Nova Scotia
Teachers' Pension Plan
Trustee Inc.

2023 Annual Report

The Nova Scotia Teachers' Pension Plan (Plan or TPP) Annual Report details the Plan's investment performance and financial health at December 31, 2023.

The Plan is a defined benefit registered pension plan that offers you a lifetime pension benefit when you retire. It is one of the largest public sector pension plans in the Province. Your pension benefit is funded by contributions made by you and your employer, as well as investment income generated by the Plan's investment assets.

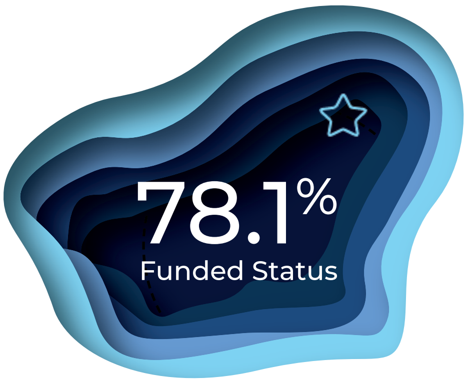
Contents

All information presented in this document is premised on the Plan rules and criteria which currently exist under the Teachers' Pension Act and the Regulations made thereunder. This document explains in plain language the financial status of the Nova Scotia Teachers' Pension Plan. Plan members, beneficiaries, and others who wish to determine their legal rights and obligations under the Plan should refer to the Teachers' Pension Act and the Regulations. In the event of a discrepancy between the information provided in this document and the Teachers' Pension Act and the Regulations, the latter takes precedence.

2023 PLAN PERFORMANCE

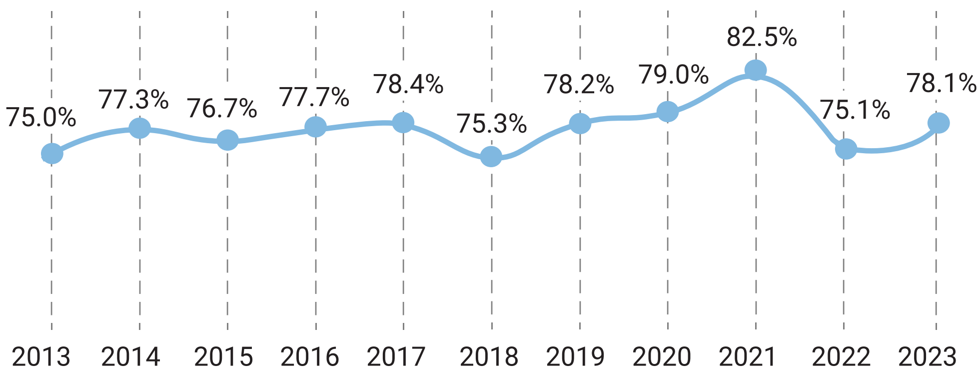
At a glance...

as at December 31, 2023



The Plan's funded status increased to 78.1 per cent, on a going-concern basis, from 75.1 per cent in 2022. A funded status of 100 per cent or more would mean that the Plan is fully funded.

Funded Status *2013-2023*



Investment return

The Plan achieved an absolute one-year return of 7.38 per cent, net of investment management fees (7.56 per cent, gross of investment management fees). The Fund overperformed the actuarial assumed rate of return, or discount rate, of 5.80 per cent and underperformed the policy benchmark of 10.14 per cent.

2023 PLAN PERFORMANCE

At a glance...

as at December 31, 2023

$5.759 billion
Assets available for Benefits

$7.376 billion
Liabilities*

-$1.617 billion
Unfunded Liability

** For an explanation on the breakdown of Plan liabilities, in dollar amounts by each member group, see the Going Concern Actuarial Plan liabilities chart on page 12.*

Contributions

$328 million

paid in contributions to the Plan

Plan member and employer contributions, including purchases of past service, totalled $241 million. In addition, the Province made a special contribution of $87 million.

Benefits Paid

$439 million

paid out in benefits

Benefits paid out for retiree, survivor and disability benefits, and refunds totalled $439 million.

PLAN MEMBERSHIP *Highlights*

as at December 31, 2023

34,799

Total members

The Plan had a total of 34,799 members. In 2023, the number of retirees grew by 113 from 14,181 to 14,294, while the number of active Plan members increased by 214 from 13,653 to 13,867.

565
New members in 2023

14,294
Retirees
(includes Survivors and Dependants)

13,867
Active members

6,638
Inactive members*

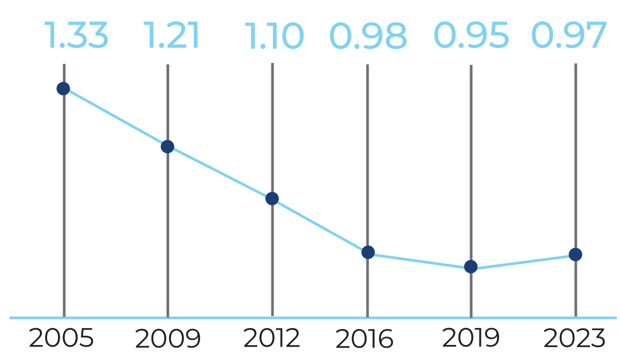
** Includes Plan members who have not contributed to the Plan in the past 1.5 years and have not retired or removed their funds from the Plan.*

Plan Maturity

The Plan had 0.97 active member for 1 retiree.

While the Plan's continuing maturity remains a significant concern, we did continue to see a modest improvement in the active member to pensioner ratio. However, it remains amongst the lowest in the country. Each year, the TPP experiences a net outflow of approximately $150-$200 million, the difference between pension benefits paid out and contributions collected from active members and employers. This places an ongoing and unfair burden on active members paying high contribution rates.

Membership ratio over the years:



Average member age

43.7 Active member

73.8 Retired member

Retirees and survivors over 100 years of age

32 Members

Average pensionable earnings

$80,750 Active members

Average lifetime pension

$29,668 Retirees

Message from the Trustee Chair

John Rogers, KC, ICD.D

On behalf of Teachers' Pension Plan Trustee Inc. (TPPTI), it is my privilege to present the 2023 Teachers' Pension Plan Annual Report. This Report provides you with details on the financial health of the Plan at December 31, 2023 and a comprehensive review of its investment activities.

Plan Performance

In 2023 the Teachers' Pension Fund achieved an absolute one-year return of 7.38 per cent, net of investment management fees (7.56 per cent, gross of investment management fees). The Fund outperformed the actuarial assumed rate of return, or discount rate, of 5.80 per cent, but underperformed the policy benchmark of 10.14 per cent. Investment performance benchmarks for some asset classes, notably real assets (comprised of real estate, infrastructure, and agriculture/timber) have risen appreciably in the recent higher inflationary environment. The benchmark for each of these asset classes is CPI + 4.5 per cent, thus setting a very challenging target. The relative underperformance of the real asset portfolio has also been contributed to by the ongoing recognition of valuation adjustments, again catalyzed by higher inflation (and, in the case of commercial office holdings, the continuing struggle to restore full occupancy in the post-Covid world). The challenge in achieving CPI-linked benchmarks was shared by most of the TPP's peer plans.

