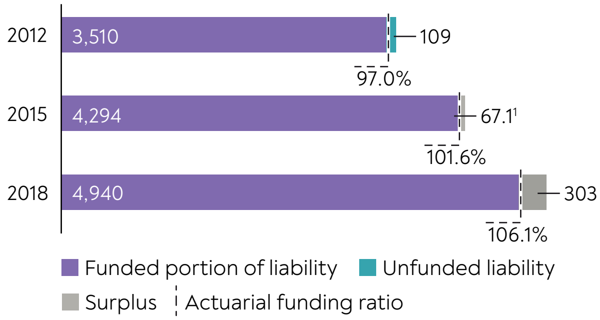
Financial summary

Five-year financial summary (2015–2019) ($ millions)
year ended August 31

	2019	2018	2017	2016	2015
Increase in assets					
Investment income	**$ 303.9**	$ 486.8	$ 322.9	$ 272.0	$ 286.6
Contributions					
Employers	**90.0**	84.6	78.3	75.0	72.1
Members	**89.3**	83.8	78.1	74.4	71.6
Transfers from other plans	**4.3**	4.9	6.6	5.5	5.3
Total increase in assets	**487.5**	660.1	485.9	426.9	435.6
Decrease in assets					
Pension benefits	**200.1**	190.2	173.9	163.8	153.8
Transfers to other plans	**1.3**	1.1	2.2	1.7	2.3
Investment and administration costs*	**13.5**	15.5	12.4	12.8	11.3
Total decrease in assets	**214.9**	206.8	188.5	178.3	167.4
Increase in net assets	**272.6**	453.3	297.4	248.6	268.2
Net assets availabe for benefits at beginning of year	**5,071.0**	4,617.7	4,320.3	4,071.7	3,803.5
Net assets availabe for benefits at end of year	**$5,343.6**	$5,071.0	$4,617.7	$4,320.3	$4,071.7
Investment and administration costs* as a percentage of net assets					
Investment management:					
Indirect costs*	**0.15%**	0.10%	0.09%	0.05%	0.04%
Direct costs	**0.17%**	0.23%	0.18%	0.20%	0.19%
	0.32%	0.33%	0.27%	0.25%	0.23%
Benefits administation	**0.09%**	0.09%	0.09%	0.10%	0.09%

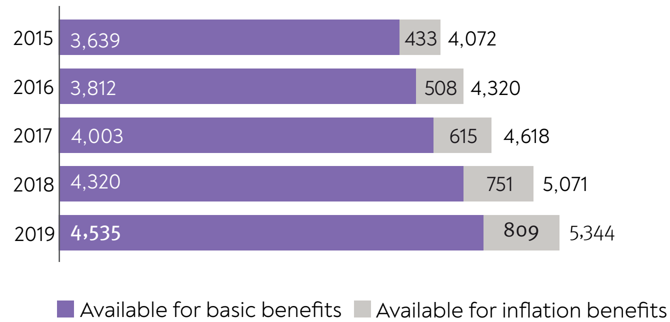
* Unallocated and external investment management costs of $7.7 million (2018 -- $4.7 million; 2017 -- $4.0 million; 2016 -- $2.1 million 2015 --$1.8 million) reduce investment income and are not included in investment and administration costs. They are included in investment management costs as a percentage of net assets.

Funding for total basic actuarial liability ($ millions)
as at August 31

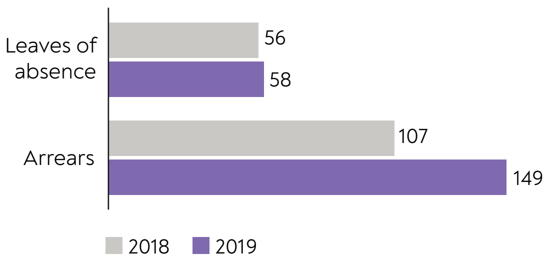


1 Actuarial surplus is $154.3 million (103.6%) with previously scheduled amortization

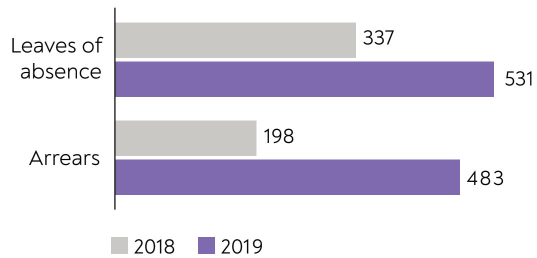
Net assets available for benefits ($ millions)
as at August 31



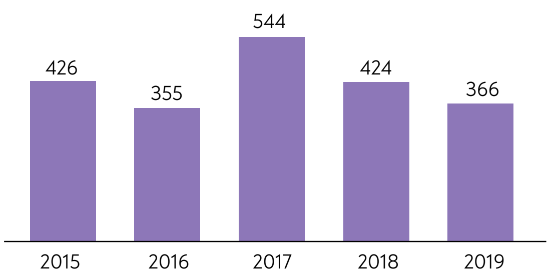
Number of purchases
year ended August 31



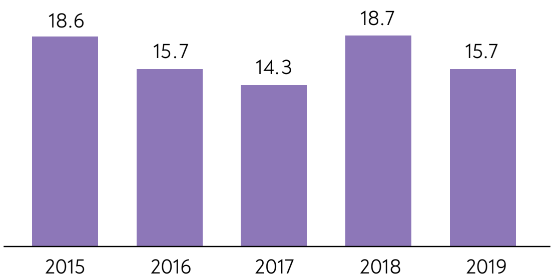
Value of purchases ($ thousands)
year ended August 31



Number of termination and refund benefits paid
year ended August 31



Value of termination and refund benefits paid ($ millions)
year ended August 31

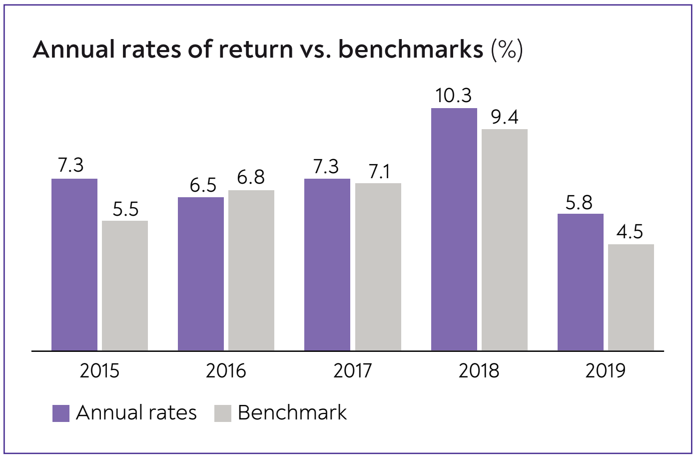


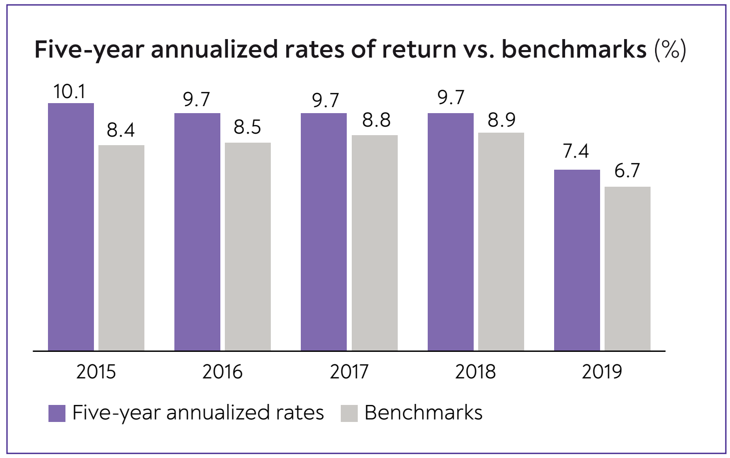
Investment summary

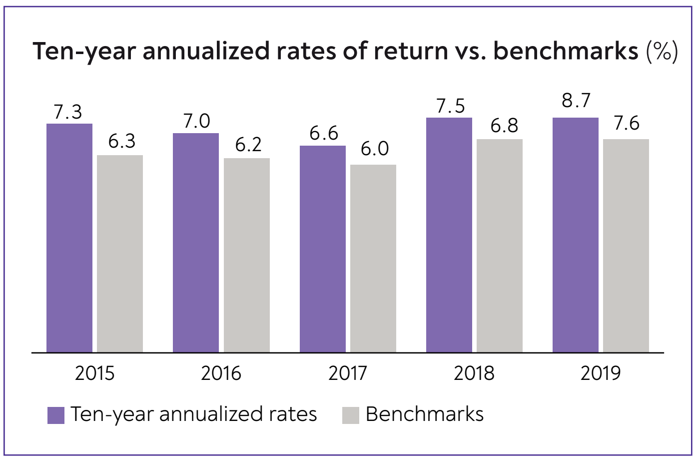
Asset mix and performance (%)
as at August 31, 2019

