Municipal Pension Plan

2023

Annual Report

Investing with the future in mind

mpp.pensionsbc.ca

Contents

Your plan— investing with the future in mind

A message from your trustees

The plan is secure and sustainable

No matter what stage plan members are at in their career, we want each of them to know that their pension will be there when they need it. We can offer this assurance because the plan is secure and well governed. In 2023, we saw assets increase from $71.6 billion to $77 billion. This growth is a testament to our resilient strategy.

There may be challenges ahead, but the plan remains secure. We take a long-term view when making investment decisions to prepare for what's ahead. Planning done 5, 10, even 20 years ago has positioned the plan well to respond to current challenges. A strong foundation and strategic approach allow us to press on even if we face uncertain times.

We can look to the future, knowing that the actions we take now will continue to prepare for tomorrow, today.

Leading the way with good governance and stewardship

What does it mean that the plan is well governed? It means members can rely on us to steward the plan in the right direction. Effective stewardship means we lead in a way that is transparent and accountable. We make decisions with a focus on long-term sustainability and the best interests of members. We want members to know they can rely on the plan to be there when they need it.

The governance of the plan is shared with plan partners. This structure was established over two decades ago in the Joint Trust Agreement. Together we manage the plan in a way that is cost-effective.

We are here to serve members. The board makeup reflects the varied plan participants and includes representatives from employers and member partners. We know that this diversity strengthens our decision making and allows us to make choices now that will safeguard the security of the plan for years to come.

Investing responsibly for a secure financial future

Part of future-proofing the portfolio is responsible investing. This means environmental, social and governance (ESG) factors are incorporated into investment decision making. Doing so helps us manage risks and identify opportunities over the long term.

Responsible investing is one of the ways the board and BCI manage risks, making the plan resilient to whatever the future may hold.

The board believes that ESG can have a financial impact on the portfolio, and companies that take care of ESG matters carry less risk and generate long-term value for the plan. Environmental factors in particular have been a focus for the plan.

We are committed to reaching net zero

In 2022, we set a goal to achieve a net-zero portfolio by 2050. This means the assets in our portfolio would not contribute to a net increase in global emissions. Our responsible investment strategy is designed to help us meet this goal, which is important to our priority to provide lifetime pensions to beneficiaries.

We've also set an interim target to reduce the emissions intensity of our portfolio by 55 per cent by 2030 (compared to 2020 levels). You can read about our progress beginning on page 43 of this report. To remain accountable and transparent, we have included climate-related disclosures for the fifth year in a row.

Looking ahead

The board's priority is to provide lifetime pensions. We keep that priority in focus by looking ahead and preparing for what the future might hold. While we can look back in this *Annual Report* to see the progress we've made, we will always keep our sights set on what is ahead.

No matter what stage plan members are at in their career, their pension will be there when they need it.

Rick Reubart (second from the right) is a retired plan member. Also pictured (from left to right): Michelle Duckett, Ginny Normandeau and Lou Normandeau.

Plan investments

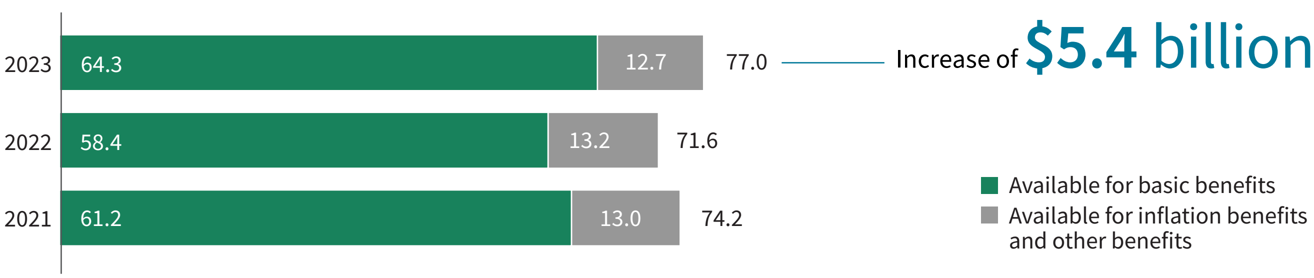
2023 by the numbers

NET ASSETS ($ MILLIONS)

Net assets		Contributions		Investment returns		Pensions, benefits, expenses		Net assets
Dec 31 2022								Dec 31 2023
$71,551	+	2,993	+	5,577	–	3,104	=	$77,017

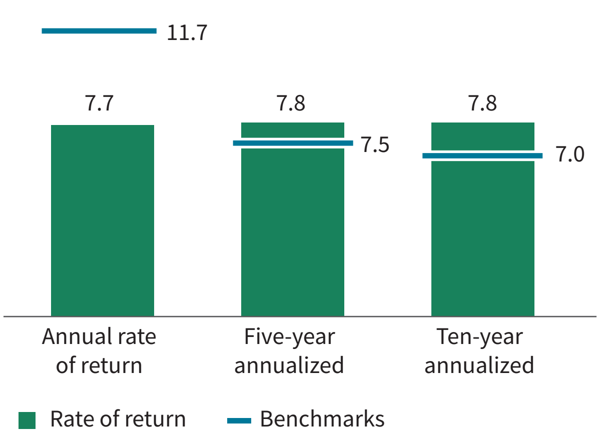
NET ASSETS AVAILABLE FOR BENEFITS ($ BILLIONS)

as at December 31



ANNUALIZED RATES OF RETURN VS. BENCHMARKS (%)

year ended December 31, 2023



BENEFITS AND CONTRIBUTIONS

THE PLAN PAID OUT

$2,525 million in benefits

MEMBERS CONTRIBUTED

$1,413 million

EMPLOYERS CONTRIBUTED

$1,551 million

Plan portfolio overview

The Municipal Pension Board of Trustees is responsible for overseeing an investment portfolio of $77 billion on behalf of Municipal Pension Plan beneficiaries. The board's primary objective is to ensure the pension plan is secure and stable over the long term. Meeting that objective depends on several factors, including whether the plan meets its targeted long-term rate of return on investments.

The board delegates investment management duties to its agent, BCI. The board sets investment beliefs and goals for the plan through the Statement of Investment Policies and Procedures and oversees BCI's performance in achieving those goals.

Understanding the plan's investment portfolio

The plan's commitment to its members is to provide secure lifetime pensions. This is why the board takes a long-term approach to investing. The goal is to meet or exceed the plan's investment return objective, which is the minimum amount the plan needs to earn through investments each year to pay for its obligations, including pensions. The board sets an investment strategy that is designed to meet this goal.

Risk management is a primary responsibility of both the board and BCI. This includes analyzing risk in the short and long term and taking appropriate steps to limit exposure or capitalize on opportunities. There are different types of risk including market volatility, currency and climate change.

To manage risk effectively, the plan has a diversified portfolio. This means it is invested in multiple asset types, industries and geographies. Holding diverse investments across a wide range of assets provides better protection if one type of asset generates lower returns in a given period. For example, when inflation is high, bonds tend to perform poorly, while infrastructure generally performs well. Depending on changing market conditions, BCI will adjust the plan's investment holdings.

The main investment goal of the plan is to meet or exceed its long-term investment return objective.

In recent years, the plan's long-term asset mix policy has increased focus on private markets and real assets (tangible investments, such as land and buildings). These type of assets typically increase in value over time and help buffer the portfolio against the short-term volatility associated with public markets.

FIVE-YEAR FINANCIAL SUMMARY ($ MILLIONS)

year ended December 31

	2023	2022	2021	2020	2019
Increase in assets					
Investment income (loss)	**$ 5,577**	$(2,312)	$ 7,789	$ 7,091	$ 6,693
Contributions					
Members	**1,413**	1,204	1,169	1,131	1,034
Employers	**1,551**	1,325	1,342	1,293	1,185
Transfers from other plans	**29**	71	21	23	18
Total increase in assets	**8,570**	288	10,321	9,538	8,930
Decrease in assets					
Benefit payments	**2,694**	2,565	2,342	2,232	2,068
Transfers to other plans	**18**	24	19	29	13
Retired member group benefits	**136**	102	143	26	50
Investment and administration costs[1,2]	**256**	211	132	211	143
Total decrease in assets	**3,104**	2,902	2,636	2,498	2,274
Increase (decrease) in net assets	**5,466**	(2,614)	7,685	7,040	6,656
Net assets available for benefits at beginning of year	**71,551**	74,165	66,480	59,440	52,784
Net assets available for benefits at end of year	**$77,017**	$71,551	$74,165	$66,480	$59,440
Investment and administration costs as a percentage of net assets (%)[1,2]					
Investment management	**0.43**	0.43	0.32	0.39	0.37
Benefits administration	**0.08**	0.08	0.08	0.08	0.09

1 Investment and administration costs as a percentage of net assets include external investment management costs netted against investment income of $122.5 million (2022—$148.3 million; 2021—$102.5 million; 2020—$73.5 million; 2019—$112.1 million). They are not included in investment and administration costs in the financial statements.

2 Investment and administration costs as a percentage of net assets exclude external indirect investment management costs netted against investment income. This is consistent with current industry practice; including these costs using the budgeted amount would have increased investment management costs as a percentage of net assets by an estimated 48 basis points in 2023. External indirect investment management costs include limited partnership costs incurred within investments held in the private equity, infrastructure and real estate asset classes.

Beena Paul, member

Investment highlights

Challenging market conditions continued for most of 2023. Challenges included persistent inflation, rising interest rates and slowing economic growth. However, inflation began to slow in the second half of the year, leading central banks in Canada and the U.S. to pause interest rate hikes. This was good for fixed income and equity markets. It also contributed to widespread investor optimism that the worst is behind us. In particular, equity markets had one of the strongest rallies in recent history, driven by seven mega-cap technology stocks—Microsoft, Apple, Alphabet, Amazon, Nvidia, Meta and Tesla—known as the Magnificent Seven. These stocks have benefited from the artificial intelligence boom.

Despite ongoing uncertainty throughout the year, the plan performed well and bounced back from the negative return in 2022.

Overall plan performance

For the year ended December 31, 2023, the plan returned 7.7 per cent. Its five-year annualized return was 7.8 per cent. As a result of these positive returns, the plan's assets increased to 77.0 billion from $71.6 billion at the same time last year. This outcome demonstrates the benefits of diversification and sound investment strategies.

Relative to its benchmark of 11.7 per cent, the portfolio underperformed over the one-year period. However, over the five-year period it outperformed the benchmark return of 7.5 per cent. The one-year underperformance was primarily caused by private equity and real estate equity. The private equity benchmark was driven significantly higher by the performance of the technology companies mentioned above. For real estate equity, broad market challenges continued to weigh down the sector.

INVESTMENT PORTFOLIO[1]

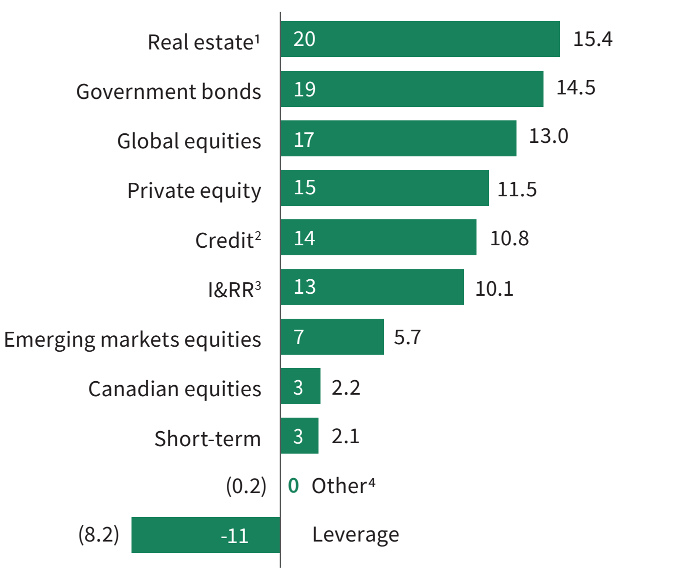
as at December 31, 2023

	Market value ($ millions)	**Asset mix market value** (%)
Short-term	$ 2,146	2.8
Leverage	(8,238)	(10.7)
Bonds	14,471	18.8
Credit[2]	10,824	14.1
Canadian equities	2,228	2.9
Global equities	12,977	16.9
Emerging markets equities	5,697	7.3
Private equity	11,529	15.0
Real estate[3]	15,376	20.0
Infrastructure and renewable resources	10,119	13.1
Currency hedging	(168)	(0.2)
Cash and unsettled trades	(30)	0.0
Total investments	**$76,931**	**100.0**
2022 comparison	**$71,513**	

1 Asset classifications vary from the financial statements for performance reporting
2 Corporate bonds and principal credit
3 Real estate assets and real estate debt (mortgages)

INVESTMENT HOLDINGS (MARKET VALUE) (%) ($BILLIONS)

as at December 31, 2023



1 Real estate assets and real estate debt (mortgages)
2 Corporate bonds and principal credit
3 Infrastructure and renewable resources
4 Cash, unsettled trades and currency hedging

MARKET VALUE ASSET MIX AND RATES OF RETURN (%)

as at December 31, 2023

	Approved ranges	Target asset mix	Actual asset mix	Rate of return	Performance benchmark
Short-term	0–7	2	2.8	3.8	3.6
Bonds	11–30	22	18.8	6.0	6.1
Credit[1]	**4–21**	15	14.1	11.3	11.1
Total fixed income	**25–47**	**39**	**35.7**	**8.0**	**8.1**
Public equities	7–37	22	27.1	16.8	15.3
Private equity	10–20	16	15.0	5.2	20.9
Total equity	**28–51**	**38**	42.1	12.8	17.0
Real estate[2]	15–29	23	20.0	(3.2)	6.8
Infrastructure and renewable resources	7–18	15	13.1	6.8	6.3
Total real assets	**25–45**	**38**	33.1	0.5	6.6
Other	**0–5**	**0**	(0.2)	–	–
Leverage	**0–(20)**	(15)	(10.7)	4.9	4.9
Total basic asset mix		100	100.0	7.7	11.7
Annual rates					
2023				**7.7**	**11.7**
2022				(3.4)	(5.9)
2021				11.5	7.8
2020				11.6	11.8
2019				12.5	13.2
Five-year annualized rates					
2023				**7.8**	**7.5**
2022				6.7	5.2
Ten-year annualized rates					
2023				**7.8**	**7.0**
2022				8.5	7.1

1 Corporate bonds and principal credit
2 Real estate equity and mortgages

Public equity and fixed income

Public markets performed well this year. In the fourth quarter of 2023, the global economy gradually regained strength. Equity markets surged as major central banks signaled a pause in raising interest rates.

Within public markets, public equity was the best-performing asset class and the largest contributor to total fund return this year. Public equity returned 16.8 per cent for the year, exceeding the 15.3 per cent benchmark. Developed equity markets rebounded sharply in the last quarter on the back of solid economic activity across developed economies. Emerging markets posted gains as well but lagged behind developed markets as Chinese equities declined. Over the last five years, public equity contributed to nearly half the total fund absolute return, and its long-term performance remained positive. Public equity returned 10.3 per cent, outperforming the five-year benchmark of 9.6 per cent.

Fixed income also posted positive returns over the year, benefiting from increased bond prices because of falling yields. On a relative basis, fixed income underperformed the one-year benchmark of 8.1 per cent, returning 8.0 per cent. However, it outperformed the 2.2 per cent five-year benchmark with a return of 2.8 per cent.

Private equity

Private equity made positive contributions to the plan over the year despite underperforming the benchmark, and continued to outperform on a long-term basis.

For the second consecutive year, private equity activity declined because of economic uncertainty. The asset class underperformed because Magnificent Seven technology stocks pushed the private equity benchmark to 20.9 per cent. However, it still had positive returns of 5.2 per cent over the year. Over five years, private equity remained ahead of the 13.0 per cent benchmark, returning 15.3 per cent.

Performance results (%)

PUBLIC EQUITY

One-year return

16.8 2023 — **15.3** benchmark

Five-year return

10.3 2018–2023 — **9.6** benchmark

FIXED INCOME

One-year return

8.0 2023 — **8.1** benchmark

Five-year return

2.8 2018–2023 — **2.2** benchmark

PRIVATE EQUITY

One-year return

5.2 2023 — **20.9** benchmark

Five-year return

15.3 2018–2023 — **13.0** benchmark

Real estate

Real estate equity was the only asset class that detracted from the plan's absolute return in 2023. During the last quarter of the year, all property sectors continued to decrease in value as capitalization rates increased. This trend will likely continue into the first half of 2024. Real estate equity returned -4.9 per cent for the year, below the 6.8 per cent benchmark. In addition to underlying industry challenges caused by the higher cost of borrowing and inflation, the portfolio's exposure to unstable sectors, such as office properties, though limited, led to negative performance. Investment performance was also affected by the U.S. industrial and multi-family values falling from 2022 peaks. BCI anticipates a return to positive performance in the second half of 2024 assuming that inflation continues to ease. Over five years, real estate equity returned 4.8 per cent compared to the benchmark of 7.0 per cent.