2023 did see solid absolute returns for many Canadian pension plans. The TPP's participation in the surging public equity and fixed income markets in Q4 2023 was muted because of the Plan's diversified asset mix – though its 2023 net return was better than many Canadian plans and its absolute performance in the combined period of 2022-2023 was extremely strong – being very close to the top quartile of the peer group, illustrating the benefit of diversification across fluctuating market conditions.

At December 31st, the Plan was 78.1 per cent funded on a going-concern basis. This represents an increase over last year's funded ratio of 75.1 per cent. The Plan's deficit was $1.617 billion, being the difference between the net assets available for payment of benefits of $5.759 billion and the actuarially calculated liabilities of $7.376 billion. The increase in the funded ratio year-over-year was due to the asset gains in 2023 and to the fact that the Plan's discount rate was increased from 5.70 per cent to 5.80 per cent. The Plan still maintains a significant 'provision for adverse deviation (PfAD)'. The PfAD acts like a reserve fund – to be available for use to buttress the Plan's financial situation in especially challenging times. The TPP's 2023 PfAD stood at 0.68 per cent.

Future Funding Targets

The July 2, 2014 agreement (the 2014 Agreement) entered into between the Plan Sponsors, the Province of Nova Scotia (Province) and the Nova Scotia Teachers Union (NSTU), stated the objective of achieving funding of the Plan at the following levels:

- Assets to be 80-90 per cent of the Actuarial Liabilities of the Plan on or before December 31, 2025
- Assets to be at least 85-95 per cent of the Actuarial Liabilities of the Plan on or before December 31, 2030
- Assets to be at least 90-100 per cent of the Actuarial Liabilities of the Plan on or before December 31, 2035

With the initial target date under the 2014 Agreement approaching in 2025, the TPPTI is cognizant of the need to carefully monitor the Plan's funded ratio, with a view to achieving a funded ratio of at least 80 per cent by December 31, 2025. To that end, it will be important to continue striving to increase asset values, including exploring ways to enhance returns by introducing some innovation in a risk-controlled manner, as well as to maintain a healthy PfAD as the Plan's discount rate is set for each of 2024 and 2025.

Plan Demographics

While the Plan's continuing maturity remains a significant concern, we did see a modest increase in active membership to 13,867, from 13,653 in 2022. However, the Plan also added more pensioners and their survivors (14,294 in 2023 compared to 14,181 in 2022). As a result, the active member to pensioner ratio remains amongst the lowest in the country (0.97 in 2023; 0.96 in 2022). Each year, the TPP experiences a net outflow of approximately $150-$200 million – that is, the difference between pension benefits paid out and contributions collected from active members and employers. This places an ongoing and unfair burden on active members paying high contribution rates.

Plan Review

In 2020, the Province and the NSTU agreed to jointly appoint an independent panel of pension experts (TPP Panel) to review the ongoing challenges facing the Plan. The TPP Panel's mandate was to review and analyze the Plan, educate and consult with members and stakeholders, and make non-binding recommendations to fully fund the Plan within a reasonable period. In August 2022, the TPP Panel's non-binding recommendations were submitted to the Province and the NSTU for review and consideration.

As indicated above, the Plan's funded position and mature demographic profile remain very significant concerns for the TPPTI Board. The Board continues to be hopeful that the TPP Panel's report and recommendations will catalyze meaningful steps by the Province and the NSTU to effect changes that will improve the Plan's long-term financial sustainability.

Acknowledgments

I am grateful to all the TPPTI directors who served the Plan in 2023 and I would be remiss if I did not express my sincere appreciation to each of them for their hard work, engagement, and collaborative spirit. And, on behalf of TPPTI, I would like to specifically acknowledge and thank outgoing director, Allan MacLean. Allan's contributions to the Board over the years have helped strengthen the retirement security of all TPP members. I would also like to welcome William Redden to the Board. Bill is a familiar face and brings deep experience and expertise to the director role.

Lastly, I would like to recognize the talented and diligent staff of NS Pension for their ongoing support to the Board and their high service levels and dedication to our Plan members throughout 2023.

John Rogers, KC, ICD.D
TPPTI Chair

Your Teachers' Pension Plan Trustee Inc.

Teachers' Pension Plan Trustee Inc. (TPPTI) is the Trustee of the Plan. TPPTI was established in 2006 under a joint trust agreement between the Nova Scotia Teachers Union (NSTU) and the Province of Nova Scotia (Province). TPPTI has the fiduciary responsibility for the Plan, is responsible for its operations and manages its investment assets. TPPTI ensures that the Plan is operated with strong controls and risk management practices, transparent reporting, and prudent management of the Plan's investment assets.

TPPTI directors oversee all aspects of the Plan through three committees:

Audit and Actuarial Committee (AA):

Oversight of the Plan's auditors and actuaries. Conducts a detailed review of the audited financial statements and actuarial valuation reports. Reviews quarterly compliance reports.

Governance, Communications, and Member Services Committee (GCMS):

Ensures TPPTI's duties and responsibilities are clear and sets the goals for the Plan administrator.

Investment Committee (Invest.):

Reviews, monitors, and approves all investment management policies and investment decisions.

Teachers' Pension Plan Trustee Inc. *BOARD OF DIRECTORS*

As at December 31, 2023

The TPPTI Board of Directors is comprised of nine members. Four directors are appointed by the Nova Scotia Teachers Union (NSTU) and four directors are appointed by Nova Scotia's Minister of Finance and Treasury Board (Minister). The independent Chair of the TPPTI Board is mutually appointed by the NSTU and the Minister. The Board meets five to six times a year.

John Rogers, KC, ICD.D
Chair
The Chair is an ex-officio member on all committees.
Appointed: 2020

Dionne Reid
NSTU Representative
Teacher
Committee: GCMS
Appointed: 2020

Kyle Marryatt
NSTU Representative
Staff Officer, Member Services
Nova Scotia Teachers Union
Committee: GCMS (Chair)
Appointed: 2018

Sara Halliday
Government Representative
Associate Deputy Minister
Department of Education and Early Childhood Development
Committee: GCMS
Appointed: 2022

Toyin Akindoju
Government Representative
Executive Director, Finance and Admin.,
Department of Finance and Treasury Board
Committee: Invest.
Appointed: 2023

Nancy-Beth Foran
NSTU Representative
Treasurer, Treasury and Investments
Dalhousie University
Committee: Invest. (Chair), AA
Appointed: 2022

Shannon York
Government Representative
Managing Director, Liability Management and Treasury Services
Department of Finance and Treasury Board
Committee: AA (Chair), Invest.
Appointed: 2022

Jan Bremner
Government Representative
Senior Corporate Analyst
Department of Finance and Treasury Board
Committee: AA
Appointed: 2023

Allan MacLean
NSTU Representative
Retired Teacher and Nova Scotia Teachers Union, Staff Officer
Committee: Invest.
Appointed: 2018

For more information on TPPTI, please visit our website at: **www.nstpp.ca/teachers-pension-plan**

PLAN GOVERNANCE

The roles and responsibilities within the Plan's governance structure are highlighted below:

The Plan Sponsors' Role

The Plan Sponsors are the NSTU and the Province. The Sponsors are advised by the Teachers' Pension Board. The Sponsors are responsible for determining contribution rates, Plan regulations and benefits, and the Plan's funding targets. The Sponsors are also responsible for setting the Plan's actuarial assumptions.