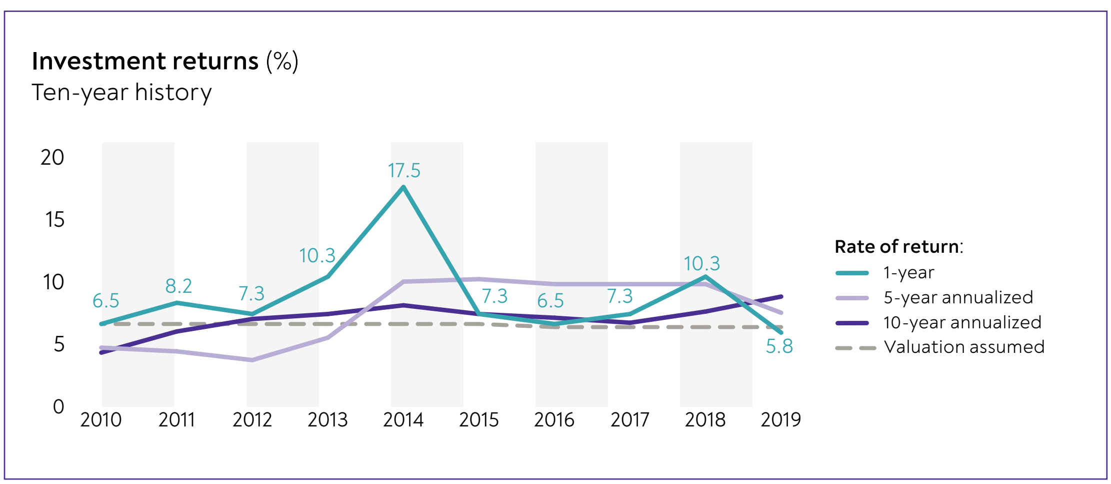
Asset	Approved ranges	Target asset mix market value	Actual asset mix market value	One-year rate of return	Performance benchmark[1]
Fixed income	**10–35**	**20**	**19.8**	**8.6**	**8.1**
Short-term	0–10	2	2.0	2.9	1.7
Mortgages	0–10	3	3.4	6.0	4.9
Bonds	8–25	15	14.4	10.0	9.6
Public equity	**32–57**	**46**	**44.4**	**1.5**	**1.7**
Canadian equities	5–17	10	9.6	2.7	4.3
Global equities	17–35	26	25.3	2.0	2.2
Emerging markets	5–15	10	9.5	(1.9)	(2.5)
Real estate	**8–21**	**14**	**15.8**	**9.5**	**5.9**
Realpool domestic	n/a	n/a	10.9	7.0	5.9
International real estate	n/a	n/a	4.9	14.8	5.9
Private placements and IRR[2]	**10–30**	**20**	**20.0**	**n/a**	**n/a**
Private equity	3–15	8	9.2	12.9	3.6
IRR[2]	7–17	12	10.8	9.3	7.0
Other	**0–5**	**0**	**0.0**	**7.2**	**6.9**
Total portfolio		100	100.0	5.8	4.5

1 Benchmarks are objective standards approved by the board to evaluate actual investment returns.
2 Infrastructure and renewable resources


Annual rates of return vs. benchmarks (%)
7.3
5.5
6.5
6.8
7.3
7.1
10.3
9.4
5.8
4.5
2015
2016
2017
2018
2019
Annual rates
Benchmark


Five-year annualized rates of return vs. benchmarks (%)
10.1
8.4
9.7
8.5
9.7
8.8
9.7
8.9
7.4
6.7
2015
2016
2017
2018
2019
Five-year annualized rates
Benchmarks


Ten-year annualized rates of return vs. benchmarks (%)
7.3
6.3
7.0
6.2
6.6
6.0
7.5
6.8
8.7
7.6
2015
2016
2017
2018
2019
Ten-year annualized rates
Benchmarks


Investment returns (%)
Ten-year history
20
15
10
5
0
6.5
8.2
7.3
10.3
17.5
7.3
6.5
7.3
10.3
5.8
2010
2011
2012
2013
2014
2015
2016
2017
2018
2019
Rate of return:
1-year
5-year annualized
10-year annualized
Valuation assumed

Investment portfolio

Top 25 company holdings[1]
as at August 31, 2019

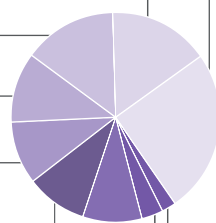
Total public equity exposure—worldwide

Company	**% of portfolio**	**% of public equity**	**Total exposure (million)**
Chinese state-controlled companies[2]	0.8	1.8	$42.3
The Toronto-Dominion Bank	0.6	1.4	33.5
Microsoft Corp.	0.6	1.3	29.8
Royal Bank of Canada	0.5	1.2	28.7
Alibaba Group Holding Ltd.	0.4	1.0	23.4
Tencent Holdings Ltd.	0.4	1.0	23.1
Alphabet Inc.	0.4	0.9	21.3
Apple Inc.	0.4	0.9	20.6
Samsung Electronics Co. Ltd.	0.4	0.8	19.6
Brookfield Asset Management Inc.	0.4	0.8	18.9
Taiwan Semiconductor Manufacturing	0.3	0.8	18.7
Amazon.com Inc.	0.3	0.7	17.5
Canadian National Railway Co.	0.3	0.7	15.7
Suncor Energy Inc.	0.3	0.6	14.5
Enbridge Inc.	0.3	0.6	13.6
Bank of Nova Scotia	0.2	0.5	12.5
Alimentation Couche Tard Inc.	0.2	0.5	12.0
Canadian Pacific Railway Ltd.	0.2	0.5	11.5
MasterCard Inc.	0.2	0.5	11.5
Visa Inc.	0.2	0.5	10.7
TransCanada Corp.	0.2	0.5	10.6
Johnson & Johnson	0.2	0.4	10.2
CGI Group Inc.	0.2	0.4	9.9
Procter & Gamble Co.	0.2	0.4	9.6
Ping An Insurance (Group) of China	0.2	0.4	9.6
Total top 25	**8.4**	**19.0**	**$449.3**
Total Public Equity			**$2,365.4**
Total Portfolio			**$5,337.2**

1 Company regional exposures are based on pool fund asset class designations, per the Statement of Investment Policy and Procedures.
2 Company exposures are based on the ultimate parent company exposure regardless of where the security is listed or traded. As a result, the above exposure report shows Chinese state-controlled companies as one of the top exposures because the ultimate parent company for many companies in China, is the Chinese government.