On the other hand, the plan's mortgages performed well. They generated 7.1 per cent on a one-year basis—more than double the returns of 2022 and above the 6.7 per cent benchmark. Over five years, they returned 4.7 per cent, outperforming the 2.9 per cent benchmark.

Infrastructure and renewable resources (I&RR)

Despite some challenges with rising interest rates, the I&RR portfolio had a one-year return of 6.8 per cent and outperformed the 6.3 per cent benchmark. In the long term, it outperformed the five-year benchmark of 6.8 per cent with an 8.8 per cent return. The portfolio's long-term prospects are positive. There are investment opportunities expected to arise from the global energy transition, such as digitization and decarbonization.

Performance results (%)

REAL ESTATE EQUITY

One-year return

-4.9
2023

6.8
benchmark

Five-year return

4.8
2018–2023

7.0
benchmark

I&RR

One-year return

6.8
2023

6.3
benchmark

Five-year return

8.8
2018–2023

6.8
benchmark

Joanne Buan, member

Managing investment costs

BCI operates on a cost-recovery, not-for-profit basis, meaning the plan pays fees to cover only the cost of managing the investments. Since BCI manages a large amount of assets, it has access to significant economies of scale when investing on behalf of the plan. Managing investment costs is important to the board, and BCI's fees continue to be competitive with its peers and are much lower than those charged by investment managers in the private sector.

Since BCI manages a large amount of assets, it has access to significant economies of scale when investing on behalf of the plan.

Investment management fees are affected by the types of assets, the plan's asset mix (what is in the portfolio) and BCI's investment strategy. Some asset classes that are expected to produce higher returns are complex and more expensive to manage, which affects fees. The goal is to earn enough investment income to fulfil the plan's pension promises at a reasonable cost.

Responsible investing

Responsible investing is a key part of the plan's investment approach. It involves integrating ESG factors into investment decisions. The board and BCI agree that ESG integration is fundamental to growing and protecting the value of the plan. ESG factors range from company-specific, such as board compensation or employee safety, to widespread and systemic, like climate change. Companies that have strong ESG practices are better positioned to generate long-term, sustainable investment returns.

As the plan's investment agent, BCI integrates ESG in the following ways:

- Evaluates and continually monitors investments using both ESG and traditional financial analysis
- Influences companies and policymakers to uphold good ESG practices and policies
- Invests in ESG-related opportunities that have positive risk-and-return characteristics
- Uses ESG-related insights to adapt and improve investment strategies to better support the plan's investment goals

Climate change is one of the most significant social and economic risks the world faces today. In 2022, the plan announced its goal to reach a net-zero portfolio by 2050. A net-zero portfolio means assets do not contribute to a net increase in global emissions. This remains a priority for the long-term health of the plan. The plan's goal aligns with BCI's commitment to supporting the global goal of achieving net-zero greenhouse gas emissions by 2050. BCI's Climate Action Plan provides a road map for fulfilling this commitment while creating and preserving financial value for the plan. It does this by managing climate change risk across all asset classes and pursuing suitable opportunities.

For example, BCI actively seeks investment opportunities related to the global energy transition across its portfolio. One such investment is sustainable bonds, which provide low-risk returns and help finance projects with positive environmental and social outcomes. As of December 31, 2023, BCI's total historical participation in sustainable bonds was over $4.8 billion. BCI anticipates reaching $5 billion by 2025.

As a large, long-term investor, BCI uses its influence on behalf of the plan to encourage companies and partners to adopt best ESG practices. Examples of how BCI does this include:

- Exercising shareholder voting rights
- Engaging with companies directly
- Making policy submissions
- Sitting on the boards of companies

BCI is actively engaged in responsible investment initiatives around the world in several ways:

- As a founding signatory of the Principles for Responsible Investment, BCI participates in regular assessments of its own responsible investing activities and progress.
- Participating in Climate Action 100+ and engaging some of the world's largest greenhouse gas emitters to take necessary action on climate change.[1]
- Chairing the steering committee for the 30% Club Canada Investor Group, which promotes greater board diversity and inclusion on corporate boards in Canada.
- Following best practices for climate-related disclosures and enhancing reporting in line with emerging best practices.

To learn more about BCI's ESG and Climate Action Plan activities, visit bci.ca/esg.

1 MPP is also a signatory to the Principles for Responsible Investment and Climate Action 100+.

Climate change is one of the most significant social and economic risks the world faces today.

Sunnyside Acres Park, Surrey, BC

Climate-related disclosures

Highlights of 2023

In 2023, the board continued to prioritize climate-related risks and opportunities. In the board's strategic plan for 2023–2026, we set a priority to be a leading responsible investor. We are acting on that priority by working toward our goal of a net-zero-aligned portfolio by 2050, driving informed responsible investing strategies to promote plan sustainability, participating in responsible investing standard setting, implementing ongoing training for trustees and ensuring transparency of our climate action initiatives.

We coordinate with BCI to ensure the actions to support our climate strategy align with our fiduciary duty to invest the fund in the best financial interest of beneficiaries. As we track climate change actions and impacts on markets, we see an opportunity within the portfolio to improve our pension security goals over the long term and reduce the emissions financed by our investment activity. We are dedicated to acting on climate change through investor stewardship, education, collaboration and public policy advocacy.

We are committed to providing transparent climate-related disclosures. For the past four years, the plan provided these disclosures in alignment with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). In 2023, the International Sustainability Standards Board (ISSB) developed a universal set of sustainability reporting standards, including one for climate-related financial disclosures. This is called the International Financial Reporting Standards (IFRS) S2 standard and it builds on the TCFD recommendations. The standards are intended to disclose how climate-related risks and opportunities are evaluated, managed and integrated in planning and decision making.

The IFRS S2 standard is structured on the same four disclosure areas as the TCFD:

- Governance
- Strategy
- Risk management
- Metrics and targets

Our climate strategy in action

Governance

Our commitment is to have a comprehensive understanding of the opportunities, challenges and risks of climate change to make informed investment decisions. The board is accountable for investing in the best financial interests of beneficiaries. We place a high priority on managing climate change risk appropriately.

We delegate investment management and stewardship to BCI to invest in a manner consistent with the board's policies. The board and its investment committee monitor the plan's investments and BCI's services. This includes overseeing climate-related risks and opportunities.

To support trustee education on climate change and the risks and opportunities associated with investments, the board collaborated with experts to create a climate change orientation package for new trustees. Trustees are expected to take two courses through the PRI Academy. Other climate change–related education opportunities are also available.

Strategy

The board considers climate-related systemic risks and opportunities over the short, medium and long term. This includes physical and transition risks. Physical risks and opportunities come from changes in weather and climate that affect economic productivity and real assets, like real estate and infrastructure.

Transition risks and opportunities come from the shift to the low-carbon economy. Understanding risks and opportunities across all time frames helps to inform the board's asset allocation decisions, guide the plan's policy advocacy efforts and inform the board's oversight of BCI's performance. This includes overseeing the progress of BCI's Climate Action Plan and its engagement and proxy voting activities.

The board has taken several actions to enable a successful path toward net zero by 2050:

- Continued to engage with BCI on implementing its Climate Action Plan, including risk management, proxy voting, policy advocacy and engagement
- Considered climate change as part of the asset-liability reviews
- Reviewed climate scenario analysis
- Monitored climate-related metrics, including climate stress test results, climate opportunity exposure, portfolio carbon footprint and weighted average carbon intensity for public equities

Risk management

The board regularly receives climate risk reports from BCI as part of its oversight of investment risk. BCI conducts scenario analyses to identify the primary risks and opportunities for the portfolio under different climate change scenarios. The board has used these scenarios in asset-liability reviews. These reviews evaluate the possible effects of various climate scenarios on the plan's long-term investment performance.

Metrics and targets

In 2022, the plan set a goal to have a net-zero-aligned portfolio by 2050. A net-zero-aligned portfolio is one in which the investments do not contribute to an overall increase in global emissions. We believe this can be achieved through our existing investment strategies and the implementation of BCI's Climate Action Plan. The plan has also set an interim target to reduce the carbon intensity of our portfolio by 55 per cent by 2030 (relative to 2020 levels).

We are evolving the metrics we use to track our progress to align with leading standards, including the Partnership for Carbon Accounting Financials and the IFRS S2 standards. The summarized portfolio carbon footprint is included below.

PORTFOLIO CARBON FOOTPRINT (TONNES CO2E/$ MILLION)[1,2]

Asset class	F2020	F2021	F2022	F2023	F2030 target
MPP total portfolio carbon footprint (tCO2e/$M EVIC)[2]	85	67	66	66	38

1 Applies to the covered market value of in-scope investments in the portfolio as at December 31 each year. The trend in carbon intensity reductions will not be linear year over year and could be influenced by factors such as changing asset values and improving data quality and completeness.

2 Total carbon emissions for a portfolio normalized by the market value of covered in-scope investments in the portfolio, expressed in Metric tonnes CO2e/$M CAD invested as of December 31, 2023.

Climate-related investment opportunities

BCI calculates the plan's exposure to firms that contribute positively to the UN's Sustainable Development Goals (SDGs) 7 and 13, which pertain to affordable and clean energy and climate action, using:

- Data gathered by the SDI Asset Owner Platform
- Green building classifications such as LEED and BOMA
- The Green Bond taxonomy and investments in climate-themed opportunities pertaining to SDGs

As of December 31, 2023, the plan's exposure was $3.9 billion.

Engagement and advocacy

On behalf of its clients, including the plan, BCI actively engages with portfolio companies, advocates for climate-conscious policy changes and participates in global initiatives on climate action, reporting and transparency. Engagement is the primary lever that BCI can use to ensure the companies in the portfolio continue to make progress in setting decarbonization objectives consistent with the global goal of net zero by 2050.

A key metric used to track BCI's progress is the percentage of carbon-intensive investments that have established mature, net-zero-aligned commitments. According to BCI's most recent assessment and climate-related disclosures, 11 per cent of the highest emitters in BCI's portfolio have set mature net-zero commitments, representing 17 per cent of BCI's financed emissions.

NUMBER OF CARBON-INTENSIVE INVESTMENTS WITH NET-ZERO-ALIGNED COMMITMENTS (%)[1]

	Commitments		
	Mature	Emerging	None
2022 Assessment	25	53	22
Current	11	63	26

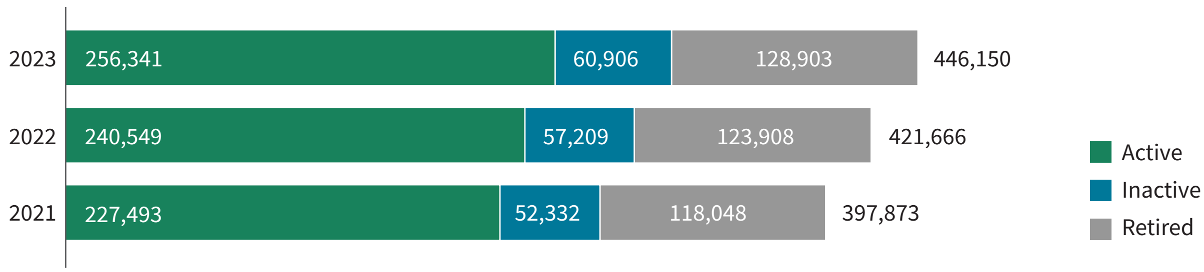
1 BCI's carbon-intensive investments are defined as the companies that make up over 80 per cent of BCI's carbon footprint. Currently, there are approximately 120 companies that meet this definition.

See the appendix for complete climate-related disclosures.

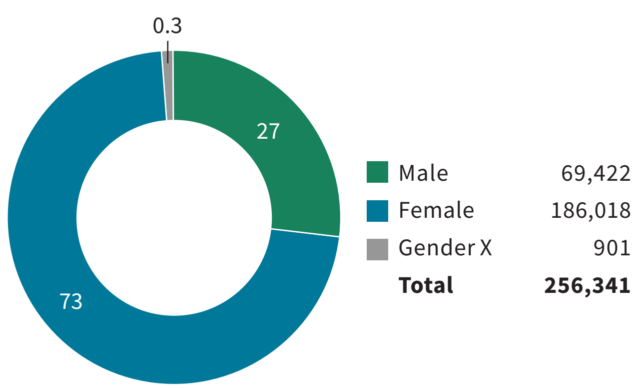
Plan details

A look at our membership

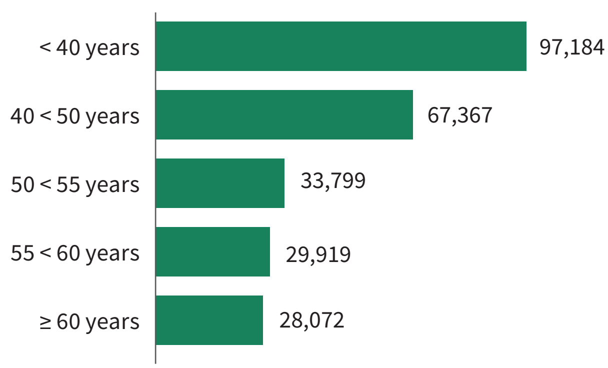
NUMBER OF MEMBERS
as at December 31



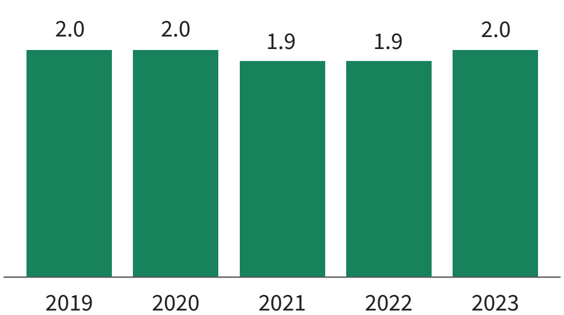
ACTIVE MEMBERS BY GENDER
as at December 31, 2023



ACTIVE MEMBERS BY AGE
as at December 31, 2023



RATIO OF ACTIVE TO RETIRED MEMBERS
as at December 31



GROWTH IN NUMBER OF ACTIVE MEMBERS

6.5%
2023

20.3%
2019–2023

ANNUAL PENSION IN PAY

$19,859
Average

$14,019
Median

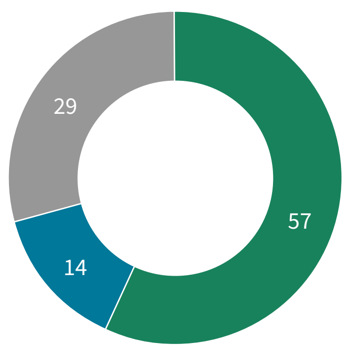
Nancy Wong, retired member

Types of members

- **Active:** Currently contributing, on a leave of absence or receiving benefits from an approved long-term disability plan.
- **Inactive:** Not currently contributing; has ended employment with a plan employer and left contributions in the plan. Inactive members may be eligible for a pension in the future or may become eligible if they return to work for a plan employer where they contribute to the plan and accrue additional service.
- **Retired:** Currently receiving a pension, including a survivor pension or disability benefit.
- **Limited:** A plan member's former spouse who has the right to a portion of the plan member's pension and applies to become a limited member after separation or divorce. These members are included in the retired total if they are receiving a pension.

MEMBERSHIP PROFILE

as at December 31, 2023



Active	256,341
Inactive	60,906
Retired	128,903
Total	**446,150**

Plan contributions

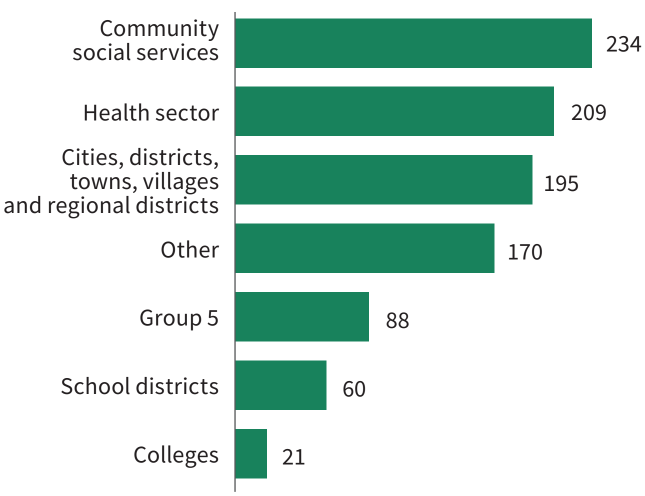
Both plan members and employers make contributions to fund future pension payments.

Contribution rates are set by the board and based on a valuation. An independent actuary—a professional with specialized training in financial modelling, the laws of probability and risk management—performs the valuation at least once every three years. This ensures there is enough money in the pension fund to pay lifetime pensions to all members.