Teachers' Pension Board *

Recommends the actuarial assumptions used to value Plan liabilities and advises the Plan Sponsors on:

- Plan regulations and benefits
- Employer and member contribution rates
- The Plan's funding targets

The Trustee's Role

Teachers' Pension Plan Trustee Inc. (TPPTI) *

- Fiduciary responsibility for the Plan and its investment assets
- Responsible for the Plan's overall operations and investment decisions
- Sets policy framework and strategic direction for the investment assets

The Administrator's Role

Nova Scotia Pension Services Corporation (NS Pension)

- Manages the day-to-day operation of Plan investments and pension administration
- Provides Plan member, retiree, and employer services
- Jointly owned by TPPTI and Public Service Superannuation Plan Trustee Inc. (PSSPTI)

The Board of Directors of Nova Scotia Pension Services Corporation

- Oversight of NS Pension
- Sets strategic direction, approves operational budget, and makes key decisions
- Includes directors from TPPTI and PSSPTI

** Includes representatives from the NSTU and the Province.*

To learn more about the TPP governance structure and the *Teachers' Pension Act*, please visit our website at:
www.nstpp.ca/about/plan-governance

Nova Scotia Pension Services Corporation

Member Services

Our member and employer services teams are responsible for providing pension services to all Plan members (employees and retirees, and their eligible beneficiaries). When an employee retires, our service teams manage pension payments and provide assistance throughout the retirement process. We also assist employees with support in making informed retirement decisions.

2023 Service Results

93%
of calls were answered in less than 20 seconds
Increased from 90% in 2022.

20,735
The number of plan member calls that were received.

16
We held 16 pre-retirement seminars across the province and online

My Retirement Plan (MRP) website usage

6,721
The number of times the Pension Projection tool was used

3,864
The number of times the Annual Statement tool was used

1,525
The number of times the Pension Profile tool was used

The My Retirement Plan (MRP) website, **https://nspensions.hroffice.com**, is a secure website that provides active members with access to personalized pension information. Active members can view their annual Member Statement, use the Pension Projection Tool, and access other retirement planning information. Once an active member retires, they will no longer have access to the MRP website. Retirees can contact us by phone or email for information relating to their pension.

Visit us online:
www.novascotiapension.ca
www.nstpp.ca

Follow us on Social Media:
@yourNSTPP
www.facebook.com/yourNSTPP

The Plan's Financial Position

As at December 31, 2023

Plan Assets

Plan assets were $5.759 billion and the Plan's funded ratio was 78.1 per cent. The funded ratio is the ratio of Plan assets to Plan liabilities. The funded ratio increased by 3 per cent from 75.1 per cent in 2022.

The Plan is not at risk of being unable to meet its pension obligations over the short term; however, with a funding deficit of $1.617 billion, the Plan remains significantly under-funded.

Plan Liabilities

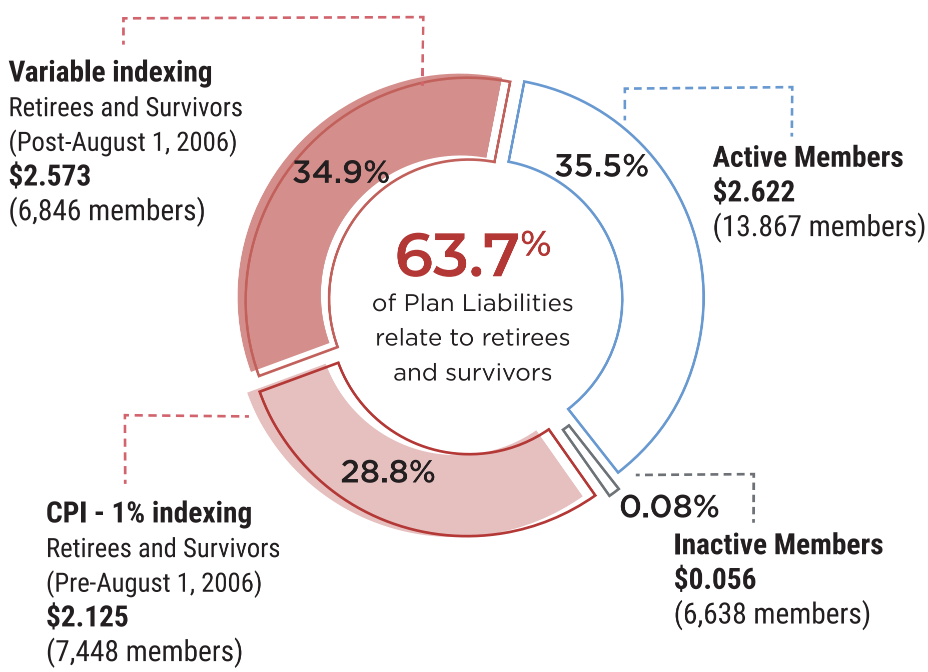
Plan liabilities were calculated to be $7.376 billion. The calculation of Plan liabilities is derived by using several key assumptions. The most impactful assumption is the discount rate, which is based on a forecast of the long-term rate of return from investment assets.

For the 2023 valuation, the discount rate for the TPP was 5.80 per cent.

Going Concern Actuarial Plan liabilities increased to $7.376 billion

The chart below details the Plan liabilities, in dollar amounts*, by each member group.

(Rounded to the nearest billion)



(in billions)

2023
Net Assets: **$5.759**
Liabilities: **$7.376**
Unfunded Liability: **-$1.617**

2022
Net Assets: **$5.480**
Liabilities: **$7.299**
Unfunded Liability: **-$1.819**

2021
Net Assets: **$5.856**
Liabilities: **$7.096**
Unfunded Liability: **-$1.240**

2020
Net Assets: **$5.519**
Liabilities: **$6.986**
Unfunded Liability: **-$1.467**

2019
Net Assets: **$5.358**
Liabilities: **$6.855**
Unfunded Liability: **-$1.497**

Detailed information on the Plan's investment performance is in the Investment Management Discussion and Analysis section of this Annual Report on page 13.

You can learn more about the financial position of the Plan by referring to the audited financial statements for the year ended December 31, 2023 located on page 23 of this Annual Report.

You can also refer to the Actuarial Valuation Report as at December 31, 2023, which is available on our website: www.nstpp.ca

INVESTMENT MANAGEMENT

Discussion and Analysis

This section includes information on the TPP Fund and the factors that influenced its 2023 investment performance.

Overview

The Goal

The primary goal of the Teachers' Pension Fund (Fund) is to satisfy pension obligations.

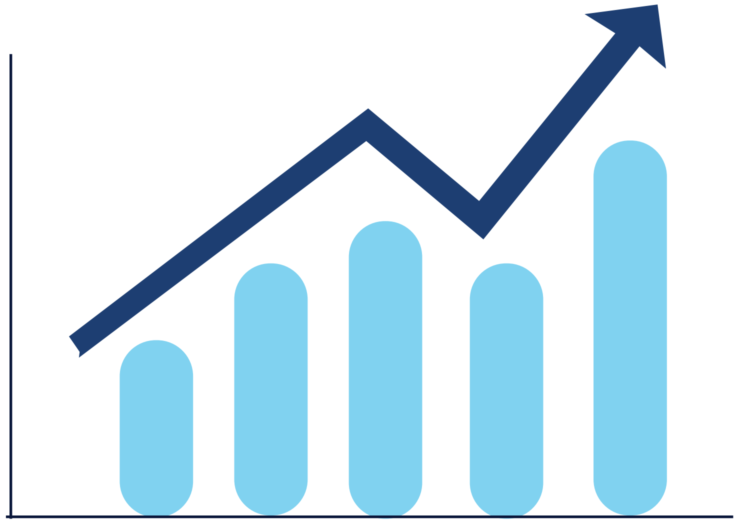
The SIP&G

The investment of Plan assets is guided by the Fund's Statement of Investment Policies & Goals (SIP&G) as written by Teachers' Pension Plan Trustee Inc. The SIP&G sets out the parameters within which investments may be made.