Investment holdings[1] ($ millions) (market value)
as at August 31, 2019

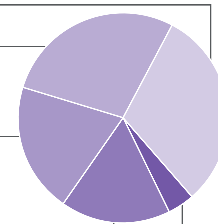
Global equities	$1,348.1	25%
real estate	$845.6	16%
Bonds	$766.4	14%
IRR[2]	$577.6	11%
Canadian equities	$510.5	10%
Emerging markets equities	$506.8	10%
Private equity	$488.8	9%
Mortgages	$184.0	3%
Short-term	$108.8	2%
Other	$0.6	0%



1 Asset classifications vary from the financial statements for performance reporting
2 Infrastructure and renewable resources

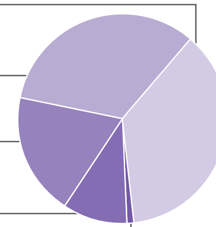
Real estate, by location (%)
as at August 31, 2019

Global	31.0
Ontario	28.0
British Columbia	20.0
Alberta	17.0
Rest of Canada	4.0

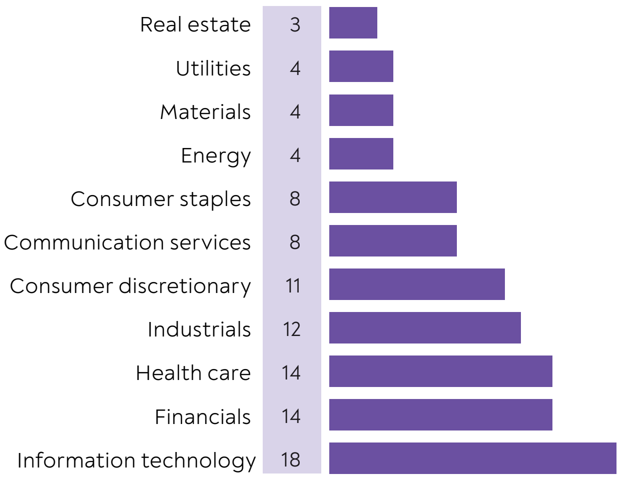


Domestic real estate, by type (%)
as at August 31, 2019

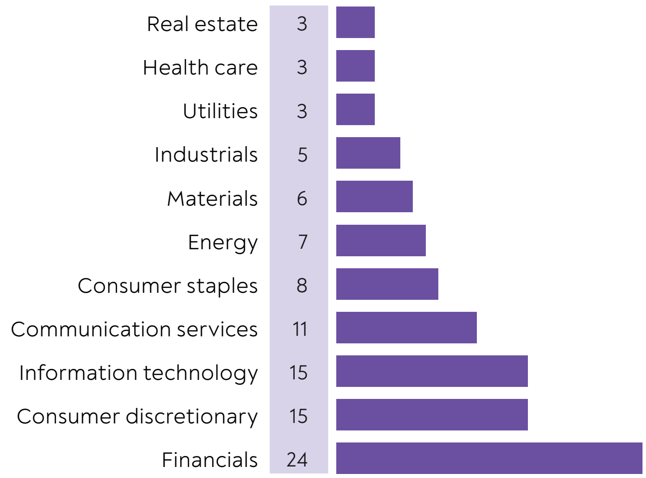
Office	37.0
Residential	33.0
Industrial	19.0
Retail	10.0
Other	1.0



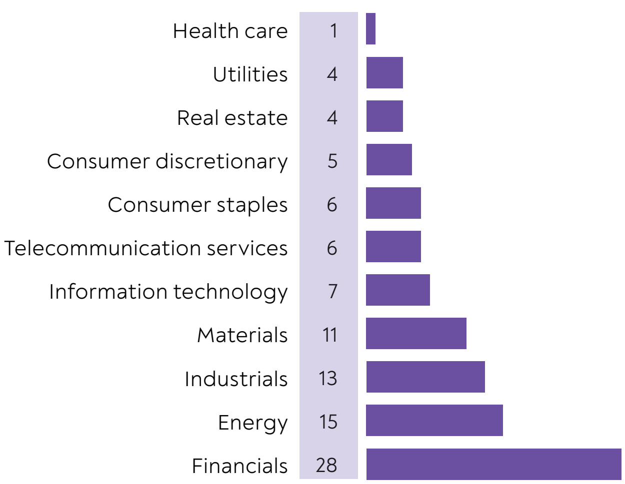
Global equities, by sector (%)
as at August 31, 2019



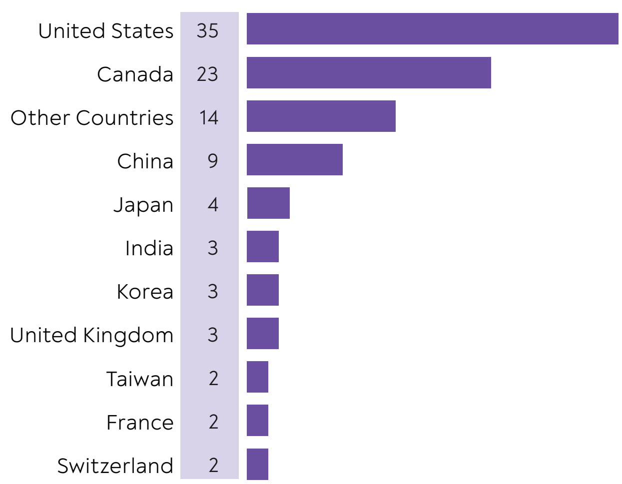
Emerging markets equities, by sector (%)
as at August 31, 2019



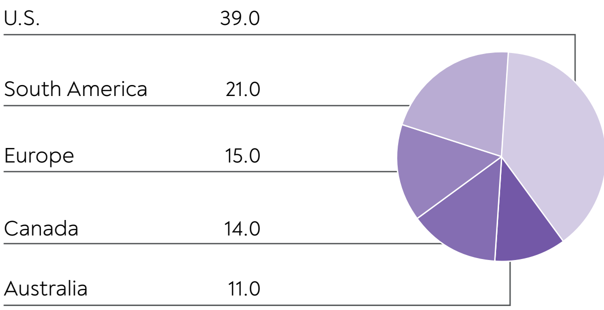
Canadian equities, by sector (%)
as at August 31, 2019



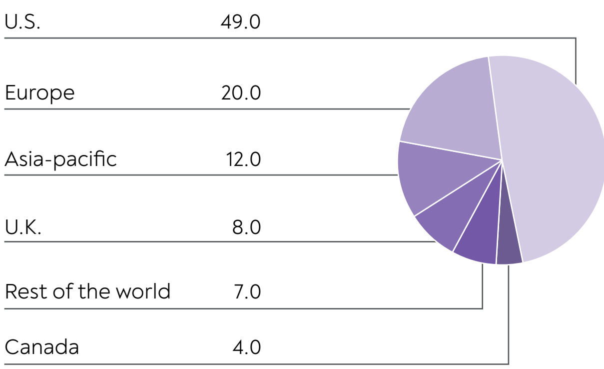
Public equities, by country (%)
as at August 31, 2019



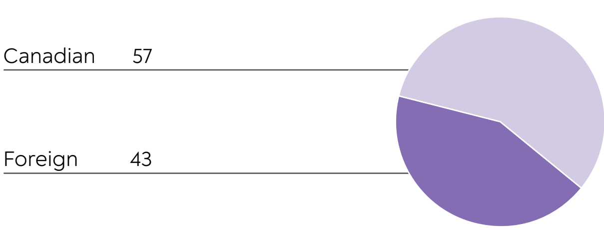
Infrastructure and renewable resources regional diversification (%)
as at August 31, 2019



Private equity regional diversification (%)
as at August 31, 2019

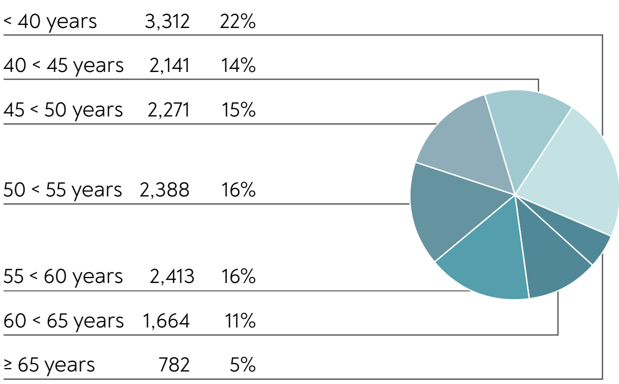


Foreign currency exposure (% market value)
as at August 31, 2019

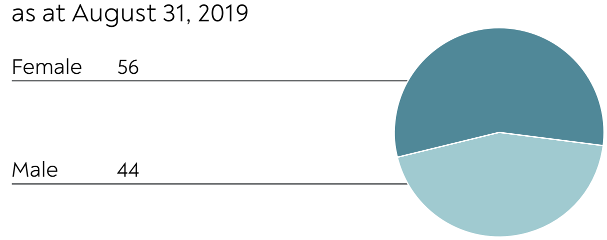


Membership summary

Active members, by age
as at August 31, 2019



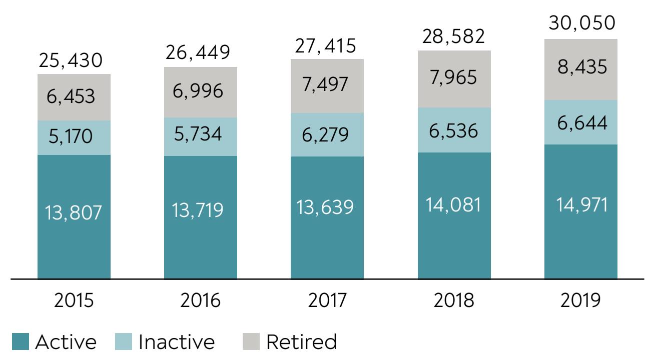
Active members, by sex (%)
as at August 31, 2019