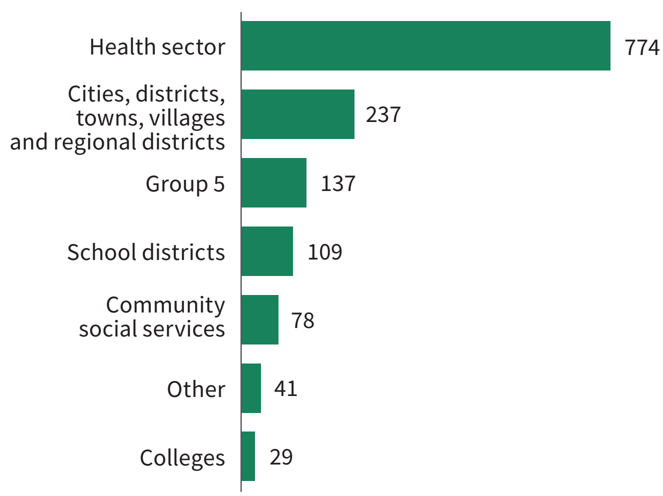
If a contribution rate increase is necessary, the Joint Trust Agreement requires that the increase be split equally between members and employers.

Membership in the plan is divided into member groups, some of which have separate accrual rates or earlier retirement ages. Employers are assigned contribution rates based on the member groups they have within their employee populations.

EMPLOYERS
as at December 31, 2023

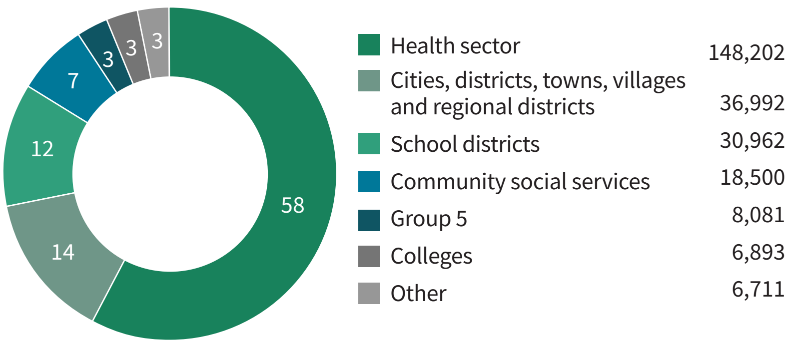


REGULAR CONTRIBUTIONS BY SECTOR ($ MILLIONS)
year ended December 31, 2023



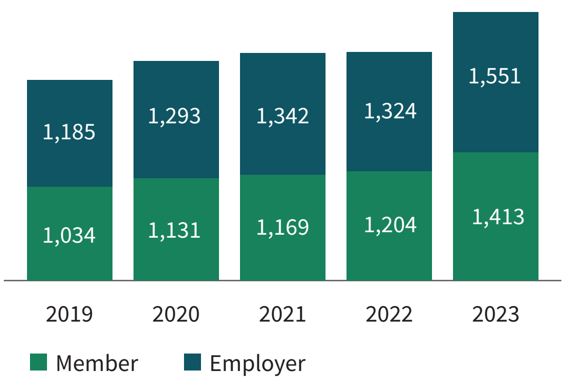
ACTIVE MEMBERS BY SECTOR (%)

as at December 31, 2023



CONTRIBUTIONS ($ MILLIONS)

year ended December 31



Stacey Lee, member

Contribution rates

Members

In 2023, members contributed a flat rate on all salary based on member group.

	Contribution rate (%)
Group 1 (all plan members who are not police officers or firefighters)	8.61
Group 2 (police officers and firefighters not in group 5)	8.92
Group 5 (police officers and firefighters not in group 2)	11.12

Employers

In 2023, employers contributed a flat rate based on employee member groups.

	Contribution rate (%)
Group 1	9.31
Group 2	12.42
Group 5	14.67

Benefits for members

Value of the plan

Beyond offering financial flexibility in retirement, the plan provides value in many other ways.

- **Lifetime pension:** The amount received in retirement is based on a formula instead of investment returns. This can make it easy for active members to predict retirement income and prepare for their future.
- **Inflation protection:** To help offset inflation, the plan may provide an annual cost-of-living adjustment (COLA). This becomes a permanent part of the beneficiaries' pension payments once granted.
- **Pre-funded pension:** Each generation pays for their pension in advance. That's why the plan can guarantee a secure and predictable pension for retired members.
- **Professional investment management:** The plan's investment manager, BCI, has over $230 billion in assets under management.
- **Extended health and dental benefits:** The plan provides access to extended health and dental benefits. Benefits are offered through the Municipal Retiree Benefit Trust.

Emphasizing the value of the plan can help new and younger members understand how paying into a pension plan now will benefit them later in life.

Lifetime pension

A member's lifetime pension is based on the years of pensionable service they have earned in the plan and their highest annual salary (HAS). HAS is determined by calculating the member's average salary during their highest-paid 60 months as an active plan member. This period is not necessarily the last 60 months they worked before retirement. For plan members employed in public safety after December 31, 2021, HAS is determined by calculating the member's average salary during their highest-paid 48 months as an active plan member.

The lifetime pension excludes the bridge benefit and temporary annuities, if those apply.

The plan also provides survivor pensions and disability benefits.

Cost-of-living adjustments

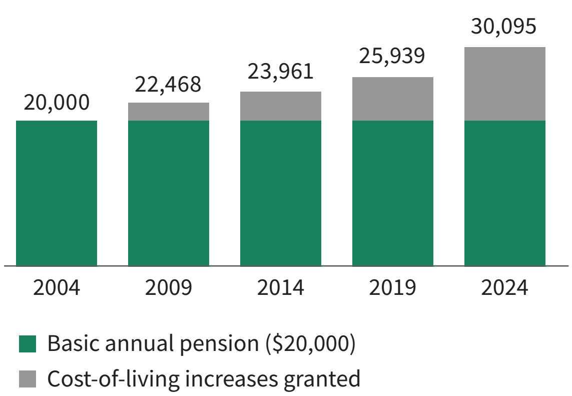
Cost-of-living adjustments (COLAs) are supplements to a member's lifetime pension to help keep pace with inflation. When the board provides a COLA, it takes effect in January.

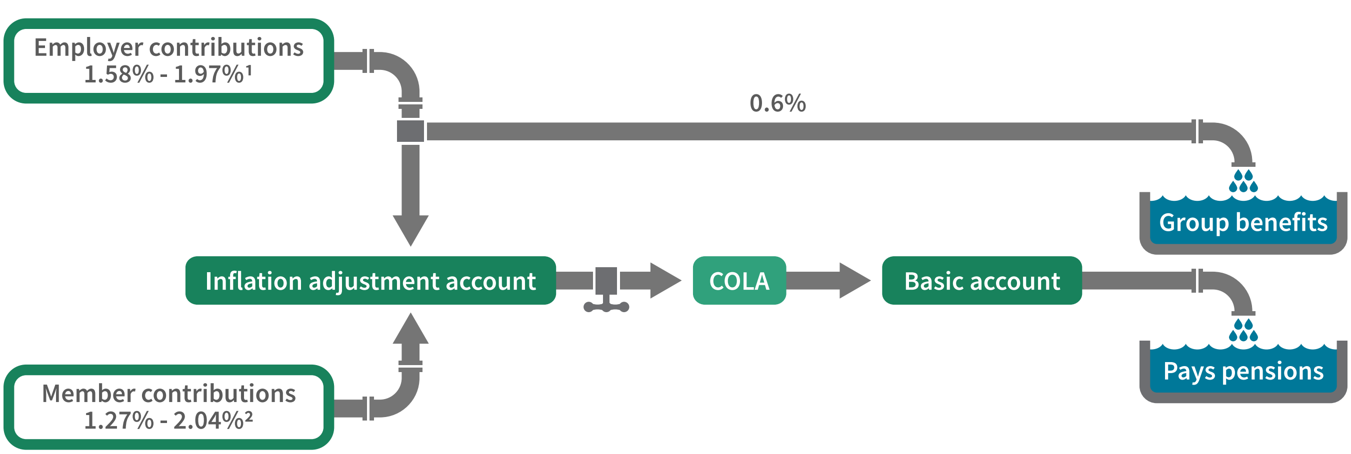
Every year, the board considers a variety of factors to determine if a COLA will be provided. COLA is based on the change in the Canadian consumer price index (CPI) from September to September, whether there is a COLA cap in place and the funds available in the plan's inflation adjustment account (IAA). While there is no COLA cap for 2023–2025, trustees still have the option of providing a COLA less than the increase in the CPI, based on the health of the plan.

The IAA holds a portion of employer and member contributions, and it earns investment income. The account may also grow through future surpluses according to guidelines in the plan's Joint Trust Agreement.

Sustainable COLAs are closely tied to actual inflation levels and actual investment returns. That's why the board reviews the level of sustainable COLAs every three years as part of the actuarial valuation.

BASIC PENSIONS PLUS COLA GRANTED ($)





1 Percentage based on member group: group 1: 1.97%; group 2: 1.58%; group 5: 1.88%
2 Percentage based on member group: group 1: 1.27%; group 2: 1.78%; group 5: 2.04%

Robert Kent DesRochers, retired member

Health care coverage for retirees

Retired members and their beneficiaries who receive a pension have access to subsidized premiums for group coverage for extended health care. Non-subsidized group dental plans are also available. These group benefit subsidies are not funded by member contributions and are not guaranteed.

The Municipal Retiree Benefit Trust (MRBT) provides access to extended health care and dental plans. These benefits are not part of the lifetime pension and are not guaranteed. The MRBT *Annual Report* is available on the plan website.

Pension payments

As at December 31, 2023, the average annual pension payment was $19,859 and the median annual pension payment was $14,019.

PENSIONS IN PAY 2019–2023

year ended December 31

	Total new pensions	Terminations	Pensions in pay	Basic pension payments ($ millions)	Cost-of-living adjustment payments ($ millions)	Total pension payments ($ millions)
2023	**7,034**	**2,039**	**128,903**	**$2,070**	**$455**	**$2,525**
2022	7,915	2,055	123,908	1,969	314	2,283
2021	8,277	1,780	118,048	1,827	283	2,110
2020	7,136	1,643	111,551	1,714	285	1,999
2019	6,855	1,768	106,058	1,614	261	1,875

NEW PENSIONS 2019–2023

year ended December 31

	Regular	Post-retirement limited member	Pre-retirement limited member	Disability	Survivor	Deferred	Long-term disability to pension	Total
2023	**4,478**	**18**	**88**	**1**	**166**	**1,729**	**554**	**7,034**
2022	5,991	27	88	2	157	1,094	556	7,915
2021	6,461	30	89	1	111	990	595	8,277
2020	5,371	29	68	1	85	1,074	508	7,136
2019	5,222	16	98	3	95	925	496	6,855

Annual pension in pay

as at December 31, 2023

Average

$19,859

Median

$14,019

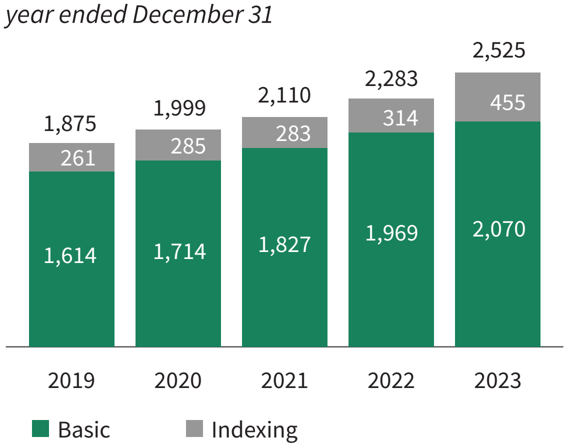
NEW PENSION PROFILE

year ended December 31, 2023

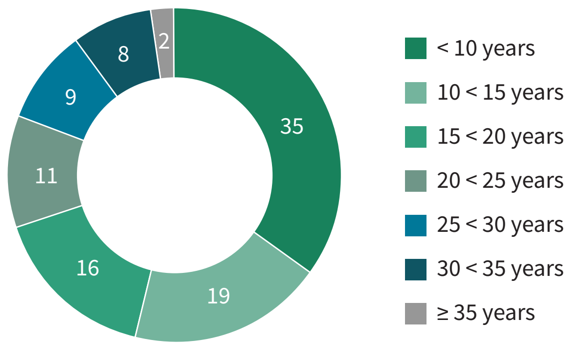
	All new pensions									
	Age range									
Service range	< 55	55 < 60	60 < 65	≥ 65	Total	Average salary	Average annual pension	Median annual pension	Average present value of pensions	Total present value of all new pensions ($ millions)
< 10 years	40	601	892	880	**2,413**	$ 65,300	$ 6,600	$ 5,300	$ 83,000	$ 200.3
10 < 15	18	289	428	568	**1,303**	66,600	14,600	12,700	199,000	259.3
15 < 20	9	224	403	441	**1,077**	70,100	21,000	18,700	294,000	316.6
20 < 25	16	207	313	261	**797**	78,800	31,300	27,300	450,000	358.7
25 < 30	59	198	256	194	**707**	85,800	43,900	37,500	652,000	461.0
30 < 35	16	221	189	143	**569**	87,900	51,300	46,500	762,000	433.6
≥ 35	–	35	64	69	**168**	82,000	47,800	44,600	705,000	118.4
Total	**158**	**1,775**	**2,545**	**2,556**	**7,034**					
Average						**$72,200**	**$21,400**	**$14,700**	**$309,000**	**$2,147.9**
Average service Normal Retirement Age 60	24	25	22	20	24					
Average service Normal Retirement Age 65	10	16	15	14	15					
Average service	**19**	**16**	**15**	**15**	**15**					
Average age NRA 60					56					
Average age NRA 65					62					
Average age					**62**					

BENEFITS PAID ($ MILLIONS)

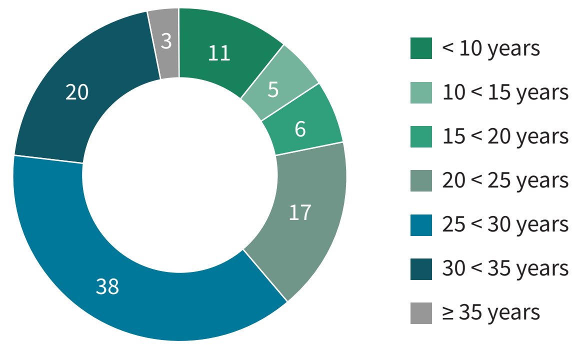
year ended December 31



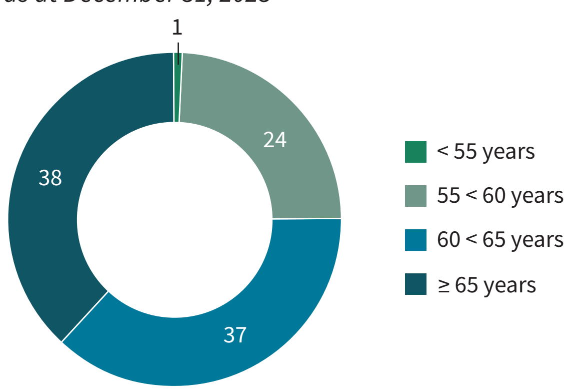
NEW PENSIONS BY YEARS OF SERVICE (REGULAR RETIREMENT AGE 65) (%)
as at December 31, 2023



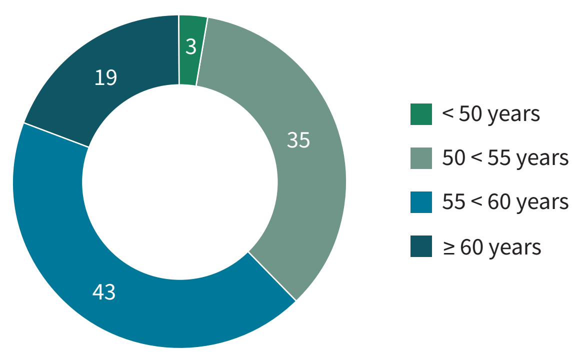
NEW PENSIONS BY YEARS OF SERVICE (REGULAR RETIREMENT AGE 60) (%)
as at December 31, 2023