These parameters include permissible investments and the policy asset mix. The investment beliefs, also found within the SIP&G, state the general principles upon which the investments are made.

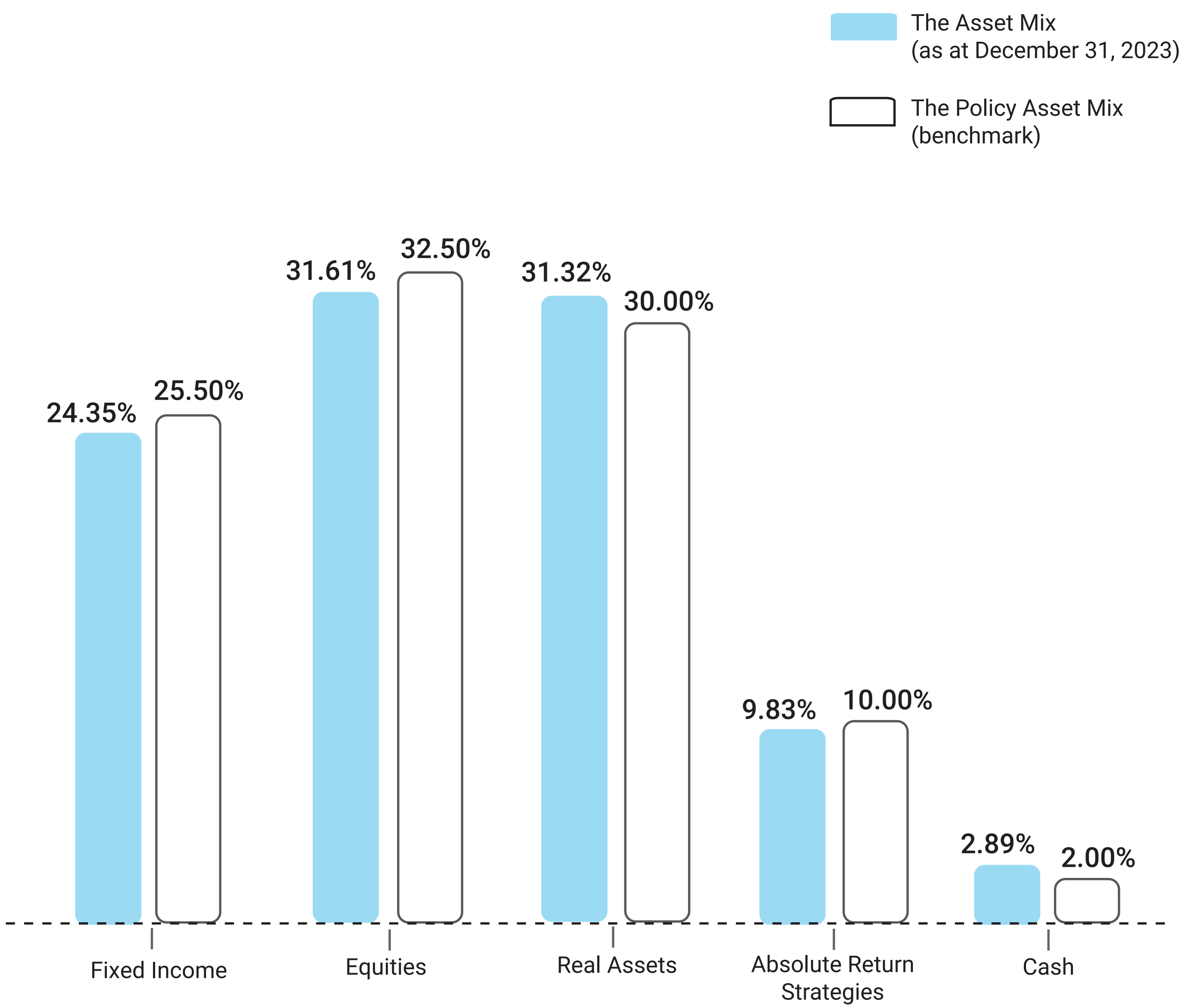
Objectives

The Fund must operate in the long-term interest of beneficiaries to ensure that the assets, together with the expected contributions, are invested in a prudent manner so as to meet the liabilities of the Plan and reduce surplus risk.



The Asset Mix

Over the year, the fund completed the asset mix transition from the previous asset liability study.



2023 Investment Performance

In 2023, the Fund achieved a one-year return of 7.38 per cent, gross of investment management fees (7.56 per cent net of investment management fees). The Fund underperformed the policy benchmark of 10.14 per cent on a net basis however, outperformed the actuarial assumed rate of return of 5.80 per cent.

2023 Investment return

7.38% The Plan

10.14% Benchmark

5.80% Discount Rate

In 2023, global markets defied recession fears, with US stocks soaring driven by tech giants' resurgence. Central banks globally maintained a "higher for longer" stance amid persistent inflation but hinted at a dovish pivot by year-end. This, alongside declining inflation, fueled a late-year rally across global equities and fixed income. Geopolitical tensions and developments in Ukraine and the Middle East led to volatility.

The US equity market, as measured by the S&P 500 Index, gained 26.26 per cent during the year, underpinned by a robust economic environment, a stable job market, and easing inflationary pressures. The sectors that led performance were technology, consumer discretionary, and communication services. The "Magnificent 7," led by NVIDIA's staggering 239% surge, significantly propelled US large-cap equities, spotlighting robust investor appetite for tech companies involved in advancing artificial intelligence.

Canadian equities, as measured by the S&P TSX Composite index, advanced 11.83 per cent. Canadian equity performance, while lagging the US, was bolstered by sectors such as information technology and natural resources, benefiting from rising commodity prices and the boom in AI companies.