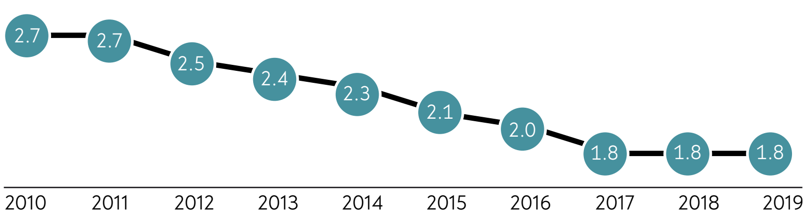
Contribution rates as a percentage of salaries (%)

Effective date	Member	Employer
April 1, 2019	10.24	10.34
April 1, 2018	10.15	10.25

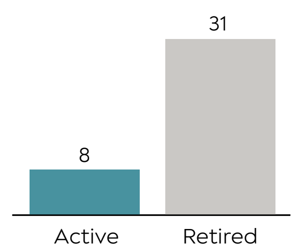
Number of members
as at August 31



Ratio of active to retired members
as at August 31



Change in membership (%)
August 31, 2015 to August 31, 2019



Profile of pensions
year ended August 31

Year	New pensions	Pensions ended during year	Pensions in pay	$ millions Pensions paid	$ millions Inflation adjustments paid	$ millions Total pensions paid
2019	**556**	**86**	**8,435**	**$ 160.7**	**$ 23.7**	**$ 184.4**
2018	560	92	7,965	150.5	21.0	171.5
2017	575	74	7,497	140.2	19.3	159.5
2016	630	87	6,996	130.3	17.8	148.1
2015	486	58	6,453	118.9	16.3	135.2

New pensions, by type
year ended August 31

Year	Regular	Limited member	Survivor	LTD[1] to pension and disability	Deferred	Total
2019	384	7	10	23	132	556
2018	381	7	11	19	142	560
2017	372	4	6	30	163	575
2016	429	19	5	27	150	630
2015	354	11	7	18	96	486

1 Long-term disability

New pension profile
year ended August 31, 2019

Years of service	Number of new pensions – Age at retirement < 55[1]	55 < 60	60 < 65	≥ 65	Total	Average annual salary base	Average annual pension[2,3]	Median annual pension[2,4]	Average lifetime annual pension[3,5]	Median lifetime annual pension[4,5]
< 10	2	43	88	108	**241**	$ 79,773	$ 5,801	$ 3,672	$ 5,047	$ 3,355
10 < 15	0	16	33	24	**73**	88,912	20,737	19,908	18,794	18,334
15 < 20	1	17	38	38	**94**	93,231	28,799	28,668	26,332	26,497
20 < 25	0	17	18	26	**61**	94,923	37,682	36,792	34,620	33,986
25 < 30	1	8	21	21	**51**	95,910	47,423	45,822	44,443	43,057
30 < 35	0	2	8	12	**22**	94,582	55,791	53,758	53,466	53,034
≥ 35	0	1	3	10	**14**	92,221	64,544	62,413	63,055	59,907
Total	**4**	**104**	**209**	**239**	**556**					
Average						**$ 87,261**	**$ 22,423**	**$ 19,275**	**$ 20,685**	**$ 18,030**

	Average years of service				
Male		15	12	14	13
Female	17	13	14	14	14
Average	**13**	**13**	**13**	**14**	**13**
Average age at retirement					**63**

1 Limited member and survivor pensions
2 Includes bridge benefits and temporary annuities
3 Total new pensions divided by total new pension recipients
4 Half of the new pensions are less than this amount and half of the new pensions are greater than this amount
5 The lifetime pension does not include bridge benefits or temporary annuities that end at age 65

Financial statements

BC PENSION CORPORATION

February 13, 2020

Re: College Pension Plan

Administrative agent's responsibility for financial reporting

The financial statements of the College Pension Plan (Plan) were prepared by British Columbia Pension Corporation (Pension Corporation), the administrative agent for the College Pension Board of Trustees (Board) 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 (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 *College 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.	**Allan Chen, CPA, CA**
Vice-president, Corporate Services and Chief Financial Officer	Controller, Financial Services
British Columbia Pension Corporation	British Columbia Pension Corporation

Executive Offices

Mail: PO Box 9460
Victoria, BC V8W 9V8

Phone: 250 387-8201
Fax: 250 953-0429

bcpensioncorp.ca

KPMG LLP
PO Box 10426 777 Dunsmuir Street
Vancouver BC V7Y 1K3
Canada
Telephone (604) 691-3000
Fax (604) 691-3031

INDEPENDENT AUDITORS' REPORT

To the Members of the College Pension Plan

Opinion

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

- the statement of financial position as at August 31, 2019
- 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 and other explanatory information.

(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 August 31, 2019, 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.

College Pension Plan
Page 2

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.

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.

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.

College Pension Plan
Page 4

- 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
February 13, 2020

COLLEGE PENSION PLAN

Statement of financial position

($ millions)

College Pension Plan

As at August 31	Note	2019	2018
Assets			
Investments	3a	$ **5,337.2**	$ 5,067.8
Directly held derivatives	3b	**7.1**	5.2
Receivables			
Due from sale of investments		**9.3**	4.0
Employers' contributions		**3.5**	3.6
Members' contributions		**3.5**	3.5
		16.3	11.1
Prepaid expenses		**0.4**	0.3
Total assets		**5,361.0**	5,084.4
Liabilities			
Payable for purchase of investments		**10.2**	5.8
Directly held derivatives	3b	**2.7**	3.1
Accounts payable and accrued expenses		**2.4**	2.5
Taxes payable		**2.1**	2.0
Total liabilities		**17.4**	13.4
Net assets available for benefits		**$ 5,343.6**	**$ 5,071.0**
Accrued pension obligations			
Accrued basic pension obligations	4a	$ **3,896.9**	$ 3,764.7
Non-guaranteed pension obligations	4b	**808.8**	751.1
Accrued pension obligations		**4,705.7**	4,515.8
Surplus			
Funding surplus	5a	**362.0**	232.3
Measurement differences between funding and accounting positions	5a	**275.9**	322.9
Surplus		**637.9**	555.2
Accrued pension obligations and surplus		**$ 5,343.6**	**$ 5,071.0**

All accompanying notes are an integral part of the financial statements including:
Commitments (note 14)

Approved by the College Pension Board of Trustees:

Kerry Clarke, Chair
College Pension Board of Trustees

Doug Birtwistle, Trustee
College Pension Board of Trustees

COLLEGE PENSION PLAN

Statement of changes in net assets available for benefits

($ millions)

College Pension Plan

For the year ended August 31	Note	Basic account	Inflation adjustment account	Supplemental benefits account	Totals 2019	Totals 2018
Increase in assets						
Investment income	8	$ 259.2	$ 44.7	$ -	**$ 303.9**	$ 486.8
Contributions						
Member	9	73.5	15.8	-	**89.3**	83.8
Employer	9	73.5	15.6	0.9	**90.0**	84.6
		147.0	31.4	0.9	**179.3**	168.4
Transfers from other plans		3.7	0.6	-	**4.3**	4.9
Total increase in assets		409.9	76.7	0.9	**487.5**	660.1
Decrease in assets						
Benefits	10	197.2	2.0	0.9	**200.1**	190.2
Transfers to other plans		1.1	0.2	-	**1.3**	1.1
Investment and administration	12	12.2	1.3	-	**13.5**	15.5
Total decrease in assets		210.5	3.5	0.9	**214.9**	206.8
Increase in net assets before transfers		199.4	73.2	-	**272.6**	453.3
Account transfers	13	15.5	(15.5)	-	-	-
Increase in net assets		**$ 214.9**	**$ 57.7**	**$ -**	**$ 272.6**	**$ 453.3**
Net assets available for benefits at beginning of year		$ 4,319.9	$ 751.1	$ -	**$ 5,071.0**	$ 4,617.7
Net assets available for benefits at end of year		**$ 4,534.8**	**$ 808.8**	**$ -**	**$ 5,343.6**	**$ 5,071.0**