NEW PENSIONS BY AGE AT RETIREMENT (REGULAR RETIREMENT AGE 65) (%)
as at December 31, 2023

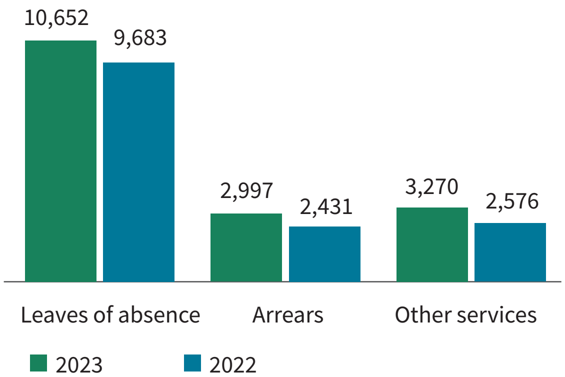


NEW PENSIONS BY AGE AT RETIREMENT (REGULAR RETIREMENT AGE 60) (%)
as at December 31, 2023



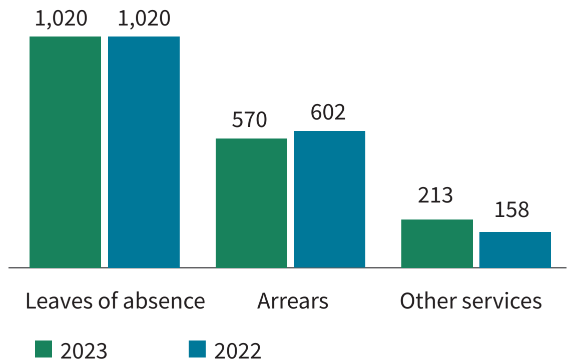
VALUE OF PURCHASES ($ THOUSANDS)

year ended December 31



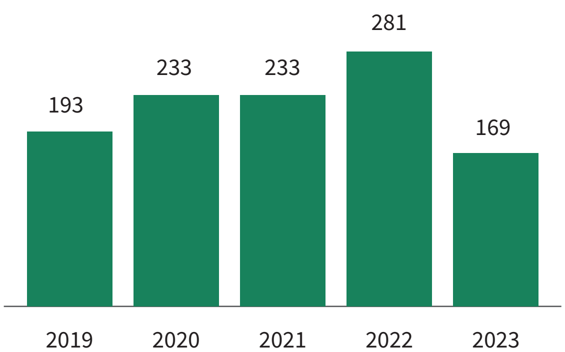
NUMBER OF PURCHASES

year ended December 31



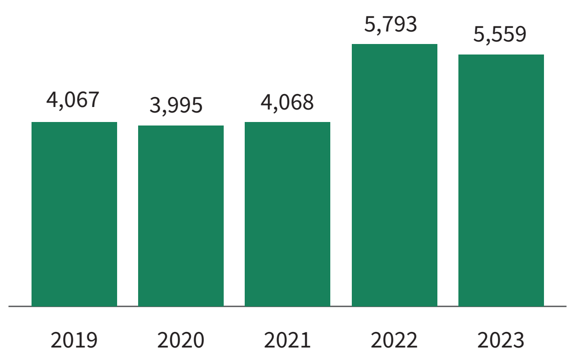
VALUE OF TERMINATION AND REFUND BENEFITS PAID ($ MILLIONS)

year ended December 31



NUMBER OF TERMINATION AND REFUND BENEFITS PAID

year ended December 31



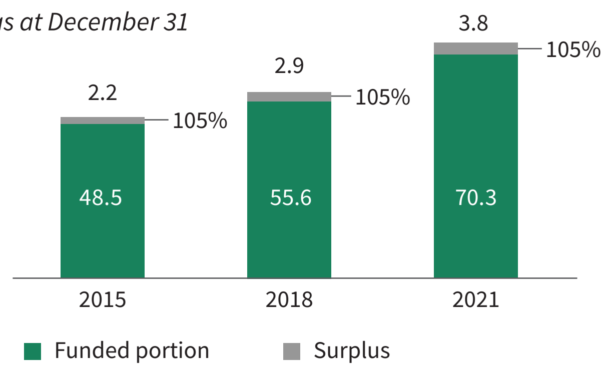
Actuarial valuation results

BC's *Pension Benefits Standards Act* and the Joint Trust Agreement require the board to appoint an independent actuary to perform a valuation of the plan's funded position every three years. The actuary compares current assets, future contributions and investment returns against the money to be paid out in the future for pension benefits.

Completed in 2022, the 2021 valuation determined the plan is fully funded with a funding ratio of 105.3 per cent and a surplus of $3.76 billion.

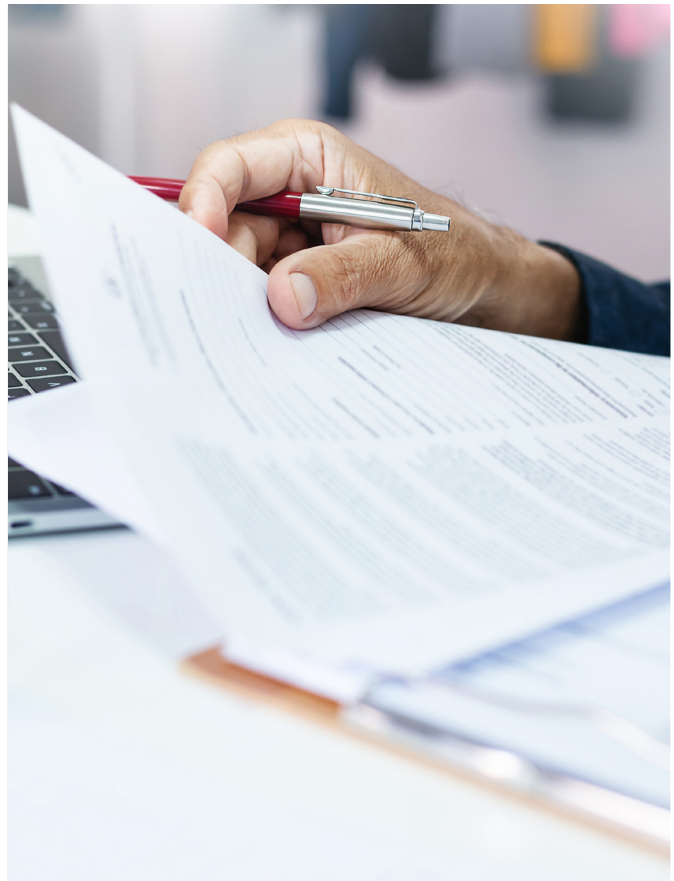
The next valuation report will be available in fall 2025.

FUNDING OF TOTAL BASIC BENEFIT LIABILITY [1]
($ BILLIONS)
as at December 31



1 Assuming contribution rates in effect at the valuation date.

Plan rules and policy changes



Family Law Act amendments affect pensions for separating couples

EFFECTIVE MAY 11, 2023

The *Family Law Act* was amended to address societal change and better meet the modern needs of marital separation.

Changes related to pension division include:

- A personal representative can now request a limited member designation.
- A limited member's access to the commuted value option will be the same as the plan member's access to this option (effective date to be confirmed by government regulation).
- Pension administrators must now deduct the limited member fee payment from a benefit unless the fee has already been paid by the member or former spouse.
- Clarification about the *Family Relations Act* to *Family Law Act* transitional provisions has been added.

Excess investment return transfers to the inflation adjustment account (IAA)

EFFECTIVE NOVEMBER 23, 2023

Plan rules were updated to align with changes to the plan's funding policy to eliminate transfers of excess investment return from the basic account, which funds members' lifetime pensions, to the IAA. Historically, the IAA was funded in part through these transfers.

Future surpluses may be shared equally between the IAA (to further support inflation protection) and the rate stabilization account (to reduce the likelihood of contribution rate increases for active members and employers).

Who we are

The board's vision is to have secure and sustainable pensions for current and future beneficiaries of the plan.

Your 2023 trustees and alternates

BC's Municipal Pension Board of Trustees is responsible for administering the pension plan and managing the pension fund, including the investment of assets. The board's vision is to have secure and sustainable pensions for current and future beneficiaries of the plan.

The Municipal Pension Plan is a joint trusteeship. Representatives of both plan members and plan employers share management of the pension plan through appointment to the board. The board appoints a chair and vice-chair.

Board membership includes trustees who served during 2023; committee appointments are as of December 31, 2023.

GARY YEE
CHAIR (ALTERNATE)

Appointed by Municipal Employees' Pension Committee

Committees Appeals panel (chair), governance, valuation, interplan executive forum, Pension Corporation board of directors

Board term January 1, 2014 to present

DONNA LOMMER
VICE-CHAIR

Appointed by Health Employers Association of British Columbia

Committees Appeals panel, governance, valuation, interplan executive forum, BCI board of directors

Board term March 8, 2017 to March 7, 2018 (rescinded by plan employer partners) and March 7, 2018 to present

DONISA BERNARDO

Appointed by Municipal Employees' Pension Committee

Committees Benefits, communications and advocacy (chair), governance, interplan trustee education

Board term May 1, 2001 to present

GLEN BROWN

Appointed by Plan employer partner—excluded member

Committees Governance, valuation (chair)

Board term January 1, 2020 to present

HILARY BROWN

Appointed by British Columbia Public School Employers' Association

Committees Governance, valuation, interplan trustee education

Board term January 1, 2012 to present

LUCAS CORWIN

Appointed by Government of British Columbia

Committees N/A

Board term September 25, 2008 to August 19, 2023

CAROL DELVERIS

Appointed by Hospital Employees' Union

Committees Interplan audit

Board term March 28, 2022 to present

BRIAN FRENKEL

Appointed by Union of British Columbia Municipalities

Committees Benefits, communications and advocacy, governance

Board term January 1, 2020 to present

LYN KOCHER

Appointed by Health Employers Association of British Columbia

Committees Benefits, communications and advocacy, governance

Board term April 5, 2001 to present

CLAIRE MOGLOVE

Appointed by Union of British Columbia Municipalities

Committees Benefits, communications and advocacy, investment

Board term January 1, 2022 to present

ADAM MOLINEUX

Appointed by Government of British Columbia

Committees Valuation

Board term April 6, 2023 to present

CHRIS RATHBONE

Appointed by Government of British Columbia

Committees Investment, Pension Corporation board of directors

Board term January 1, 2019 to present

JOSEF RIEDER

Appointed by Health Sciences Association of British Columbia

Committees Investment, valuation

Board term October 4, 2016 to present

HARPINDER SANDHU

Appointed by Canadian Union of Public Employees

Committees Governance, investment (chair)

Board term July 19, 2019 to present

MICHELLE SORDAL

Appointed by British Columbia Nurses' Union

Committees Appeals panel

Board term September 10, 2020 to present

TOM STAMATAKIS

Appointed by British Columbia Police Association and British Columbia Professional Fire Fighters' Association

Committees Benefits, communications and advocacy, governance (chair)

Board term March 27, 2018 to present

DON SUTTON

Appointed by Member partner—retired member

Committees Benefits, communications and advocacy

Board term January 1, 2018 to present

ROBERT WEEKS

Appointed by British Columbia Police Association and British Columbia Professional Fire Fighters' Association

Committees N/A

Board term January 1, 2016 to October 17, 2023

THOM YACHNIN

Appointed by Council of Joint Organizations and Unions

Committees Investment

Board term May 26, 2021 to present

Alternate trustees

LORNE BURKART

Appointed by British Columbia Nurses' Union

Committees Valuation

Board term April 28, 2018 to January 25, 2019 and April 16, 2019 to present

FERNANDO COELHO

Appointed by Plan employer partner—excluded member

Committees Benefits, communications and advocacy

Board term January 1, 2023 to present

TALITHA DEKKER

Appointed by Hospital Employees' Union

Committees Benefits, communications and advocacy

Board term December 20, 2018 to present

TERRI GRIFFIN

Appointed by Member partner—retired member

Committees Benefits, communications and advocacy

Board term January 1, 2021 to present

DEAN LEVANGIE

Appointed by Health Employers Association of British Columbia

Committees Appeals panel, governance

Board term January 1, 2019 to present

MICHAEL LORD

Appointed by Health Employers Association of British Columbia

Committees Interplan audit

Board term November 29, 2022 to present

GARY MACISAAC

Appointed by Union of British Columbia Municipalities

Committees Investment

Board term January 1, 2014 to present

SARA MANCHESTER

Appointed by Canadian Union of Public Employees

Committees Investment

Board term July 13, 2022 to present

AMY MILLER

Appointed by Government of British Columbia

Committees N/A

Board term October 6, 2023 to present

JANICE MORRISON

Appointed by Health Sciences Association of British Columbia

Committees Appeals panel, valuation

Board term January 1, 2022 to present

SAM MYERS

Appointed by Government of British Columbia
Committees Valuation
Board term February 25, 2022 to present

BRIAN NORTHAM

Appointed by Council of Joint Organizations and Unions
Committees Valuation
Board term April 5, 2001 to present

MEGAN PRATT

Appointed by Government of British Columbia
Committees N/A
Board term February 4, 2022 to January 13, 2023

LAUREY-ANNE ROODENBURG

Appointed by Union of British Columbia Municipalities
Committees Appeals panel, benefits, communications and advocacy
Board term January 1, 2023 to present

TODD SCHIERLING

Appointed by British Columbia Police Association and British Columbia Professional Fire Fighters' Association
Committees N/A
Board term October 26, 2023 to present

KELVIN STRETCH

Appointed by British Columbia Public School Employers' Association
Committees Investment
Board term January 1, 2023 to present

TRUSTEE REMUNERATION

year ended December 31, 2023

Trustee	Per diem @ $388/meeting	Per diem @ $415/meeting	Chair / vice-chair	Total payments ($)	Payee
Yee, Gary (chair)	$ 1,843.00	$ 30,207.85	$ 8,300.00	$ 40,350.85	CUPE BC
Lommer, Donna (vice-chair)	—	14,134.90	6,225.00	20,359.90	Board member
	—	9,777.40	—	9,777.40	Interior Health Authority
Bernardo, Donisa	—	18,363.75	—	18,363.75	Board member
Brown, Glen	—	5,913.75	—	5,913.75	Union of BC Municipalities
Brown, Hilary	1,109.68	15,774.15	—	16,883.83	Board member
Burkart, Lorne	—	2,066.70	—	2,066.70	Board member
	—	8,636.15	—	8,636.15	BC Nurses' Union
Coelho, Fernando	—	7,025.95	—	7,025.95	posAbilities Association of BC
Corwin, Lucas	—	2,178.75	—	2,178.75	Ministry of Finance
Dekker, Talitha	388.00	9,960.00	—	10,348.00	Hospital Employees' Union
Delveris, Carol	—	8,715.00	—	8,715.00	Hospital Employees' Union
Frenkel, Brian	—	11,516.25	—	11,516.25	Board member
Griffin, Terri	—	6,121.25	—	6,121.25	Board member
Kocher, Lyn	826.44	7,262.50	—	8,088.94	Board member
Levangie, Dean	—	4,980.00	—	4,980.00	Health Employers Association of BC
Lord, Michael	—	3,631.25	—	3,631.25	Provincial Health Services Authority
MacIsaac, Gary	—	2,697.50	—	2,697.50	Union of BC Municipalities
Manchester, Sara	—	12,267.40	—	12,267.40	Board member
Moglove, Claire	1,164.00	15,338.40	—	16,502.40	Board member
Molineux, Adam	—	2,593.75	—	2,593.75	Minister of Finance
Morrison, Janice	—	6,121.25	—	6,121.25	Board member
Myers, Sam	582.00	7,490.75	—	8,072.75	Minister of Finance
Rathbone, Chris	388.00	4,876.25	—	5,264.25	Ministry of Jobs, Economic Recovery & Innovation
Richmond, Al	1,552.00	—	—	1,552.00	Board member
Rieder, Josef	—	17,326.25	—	17,326.25	Health Sciences Association of BC
Roodenburg, Laurey-Anne	—	6,847.50	—	6,847.50	Board member
Sandhu, Harpinder	—	830.00	—	830.00	Board member
	—	14,155.65	—	14,155.65	CUPE BC
Schierling, Todd	—	1,228.40	—	1,228.40	BC Professional Fire Fighters' Association
Sordal, Michelle	—	830.00	—	830.00	Board member
	—	1,245.00	—	1,245.00	BC Nurses' Union
Stamatakis, Tom	388.00	10,582.50	—	10,970.50	Canadian Police Association
Stretch, Kelvin	—	13,230.20	—	13,230.20	Board member
Sutton, Don	—	10,063.75	—	10,063.75	Board member
Weeks, Robert	—	8,374.70	—	8,374.70	Board member
Yachnin, Thom	582.00	8,818.75	—	9,400.75	BCGEU
Total	**$8,823.12**	**$311,183.60**	**$14,525.00**	**$334,531.72**	

Agents and service providers

BCI

BCI is a leading provider of investment management services to British Columbia's public sector and one of the largest asset managers in Canada, with $230 billion of gross assets under management as of December 31, 2023. With its global outlook, BCI seeks investment opportunities that convert savings into capital that will meet clients' risk and return requirements over time. BCI offers investment options across a range of asset classes: fixed income, mortgages, public and private equity, real estate, and infrastructure and renewable resources.

BC Pension Corporation

BC Pension Corporation is one of the largest professional pension services providers in Canada. It serves over 639,000 active and retired plan members and more than 1,000 employers. Each month, Pension Corporation pays out more than $400 million in benefits ($4.8 billion each year) to more than 207,000 retirees.

As the administrative agent working on behalf of the board, it provides pension administration services to the plan. These services include providing plan information to members and employers, managing contributions and member records, paying pension benefits and providing policy, financial and communication services.

Eckler Ltd.

Eckler is a Canada-based actuarial and consulting firm specializing in financial services, pensions and benefits, and global consulting solutions.

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.

Hatch Law

Shawn Hatch is a legal advisor who serves as legal counsel for the plan.

KPMG LLP

KPMG provides external audit services for the plan.