2023 Investment Performance continued...

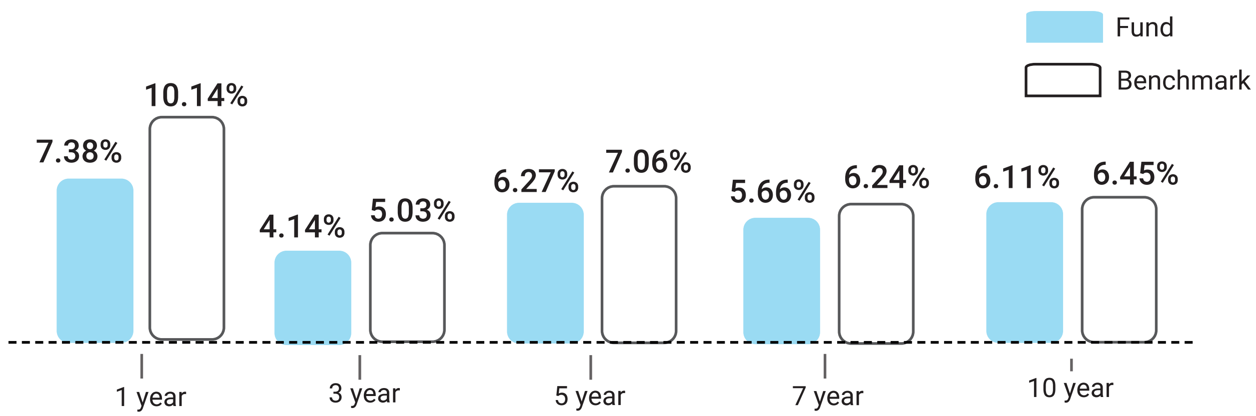
International equities, as measured by the MSCI EAFE index, gained 7.00 per cent. Stock markets in Europe and Japan experienced considerable gains. In Europe, stocks benefited from falling inflation, setting the stage for potential easing of interest rate policies by the European Central Bank in the forthcoming period. Japan's market gains were bolstered by corporate governance reforms aimed at enhancing corporate profitability and investor returns, despite a gradual economic recovery from the pandemic's impacts.

Emerging market equities, as measured by the MSCI EM index, advanced 9.85 per cent. The performance in emerging markets was mixed, with Brazil and India posting strong gains, in contrast to a decline in Chinese equities. The overall positive performance of the MSCI Emerging Markets Index was supported by softer interest rates in several developing economies and the depreciating U.S. dollar, which buoyed returns for investors in these regions.

US fixed income, as measured by the Bloomberg US Credit index, gained 8.18 per cent and Canadian fixed income, as measured by the FTSE Canada Universe Bond Index, advanced 6.69 per cent. Expectations of a pivot in central bank policies towards lowering interest rates in 2024 contributed to a significant rebound in bond prices in the last quarter of the year. The narrowing of spreads particularly favoured corporate bonds, both high-yield and investment-grade, leading to notable gains.

For the Fund, active performance was negative. The Fund's overall performance, on a net basis, trailed the benchmark by 276 basis points. With 30 per cent of the fund's assets being Real Assets (real estate, infrastructure, Timber, Agriculture) and benchmarked to CPI + 4.5 per cent, this accounts for the majority of the differential and is not surprising given the high inflationary environment during the year. These assets have historically added value but in a year of high inflation and increasing interest rates pushing down valuations, this result was within expectations and performance should improve as inflation normalizes.

Investment Returns *(net of fees)*



2023 Economic Review

Global economic growth is estimated to be 3.1 per cent in 2023.[1] Driven by resilience in the United States, several emerging markets, and China's fiscal support. Despite challenges like high policy rates, fiscal withdrawal, and low productivity, a quicker-than-expected inflation decline contributed to economic stability. Although growth improved, it stayed below the historical average, reflecting ongoing economic challenges. This period exemplifies the global economy's navigation through adversity, underscored by strategic policy responses, amidst efforts toward a sustainable recovery.

Canada's economy grew by 1.1 per cent in 2023.[2] Canada's economy showcased resilience amidst global uncertainties, achieving modest growth while adjusting to high interest rates and global slowdowns. Despite predictions of a recession, the economy maintained positive growth, supported by a strong labor market and a growing population. Challenges in sectors like real estate and manufacturing were offset by growth in high-technology services.[3] [4] Inflation pressures eased, though food prices remained high. The government's economic strategies aimed to navigate between stimulating the economy while maintaining fiscal prudence, with measures to support various sectors and address inflation.

The U.S. economy demonstrated resilience and adaptability, defying earlier pessimistic projections, and achieving significant growth. The economy grew by 2.5 per cent[5], fueled by strong consumer spending, a revival in manufacturing structures investment, and increased state and local government purchases, surpassing some pre-pandemic forecasts. Notably, manufacturing investment soared to historic highs, marking a substantial contribution to GDP growth, partly driven by legislative actions such as the *Inflation Reduction Act*. Strong job growth, while lower than the post-pandemic surge, continued as the country added an average of 232,000 nonfarm payrolls per month, maintaining an unemployment rate below 4 per cent for an extended period. Inflation concerns eased thanks to easing food, energy, and goods prices, though services sector inflation and wage trends, moderated more slowly. This decline in inflation occurred alongside strong labor market conditions and above-trend GDP growth in the first half of the year. Fiscal policies over the past year boosted real GDP but also contributed to higher interest rates and inflationary pressures.

[1] *World Economic Forum. (January 2024). Moderation Inflation and steady Growth Open Path to Soft Landing. World Economic Outlook Update.*

[2] *World Economic Forum. (January 2024). Moderation Inflation and steady Growth Open Path to Soft Landing. World Economic Outlook Update.*

[3] *https://www150.statcan.gc.ca/n1/pub/36-28-0001/2023010/article/00006-eng.htm*

[4] *https://www.budget.canada.ca/2023/report-rapport/overview-apercu-en.html*

[5] *https://www.bea.gov/news/2024/gross-domestic-product-fourth-quarter-and-year-2023-advance-estimate*

2023 Economic Review continued...

Economies in the Euro area are expected to grow by 3.5 per cent in 2023.[6] The Euro Area experienced a gradual economic recovery, underpinned by robust wage growth and a significant decline in inflation from the highs of the previous year. Real disposable income rebounded, bolstered by decreasing inflation and substantial wage increases, supporting consumer spending throughout the year. Despite the challenging economic landscape marked by a mild technical recession in early 2023 due to tightened financial conditions, weakening consumer confidence, and energy price spikes, growth is expected to modestly pick up, aided by the easing of supply constraints and an improvement in external demand. The labor market remained resilient with nominal wage growth expected to normalize following strong performance. Inflation rates, while on a downward trajectory, were only projected to align with central bank targets by mid-2025, indicating persistent pressures. The Euro Area's economic outlook remained cautious with uncertainties, particularly from potential external shocks and financial market volatility.

Japanese economic growth is estimated to be 1.4 per cent in 2023.[7] Japan's economy showed signs of a gradual recovery, marked by a positive GDP growth forecast for the year and an expected continuation into 2024. Despite a slow start with a mild technical recession early in the year due to tightened financial conditions and a dip in consumer confidence, the economy benefited from pent-up demand, especially in travel and leisure, and digital transformation investments. Business conditions saw a broad-based improvement, though large manufacturers faced challenges. The labour market experienced shortages, potentially influencing wage increases. Inflation remained above the Bank of Japan's 2 per cent target, driven by goods inflation and rising food prices, but it is anticipated to ease to an average of 1.7 per cent in fiscal 2023.[8]

Emerging market economic growth for 2023 is estimated to be 3.9 per cent.[9] Emerging markets faced uneven growth and inflation pressures, with specific regions experiencing contraction, while India and Southeast Asia showed resilience with growth rates closer to long-term trends. Latin America and parts of Europe, the Middle East, and Africa saw economic contractions, attributed to global economic slowdowns and localized challenges. However, certain countries like Saudi Arabia, South Africa, and Turkiye revised their growth projections upwards due to unexpected GDP increases. Despite global growth decelerating, China and India's recoveries significantly contributed to the global economy, with China's economic reopening notably boosting its growth forecast.