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

COLLEGE PENSION PLAN

Statement of changes in accrued pension obligations

($ millions)

For the year ended August 31	Note	2019	2018
Increase in accrued pension obligations			
Interest on accrued pension obligations		$ **230.0**	$ 222.3
Benefits accrued		**150.4**	145.7
Account transfers		**39.0**	26.8
Total increase in accrued pension obligations		**419.4**	394.8
Decrease in accrued pension obligations			
Benefits paid		**203.7**	193.1
Experience gains	4a	**77.5**	-
Changes in actuarial assumptions	4a	**6.0**	-
Total decrease in accrued pension obligations		**287.2**	193.1
Net increase in accrued pension obligations		**132.2**	201.7
Accrued basic pension obligations at beginning of year		**3,764.7**	3,563.0
Accrued basic pension obligations at end of year	4a	**3,896.9**	3,764.7
Increase in non-guaranteed pension obligations	4b	**57.7**	136.4
Non-guaranteed pension obligations at beginning of year		**751.1**	614.7
Non-guaranteed pension obligations at end of year	4b	**808.8**	751.1
Total accrued pension obligations		**$ 4,705.7**	**$ 4,515.8**

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

COLLEGE PENSION PLAN

Notes to the financial statements for the year ended August 31, 2019

($ millions except as otherwise noted)

1. DESCRIPTION OF THE COLLEGE PENSION PLAN

The following description of the College Pension Plan (Plan) is a summary provided for general information only. For more information, please refer to the Joint Trust Agreement (Agreement) and the College 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 1, 2000. The partners to the Agreement are the Province of British Columbia, the Post-Secondary Employers' Association, the Federation of Post-Secondary Educators of BC and the British Columbia Government and Service Employees' Union (Partners). The Agreement describes the composition, appointment, powers, functions and duties of the College 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.

The Plan is for senior administrative employees and faculty members of specified British Columbia colleges, universities and institutes. For employees hired on or after September 1, 1999, all full-time and some part-time senior administrative employees and faculty are required to participate; certain part-time staff may do so voluntarily.

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. 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 Agreement allows the Board to either appoint a chair from among the 10 trustees or appoint a person not appointed by the Partners. The vice-chair is appointed by the other trustees, from among the 10 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.

COLLEGE PENSION PLAN

Notes to the financial statements for the year ended August 31, 2019

($ millions except as otherwise noted)

1. DESCRIPTION OF THE COLLEGE 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 a triennial actuarial valuation 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 8.39% of salaries and employers contributed 8.49% of salaries, less amounts allocated to the Supplemental Benefits Account.

Inflation Adjustment Account and Supplemental Benefits Account

Effective April 1, 2019, members and employers each contributed 1.85% (1.76% effective April 1, 2018; 1.66% effective April 1, 2017) of salaries to the Inflation Adjustment Account (IAA), less amounts allocated to the Supplemental Benefits Account (SBA).

e) Pension benefits

All members are eligible for a pension benefit.

Members are eligible for unreduced pension benefits

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

Other retiring members have a reduction formula applied to their pensions.

For service after December 31, 2015, the Plan provides a defined basic plan benefit of 2% of pensionable earnings for each year of pensionable service. Pensionable earnings are based on the member's highest five-year average annual salary (HAS). The early retirement reduction applicable for service accrued after this date will be 3% for each year a member is below age 65 and applies to all members, except those who have reached age 55 and completed at least 35 years of contributory service.

For service up to December 31, 2015, the defined basic plan benefit is integrated with the Canada Pension Plan (CPP). The Plan provides a benefit of 1.7% of pensionable earnings up to the year's maximum pensionable earnings (YMPE) and 2% of pensionable earnings over the YMPE, for each year of pensionable service. The early retirement reduction applied, for members who are under age 60 with two or more years of contributory service is either 3% or 5% for each year a member is below age 60, depending on certain criteria. For members with less than two years of contributory service, the reduction is 5% for each year a member is below age 65.

Also for service up to December 31, 2015, the Plan provides a bridge benefit payable to age 65 (or the date of death, if earlier). The bridge benefit is 0.3% of the lesser of YMPE or the HAS for each year of pensionable service.

Increases to pension payments related to cost-of-living adjustments are not guaranteed but may be provided each January 1 in accordance with the cost-of-living adjustment provisions of the Plan.

COLLEGE PENSION PLAN

Notes to the financial statements for the year ended August 31, 2019

($ millions except as otherwise noted)

1. DESCRIPTION OF THE COLLEGE PENSION PLAN (CONTINUED)

e) Pension benefits (continued)

These cost-of-living adjustments cannot exceed the lesser of the maximum sustainable indexing rate, as recommended by the actuary, and the increase in the average in the Canada consumer price index (CPI) for the 12 months ending the previous October 31 over the highest average CPI for any previous 12-month period ending October 31. They are subject to availability of funds in the IAA.

The Board annually considers all relevant factors and its IAA funding policy to determine the amount of the cost-of-living adjustment, if any.

f) Termination and portability benefit

A terminating member who is eligible for a pension but has 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.

A terminating member may also choose to leave monies 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 contributory and pensionable 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 65 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 HAS. Disability benefits continue for the member's lifetime unless the member is no longer totally and permanently disabled before age 65 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.

Supplemental benefits are funded from the SBA.

h) Tax registration

The Plan is a registered pension plan (RPP) as defined in the *Income Tax Act* (Canada) (Tax Act) (registration number 0361899), 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 the GST paid.

COLLEGE PENSION PLAN

Notes to the financial statements for the year ended August 31, 2019

($ 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 benefits 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.

COLLEGE PENSION PLAN

Notes to the financial statements for the year ended August 31, 2019

($ 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 for 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			2019			2018
	Basic account	Inflation adjustment account	Total	Basic account	Inflation adjustment account	Total
Short-term	$ **92.8**	$ **16.0**	$ **108.8**	$ 98.5	$ 16.5	$ 115.0
Bonds	**654.0**	**112.4**	**766.4**	689.6	115.8	805.4
Canadian equities	**436.1**	**75.0**	**511.1**	409.3	68.7	478.0
U.S. equities	**88.1**	**15.2**	**103.3**	57.6	9.7	67.3
International equities	**1,494.7**	**256.9**	**1,751.6**	1,572.4	263.9	1,836.3
Mortgages	**157.0**	**27.0**	**184.0**	106.0	17.8	123.8
Real estate	**721.2**	**124.0**	**845.2**	641.2	107.6	748.8
Private equity	**417.1**	**71.7**	**488.8**	338.2	56.8	395.0
IRR*	**493.2**	**84.8**	**578.0**	426.6	71.6	498.2
	$ **4,554.2**	$ **783.0**	$ **5,337.2**	$ **4,339.4**	$ **728.4**	$ **5,067.8**

* 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, U.S. and international 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.

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 to five-year terms. Short-term investments are valued using current market yields.

COLLEGE PENSION PLAN

Notes to the financial statements for the year ended August 31, 2019

($ millions except as otherwise noted)

3. INVESTMENTS (continued)

a) Investments (continued)

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 market-based 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 market-based approach or net asset value method.

($ 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	2019		2018	
	Positive fair value	Negative fair value	Positive fair value	Negative fair value
Directly held				
Foreign currency forwards	$ **7.1**	$ **(2.7)**	$ 5.2	$ (3.1)
	7.1	**(2.7)**	**5.2**	**(3.1)**
Indirectly held in pooled investment portfolios				
Foreign currency forwards	**0.5**	**(0.3)**	0.1	(0.6)
Options	**1.2**	**(1.1)**	-	-
Futures	**0.2**	**-**	0.1	-
Interest rate swaps	**-**	**(5.0)**	0.1	-
Total return swaps	**7.0**	**(13.5)**	5.3	(1.4)
	8.9	**(19.9)**	**5.6**	**(2.0)**
Total derivatives	**$ 16.0**	**$ (22.6)**	**$ 10.8**	**$ (5.1)**
Derivatives by investment asset classification				
Bonds	$ **0.6**	$ **(0.2)**	$ 0.1	$ (0.5)
Canadian equities	**0.9**	**(1.2)**	0.3	(0.2)
U.S. equities	**0.5**	**(0.3)**	0.3	-
International equities	**6.9**	**(18.1)**	4.9	(1.3)
Mortgages	**0.2**	**(0.3)**	0.2	(0.1)
Real estate	**2.7**	**(1.5)**	2.1	(1.0)
IRR*	**4.2**	**(1.0)**	2.9	(2.0)
	$ 16.0	**$ (22.6)**	**$ 10.8**	**$ (5.1)**

*Infrastructure and renewable resources

Derivative contracts consist of foreign currency forward contracts, 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 directly held by the plan to manage exposure to foreign currency risk.