Appendix

Annual climate-related disclosures

The board believes that climate change is both a material long-term systemic risk to the plan and an investment opportunity. Investors of all types consider these risks and opportunities, including the physical risks of a changing climate and the transition risks of moving to a low-carbon economy. Climate change will continue to impact all industries over time, making it especially relevant for long-term investors like the Municipal Pension Plan. For these reasons, climate change has the potential to impact the financial objectives of the plan.

Investors also play a critical role in financing the low-carbon economy transition. As a result, we continue to be dedicated to taking action on climate change through investor stewardship, asset selection, education and policy advocacy. We have also created a specific plan that charts our course to achieve a net-zero-aligned portfolio by 2050.

TCFD and IFRS S2 climate-related disclosures

Established in 2017, the Task Force on Climate-related Financial Disclosures (TCFD) was recognized at the time as the primary framework for climate risk disclosure for corporate issuers and for investors. The plan provided disclosures in alignment with the recommendations of the TCFD until its disbandment in 2023.

In 2023, the International Sustainability Standards Board (ISSB) developed a universal set of sustainability reporting standards, including one for climate-related financial disclosures called the IFRS S2 standard. This new global baseline is a positive step toward consolidation of disclosure frameworks. It is structured on the same four disclosure areas as the TCFD (governance, strategy, risk management, and metrics and targets) and will meet the TCFD's recommendations.

IFRS S2 aims to provide a consistent and comparable climate-related disclosure framework for organizations across all sectors and includes additional requirements beyond the TCFD framework, such as new metrics. The intent is to disclose how climate-related risks and opportunities are evaluated, managed and integrated in planning and decision making.

The board's approach to climate-related disclosure

Managing climate-related risk and opportunities is a strategic priority for the board. The board continues to support climate-related disclosures as it believes that better access to climate-related data improves how climate-related risks are assessed, priced and managed.

The board's Statement of Investment Policies and Procedures (SIPP) outlines our investment beliefs, goals and strategic asset allocation, as well as our general approach to responsible investment and to climate change and its related risks.

Our disclosure is one way the board reports on climate-related risks and opportunities. Other information about the plan's responsible investing approach, investment oversight and advocacy activities is available online at mpp.pensionsbc.ca/responsible-investing. Additional information on BCI's approach can be found online at bci.ca/approach/esg.

Annual climate disclosure update for 2023

The following is an update to the climate disclosures shared in our *2022 Annual Report*.

In 2022, the board published its plan for achieving a net-zero-aligned portfolio. Below you will find recent progress on the initiatives. This progress has been organized using the four thematic areas of the IFRS S2 standards.

Governance

THE PLAN'S GOVERNANCE ON CLIMATE-RELATED RISKS AND OPPORTUNITIES

Board structure

Under the authority of the Joint Trust Agreement, the plan is governed by a board of trustees that includes member and employer appointees. The board has a duty to manage the plan fund in the best financial interests of its members and beneficiaries. It is responsible for administering the pension plan and managing the pension fund, including the investment of assets. The board delegates investment management and stewardship to BCI, which then invests in a manner consistent with the board's policies.

Several committees make recommendations to the board on issues that affect the plan. The investment committee monitors the plan's investments and BCI's investment management and stewardship activities on behalf of the plan. This includes oversight of climate-related risks and opportunities.

Climate-related investment beliefs

A set of investment beliefs defines how the board seeks to create investment value and helps the board make practical decisions about diversification, asset allocation, performance objectives and investment activities. Environmental, social and governance (ESG) matters are part of the board's investment beliefs within the SIPP. This includes responsible investing, stewardship and climate change, which the board states is a long-term material systemic risk to the plan as well as an investment opportunity.

Board strategic plan

The board's strategic plan for 2020–2023 committed the board to "address climate risk in the investment portfolio" and explore investing in a manner compatible with the Paris Agreement. Our net-zero goal and interim target were outcomes of this previous strategic work. The 2023–2026 strategic plan outlines the board's strategic work to be a leading responsible investor. The board actions its leadership through its outreach to peers, consultation with responsible investing experts, extensive ESG education for trustees, and transparent climate risk and climate disclosure reporting.

Agent oversight and BCI's Climate Action Plan

In addition to monitoring the fund's performance, the board engages with BCI on its progress in implementing its Climate Action Plan. The board also oversees BCI's responsible investing activities, including review of responsible investment strategies across asset classes and other activities outlined in this report.

In 2023, the investment committee and the board completed an annual review of BCI's climate-related activities by comparing them to leading responsible investing practices. They reviewed climate scenario analysis; received details on BCI's engagement, voting and advocacy activities; and assessed progress toward a net-zero-aligned portfolio. BCI's most recent Climate Action Plan was released in November 2022. Implementation details can be found in BCI's climate-related disclosures in its integrated corporate annual report.

Governance-related peer initiatives

The board encourages peer interaction for learning and collaboration on climate change governance and strategy. This includes participating in events organized by the Principles for Responsible Investment (PRI) and having representation on the PRI Western North America advisory committee.

BCI continues to actively participate in Climate Action 100+ (CA100+), the largest investor-led engagement initiative on climate change, of which the board is a supporting signatory. The board is also a member of the International Centre for Pension Management (ICPM) and contributed to the ICPM's research project, Pension Fund Boards and Responsible Investing.

Trustee education

The board has a duty to understand ESG issues. Trustees continue to participate in educational sessions on climate change concepts and associated investment risks and opportunities.

The 2023 climate-related education highlights include:

- The board continues to utilize its climate change orientation package for new trustees in collaboration with ESG subject matter experts, including its investment agent, BCI. The package is available to all trustees and is included in the onboarding guide for the new investment committee members.
- Education was made available to trustees through online courses at PRI Academy and in-person training with SHARE. These programs provide practical, applied training in responsible investment and key ESG concepts. Outcomes from the courses support trustees in developing and implementing a responsible investment strategy that matches overall objectives.

Strategy

THE ACTUAL AND POTENTIAL IMPACTS OF CLIMATE-RELATED RISKS AND OPPORTUNITIES ON THE PLAN'S OPERATIONS, STRATEGY AND FINANCIAL PLANNING

The board considers climate-related systemic risks and opportunities across short-, medium- and long-term horizons, including those associated with physical and transition risks. An understanding of key systemic risks and opportunities across all time frames helps inform the board's asset allocation decisions, guide the board's policy advocacy efforts, and support the board in overseeing BCI's performance, including implementation of its Climate Action Plan, and engagement and proxy voting priorities.

CLIMATE-RELATED SYSTEMIC RISKS AND OPPORTUNITIES

	TRANSITION RISKS AND OPPORTUNITIES	PHYSICAL RISKS
SHORT TERM *5 years*	Advancing climate policies continued to face headwinds in 2023, and energy markets remained disrupted due to the war in Ukraine and other conflicts. A challenging negotiation at COP28 resulted in early signs of policy changes and, for the first time, a statement from fossil fuel–producing countries calling for a just transition away from fossil fuels, but without an explicit commitment for a phase-out. Anti-ESG sentiment in some jurisdictions has created some hesitancy for companies to promote their climate initiatives, and there has been a rollback of climate-related targets by some major oil companies. At the same time, policies such as the *Inflation Reduction Act* in the U.S. were very successful in incentivizing decarbonization opportunities over the past year. Policy changes to reduce climate change are more likely to increase over time than to be reversed. The elections in 2024 will be crucial for determining the future direction and pace of these changes. Key stakeholders from the general population, local governments, companies and investors are all taking action toward a lower-carbon future. The board's work to advocate for policy change in the short term will continue to promote regulatory and policy ambition and certainty to increase the pace of action toward the global goal of net zero by 2050. This is an investment opportunity that will require many kinds of capital. BCI is actively evaluating where different forms of capital will be needed by the market and where this leads to investment opportunities across the portfolio.	Physical risks to the plan's investments are expected to materialize in isolated incidents across the portfolio. These short-term physical risks are actively evaluated and considered across all investments. Due diligence is conducted where material physical risks are identified. Data that allows BCI to fully analyze these risks is improving. Mitigation measures are included where appropriate, such as purchasing adequate insurance and creating climate change adaptation plans or the disposition of assets.
MEDIUM TERM *10–15 years*	Transition opportunities and risks are expected to increase in importance for pricing assets across all markets but will vary by region. The transition opportunities will solidify for some industries and sectors. BCI sees capital-intensive sectors needing the most policy support to create the right market conditions to scale clean technologies. Enablers of low-carbon electricity grids, alternative green energy sources and the decarbonization of industrials will present transition opportunities for investors.	Physical risks from climate change increase in likelihood and severity under all climate change scenarios and have the potential to impact real assets and supply chains. To manage this risk, BCI uses specialized physical risk tools and data to evaluate such damages across all time frames.
LONG TERM *15+ years*	An orderly transition to a low-carbon economy that is aligned with a net-zero scenario will ultimately benefit the plan. However, current global government commitments are not sufficient to meet that goal. The board's policy advocacy will continue to focus on supporting public policies and regulations that enable an orderly and predictable transition. In addition, the board will continue to support BCI's use of influence as a large institutional investor to help avoid the negative long-term economic outcomes that may result from climate change, which is important in meeting long-term return objectives.	We understand there will be long-term physical impacts from climate change and that extreme weather events will be greater in frequency at higher degrees of warming. A high warming scenario is expected to negatively impact the portfolio performance over the long term, illuminating the need for investing in adaptation and adjusting the portfolio accordingly.

The board has implemented several actions that will enable a successful path toward the interim target and net-zero portfolio by 2050.

Key actions include:

- Continue to engage with BCI on implementing its Climate Action Plan, including risk management, proxy voting, policy advocacy and shareholder engagement
- Consider climate change as part of the asset-liability reviews
- Review climate scenario analyses
- Oversee and monitor our investments and performance
- Monitor total portfolio climate-related metrics, including climate stress test results, climate opportunity exposure and portfolio carbon footprint
- Within public equities, monitor the weighted average carbon intensity to understand the portfolio's exposure to carbon-intensive companies, expressed in Metric tonnes CO_2e/$M revenue
- Support BCI's commitment to ensure that the highest-emitting companies in the plan's portfolio are setting mature, net-zero-aligned commitments and monitor BCI's success in this regard

Risk management

PROCESS FOR IDENTIFYING, ASSESSING AND MANAGING CLIMATE-RELATED RISKS

Oversight of climate-related risk

As part of the board's oversight of BCI's investment risk activities, it receives regular reporting on climate risk from BCI and has access to BCI's ESG Risk and Opportunity Framework, which provides total portfolio climate change stress test results.

BCI climate-related risk management

Scenario analysis and risk measurement

Climate change poses significant financial risks and opportunities for financial institutions, making scenario analysis a critical tool for risk management and strategic planning.

The board receives and reviews climate change scenario analyses provided by BCI. These models show the potential impacts on the portfolio under several climate change scenarios and allow for stress testing to help the board understand the plan's resilience to climate risks over time. The insights from this process are integrated into the board's asset-liability modelling and strategic asset allocation decisions. Detailed descriptions of the scenarios employed for this modelling can be found in BCI's annual climate-related disclosures. In addition, the board's investment committee receives ongoing education, advice and support on the latest developments and emerging approaches to scenario analysis from its responsible investment consultant.

Actions to mitigate climate-related risks

Investor stewardship is central to the board's management of climate-related risks. The board practices this stewardship in many ways, including through its participation as a CA100+ supporter signatory. BCI also continues its engagement and advocacy efforts by leading and co-leading engagements with companies through CA100+. The board sees the value in collaborating with like-minded peers to advocate for positive policy developments. As such, the board signed on to the following investor statements and letters:

- Joint submission to Canadian Association of Pension Supervisory Authorities 2023 consultation on a consolidated risk management guideline
- Submission to BC Financial Services Authority 2023 consultation on natural catastrophe and climate-related risks
- Declaration of support for the adoption or use of the ISSB's climate-related reporting at a global level

Metrics and targets

THE METRICS AND TARGETS USED TO ASSESS AND MANAGE RELEVANT CLIMATE-RELATED RISKS AND OPPORTUNITIES

Portfolio carbon footprint

The plan-specific carbon footprint is provided in the chart below based on BCI's internally developed methodology that follows industry best practices. This methodology is informed by a standard created by the Partnership for Carbon Accounting Financials (PCAF), an industry-led partnership that provides detailed methodological guidance to measure and disclose greenhouse gas emissions for the financial industry.

The portfolio carbon footprint includes Scope 1 and Scope 2 greenhouse gas emissions for our public equities, corporate fixed income, real estate and private market portfolios.

Scope 1: Direct emissions from the activities of an organization or under its control

Scope 2: Indirect emissions from energy purchased and used by an organization

For a detailed methodology, please see BCI's climate disclosures in its most recent corporate annual report.

PORTFOLIO CARBON FOOTPRINT METRICS

For the year ended December 31

Financed emissions (tCO2e)[1]

Asset class	2023
Public equities	492,345
Corporate fixed income	71,695
Real estate	27,132
Private markets	1,792,303
MPP total portfolio	2,383,475

Portfolio carbon footprint (tonnes CO2e/$ million)[2-7]

Asset class	2020	2021	2022	2023
Public equities	64	57	59	60
Benchmark	68	63	79	71
Corporate fixed income	43	24	30	35
Benchmark	156	95	60	54
Real estate	9	8	7	6
Private markets	155	109	91	82
MPP total portfolio	85	67	66	66

1 The absolute greenhouse gas emissions associated with the measured portfolio, expressed in Metric tonnes CO2 equivalent (tCO2e).
2 The total carbon emissions for a portfolio normalized by the market value of covered in-scope investments in the portfolio, expressed in Metric tonnes CO2e/$M CAD invested.
3 The 2023 metrics have been derived primarily from 2022 company disclosed and estimated emissions data.
4 The methodology continues to be refined, and additional coverage will be added in future years.
5 The benchmark is a weighted combination of multiple indices selected to measure performance that is appropriate for the portfolio.
6 The corporate fixed income carbon footprint includes public corporate bond exposures but excludes private debt, money market, derivatives, cross holdings and alternative products.
7 For a detailed methodology, please see BCI's climate-related disclosures in its most recent corporate annual report.

The plan's portfolio carbon footprint has decreased by 23% compared to fiscal 2020. This decrease is a result of MPP's continued strategic focus on managing climate-related risks and opportunities. While each asset class reduced the carbon intensity of the portfolios, the weight of the private markets' portfolio carbon footprint increased relative to other asset classes. This caused the total portfolio to remain unchanged compared to the previous year. The plan continues to work alongside BCI to ensure actions are being taken to engage with portfolio companies and drive progress toward the plan's net-zero goal.

SOVEREIGN BOND CARBON FOOTPRINT[1,2]

For the year ended December 31

Carbon Footprint (tonnes CO2e/$ million)

Asset class	F2020	F2021	F2022	F2023
Sovereign bonds	359	352	319	304

1 The sovereign bond carbon footprint is reported separately from the overall portfolio carbon footprint, as recommended by PCAF, and provides a directional understanding of the emissions trends in the regions issuing the debt.
2 Sovereign bond carbon footprint is calculated using a methodology informed by the PCAF sovereign debt approach.

We also measure the weighted average carbon intensity (WACI) of the public equities portfolio. For 2023, this was measured at 161 tCO2e per $ million revenue. This helps us track the public equities exposure to carbon-intensive companies based on the carbon intensity of their sales.

PUBLIC EQUITIES WACI[1,2]

For the year ended December 31

Carbon Footprint (tonnes CO2e/$ million)

Asset class	F2021	F2022	F2023
Public equities	192	124	161
Benchmark	-	170	178

1 Portfolio's exposure to carbon-intensive companies expressed in Metric tonnes CO2e/$M CAD revenue for the year ended December 31.
2 F2022 and F2023 results use Trucost data, while prior years used Institutional Shareholder Services outputs.

Financial statements

Municipal Pension Plan 2023

BC PENSION CORPORATION

June 25, 2024

Re: Municipal Pension Plan

Administrative agent's responsibility for financial reporting

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

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

Trevor Fedyna, CPA, CGA, C. Dir.

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

Allan Chen, CPA, CA

Controller, Financial Services
British Columbia Pension Corporation

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INDEPENDENT AUDITOR'S REPORT

To the Members of the Municipal Pension Plan

Opinion

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

- the statement of financial position as at December 31, 2023
- 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 December 31, 2023, and its changes in net assets available for benefits and its changes in 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 "***Auditor's Responsibilities for the Audit of the Financial Statements***" section of our auditor's 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.

Other Information

Management is responsible for the other information. Other information comprises the information, other than the financial statements and the auditor's 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.

British Columbia Pension Corporation - Municipal Pension Plan
Page 2

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 auditor's report thereon, included in the annual report as at the date of this auditor's 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 auditor's 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 accounting standards for pension plans, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

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.

Auditor's 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 auditor's 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.

KPMG

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 auditor's 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 auditor's report. However, future events or conditions may cause the Plan to cease to continue as a going concern.