[6] *World Economic Forum. (January 2024). Moderation Inflation and steady Growth Open Path to Soft Landing. World Economic Outlook Update.*

[7] *World Economic Forum. (January 2024). Moderation Inflation and steady Growth Open Path to Soft Landing. World Economic Outlook Update.*

[8] *https://www.nippon.com/en/in-depth/d00874/*

[9] *World Economic Forum. (January 2024). Moderation Inflation and steady Growth Open Path to Soft Landing. World Economic Outlook Update.*

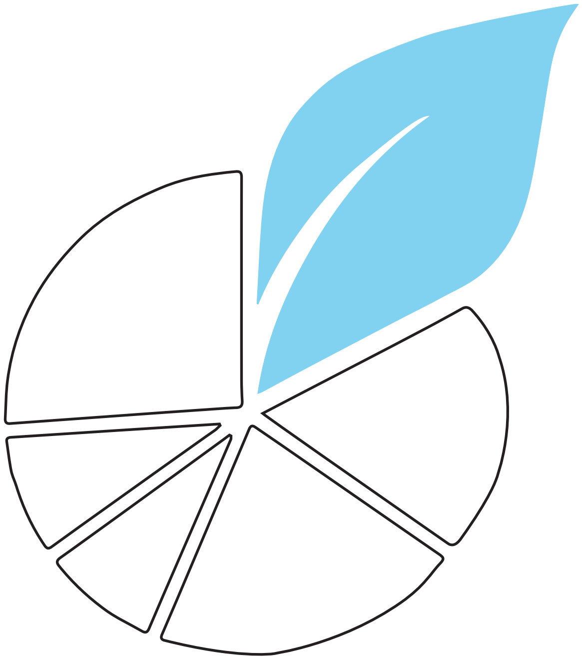
Sustainable Investing

Sustainable investing and climate risk continues to be a focus for TPPTI. Sustainable investing is an investment approach that, in addition to achieving targeted investment returns, considers long-term investing and environmental, social, and corporate governance factors. A Sustainable Investment Policy was first approved in 2015 and since then, an annual Sustainable Investment Report became a reoccurring item on the TPPTI Board's agenda.

A sustainability report is also posted on the TPP website to provide members with more information on ongoing sustainable investment activities. Work continues on how to improve the resiliency of the investment portfolios, such as real estate, to protect assets that could be negatively impacted by climate change. The infrastructure portfolio is investing in renewable energy sources to continue to meet global growth and demand, and TPP's agriculture and timber investments maintain a lens on the shifting landscape of supply and demand of natural resources.

TPPTI continues to engage with its investment managers, like-minded partners and broader industry groups to progress their sustainable investment programs. TPPTI welcomes the emergence of Canadian pension plan and global association groups taking a leading approach to sustainable investing. TPPTI will look to further integrate these industry best practices in the years to come.

You can view the TPP Sustainable Investment Report on our website at:
www.nstpp.ca/investments/investment-policies



Our focus during 2023

During 2023, TPPTI introduced a portable alpha program designed to enhance overall pension returns and continued discussions with larger peer plans in Canada to outline additional potential portfolio optimization tools. While the year saw a normalization of markets after a volatile 2022, we remained focused on maintaining appropriate liquidity given the plan's negative annual cash flow by continuing to rebalance portfolios across both the public and private market asset classes. Preparation work has begun for the regular 2025 asset-liability modeling (ALM) study which will assess the asset mix in the context of today's markets as well as through the next decade.

Work on individual asset class portfolios continues with a focus on value-add initiatives in each asset class, including assessing the value of fixed income given higher current yields and ensuring our exposures are in line with intended positions. On the risk side, sticky inflation, central bank rate developments, potential supply chain disruptions and geopolitical instability continue to be dominant themes affecting markets.

Looking Ahead to 2024

Roughly half of the world's population in 64 countries head to the polls for elections during 2024, with the most significant one for market impact being the United States federal election in November. There will no doubt be political uncertainty heading into these elections and we expect heightened market volatility as a result. Key to managing through the volatility will be our rebalancing approach designed to keep away from any unintended positions that could negatively affect the plans. Geopolitical risks continue with wars in Ukraine and the Middle East and the UN sounding alarms on possibly the largest emerging famine epidemic between the Middle East and Sudan.

Equity markets rallied significantly at the end of the year, pushing some market valuations above normal pricing expectations. We approach these markets with caution and continue to ensure the portfolio is well exposed to higher yielding fixed income as well as other inflation sensitive and protective assets with cash flow yield. Speculative assets such as cryptocurrencies are on the rise again with increased accessibility options, global supply chain concerns remain high due to the Middle East conflict affecting shipping routes and many developed world countries continue to struggle with housing options and inflation. All of these concerns lead to a heightened focus on portfolio diversification and a long term focus.

TPPTI will continue to explore further portfolio optimization during the upcoming year at both the asset class and macro portfolio levels, to work with other pension plans to drive more efficient market access, and to provide educational opportunities to the TPPTI Board members and other stakeholders. Preparations for the next ALM study in 2025 will continue during the year with a focus on long term strategic goals for the asset mix.

Financial Statements of

TEACHERS' PENSION PLAN

Year ended December 31, 2023

KPMG LLP
Purdy's Wharf Tower One
1959 Upper Water Street, Suite 1000
Halifax, NS B3J 3N2
Canada
Telephone 902 492 6000
Fax 902 492 1307

INDEPENDENT AUDITOR'S REPORT

To the Teachers' Pension Plan Trustee Inc.

Opinion

We have audited the financial statements of Teachers' Pension Plan (the Entity), 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 pension obligation for the year then ended
- the statement of changes in deficit for the year then ended
- and notes to the financial statements, including a summary of material accounting policy 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 Entity as at December 31, 2023, its changes in net assets available for benefits and its changes in 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 Entity in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada and we have fulfilled our other ethical responsibilities in accordance with these requirements.

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

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

Management is responsible for the preparation and fair presentation of the financial statements in accordance with Canadian 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 Entity'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 Entity or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Entity'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.

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 Entity'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 Entity'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 Entity to cease to continue as a going concern.

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- 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

The engagement partner on the audit resulting in this auditor's report is David MacGowan.

Halifax, Canada

April 25, 2024

Financial Statements of

TEACHERS' PENSION PLAN

Year ended December 31, 2023

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Financial Statements

Statement of Financial Position

December 31, 2023, with comparative information for 2022 (in thousands of dollars)	2023	2022
Net assets available for benefits		
Assets		
Cash	$ 189,362	$ 127,768
Contributions receivable:		
Employers’	6,746	8,197
Employees’	3,163	2,655
Receivable from pending trades	39,350	25
Accounts receivable	1,429	1,437
Prepaid expenses	2	-
Accrued investment income	13,256	10,727
Investments (note 5)	5,593,724	5,379,691
Total assets	5,847,032	5,530,500
Liabilities		
Due to administrator (note 12)	768	813
Payable for pending trades	81,608	33,012
Accounts payable and accrued liabilities	2,983	2,805
Investment-related liabilities (note 5)	2,253	14,166
Total liabilities	87,612	50,796
Net assets available for benefits	$ 5,759,420	$ 5,479,704
Accrued pension obligation and deficit		
Accrued pension obligation (note 7)	$ 7,376,462	$ 7,298,511
Deficit (note 7)	(1,617,042)	(1,818,807)
Commitments (note 8)		
Accrued pension obligation and deficit	$ 5,759,420	$ 5,479,704