3. INVESTMENTS (CONTINUED)

b) Derivatives (continued)

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.

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.

($ millions except as otherwise noted)

3. INVESTMENTS (CONTINUED)

b) Derivatives (continued)

Notional value of derivatives			2019	2018
Term to maturity	**Within 1 year**	**1 to 5 years**	**Total**	**Total**
Derivatives by type of contract				
Foreign currency forwards	$ 732.2	$ -	$ 732.2	$ 575.3
Options	92.5	-	92.5	11.8
Futures	5.5	-	5.5	1.2
Interest rate swaps	86.6	442.1	528.7	40.6
Total return swaps	998.5	11.7	1,010.2	432.7
	$ 1,915.3	$ 453.8	$ 2,369.1	$ 1,061.6
Derivatives by investment asset classification				
Bonds	$ 76.2	$ -	$ 76.2	$ 79.3
Canadian equities	202.6	62.7	265.3	28.5
U.S. equities	71.7	18.6	90.3	24.3
International equities	904.3	372.5	1,276.8	438.2
Mortgages	67.3	-	67.3	29.1
Real estate	344.2	-	344.2	236.9
Private equity	-	-	-	-
IRR*	249.0	-	249.0	225.3
	$ 1,915.3	$ 453.8	$ 2,369.1	$ 1,061.6

* 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.

The latest full actuarial valuation for accounting purposes was prepared as at August 31, 2018, by Eckler Ltd. This valuation calculated the liability for accrued basic pension obligations for financial statement purposes to be $3,681.2 (2015: $3,186.1).

COLLEGE PENSION PLAN

Notes to the financial statements for the year ended August 31, 2019

($ millions except as otherwise noted)

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

a) Basic Account (continued)

Between valuations, an estimate of the actuarial position is required. This estimate, an extrapolation, has been made to August 31, 2019, using the following long-term actuarial assumptions:

- Annual investment return 6.25% (2015: 6.25%)
- Annual salary escalation rate 3.50% (2015: 3.50%)

The extrapolation calculated the liability for accrued basic pension obligations to be $3,896.9 (2018: $3,764.7).

In 2019 the extrapolation reflected assumption changes made during the 2018 valuation that resulted in a decrease in the 2018 accrued basic pension obligations of $6.0, due to changes in retirement and termination assumptions. Further, the 2018 valuation accrued basic pension obligations were $77.5 lower than anticipated by the 2018 extrapolation as a result of experience gains, primarily salary increases being lower than the actuarial assumption.

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 August 31, 2021, and the results will be included in the August 31, 2022, financial statements.

Actuarial liabilities are also affected by changes in the assumed investment return. Based on the actuarial valuation completed as at August 31, 2018, a reduction in the investment return assumption from 6.25% to 6.00% would have increased the August 31, 2019, liability for accrued basic pension obligations of $3,896.9 by $112.8 or 2.9%. 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 obligation is therefore equal to the net assets available for benefits in the IAA, 2019: $808.8 (2018: $751.1). The net increase of $57.7 (2018: $136.4) in the IAA balance consists of employee and employer contributions, investment income and net transfers reduced by payments out of the account (see note 13 for details on amounts transferred).

COLLEGE PENSION PLAN

Notes to the financial statements for the year ended August 31, 2019

($ 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.

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 adjustment 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

The latest full actuarial valuation for funding purposes was prepared as at August 31, 2018, by the independent actuary based on the entry-age method; the valuation indicated an actuarial surplus of $303.2 (2015: $67.1 or $154.3 with previously scheduled amortization).

The Agreement specifies that 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.

An estimate of the actuarial position of the Plan for funding purposes has been made to August 31, 2019, using the following long-term actuarial assumptions:

- Annual investment return 6.25% (2015: 6.25%)
- Annual salary escalation rate 3.50% (2015: 3.50%)

COLLEGE PENSION PLAN

Notes to the financial statements for the year ended August 31, 2019

($ millions except as otherwise noted)

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

a) Basic Account (continued)

This estimate, called an extrapolation, produced an estimated funding surplus of $362.0 at August 31, 2019 (2018: $232.3), as follows:

Funding extrapolation		2019		2018
Net assets available for basic pension benefits	$	**4,534.8**	$	4,319.9
Actuarial asset value adjustment		**(157.3)**		(221.7)
Smoothed assets for basic pension benefits		**4,377.5**		4,098.2
Present value of future contributions (entry-age method)		**1,206.5**		1,160.7
Net actuarial assets for basic pension benefits		**5,584.0**		5,258.9
Actuarial liability for accrued and future basic pension benefits		**(5,222.0)**		(5,026.6)
Entry-age method actuarial surplus	$	**362.0**	$	**232.3**

Changes in the extrapolated entry-age method funded status		2019		2018
Extrapolated entry-age method actuarial surplus, beginning of year	$	**232.3**	$	129.5
Adjustment to reflect the 2018 valuation		**70.9**		-
Extrapolated change in actuarial assets for basic pension benefits		**341.3**		386.1
Extrapolated change in actuarial liability for accrued and future basic pension benefits		**(282.5)**		(283.3)
Entry-age method actuarial surplus, end of year	$	**362.0**	$	**232.3**

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.

Measurement difference 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 difference between funding and accounting positions		2019		2018
Entry-age method actuarial surplus	$	**362.0**	$	232.3
Actuarial asset value adjustment		**157.3**		221.7
Difference in actuarial methods – present value of future contributions		**(1,206.5)**		(1,160.7)
Difference in actuarial methods – present value of future liabilities		**1,325.1**		1,261.9
Measurement differences between funding and accounting positions		**275.9**		322.9
Surplus for financial statement purposes	$	**637.9**	$	**555.2**

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.

COLLEGE PENSION PLAN

Notes to the financial statements for the year ended August 31, 2019

($ millions except as otherwise noted)

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

a) Basic Account (continued)

The funding policy requires that the value of the assets be smoothed within a certain corridor. In the 2018 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 smoothed value of the assets at August 31, 2019, was 96.5% of the market value of the assets (2018: 94.9%).

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	2019	2018
2019	$ -	$ 78.7
2020	**65.7**	62.2
2021	**52.7**	49.2
2022	**35.2**	31.6
2023	**3.7**	-
Total adjustment	**$ 157.3**	**$ 221.7**

Difference in actuarial methods

While the accrued pension benefit liability for financial statement purposes uses the projected benefit method prorated 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.

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 adjustment, 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 established a cap for cost-of-living adjustments for retired members effective January 1, 2011. The January 1, 2019 cap was set at 2.07% from the 2015 actuarial valuation. The cap for sustainable cost-of-living adjustments will be reviewed following each subsequent triennial actuarial valuation.

COLLEGE PENSION PLAN

Notes to the financial statements for the year ended August 31, 2019

($ millions except as otherwise noted)

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 and taxes payable of $4.5 (2018: $4.5) and payable for purchase of investments of $10.2 (2018: $5.8) are generally due within one month. Derivatives payable of $2.7 (2018: $3.1) 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		2019	%		2018	%
Pooled investment fund units	$	5,250.7	98.4	$	4,994.7	98.6
Directly held equity		75.7	1.4		59.2	1.2
Directly held bonds and debt		10.8	0.2		13.9	0.3
Investments	$	5,337.2	100.0	$	5,067.8	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.

COLLEGE PENSION PLAN

Notes to the financial statements for the year ended August 31, 2019

($ 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 the fund

		2019	%		2018	%
United States	$	**74.8**	**1.4%**	$	67.0	1.3
Australia		**10.8**	**0.2%**		11.1	0.2
	$	**85.6**	**1.6%**	$	**78.1**	**1.5**

As at August 31, 2019, 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 $8.6 (2018: $7.8).