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

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

KPMG LLP

Chartered Professional Accountants

Vancouver, Canada
June 25, 2024

MUNICIPAL PENSION PLAN

Statement of financial position

($ millions)

As at December 31	Note	2023	2022
Assets			
Investments	3a	$ **76,906**	$ 71,595
Directly held derivatives	3b	**292**	591
Contributions receivable		**119**	98
Interest and dividends receivable		**11**	6
Tax rebate receivable		**1**	-
Total assets		**77,329**	**72,290**
Liabilities			
Directly held derivatives	3b	**246**	678
Accounts payable and accrued expenses		**36**	41
Payable for purchase of investments		**30**	-
Taxes payable		**-**	20
Total liabilities		**312**	739
Net assets available for benefits		**$ 77,017**	**$ 71,551**
Accrued pension obligations			
Accrued basic pension obligations	4a	$ **54,418**	$ 49,682
Non-guaranteed pension obligations	4b	**12,740**	13,126
Retirement annuity account	4c	**357**	369
Accrued pension obligations		**67,515**	63,177
Surplus			
Accessible actuarial excess	5a	**2,472**	1,877
Measurement differences between funding and accounting positions	5a	**7,030**	6,497
Surplus		**9,502**	8,374
Accrued pension obligations and surplus		**$ 77,017**	**$ 71,551**

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

Commitments (note 14)

Approved by the Municipal Pension Board of Trustees:

Carol Delveris, CPA, CA, Trustee
Municipal Pension Board of Trustees

Michael Lord, CPA, Trustee
Municipal Pension Board of Trustees

MUNICIPAL PENSION PLAN

Statement of changes in net assets available for benefits

($ millions)

Municipal Pension Plan

For the year ended December 31	Note	Basic account	Inflation adjustment account	Retirement annuity account	Supplemental benefits account	Totals 2023	Totals 2022
Increase in assets							
Investment income (loss)	8	$ 4,644	$ 895	$ 38	$ -	$ **5,577**	$ (2,312)
Contributions							
Members	9	1,193	212	2	6	**1,413**	1,204
Employers	9	1,221	179	2	149	**1,551**	1,325
		2,414	391	4	155	**2,964**	2,529
Transfers from other plans		25	4	-	-	**29**	71
Total increase in assets		7,083	1,290	42	155	**8,570**	288
Decrease in assets							
Benefits	10	2,601	58	16	19	**2,694**	2,565
Transfers to other plans		14	4	-	-	**18**	24
Retired member group benefits	11	-	-	-	136	**136**	102
Investment and administration costs	12	224	32	-	-	**256**	211
Total decrease in assets		2,839	94	16	155	**3,104**	2,902
Increase (decrease) in net assets before transfers		4,244	1,196	26	-	**5,466**	(2,614)
Account transfers	13	1,620	(1,582)	(38)	-	**-**	-
Increase (decrease) in net assets		**5,864**	**(386)**	**(12)**	**-**	**5,466**	**(2,614)**
Net assets available for benefits at beginning of year		58,056	13,126	369	-	**71,551**	**74,165**
Net assets available for benefits at end of year		**$ 63,920**	**$ 12,740**	**$ 357**	**$ -**	**$ 77,017**	**$ 71,551**

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

MUNICIPAL PENSION PLAN

Municipal Pension Plan

Statement of changes in accrued pension obligations

($ millions)

For the year ended December 31	Note	2023	2022
Increase in accrued pension obligations			
Interest on accrued pension obligations		$ **3,078**	$ 2,815
Benefits accrued		**2,732**	2,366
Change in actuarial assumptions	4a	**-**	727
Account transfers		**1,620**	473
Total increase in accrued pension obligations		**7,430**	6,381
Decrease in accrued pension obligations			
Benefits paid		**2,694**	2,475
Experience gains	4a	**-**	275
Total decrease in accrued pension obligations		**2,694**	2,750
Net increase in accrued pension obligations		**4,736**	3,631
Accrued basic pension obligations at beginning of year		**49,682**	46,051
Accrued basic pension obligations at end of year	4a	**54,418**	49,682
Non-guaranteed pension obligations			
Increase (decrease) in non-guaranteed pension obligations	4b	**(386)**	109
Non-guaranteed pension obligations at beginning of year		**13,126**	13,017
Non-guaranteed pension obligations at end of year	4b	**12,740**	13,126
Retirement annuity account			
Decrease in retirement annuity account	4c	**(12)**	(27)
Retirement annuity account at beginning of year		**369**	396
Retirement annuity account at end of year	4c	**357**	369
Total accrued pension obligations		**$ 67,515**	**$ 63,177**

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

MUNICIPAL PENSION PLAN

Notes to the financial statements for the year ended December 31, 2023

($ millions except as otherwise noted)

1. DESCRIPTION OF THE MUNICIPAL PENSION PLAN

The following description of the Municipal Pension Plan (Plan) is a summary provided for general information only. For more information, please refer to the Joint Trust Agreement (Agreement) and the Municipal 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 on April 5, 2001. The partners to the Agreement are the Municipal Employees' Pension Committee, as the member partner, and the Provincial Government of British Columbia and the Union of British Columbia Municipalities, as the employer partners (Partners). The Agreement describes the composition, appointment, powers, functions and duties of the Municipal Pension Board of Trustees (Board) and provides the authority for the Board to make the pension plan rules.

The Agreement was amended effective February 8, 2021. The amendment addressed contribution rates and future uses of actuarial surplus in the light of the revised benefits agreed to by the Partners effective January 1, 2022.

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

Membership in the Plan is open to all eligible employees of a municipality, school district, college, health service organization, police and firefighters, and many other eligible employers as designated by the Board.

b) Roles and responsibilities

Partners

The Partners and appointing authorities representing the Plan members and employers are responsible for appointing 16 trustees and 16 alternate trustees. 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 Chair and Vice-chair are appointed by the trustees. The Board may amend the pension plan rules as long as changes can be funded by the Plan's surpluses or are cost neutral to the Plan (subject to funding provisions in note 5a). Unless required to ensure compliance with regulatory enactments applicable to the Plan, only the Partners can initiate pension plan rule changes that result in contribution rate increases.

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.

MUNICIPAL PENSION PLAN

Notes to the financial statements for the year ended December 31, 2023

($ millions except as otherwise noted)

1. DESCRIPTION OF THE MUNICIPAL PENSION PLAN (CONTINUED)

b) Roles and responsibilities (continued)

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.

Municipal Retiree Benefit Trust (MRBT)

MRBT manages group benefit services for retired members.

c) Funding

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

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

d) Contributions

Membership in the Plan is divided into three groups, each with different contribution rates:

- Group 1—General membership, 97% of all members, comprises all members who are not police or firefighters
- Group 2—All police and firefighters who do not participate in group 5
- Group 5—Police and firefighters who, in an agreement with their employers, pay higher contributions than those in group 2 and receive a higher pension benefit

Basic Account

Group 1 members contribute 7.34% of salaries (7.14% for group 2, 9.08% for group 5). For group 1 members, employers contribute 7.34% of salaries (10.84% for group 2, 12.79% for group 5), less amounts allocated to the Supplemental Benefits Account (SBA).

Inflation Adjustment Account and Supplemental Benefits Account

Group 1 members contribute 1.27% of salaries (1.78% for group 2, 2.04% for group 5). For group 1 members, employers contribute 1.37% of salaries (0.98% for group 2, 1.28% for group 5) and employers for all groups contribute 0.60% of salaries to the Municipal Retiree Benefit Trust.

Retirement Annuity Account

Some employers have special agreements with members by which additional contributions are made to increase members' pension benefits. These contributions are credited to the Retirement Annuity Account (RAA). Depending on benefit eligibility, the accumulated monies at retirement are used to fund the purchase of additional pension benefits (pre-2007 special agreements only) or are paid out to a locked-in retirement vehicle.

MUNICIPAL PENSION PLAN

Notes to the financial statements for the year ended December 31, 2023

($ millions except as otherwise noted)

1. DESCRIPTION OF THE MUNICIPAL PENSION PLAN (CONTINUED)

e) Pension benefits

All members are eligible for a pension benefit. In this section, "pensionable earnings" means the member's highest five-year average annual salary (HAS), except for members in group 2 or group 5 that terminate employment on or after January 1, 2022, in which case it means the member's highest four-year average annual salary.

For service on or after January 1, 2022, members are eligible for unreduced pension benefits

- at age 65 (age 60 for groups 2 and 5);
- at age 60, with at least two years contributory service (age 55 for groups 2 and 5); or
- for groups 2 and 5 only, at age 50 or older with age plus service totalling 80 or more.

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

Also for service on or after January 1, 2022, the Plan provides a defined basic plan benefit:

- for group 1, 1.90% of pensionable earnings for each year of pensionable service,
- for group 2, 1.3% of pensionable earnings up to the Canada Pension Plan Year's Maximum Pensionable Earnings (YMPE) and 2.0% of pensionable earnings over the YMPE, for each year of pensionable service, and
- for group 5, 2.12% of pensionable earnings for each year of pensionable service, to a maximum of 35 years.

For service up to December 31, 2021, members are eligible for unreduced pension benefits

- at age 65 (age 60 for groups 2 and 5);
- at age 60, with at least two years contributory service (age 55 for groups 2 and 5); or
- at age 55 or older, with age plus years of service totalling 90 or more (age 50 or older with age plus service totalling 80 or more for groups 2 and 5).

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

Also for service up to December 31, 2021, the defined basic plan benefit is integrated with the Canada Pension Plan. The Plan provides an unreduced benefit for groups 1 and 2 of 1.3% of pensionable earnings up to the YMPE and 2.0% of pensionable earnings over the YMPE, for each year of pensionable service (to a maximum of 35 years). For group 5, the plan provides an unreduced benefit of 1.63% of pensionable earnings up to YMPE and 2.33% of pensionable earnings over the YMPE, for each year of pensionable service (to a maximum of 35 years).

The Plan also provides a bridge benefit for service up to December 31, 2021, payable to age 65 (or the date of death, if earlier). The bridge benefit for all groups is 0.7% of the lesser of YMPE or the HAS for each year of pensionable service (to a maximum of 35 years).

For groups 2 and 5 members, the Plan also provides a bridge benefit for service on or after January 1, 2022, to age 65 (or the date of death, if earlier). The bridge benefit is 0.21% for group 5 and 0.70% for group 2, of the lesser of YMPE or the HAS for each year of pensionable service (to a maximum of 35 years).

MUNICIPAL PENSION PLAN

Notes to the financial statements for the year ended December 31, 2023

($ millions except as otherwise noted)

1. DESCRIPTION OF THE MUNICIPAL PENSION PLAN (CONTINUED)

e) Pension benefits (continued)

For greater certainty, members, including members who have pensionable service in more than one group, cannot accrue more than 35 years of pensionable service in the Plan.

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

f) Termination and portability benefits

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

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

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

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

g) Other benefits

Disability and survivor benefits are also available under the Plan. A disability benefit is available to a member under age 60 (age 55 for certain groups) 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, HAS and other factors. Disability benefits continue for the member's lifetime unless the member is no longer totally and permanently disabled before age 60 (age 55 for certain groups) 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) (registration number 0359158), except for any supplemental benefits, which are funded in addition to the RPP. The Plan is not subject to income tax but is subject to indirect taxes, including British Columbia provincial sales tax (PST) and Canadian federal goods and services tax (GST). The Plan receives a 33% rebate of GST paid.

MUNICIPAL PENSION PLAN

Notes to the financial statements for the year ended December 31, 2023

($ 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 on which the substantial risks and rewards of ownership have been transferred).

c) Accrued pension obligations

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

d) Investment income

Income from investments is recorded on an 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.

MUNICIPAL PENSION PLAN

Notes to the financial statements for the year ended December 31, 2023

($ millions except as otherwise noted)

2. SIGNIFICANT ACCOUNTING POLICIES (CONTINUED)

f) Use of estimates

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

MUNICIPAL PENSION PLAN

Notes to the financial statements for the year ended December 31, 2023

($ millions except as otherwise noted)

3. INVESTMENTS

a) Investments

Fair value of investment holdings	2023	2022
Short-term	$ 2,145	$ 1,746
Bonds*	18,779	15,844
Repurchase agreements	(7,698)	(7,149)
	11,081	8,695
Canadian equities	2,228	2,122
Global equities	12,977	11,600
Emerging markets equities	5,697	7,565
Mortgages	2,637	2,757
Real estate	12,618	13,059
Private debt	5,976	4,862
Private equity	11,530	10,412
IRR**	10,017	8,777
	$ 76,906	$ 71,595

* Bonds net of unsecured debt

** 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 Account and IAA are combined for investment management purposes.

One or more pooled investment portfolios exist for different types of investments, such as short-term investments; bonds; Canadian, global and emerging markets equities; mortgages; real estate; private debt; 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.

Bonds consist of government bonds, investment grade and non-investment grade corporate bonds, repurchase agreements, unsecured debt and debentures. Bonds are valued based on current market yields and, in some cases, quoted market prices. Bonds include the use of repurchase agreements to borrow money to create leverage to purchase other bonds and enhance yields through a leverage bond fund strategy. Unsecured debt are funds borrowed through the sale of bonds.

Equities consist primarily of publicly traded shares and are valued based on quoted market prices on the primary exchanges on which they are traded.

MUNICIPAL PENSION PLAN

Notes to the financial statements for the year ended December 31, 2023

($ millions except as otherwise noted)

3. INVESTMENTS (CONTINUED)

a) Investments (continued)

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 debt consists of private debt instruments and private debt investee funds and are valued using discounted cash flows on current market yields and comparable securities, as applicable.

Private equity consists mainly of equity investments made outside the structure of public markets. Private equity investments are valued either quarterly or annually based on audited financial statements from external investment managers using a market-based approach

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.

MUNICIPAL PENSION PLAN

Notes to the financial statements for the year ended December 31, 2023

($ 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	2023		2022	
	Positive fair value	Negative fair value	Positive fair value	Negative fair value
Directly held				
Foreign currency forwards	$ 292	$ (246)	$ 591	$ (678)
Indirectly held in pooled investment portfolios				
Foreign currency forwards	$ 254	$ (8)	$ 28	$ (432)
Options	63	(54)	-	-
Interest rate swaps	66	(38)	80	(14)
Total return swaps	342	(43)	239	(161)
	$ 1,017	$ (389)	$ 938	$ (1,285)
Derivatives by investment asset classification				
Short-term	$ -	$ (1)	$ -	$ -
Bonds	142	(1)	55	(211)
Canadian equities	25	(4)	6	(7)
Global equities	421	(109)	160	(209)
Emerging markets equities	34	(18)	149	(24)
Mortgages	38	(25)	-	-
Real estate	134	(119)	52	(327)
Private debt	103	(10)	23	(194)
Infrastructure and renewable resources	120	(102)	493	(313)
	$ 1,017	$ (389)	$ 938	$ (1,285)

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

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

MUNICIPAL PENSION PLAN

Notes to the financial statements for the year ended December 31, 2023

($ millions except as otherwise noted)

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. Options are held for synthetic indexing, a modern technique used to replicate the performance of a security or index without directly purchasing or selling the underlying assets and for risk control.

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

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

Derivative transactions are supported with collateral to mitigate counterparty credit risk. A single net fair value amount is used to determine the value of collateral with each counterparty. Collateral approximately equal to the positive fair value of each derivative contract is provided by counterparties, and collateral approximately equal to the negative fair value of each derivative contract is 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.

MUNICIPAL PENSION PLAN

Notes to the financial statements for the year ended December 31, 2023

($ millions except as otherwise noted)

3. INVESTMENTS (CONTINUED)

b) Derivatives (continued)

Absolute notional value of the Canadian denominated portion of derivatives is disclosed in the table below.

Notional value of derivatives				2023	2022
Terms to maturity	**Within 1 year**	**1 to 5 years**	**Over 5 years**	**Total**	**Total**
Derivatives by type of contract					
Directly held					
Foreign currency forwards	$ 30,114	$ -	$ -	$ 30,114	$ 29,124
Indirectly held in pooled investment portfolios					
Foreign currency forwards	$ 12,447	$ -	$ -	$ 12,447	$ 9,899
Options	1,170	745	-	1,915	-
Interest rate swaps	2,027	3,462	538	6,027	6,768
Total return swaps	14,805	747	-	15,552	13,965
	$ 60,563	$ 4,954	$ 538	$ 66,055	$ 59,756
Derivatives by investment asset classification					
Short-term	$ 67	$ -	$ -	$ 67	$ 52
Bonds	4,665	-	538	5,203	5,723
Canadian equities	706	305	-	1,011	545
Global equities	17,272	3,782	-	21,054	16,053
Emerging markets equities	2,355	867	-	3,222	4,944
Mortgages	3,298	-	-	3,298	-
Real estate	13,944	-	-	13,944	9,425
Private debt	5,349	-	-	5,349	4,498
Private equity	26	-	-	26	-
*IRR	12,881	-	-	12,881	18,516
	$ 60,563	$ 4,954	$ 538	$ 66,055	$ 59,756

* Infrastructure and renewable resources

MUNICIPAL PENSION PLAN

Notes to the financial statements for the year ended December 31, 2023

($ millions except as otherwise noted)

3. INVESTMENTS (CONTINUED)

c) Repurchase agreements

The Plan has indirect exposure to repurchase agreements through its investment in the pooled investment portfolio underwritten on bond securities. Repurchase agreements are short-term agreements to sell securities in order to buy them back at a slightly higher price. The party selling the repurchase agreement is effectively borrowing, and the other party is lending, since the lender is credited the implicit interest in the difference in prices. Securities sold under repurchase agreements are accounted for as collateralized borrowing because they represent the sale of securities with a simultaneous agreement to buy them back at a specified future date. The securities sold under these agreements continue to be recognized on the Statement of Financial Position with any changes in fair value recorded as net gain (loss) on investments and included in investment income. Interest incurred on repurchase agreements is included in borrowing costs within investment-related expenses.