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

On behalf of the Board:

John Rogers
Chair

Sara Halliday
Director

Kyle Marryatt
Director

Statement of Changes in Net Assets Available for Benefits

December 31, 2023, with comparative information for 2022		2023		2022
(in thousands of dollars)				
Increase in assets				
Contributions (note 4)	$	**327,770**	$	295,541
Transfers from other pension plans		**4,422**		3,999
Investment income (note 5)		**158,564**		128,460
Change in market value of investments (note 5)		**250,587**		-
Total increase in assets		**741,343**		428,000
Decrease in assets				
Benefits paid (note 9)		**439,241**		426,112
Transfers to other pension plans		**3,064**		2,395
Administrative expenses (note 10)		**19,322**		18,357
Change in market value of investments (note 5)		**-**		356,955
Total decrease in assets		**461,627**		803,819
Increase (decrease) in net assets available for benefits		**279,716**		(375,819)
Net assets available for benefits, beginning of year		**5,479,704**		5,855,523
Net assets available for benefits, end of year	$	**5,759,420**	$	5,479,704

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

Statement of Changes in Pension Obligation

December 31, 2023, with comparative information for 2022		2023		2022
(in thousands of dollars)				
Accrued pension obligation, beginning of year	**$**	**7,298,511**	$	7,095,756
Increase in accrued pension benefits				
Interest on accrued pension obligation		**408,397**		397,025
Benefits accrued		**166,859**		160,059
Transfers from other pension plans		**4,422**		3,999
Changes in actuarial assumptions (note 7)		**-**		36,297
Net experience losses (note 7)		**65,914**		33,882
		645,592		631,262
Decrease in accrued pension benefits				
Benefits paid		**439,241**		426,112
Transfers to other pension plans		**3,064**		2,395
Changes in actuarial assumptions (note 7)		**125,336**		-
		567,641		428,507
Net increase in accrued pension benefits		**77,951**		202,755
Accrued pension obligation, end of year	**$**	**7,376,462**	$	7,298,511

Statement of Changes in Deficit

December 31, 2023, with comparative information for 2022		2023		2022
(in thousands of dollars)				
Deficit, beginning of year	**$**	**1,818,807**	$	1,240,233
(Increase) decrease in net assets available for benefits		**(279,716)**		375,819
Net increase in accrued pension obligation		**77,951**		202,755
Deficit, end of year	**$**	**1,617,042**	$	1,818,807

See accompanying notes to financial statements.

Notes to Financial Statements

Year ended December 31, 2023
(in thousands of dollars)

1. Authority and description of Plan

The following description of the Teachers' Pension Plan (the "Plan") is a summary only. For more complete information, reference should be made to the Plan legislative documents and agreements.

General

The Plan is governed by the *Teachers' Pension Act* (the *"Act"*) as part of the Acts of Nova Scotia. It is a contributory defined benefit pension plan covering public school and community college teachers and is co-sponsored by the Province of Nova Scotia (the "Province") and the Nova Scotia Teachers' Union (the "Union"). The *Act* established the Nova Scotia Teachers' Pension Fund (the "Fund") for the purpose of crediting employer and employee contributions, investment earnings and meeting the Plan's obligations.

The detailed provisions of the Plan, including pension eligibility criteria and benefit formulas, are contained in the *Act* and in the Regulations made under the *Act*.

As part of the June 22, 2005 Agreement between the Province and the Union, the Province and the Union agreed to joint and equal participation in the governance of the Plan including the sharing of any actuarial surpluses or deficits between the Province and the beneficiaries of the Plan upon the transfer of the Plan to a newly formed trustee entity. Teachers' Pension Plan Trustee Inc. (the "TPPTI") was incorporated to act as trustee of the Fund and on April 1, 2006, the TPPTI became the trustee of the Fund. The 2005 Agreement was rescinded and replaced in 2014 with a new agreement, last amended on November 17, 2015. However, there were no changes to the governance of the Plan or the sharing of actuarial surpluses or deficits.

The TPPTI is responsible for the administration of the Plan and the investment management of the Fund assets. The investment of the Fund assets is guided by the Fund's Statement of Investment Policies & Goals (the "SIP&G") as written by the TPPTI. The SIP&G sets out the parameters within which the investments are made. These parameters include permissible investments and the policy asset mix. The Investment Beliefs, also found within the SIP&G, state the general principles upon which the investments are made.

Funding

Plan benefits are funded by contributions and investment earnings. Contributions are made by active members of the Plan and are matched by either the Province or participating employers. The determination of the value of the benefits and required contributions is made based on periodic actuarial valuations (note 7).

In accordance with the Plan regulations, employers and employees are required to contribute 11.3% of salary up to the Year's Maximum Pensionable Earnings (the "YMPE") per the Canada Pension Plan (the "CPP") and 12.9% of salary above the YMPE.

Authority and description of Plan (continued)

Retirement benefits

The pension benefit consists of two components. The lifetime pension, for every year of pensionable service, is 1.3% times the 5-year highest average salary at retirement (the "HAS-5") up to the average YMPE, plus 2.0% times the portion of the HAS-5 in excess of the average YMPE (if applicable). The bridge benefit, for every year of pensionable service, is 0.7% times the lesser of (i) the HAS-5, and (ii) the average YMPE. The lifetime pension is payable for life, while the bridge benefit is payable until age 65, at which point it ceases as a result of integration with the CPP.

Plan members are eligible for a pension upon reaching any of the following criteria:

- 35 years of service;
- age 50 with 30 years of service (reduced pension);
- age 55 with an age plus service factor of 85 "Rule of 85";
- age 55 with two years of service (reduced pension);
- age 60 with 10 years of service;
- age 65 with two years of service.

Indexing

For pensions with an effective date before August 1, 2006, the rate is equal to the increase in the 12-month average Consumer Price Index ("CPI") for Canada, less 1%, to a maximum of 6%.

Indexing in a given year for pensions with an effective date on or after August 1, 2006, as well as those of existing pensioners who opted for the new indexing arrangement, depends on the funding level of the Plan. If the funding level as at December 31 of the preceding fiscal year is less than 90%, no indexing will be provided. At a funding level of between 90% and 100%, indexing may be granted at 50% of the increase in the 12-month average CPI up to a maximum of 6%, at the discretion of the Board of Trustees.

If the funding level is greater than 100%, indexing will be provided at 100% of the increase in the 12-month average CPI up to a maximum of 6%, to the extent that it does not reduce the funding level to below 100%; however, pensions will be increased by at least 50% of the increase in the 12-month average CPI up to a maximum of 6%. For the purposes of the valuation, it was assumed that indexing would not be paid in years in which it is discretionary.

Disability benefits

Prior to August 1, 2014, active members who became mentally or physically disabled were entitled to apply for a disability pension from the Plan. Effective August 1, 2014, however, disability coverage was moved to the Union's long-term disability insurance plan, and the ability to apply for a disability pension from the Plan was discontinued except in very limited circumstances.

Authority and description of Plan (continued)

Death benefits

Upon the death of a vested member, the surviving spouse is entitled to receive 60% of the vested member's pension benefit payable for life, or a higher percentage if the member elected an optional form of pension. Eligible children are entitled to receive 10% of the vested member's pension benefit, payable until age 18 (or 25 while still in school).