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 August 31, 2019, 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 $532.6 (2018: $505.4).

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.

COLLEGE PENSION PLAN

Notes to the financial statements for the year ended August 31, 2019

($ millions except as otherwise noted)

6. FINANCIAL RISK MANAGEMENT (CONTINUED)

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

Credit risk (continued)

Credit exposure exists for members' and employers' contributions receivable directly held by the Plan totalling $7.0 (2018: $7.1), for derivatives of $7.1 (2018: $5.2) and for the due from sale of investments of $9.3 (2018: $4.0).

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; U.S. and international 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.

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

COLLEGE PENSION PLAN

Notes to the financial statements for the year ended August 31, 2019

($ 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)

Fair value of foreign denominated investment holdings

(Cdn dollar equivalent)	Total exposure	Economic hedging	Net exposure	% of total
		2019		
United States	$ 1,900.5	$ 563.8	$ 1,336.7	58%
Asia-Pacific, excluding Japan	428.3	63.4	364.9	16%
Euro countries	297.5	46.8	250.7	11%
Other	148.8	-	148.8	6%
Japan	86.6	2.8	83.8	4%
Other Europe	68.0	-	68.0	3%
United Kingdom	107.0	55.4	51.6	2%
	$ 3,036.7	$ 732.2	$ 2,304.5	100%
		2018		
United States	$ 1,455.6	$ 427.7	$ 1,027.9	53%
Asia-Pacific, excluding Japan	355.6	54.5	301.1	16%
Euro countries	292.6	35.8	256.8	13%
Other	136.1	-	136.1	7%
Japan	106.6	1.8	104.8	5%
Other Europe	79.7	0.7	79.0	4%
United Kingdom	77.7	54.8	22.9	2%
	$ 2,503.9	$ 575.3	$ 1,928.6	100%

The net foreign currency exposure of its underlying investment represents 43% (2018: 38%) 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.

COLLEGE PENSION PLAN

Notes to the financial statements for the year ended August 31, 2019

($ millions except as otherwise noted)

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 August 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
			2019			
Short-term	$ 79.0	$ 27.6	$ 2.2	$ -	$ 108.8	1.92%
Bonds	1.1	214.3	308.2	242.8	766.4	2.94%
Mortgages	62.7	94.8	26.5	-	184.0	2.71%
Debt	-	0.2	10.6	-	10.8	6.33%
	$ 142.8	$ 336.9	$ 347.5	$ 242.8	$ 1,070.0	
			2018			
Short-term	$ 110.7	$ 4.3	$ -	$ -	$ 115.0	1.88%
Bonds	8.0	295.6	268.6	230.4	802.6	3.04%
Real return bonds*	-	-	-	2.8	2.8	1.33%
Mortgages	39.5	64.5	19.8	-	123.8	3.34%
Debt	0.1	-	11.1	-	11.2	6.44%
	$ 158.3	$ 364.4	$ 299.5	$ 233.2	$ 1,055.4	

*Effective yield to maturity percentages are only the interest return; inflation has not been considered.

As at August 31, 2019, 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 $68.1 (2018: $65.2).

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.

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.

COLLEGE PENSION PLAN

Notes to the financial statements for the year ended August 31, 2019

($ millions except as otherwise noted)

6. FINANCIAL RISK MANAGEMENT (CONTINUED)

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

Credit risk (continued)

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		2019			2018	
AAA/AA	$	**434.9**	**41%**	$	517.3	49%
A		**314.5**	**29%**		260.6	25%
BBB		**88.2**	**8%**		95.1	9%
Non-investment grade		**37.6**	**4%**		44.9	4%
		875.2	**82%**		917.9	87%
Unrated		**194.8**	**18%**		137.5	13%
	$	**1,070.0**	**100%**	$	**1,055.4**	**100%**

Standard & Poor's

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.

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 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 August 31:

COLLEGE PENSION PLAN

Notes to the financial statements for the year ended August 31, 2019

($ millions except as otherwise noted)

7. FAIR VALUE OF FINANCIAL INSTRUMENTS (CONTINUED)

a) Fair value hierarchy (continued)

Fair value hierarchy	Level 1	Level 2	Level 3	Total
		2019		
Pooled fund units	$ 87.0	$ 3,847.2	$ 1,316.5	$ 5,250.7
Direct equity	-	-	75.7	75.7
Direct bonds and debt	-	-	10.8	10.8
Investments	$ 87.0	$ 3,847.2	$ 1,403.0	$ 5,337.2
Derivatives	$ -	$ 4.4	$ -	$ 4.4
		2018		
Pooled fund units	$ 111.2	$ 3,785.1	$ 1,098.4	$ 4,994.7
Direct equity	0.6	-	58.6	59.2
Direct bonds and debt	-	2.7	11.2	13.9
Investments	$ 111.8	$ 3,787.8	$ 1,168.2	$ 5,067.8
Derivatives	$ -	$ 2.1	$ -	$ 2.1

During 2018 and 2017, there were no significant transfers of investments between levels.

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
		2019		
Balance, beginning of year	$ 1,098.4	$ 58.6	$ 11.2	$ 1,168.2
Total gains(losses) included in investment income	116.9	5.4	(0.6)	121.7
Purchases	348.1	14.1	0.7	362.9
Sales	(246.9)	(2.4)	(0.5)	(249.8)
Balance, end of year	$ 1,316.5	$ 75.7	$ 10.8	$ 1,403.0
Unrealized (loss) gain in investment income	$ 58.6	$ 4.4	$ (0.5)	$ 62.5
		2018		
Balance, beginning of year	$ 854.0	$ 44.1	$ 12.1	$ 910.2
Total gains(losses) included in investment income	125.1	10.5	(0.6)	135.0
Purchases	282.6	5.3	0.4	288.3
Sales	(163.3)	(1.3)	(0.7)	(165.3)
Balance, end of year	$ 1,098.4	$ 58.6	$ 11.2	$ 1,168.2
Unrealized (loss) gain in investment income	$ 55.6	$ 9.7	$ (0.6)	$ 64.7

COLLEGE PENSION PLAN

Notes to the financial statements for the year ended August 31, 2019

($ millions except as otherwise noted)

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 is reliant 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.

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

COLLEGE PENSION PLAN

Notes to the financial statements for the year ended August 31, 2019

($ millions except as otherwise noted)

7. FAIR VALUE OF FINANCIAL INSTRUMENTS (CONTINUED)

c) Valuation framework (continued)

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

COLLEGE PENSION PLAN

Notes to the financial statements for the year ended August 31, 2019

($ millions except as otherwise noted)

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
			2019		
					The estimated fair value would increase if:
Pooled fund units	$ 1,316.5	Net asset value	Net asset value	$ 1,316.5	The net asset value increased
Direct private equity	$ 58.5	Market approach	Multiple of EBITDA*	11.5X	The multiple of EBITDA increased
Direct private agriculture investments	$ 17.2	Net asset value	Net asset value	$ 17.2	The net asset value increased
Direct debt	$ 10.8	Discounted cash flow	Discount rate	12.0% - 17.5%	The discount rate decreased
			2018		
					The estimated fair value would increase if:
Pooled fund units	$ 1,098.4	Net asset value	Net asset value	$ 1,098.4	The net asset value increased
Direct private equity	$ 41.6	Discounted Cash flow	Discount rate	7.5%	The discounted rate decreased
Direct private agriculture investments	$ 17.0	Net asset value	Net asset value	$ 17.0	The net asset value increased
Direct debt	$ 11.2	Discounted Cash flow	Discount rate	12.0% - 17.0%	The discounted rate decreased

* Earnings before interest, tax, depreciation and amortization

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.

COLLEGE PENSION PLAN

Notes to the financial statements for the year ended August 31, 2019

($ millions except as otherwise noted)

7. FAIR VALUE OF FINANCIAL INSTRUMENTS (CONTINUED)

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

Multiple of EBITDA

Enterprise value (EV) represents amounts market participants would use when pricing direct equity investments. Earnings before interest, tax, depreciation and amortization (EBITDA) multiples are selected from comparable public companies based on geographic location, industry, size, target markets and other factors that BCI management considers reasonable. The traded multiples for the comparable companies are determined by dividing the EV of the company by its EBITDA and further discounted for considerations such as lack of marketability and other differences between a comparable peer group and specific company.