Repurchase agreements are carried at the amount at which the securities were initially acquired or sold, which, together with accrued interest income or expense, approximates fair value due to the short-term nature of these agreements.

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 December 31, 2021, by Eckler Ltd. This valuation calculated the liability for accrued basic pension obligations for financial statement purposes to be $46,503 million (2018: $38,642 million).

Between valuations, an estimate of the actuarial position is required. This estimate, an extrapolation, has been made to December 31, 2023, using the following long-term actuarial assumptions:

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

The extrapolation calculated the liability for accrued basic pension obligations to be $54,418 million (2022: $49,682 million).

MUNICIPAL PENSION PLAN

Notes to the financial statements for the year ended December 31, 2023

($ millions except as otherwise noted)

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

a) Basic Account (continued)

In 2022, the extrapolation reflected assumption changes made during the 2021 valuation that resulted in an increase in the 2021 accrued basic pension obligations of $727 million. The most significant change in the assumptions was a decrease in the discount rate, which increased the accrued basic pension obligations, although this was offset by a reduction in the salary escalation rate. Further, the 2021 valuation accrued basic pension obligations were $275 million lower than anticipated by the 2021 extrapolation, representing the net result of experience gains and losses (e.g. lower than expected salary increase, retirements later than assumed).

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 the assumptions may be required.

The next full actuarial valuation will be carried out as at December 31, 2024, with the results included in the December 31, 2025, financial statements.

Actuarial liabilities are also affected by changes in the assumed investment return. Based on the actuarial valuation completed as at December 31, 2021, a reduction in the investment return assumption from 6.00% to 5.75% would have increased the December 31, 2023, liability for accrued basic obligations of $54,418 million by $1,685 million or 3.10% and the impact of a 1% change would be approximately four times the amount. Changes to assumptions included in the actuarial valuation are interrelated, and the cumulative impact of changed assumptions may be offsetting.

b) Inflation Adjustment Account, non-guaranteed pension obligations

No unfunded liability exists for the IAA since the obligation for future cost-of-living adjustments is limited to the amount of the available assets in the account. There is no minimum level of inflation adjustment required to be paid under the pension plan rules, nor is there any Plan provision to fund the IAA to any minimum level of future potential inflation adjustments (note 5b). The non-guaranteed pension obligations are therefore equal to the net assets available for benefits in the IAA, 2023: $12,740 million (2022: $13,126 million). The net decrease of $386 million (2022: $109 million increase) 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).

c) Retirement Annuity Account

The RAA is comprised of additional contributions by employers and members under special agreements. If a member is entitled to, and chooses to, purchase additional pension benefits at retirement, monies are transferred from the RAA to the Basic Account and the IAA to fund the additional benefits. No unfunded liability exists as the obligation to purchase a pension is limited to the amount of the available assets in the account. The pension benefit for the RAA is therefore equal to the net assets available in the RAA, $357 million (2022: $369 million).

The net assets available in the RAA decreased $12 million (2022: $27 million decrease) as employee and employer contributions and earnings on investments were reduced by payments out of the account.

MUNICIPAL PENSION PLAN

Notes to the financial statements for the year ended December 31, 2023

($ 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. Contribution rate determinations exclude consideration of the assets in the Rate Stabilization Account (RSA), which is held notionally within the Basic Account; if contribution rate increases are considered, funds will be transferred from the RSA to keep the rate at its current level or to minimize the increase.

A Group Contribution Rate Rebalancing Account (GCRRA) is held notionally within the Basic Account. At each valuation, the actuary calculates adjustments to contribution rates required to ensure that each group is paying a contribution rate that correctly reflects the cost of the benefits for each group. Contribution rate determination will exclude consideration of the assets in the GCRRA. The GCRRA will be used to mitigate the impact of contribution rate increases to group 2 and group 5 arising from the need to rebalance contributions rates between the groups in the plan. Following the December 31, 2021 valuation, the GCRRA is being drawn down to mitigate contribution increases that would otherwise have applied to group 2 and group 5.

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

Actuarial valuation

The latest full actuarial valuation for funding purposes was prepared as at December 31, 2021, by the independent actuary based on the entry-age method; the valuation indicated an actuarial surplus of $3,761 million. As per the Agreement, $1,018 million of the December 21 2021, valuation surplus was transferred, $509 million to IAA and $509 million to RSA. The amounts of these transfers as at December 31, 2022 also includes interest.

MUNICIPAL PENSION PLAN

Notes to the financial statements for the year ended December 31, 2023

($ millions except as otherwise noted)

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

a) Basic Account (continued)

Following the December 31, 2018 valuation, a new amortization of 0.50% of pay for group 2 and 0.68% of pay for group 5 arising from the plan benefit changes was established effective January 1, 2022, and is due until the end of 2036.

Interest is added to the RSA at the smoothed investment return rate. The initial RSA balance (funded from 2015 valuation surplus) was subject to a maximum of $2,500 million. Effective December 31, 2021 the RSA maximum has been removed. The Agreement required the allocation of portions of the revised 2018 surplus to the RSA and the GCRRA.

An estimate of the actuarial position of the Plan for funding purposes has been made to December 31, 2023, using the following long-term actuarial assumptions:

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

MUNICIPAL PENSION PLAN

Notes to the financial statements for the year ended December 31, 2023

($ millions except as otherwise noted)

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

a) Basic Account (continued)

This estimate, an extrapolation, produced an estimated accessible actuarial excess of $2,472 million as at December 31, 2023 and an estimated funding surplus of $5,326 million (2022: $4,499 million), as follows:

Funding extrapolation		2023		2022
Net assets available for basic pension benefits	$	**63,920**	$	58,056
Actuarial asset value adjustment		**3,086**		3,224
Smoothed assets for basic pension benefits		**67,006**		61,280
RSA		**(4,347)**		(4,071)
GCRRA		**(45)**		(44)
Smoothed assets excluding rate stabilization account and GCRRA		**62,614**		57,165
Present value of future contributions (entry-age method)		**25,916**		22,034
Present value of future amortization for group 2 and 5		**73**		75
Present value of temporary rate reduction below entry-age rate		**(278)**		(292)
Net actuarial assets for basic pension benefits		**88,325**		78,982
Actuarial liability for accrued and future basic pension benefits		**(82,999)**		(74,483)
Entry-age method actuarial surplus	$	**5,326**	$	**4,499**
PBSA 5% of net liabilities		**(2,854)**		(2,622)
Accessible actuarial excess	$	**2,472**	$	**1,877**

Changes in the extrapolated entry-age method funded status		2023		2022
Extrapolated entry-age method actuarial surplus, beginning of year	$	**4,499**	$	4,266
Adjustment to reflect the 2021 valuation		-		(505)
2021 surplus transfer to RSA, beginning of year		-		(509)
2021 surplus transfer to IAA, beginning of year		-		(509)
2021 surplus used to maintain the current contribution rate, beginning of year		-		(277)
Extrapolated change in actuarial assets for basic pension benefits		**9,343**		6,147
Extrapolated change in actuarial liability for accrued and future basic pension benefits		**(8,516)**		(4,114)
Entry-age method actuarial surplus, end of year	$	**5,326**	$	**4,499**
PBSA 5% of net liabilities		**(2,854)**		(2,622)
Accessible actuarial excess	$	**2,472**	$	**1,877**

MUNICIPAL PENSION PLAN

Notes to the financial statements for the year ended December 31, 2023

($ millions except as otherwise noted)

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

a) Basic Account (continued)

Based on the funded position at the December 31, 2021 actuarial valuation, the Joint Trust Agreement required that part of the surplus be used to fund a contribution rate reduction below the entry age normal cost (EANC). The extrapolation reflects the amount of surplus required for the contribution reduction as well as the 5% of net liabilities (total liabilities less the present value of future contributions at entry-age rate) that needs to be held in the Basic Account when the current contribution rate is below the entry age normal cost.

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 differences between funding and accounting positions

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

Measurement difference between funding and accounting positions	2023	2022
Entry-age method funding surplus	$ 5,326	$ 4,499
PBSA 5% of net liabilies	(2,854)	(2,622)
Accessible actuarial excess	2,472	1,877
Actuarial asset value adjustment	(3,086)	(3,224)
RSA adjustment	4,347	4,071
GCRRA	45	44
PBSA 5% of net liabilities	2,854	2,622
Difference in actuarial methods – present value of future contributions	(25,916)	(22,034)
Difference in actuarial methods – present value of future amortization for group 2	(73)	(75)
Present value of temporary rate reduction below entry-age	278	292
Difference in actuarial methods – present value of future liabilities	28,581	24,801
Measurement differences between funding and accounting positions	7,030	6,497
Surplus for financial statement purposes	**$ 9,502**	**$ 8,374**

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Notes to the financial statements for the year ended December 31, 2023

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

a) Basic Account (continued)

Actuarial asset value adjustment

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

The funding policy requires that the value of the assets be smoothed within a certain corridor. In the 2021 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 December 31, 2023, was 104.8% of the market value of the assets (2022: 105.6%).

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	2023	2022
2023	-	79
2024	**(441)**	(502)
2025	**(1,177)**	(1,222)
2026	**(1,541)**	(1,579)
2027	**73**	-
Total adjustment	**$ (3,086)**	**$ (3,224)**

Rate Stabilization Account

The RSA is held notionally within the Basic Account. As per the Agreement, $509 million of the 2021 surplus together with interest of $52 million at the smoothed rate of return was transferred to the RSA in 2022. Interest of $276 million for the year (2022: $325 million) was transferred from the Basic Account to the RSA based on the opening balance and a smoothed rate of return of 6.78% (2022: 10.22%).

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Notes to the financial statements for the year ended December 31, 2023

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

a) Basic Account (continued)

Rate Stabilization Account (continued)

Rate stabilization account		2023		2022
Opening balance	$	4,071	$	3,185
2021 valuation surplus transfer		-		561
Interest		276		325
Ending balance	$	**4,347**	$	**4,071**

Group Contribution Rate Rebalancing Account

The GCRRA is held notionally within the Basic Account. Interest on the GCRRA is determined by applying the smoothed rate of return to the opening balance. As a result of the 2021 valuation, the rebalancing adjustments for group 2 (0.10% of salaries) and group 5 (0.23% of salaries) are paid annually from the GCRRA, so that each group is paying a contribution rate that correctly reflects the cost of the benefits for each group. This adjustment was $2 million for 2023 (2022: $2 million).

Group contribution rate rebalancing account		2023		2022
Opening balance	$	44	$	42
Contribution to the basic account		(2)		(2)
Interest		3		4
Ending balance	$	**45**	$	**44**

Difference in actuarial methods

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

Funding provisions

The Agreement specifies that actuarial deficits will be amortized over 15 years, and actuarial gains must be used to achieve the following objectives, in order of priority:

1. Eliminating any unfunded liability.
2. Ensuring the plan is funded at the entry-age normal cost if possible.

   If the current contribution rate is less than the EANC, then use actuarial excess to support the lowest possible contribution rate below the EANC that is not less than the current contribution rate.

   If the required contribution rate is higher than the current contribution rate, then draw down funds from the RSA as needed to support the lowest possible contribution rate that is not less than the current contribution rate.

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Notes to the financial statements for the year ended December 31, 2023

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

a) Basic Account (continued)

3. Transferring any remaining surplus on an equal (50/50) basis to the IAA and RSA until such time as the Board considers the IAA to be sufficient to provide full indexing and the RSA to have reached a targeted funding level. If either account is fully funded, the surplus will be transferred to the other account until that account is also fully funded. The RSA will be drawn down if required to keep the Basic Account contribution rate unchanged.

The Agreement describes that if, at any time, an actuarial valuation indicates that increased Basic Account contribution rates are required to fully fund the Plan on a going-concern basis, the increase must be shared equally by members and employers.

b) Inflation Adjustment Account

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 of future potential cost-of-living adjustments.

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

The Board established a cap for cost-of-living adjustments for retired members on January 1, 2014. As a result of the 2018 actuarial valuation, the cap effective January 1, 2020 to January 1, 2022, was set at 2.10%. As a result of the 2021 actuarial valuation, the board has chosen to remove the cap effective January 1, 2023 to January 1, 2025. The cap for sustainable cost-of-living adjustments will be reviewed following each subsequent triennial actuarial valuation.

c) Retirement Annuity Account

No unfunded liability exists for the RAA, since the obligation to purchase a pension is limited to the amount of the available assets in the account. The pension benefit for the RAA is therefore equal to the net assets available in the RAA.

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Notes to the financial statements for the year ended December 31, 2023

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6. FINANCIAL RISK MANAGEMENT

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

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

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 on the financial risks that may directly or indirectly impact the financial statements and the funded status of the Plan. These two forms of risk disclosure are not additive to each other.

a) Liquidity risk

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

The Plan's primary source of liquidity is income generated from the Plan's investments, and employer and employee contributions. Investments are primarily held in pooled funds, and the securities held are traded in active markets and can be readily sold, and where the pooled fund units can thereby be redeemed to fund cash requirements. Accounts payable of $36 million (2022: $41 million) and payable for purchase of investments of $30 million (2022: $0 million) are generally due within one month. Derivatives payable of $246 million (2022: $678 million) 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.

Market risk is the risk that the fair value 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.

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 debt investments. See note 6c for currency exposure related to underlying securities.

MUNICIPAL PENSION PLAN

Notes to the financial statements for the year ended December 31, 2023

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6. FINANCIAL RISK MANAGEMENT (CONTINUED)

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

Foreign denominated investments held by the plan are $1,065 million United States (US), 1.4% of total investments (2022: $900 million US, 1.3% of total investments).

As at December 31, 2023, 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 $106 million (2022: $90 million).

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 or its issuer, or factors affecting all similar financial instruments traded in the market. The Plan's investments are subject to other price risk through its public equity investments and private market investments, including equity in real estate companies, held directly and through pooled investment portfolios. This risk is managed by diversifying investments across asset classes based on criteria established in the SIPP.

As at December 31, 2023, if the pooled investment fund unit prices increased or decreased by 10%, with all other factors remaining constant, net assets available for benefits would have increased or decreased by approximately $7,690 million (2022: $7,159 million).

In February 2022, events concerning Russia and Ukraine have resulted in sanctions being levied against Russian interests by numerous countries. As a result of this ongoing situation, the price and liquidity of securities connected to Russia have declined significantly and were written down to zero. The duration and extent of the impact of this situation on the Plan's other investments remain unclear.

Credit risk

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

Credit exposure exists for contributions receivable directly held by the Plan totalling $119 million (2022: $98 million), interest and dividends receivable $11 million (2022: $6 million), and for the derivatives $292 million (2022: $591 million).

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Notes to the financial statements for the year ended December 31, 2023

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6. FINANCIAL RISK MANAGEMENT (CONTINUED)

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

Pooled investment funds exist for different types of investments, such as short-term investments; bonds; Canadian, global and emerging markets equities; mortgages; real estate; private debt; 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’s 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.

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Notes to the financial statements for the year ended December 31, 2023

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6. FINANCIAL RISK MANAGEMENT (CONTINUED)

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

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

Foreign denominated investment holdings (Cdn dollar equivalent)	**Total exposure**	**Economic hedging**	**Net exposure**	**% of total**
			2023	
United States	**$ 36,834**	**$ 12,290**	**$ 24,544**	**53%**
Asia-Pacific, excluding Japan	**6,065**	**240**	**5,825**	**13%**
Euro countries	**5,808**	**1,038**	**4,770**	**11%**
United Kingdom	**4,434**	**275**	**4,159**	**9%**
Other	**4,034**	**1**	**4,033**	**9%**
Other Europe	**1,417**	**254**	**1,163**	**3%**
Japan	**909**	**-**	**909**	**2%**
	$ 59,501	**$ 14,098**	**$ 45,403**	**100%**
			2022	
United States	$ 32,557	$ 10,238	$ 22,319	65%
Euro countries	5,531	1,062	4,469	13%
Asia-Pacific, excluding Japan	4,170	-	4,170	12%
Other	1,953	211	1,742	5%
United Kingdom	1,391	2	1,389	4%
Other Europe	431	-	431	1%
Japan	134	-	134	0%
	$ 46,167	**$ 11,513**	**$ 34,654**	**100%**

The net foreign currency exposure of its underlying investment represents 59% (2022: 48%) 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, mortgages and private debt. 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. The Plan participates in a leveraged bond strategy using repurchase agreements that is included in the terms to maturity table below.