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

	2019		2018	
	Favourable	Unfavourable	Favourable	Unfavourable
Pooled fund units	$ 131.7	$ (131.7)	$ 109.8	$ (109.8)
Direct private equity	3.7	(3.7)	2.5	(2.5)
Direct private agriculture investments	1.7	(1.7)	1.7	(1.7)
Direct debt	1.1	(1.1)	1.1	(1.1)
	$ 138.2	$ (138.2)	$ 115.1	$ (115.1)

COLLEGE PENSION PLAN

Notes to the financial statements for the year ended August 31, 2019

($ 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, prepaid expenses, accounts payable and accrued expenses, taxes payable 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

	2019			2018		
	Income allocation	**Change in fair value**	**Total**	**Income allocation**	**Change in fair value**	**Total**
Short-term	**$ 2.1**	**$ 0.5**	**$ 2.6**	$ 1.3	$ (0.5)	$ 0.8
Bonds	**22.3**	**51.6**	**73.9**	20.3	(7.3)	13.0
Canadian equities	**19.2**	**(2.9)**	**16.3**	14.6	40.0	54.6
U.S. equities	**1.4**	**4.3**	**5.7**	2.5	37.1	39.6
International equities	**39.7**	**(20.9)**	**18.8**	34.2	164.6	198.8
Mortgages	**3.6**	**7.4**	**11.0**	4.8	0.9	5.7
Real estate	**26.1**	**49.8**	**75.9**	27.4	24.3	51.7
Private equity	**32.9**	**20.3**	**53.2**	36.9	29.5	66.4
IRR*	**25.4**	**24.4**	**49.8**	22.6	42.0	64.6
	172.7	**134.5**	**307.2**	164.6	330.6	495.2
Directly held derivatives	**-**	**(3.3)**	**(3.3)**	-	(8.4)	(8.4)
	$ 172.7	**$ 131.2**	**$ 303.9**	**$ 164.6**	**$ 322.2**	**$ 486.8**

* Infrastructure and renewable resources

Investment income represents realized and unrealized pooled investment portfolio income attributable to the Plan, as a unitholder, 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.

COLLEGE PENSION PLAN

Notes to the financial statements for the year ended August 31, 2019

($ millions except as otherwise noted)

9. CONTRIBUTIONS

	Basic account	Inflation adjustment account	Supplemental benefits account	Total
		2019		
Members' contributions				
Regular	$ 73.0	$ 15.6	$ -	$ 88.6
Past service purchases	0.5	0.2	-	0.7
	73.5	15.8	-	89.3
Employers' contributions				
Regular	73.1	15.6	0.9	89.6
Past service purchases	0.4	-	-	0.4
	73.5	15.6	0.9	90.0
	$ 147.0	$ 31.4	$ 0.9	$ 179.3
		2018		
Members' contributions				
Regular	$ 69.4	$ 14.1	$ -	$ 83.5
Past service purchases	0.3	-	-	0.3
	69.7	14.1	-	83.8
Employers' contributions				
Regular	69.6	14.1	0.7	84.4
Past service purchases	0.2	-	-	0.2
	69.8	14.1	0.7	84.6
	$ 139.5	$ 28.2	$ 0.7	$ 168.4

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

COLLEGE PENSION PLAN

Notes to the financial statements for the year ended August 31, 2019

($ millions except as otherwise noted)

10. BENEFITS

	Basic account	Inflation adjustment account	Supplemental benefits account	Total
		2019		
Regular pension benefits	$ 160.0	$ -	$ 0.8	$ 160.8
Indexing – regular pension benefits	23.6	-	0.1	23.7
Termination and refund benefits	10.1	1.7	-	11.8
Death benefit payments	3.5	0.3	-	3.8
	$ 197.2	$ 2.0	$ 0.9	$ 200.1
		2018		
Regular pension benefits	$ 149.8	$ -	$ 0.7	$ 150.5
Indexing – regular pension benefits	21.0	-	-	21.0
Termination and refund benefits	11.3	1.9	-	13.2
Death benefit payments	5.1	0.4	-	5.5
	$ 187.2	$ 2.3	$ 0.7	$ 190.2

11. 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.

12. INVESTMENT AND ADMINISTRATION COSTS

	2019	2018
Investment management	$ 8.8	$ 11.2
Benefit administration	3.5	3.5
Board secretariat costs	0.4	0.3
Other professional services	0.3	0.2
Board remuneration and expenses	0.3	0.2
Audit and actuary expenses	0.2	0.1
	$ 13.5	$ 15.5

Investment and administration costs include audit fees of $49 thousand (2018: $42 thousand) and actuary fees of $137 thousand (2018: $5 thousand).

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.

COLLEGE PENSION PLAN

Notes to the financial statements for the year ended August 31, 2019

($ millions except as otherwise noted)

12. INVESTMENT AND ADMINISTRATION COSTS (CONTINUED)

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 $7.7 (2018: $4.7) 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.

13. ACCOUNT TRANSFERS

	2019		2018	
	Basic account	Inflation adjustment account	Basic account	Inflation adjustment account
Indexing supplements	$ 37.4	$ (37.4)	$ 25.3	$ (25.3)
Indexing of deferred pensions	1.6	(1.6)	1.4	(1.4)
Excess investment return	(23.5)	23.5	(66.0)	66.0
	$ 15.5	$ (15.5)	$ (39.3)	$ 39.3

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.

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 2019, retired members received a cost-of-living adjustment of 2.07% (2018: 1.5%) 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 $14.5 (2018: $17.0) of the current IAA balance is for cost-of-living adjustments already granted for deferred pensions but not yet transferred to the Basic Account.

COLLEGE PENSION PLAN

Notes to the financial statements for the year ended August 31, 2019

($ millions except as otherwise noted)

13. ACCOUNT TRANSFERS (CONTINUED)

When investment earnings in the Basic Account are in excess of the actuarial assumption regarding investment rates of return, the excess investment returns are transferred from the Basic Account to the IAA. Excess investment return is based on investment income earned on those assets in the Basic Account required for pensions currently being paid: approximately $2.0 billion of assets for 2019 (2018: $1.9 billion). The excess investment return rate is determined by taking the difference between the actual five-year annualized market rate of return (7.40%) and the rate of return used by the Plan actuary (6.25%) in valuing the Plan's liabilities. The calculated excess investment return rate for 2019 was 1.15% (2018: 3.45%), resulting in an excess investment return amount of $23.5 transferred to the IAA (2018: $66.0).

Should the excess investment return calculation ever result in negative amount, it will be carried forward cumulatively with interest and offset against future excess interest. The cumulative negative excess investment interest is an amount determined by applying the five-year annualized market rate of return to the fiscal year opening balance. This component of the calculation is the opportunity cost related to the opening cumulative return deficit.

14. COMMITMENTS

The Plan participates in private equity, international real estate, and infrastructure and renewable resource pools. As at August 31, 2019, the Plan's share of commitments for future investment contracts in these pools over the next several years is approximately $735.1 (2018: $648.9).

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 August 31, 2018, and has two components, the Basic Account non-indexed benefits and, by considering the valuation of the entire Plan, the non-guaranteed inflation adjustment account benefits. The next full actuarial valuation will be carried out as at August 31, 2021.

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

COLLEGE PENSION PLAN

Notes to the financial statements for the year ended August 31, 2019

($ millions except as otherwise noted)

16. SUBSEQUENT EVENT

On December 12, 2019, subsequent to year end, the Board passed a motion with respect to the August 31, 2018 actuarial valuation surplus of $303.2, transferring 64 per cent of this amount from the Basic Account to IAA, and setting aside the remaining 36 per cent in a rate stabilization account (RSA). The transfer from Basic Account to IAA will result in a decrease in the surplus in the August 31, 2020 financial statements, whereas the amount transferred to RSA will not impact the surplus, but will decrease the actuarial surplus available for funding purposes.

Bruce Hamilton, College Pension Plan member

college.pensionsbc.ca

College Pension Plan

Toll-free (Canada/U.S.): 1-888-440-0111
Mail: College Pension Plan, PO Box 9460, Victoria BC V8W 9V8

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