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Notes to the financial statements for the year ended December 31, 2023

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6. FINANCIAL RISK MANAGEMENT (CONTINUED)

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

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

Terms to maturity of interest-bearing financial instruments

	Within 1 year	1 to 5 years	6 to 10 years	Over 10 years	Total	Effective yield to maturity
			2023			
Short-term	$ 2,142	$ -	$ 3	$ -	$ 2,145	5.25%
Bonds[1]	622	5,620	6,909	5,628	18,779	4.10%
Repurchase agreements	(7,698)	-	-	-	(7,698)	-5.03%
Mortgages[2]	522	1,894	197	24	2,637	7.48%
Debt[3]	-	3	5	-	8	4.80%
Private debt[2]	3,529	1,738	671	38	5,976	10.64%
	$ (883)	$ 9,255	$ 7,785	$ 5,690	$ 21,847	
			2022			
Short-term	$ 1,746	$ -	$ -	$ -	$ 1,746	4.46%
Bonds	548	4,813	5,182	5,301	15,844	4.48%
Repurchase agreements	(7,149)	-	-	-	(7,149)	-4.27%
Mortgages[2]	753	1,956	48	-	2,757	6.99%
Debt[3]	-	3	3	-	6	4.80%
Private debt[2]	2,274	1,335	1,210	43	4,862	10.80%
	$ (1,828)	$ 8,107	$ 6,443	$ 5,344	$ 18,066	

[1] Bonds net of unsecured debt

[2] Yield includes both fixed and variable interest rates.

[3] Grouped with real estate investment category.

As at December 31, 2023, 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 $1,409 million (2022: $1,151 million).

Other price risk

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

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Notes to the financial statements for the year ended December 31, 2023

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6. FINANCIAL RISK MANAGEMENT (CONTINUED)

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

Credit risk

The Plan's underlying investment assets held in pooled investment funds attract credit risk. This is the risk that a loss may occur from the failure of another party to perform according to the terms of a contract.

It is also the risk of losses when issuers and debtors are downgraded by credit rating agencies, usually leading to a fall in the market value of the debtors' obligations. Credit risk is managed by establishing specific investment criteria, such as minimum credit ratings for investees and counterparties and maximum concentration limits with given counterparties.

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

Credit rating of financial instruments

	AAA/AA	A	BBB	Non-investment Grade	Unrated	Total
			2023			
Short-term	$ 1,700	$ 445	$ -	$ -	$ -	$ 2,145
Bonds*	12,739	3,107	1,022	1,763	688	19,319
Mortgages	-	-	-	-	2,637	2,637
Debt**	-	-	-	-	8	8
Private debt	94	-	16	425	5,441	5,976
	$ 14,533	$ 3,552	$ 1,038	$ 2,188	$ 8,774	$ 30,085
	48%	12%	4%	7%	29%	100%
			2022			
Short-term	$ 1,142	$ 604	$ -	$ -	$ -	$ 1,746
Bonds	9,824	3,374	1,030	1,205	411	15,844
Mortgages	-	-	-	-	2,757	2,757
Debt**	-	-	-	-	6	6
Private debt	81	-	-	1,179	3,602	4,862
	$ 11,047	$ 3,978	$ 1,030	$ 2,384	$ 6,776	$ 25,215
	43%	16%	4%	10%	27%	100%

* Unsecured debt not included in bonds

** Grouped with real estate investment category.

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Notes to the financial statements for the year ended December 31, 2023

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6. FINANCIAL RISK MANAGEMENT (CONTINUED)

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

Credit risk (continued)

The ratings used are defined by Standard & Poor's rating agency. Obligations rated AAA/AA have the highest rating assigned. The counterparty's capacity to meet its financial commitment on the obligation is very strong. Bonds rated A, BBB or non-investment grade are weaker. A BBB rating denotes an obligation with adequate protection parameters. A non-investment grade rating denotes 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.

7. FAIR VALUE OF FINANCIAL INSTRUMENTS

a) Fair value hierarchy

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

Level 1

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

Level 2

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

Level 3

Inputs that are not based on observable market data

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7. FAIR VALUE OF FINANCIAL INSTRUMENTS (CONTINUED)

a) Fair value hierarchy (continued)

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

Fair value hierarchy	Level 1	Level 2	Level 3	Total
		2023		
Pooled fund units	$ 1,960	$ 35,766	$ 39,172	$ 76,898
Direct debt*	-		8	8
Investments	**$ 1,960**	**$ 35,766**	**$ 39,180**	**$ 76,906**
Derivatives	**$ -**	**$ 46**	**$ -**	**$ 46**
		2022		
Pooled fund units	$ 1,746	$ 36,645	$ 33,198	$ 71,589
Direct debt*	-	-	6	6
Investments	**$ 1,746**	**$ 36,645**	**$ 33,204**	**$ 71,595**
Derivatives	**$ -**	**$ (87)**	**$ -**	**$ (87)**

* Grouped with real estate investment category.

During 2023 and 2022, 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 debt	Total
		2023	
Balance, beginning of year	$ 33,198	$ 6	$ 33,204
Net gain included in investment income	1,105	-	1,105
Purchases	9,285	2	9,287
Sales	(4,416)	-	(4,416)
Balance, end of year	**$ 39,172**	**$ 8**	**$ 39,180**
Total unrealized gain in investment income	$ 31	$ -	$ 31
		2022	
Balance, beginning of year	$ 27,379	$ 6	$ 27,385
Net loss included in investment income	(626)	-	(626)
Purchases	19,921	-	19,921
Sales	(13,476)	-	(13,476)
Balance, end of year	**$ 33,198**	**$ 6**	**$ 33,204**
Total unrealized loss in investment income	$ (1,422)	$ -	$ (1,422)

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Notes to the financial statements for the year ended December 31, 2023

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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 debt 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 debt investments held by the Plan, external, independent valuation specialists are engaged annually to assist in the determination of fair value. In those circumstances where BCI relies on the third-party manager for the determination of fair value, BCI reviews the appropriateness of such valuations using audited financial statements of the underlying investments, where available, and other information from the underlying third-party manager or other sources.

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7. FAIR VALUE OF FINANCIAL INSTRUMENTS (CONTINUED)

c) Valuation framework (continued)

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

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

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

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

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7. FAIR VALUE OF FINANCIAL INSTRUMENTS (CONTINUED)

d) Significant unobservable inputs used in measuring fair value

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

Significant unobservable inputs used in measuring fair value

Description	Fair value	Valuation technique	Unobservable input	Amount/ range	Sensitivity to change in significant unobservable input
			2023		
					The estimated fair value would increase if:
Pooled fund units	**$ 39,172**	**Net asset value**	**Net asset value**	**$ 39,172**	**The net asset value increased**
Direct debt	**$ 8**	**Discounted cash flow**	**Discount rate**	**4.8%**	**The discount rate decreased**
			2022		
					The estimated fair value would increase if:
Pooled fund units	$ 33,198	Net asset value	Net asset value	$ 33,198	The net asset value increased
Direct debt	$ 6	Discounted cash flow	Discount rate	4.8%	The discount rate decreased

Net asset value

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

Discount rate

This represents the discount rate applied to the expected future cash flows of the 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.

MUNICIPAL PENSION PLAN

Notes to the financial statements for the year ended December 31, 2023

($ millions except as otherwise noted)

7. FAIR VALUE OF FINANCIAL INSTRUMENTS (CONTINUED)

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 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, 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

	2023		2022	
	Favourable	Unfavourable	Favourable	Unfavourable
Pooled fund units	$ 3,917	$ (3,917)	$ 3,320	$ (3,320)
Direct debt	1	(1)	1	(1)
	$ 3,918	$ (3,918)	$ 3,321	$ (3,321)

f) Financial instruments not measured at fair value

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

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Notes to the financial statements for the year ended December 31, 2023

($ millions except as otherwise noted)

8. INVESTMENT INCOME (LOSS)

	2023			2022		
	Income allocation	Change in fair value	Total	Income allocation	Change in fair value	Total
Short-term	$ 88	$ (19)	$ 69	$ 31	$ 29	$ 60
Bonds	449	453	902	480	(3,081)	(2,601)
Canadian equities	71	195	266	75	(323)	(248)
Global equities	408	2,061	2,469	218	(1,780)	(1,562)
Emerging markets equities	256	391	647	200	(990)	(790)
Mortgages	121	7	128	234	(27)	207
Real estate	135	(863)	(728)	1,386	(293)	1,093
Private debt	270	397	667	123	11	134
Private equity	537	82	619	1,004	(543)	461
IRR*	897	(413)	484	767	291	1,058
	3,232	2,291	5,523	4,518	(6,706)	(2,188)
Directly held derivatives	-	54	54	-	(124)	(124)
	$ 3,232	$ 2,345	$ 5,577	$ 4,518	$ (6,830)	$ (2,312)

* Infrastructure and renewable resources

Investment income represents realized and unrealized pooled investment portfolio income attributable to the Plan, as a unit holder, and income from directly held investments. Income allocation is composed of interest, dividends and other investment payments. Change in fair value is composed of realized gains and losses on the disposal of investments and derivatives, and unrealized gains and losses on investments and derivatives held at year-end. All income earned within a pooled investment portfolio is reinvested within the portfolio. The RAA was allocated a share of Basic Account investment income based on the five-year annualized rate of return of the Basic Account under the pension plan rules.

MUNICIPAL PENSION PLAN

Notes to the financial statements for the year ended December 31, 2023

($ millions except as otherwise noted)

9. CONTRIBUTIONS

	Basic account	Inflation adjustment account	Retirement annuity account	Supplemental benefits account	Total
			2023		
Members' contributions					
Regular	$ 1,186	$ 210	$ -	$ 6	$ 1,402
Special agreements	-	-	2	-	2
Past service purchases	7	2	-	-	9
	1,193	212	2	6	1,413
Employers' contributions					
Regular	1,215	177	-	13	1,405
Special agreements	-	-	2	-	2
Past service purchases	6	2	-	-	8
Retired member group benefits	-	-	-	136	136
	1,221	179	2	149	1,551
	$ 2,414	$ 391	$ 4	$ 155	$ 2,964
			2022		
Members' contributions					
Regular	$ 1,010	$ 180	$ -	$ 4	$ 1,194
Special agreements	-	-	2	-	2
Past service purchases	7	1	-	-	8
	1,017	181	2	4	1,204
Employers' contributions					
Regular	1,037	165	-	13	1,215
Special agreements	-	-	2	-	2
Past service purchases	5	1	-	-	6
Retired member group benefits	-	-	-	102	102
	1,042	166	2	115	1,325
	$ 2,059	$ 347	$ 4	$ 119	$ 2,529

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

MUNICIPAL PENSION PLAN

Notes to the financial statements for the year ended December 31, 2023

($ millions except as otherwise noted)

10. BENEFITS

	Basic account	Inflation adjustment account	Retirement annuity account	Supplemental benefits account	Total
			2023		
Regular pension benefits	$ 2,054	$ -	$ -	$ 16	$ 2,070
Indexing – regular pension benefits	451	-	-	3	454
Termination and refund benefits	67	44	16	-	127
Death benefit payments	28	14	-	-	42
Disability benefit	1	-	-	-	1
	$ 2,601	$ 58	$ 16	$ 19	$ 2,694
			2022		
Regular pension benefits	$ 1,954	$ -	$ -	$ 14	$ 1,968
Indexing – regular pension benefits	312	-	-	2	314
Termination and refund benefits	93	111	26	-	230
Death benefit payments	29	23	-	-	52
Disability benefit	1	-	-	-	1
	$ 2,389	$ 134	$ 26	$ 16	$ 2,565

11. SUPPLEMENTAL BENEFITS ACCOUNT

The SBA funds certain supplemental benefits; for example, pension benefits that exceed *Income Tax Act* limits for registered pension plans and contributions to MRBT are paid through this account.

Effective January 1, 2022, retirement health coverage is provided through the MRBT. The MRBT is an independent benefits trust managed by a board of eight trustees appointed by the Partners. It is funded from contributions that would otherwise be employer inflation contributions and is equal to 0.6% of pensionable salaries (2023: $96 million based on 0.6% plus $40 million equals $136 million) (2022: $82 million based on 0.6% plus $20 million equals $102 million). The availability, type and level of retired member group benefit coverage are contingent on the availability of funding for such benefits.

In fiscal 2023, as per the Agreement, $40 million (2022: $20 million) of employer contributions that would otherwise have been IAA contributions was transferred to MRBT for future health benefit payments and is included in retirement benefit costs.

MUNICIPAL PENSION PLAN

Notes to the financial statements for the year ended December 31, 2023

($ millions except as otherwise noted)

12. INVESTMENT AND ADMINISTRATION COSTS

	2023	2022
Investment management	$ **195.0**	$ 156.3
Benefit administration	**57.2**	51.6
Other professional services	**1.5**	1.2
Board office costs	**1.4**	1.2
Board remuneration and expenses	**0.7**	0.4
Actuarial	**0.1**	0.5
Audit	**0.1**	0.1
	$ **256.0**	$ **211.3**

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

Investment management costs represent amounts charged to recover internal and external management costs incurred by BCI, except those external management fees related to investments managed by an underlying external manager, where management fees are embedded in the net assets of the respective investment. Underlying external investment management fees of $122.5 million (2022: $148.3 million) 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 office 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.

MUNICIPAL PENSION PLAN

Notes to the financial statements for the year ended December 31, 2023

($ millions except as otherwise noted)

13. ACCOUNT TRANSFERS

	2023			2022		
	Basic account	Inflation adjustment account	Retirement annuity account	Basic account	Inflation adjustment account	Retirement annuity account
Cost-of-living adjustment	$ **1,572**	$ **(1,572)**	$ **-**	$ 436	$ (436)	$ -
Indexing of deferred pensions	**21**	**(21)**	**-**	9	(9)	-
Pensions purchased from retirement annuity account	**27**	**11**	**(38)**	28	12	(40)
2021 Valuation surplus transfer	**-**	**-**	**-**	(492)	492	-
Excess investment return	**-**	**-**	**-**	(165)	165	-
	$ **1,620**	$ **(1,582)**	$ **(38)**	$ **(184)**	$ **224**	$ **(40)**

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 annually considers all relevant factors and its IAA funding policy to determine if a cost-of-living adjustment will be granted on pensions in pay and the amount of the cost-of-living adjustment, if any. As at January 2023, retired members received a cost-of-living adjustment of 6.9% (2022: 2.1%) 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 $296 million (2022: $183 million) of the current IAA balance is for cost-of-living adjustments already granted for deferred pensions but not yet transferred to the Basic Account.

In fiscal 2022, as per the Agreement, $509 million of the 2021 surplus together with interest of ($17 million) at the annual rate of return of -3.35% was transferred to the RSA.

Effective September 2023, the Board decided to discontinue excess investment transfers. Prior to this decision, when investment earnings in the Basic Account were in excess of the actuarial assumption regarding investment rates of return, the excess investment return was transferred from the Basic Account to the IAA. Excess investment return was based on investment income earned on those assets in the Basic Account required for pensions currently being paid: approximately $24 billion of assets for 2022. The excess investment return rate was determined by taking the difference between the actual five-year annualized market rate of return (2022: 6.70%) and the rate of return used by the Plan actuary (6.00%) in valuing the Plan's liabilities. The calculated excess investment return rate for 2022 was 0.70%, resulting in an excess investment return amount of $165 million transferred to the IAA.

MUNICIPAL PENSION PLAN

Notes to the financial statements for the year ended December 31, 2023

($ millions except as otherwise noted)

13. ACCOUNT TRANSFERS (CONTINUED)

A separate RAA is maintained to record additional contributions by employers and members under special agreements. If a member is entitled to, and chooses to, purchase additional pension benefits at retirement, monies are transferred from the RAA to the Basic Account and the IAA to fund the additional benefits.

14. COMMITMENTS

The Plan participates in private equity, international real estate, mortgage and infrastructure and renewable resource pools. As at December 31, 2023, the Plan's share of commitments for future investment contracts in these pools over the next several years is approximately $13,964 million (2022: $14,210 million).

In November 2022, the Board approved additional funding transfer of $50 million of contributions that would otherwise be employer IAA contributions, to MRBT to occur by December 31, 2024. In fiscal 2023, $40 million was transferred to MRBT with the remaining $10 million to be transferred by December 31, 2024.

15. CAPITAL DISCLOSURES

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

An actuarial valuation must be prepared at least once every three years. The latest actuarial valuation for funding purposes was prepared as at December 31, 2021, and has three components: the Basic Account non-indexed benefits and, by considering the valuation of the entire Plan, the non-guaranteed IAA benefits and the RAA (note 1d). The next full actuarial valuation will be carried out as at December 31, 2024, with the results included in the December 31, 2025, financial statements.

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

16. PRIOR YEAR COMPARATIVES

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

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