Termination benefits

Upon termination of employment, a vested member may choose to defer their pension until they satisfy one of the above eligibility criteria, or they may remove their funds from the Plan in the form of a commuted value (or refund of contributions, for service prior to January 1, 1988).

Refunds

The benefit payable upon termination or death of a non-vested member, or upon death prior to retirement of a vested member with no eligible survivors, is a lump sum refund of the member's contributions with interest.

2. Basis of preparation

a. Basis of presentation

These financial statements are prepared in Canadian dollars, which is the Plan's functional currency in accordance with the accounting standards for pension plans in Part IV of the Chartered Professional Accountants (CPA) Canada Handbook (Section 4600). Section 4600 provides specific accounting guidance on investments and pension obligations. For accounting policies that do not relate to either investments or pension obligations, the Plan must consistently comply with either International Financial Reporting Standards ("IFRS") in Part I or Accounting Standards for Private Enterprises in Part II of the CPA Canada Handbook. The Plan has elected to comply on a consistent basis with IFRS in Part I of the CPA Canada Handbook. To the extent that IFRS in Part I is inconsistent with Section 4600, Section 4600 takes precedence.

Consistent with Section 4600, investment assets and liabilities are presented on a non-consolidated basis even when the investment is in an entity over which the Plan has effective control. Earnings of such entities are recognized as income as earned and as dividends are declared. The Plan's total investment income includes valuation adjustments required to bring the investments to their fair value.

These financial statements are prepared on a going concern basis and present the aggregate financial position of the Plan as a separate reporting entity.

These financial statements were authorized for issue by the Board of Trustees of the Teachers' Pension Plan Trustee Inc. on April 25, 2024.

b. Basis of measurement

The financial statements have been prepared on the historical cost basis except for financial instruments which are measured at fair value through the statement of changes in net assets available for benefits and derivative financial instruments which are measured at fair value. Units of subsidiaries held are measured at the fair value of the underlying assets and liabilities.

c. Use of estimates and judgments

The preparation of the financial statements in conformity with Section 4600 and IFRS requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets and liabilities at the date of the statement of financial position, the reported amounts of changes in net assets available for benefits and accrued pension benefits during the year. Actual results may differ from those estimates. Significant estimates included in the financial statements relate to the valuation of real estate, infrastructure, agriculture & timber and the determination of the accrued pension obligation.

Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future years affected.

3. Significant accounting policies

a. Investment transactions, income recognition and transaction costs

i. **Investment transactions:**
Investment transactions are accounted for on a trade date basis.

ii. **Income recognition**:
Investment income is recorded on an accrual basis and includes interest, dividends, and distributions. Change in market value of investments includes gains and losses that have been realized on disposal of investments and the unrealized appreciation and depreciation in the fair value of investments.

iii. **Transaction costs:**
Brokers' commissions and other transaction costs are recorded in the statement of changes in net assets available for benefits when incurred.

b. Foreign currency translation

Transactions denominated in foreign currencies are translated into Canadian dollars at the rates of exchange prevailing on the dates of the transactions. Monetary assets and liabilities denominated in foreign currencies at the reporting date are re-translated into Canadian dollars at the exchange rate at that date.

Foreign currency differences arising on re-translation are recognized in the statement of changes in net assets available for benefits as a change in market value of investments.

c. Financial assets and liabilities

i. **Non-derivative financial assets:**
Financial assets are recognized initially on the trade date, which is the date that the Plan becomes a party to the contractual provisions of the instrument.

The Plan classifies all its financial assets at fair value through the statement of changes in net assets available for benefits. Financial assets are designated at fair value through the statement of changes in net assets available for benefits if the Plan manages such investment and makes purchase and sale decisions based on their fair value in accordance with the Plan's documented risk management or investment strategy. Upon initial recognition, attributed transaction costs are recognized in the statement of changes in net assets available for benefits as incurred. Financial assets at fair value through the statement of changes in net assets available for benefits are measured at fair value and changes therein are recognized in the statement of changes in net assets available for benefits.

ii. **Non-derivative financial liabilities:**
All financial liabilities are recognized initially on the trade date at which the Plan becomes a party to the contractual provisions of the instrument.

Financial assets and liabilities are presented in the statement of financial position. The net amount is presented in the statement of financial position, when and only when, the Plan has a legal right to offset the amounts and it intends either to settle on a net basis or to realize the asset and settle the liability simultaneously.

The Plan considers its amounts payable to be a non-derivative financial liability.

Significant accounting policies (continued)

iii. **Derivative financial instruments:**
Derivative financial instruments are recognized initially at fair value and their related transaction costs are recognized in the statement of changes in net assets available for benefits as incurred. Subsequent to initial recognition, derivatives are measured at fair value, and all changes are recognized immediately in the statement of changes in net assets available for benefits.

Derivative-related assets and liabilities are presented in the statement of financial position. The net amount is presented in the statement of financial position, when and only when, the Plan has a legal right to offset the amounts and it intends either to settle on a net basis or to realize the asset and settle the liability simultaneously.

d. Fair value measurement

Fair value is the amount for which an asset could be exchanged, or a liability settled, between knowledgeable, willing parties in an arm's length transaction on the measurement date.

As allowed under IFRS 13, if an asset or a liability measured at fair value has a bid and an ask price, the price within the bid-ask spread that is the most representative of fair value in the circumstances shall be used to measure fair value. The Plan uses closing market price as a practical expedient for fair value measurement.

When available, the Plan measures the fair value of an instrument using quoted prices in an active market for that instrument. A market is regarded as active if quoted prices are readily and regularly available and represent actual and regularly occurring market transactions on an arm's length basis.

If a market for a financial instrument is not active, then the Plan establishes fair value using a valuation technique. Valuation techniques include using recent arm's length transactions between knowledgeable, willing parties (if available), reference to the current fair value of other instruments that are substantially the same, discounted cash flow analyses and option pricing models.

The best evidence of the fair value of a financial instrument at initial recognition is the transaction price, i.e. the fair value of the consideration given or received, unless the fair value of that instrument is evidenced by comparison with other observable current market transactions in the same instrument or based on a valuation technique whose variables include only data from observable markets. When a transaction price provides the best evidence of fair value at initial recognition, the financial instrument is initially measured at the transaction price and any difference between this price and the value initially obtained from a valuation model is subsequently recognized in profit or loss on an appropriate basis over the life of the instrument but not later than when the valuation is supported wholly by observable market data or the transaction is closed out.

All changes in fair value, other than interest and dividend income and expense, are recognized in the statement of changes in net assets available for benefits as part of the change in market value of investments.

Significant accounting policies (continued)

Fair values of investments are determined as follows:

i. Fixed income securities and equities are valued at year-end quoted closing prices, where available. Where quoted prices are not available, estimated fair values are calculated using comparable securities.

ii. Short-term notes, treasury bills, term deposits, and agreements to repurchase or resell securities maturing within one year, and promissory notes payable on demand are stated at cost, which together with accrued interest income approximates fair value given the short-term nature of these investments.

iii. Pooled fund investments include investments in fixed income, equities, real estate and commodities. Pooled funds are valued at the unit values supplied by the pooled fund administrator, which represent the Plan's proportionate share of underlying net assets at fair values determined using closing market prices. These net asset values are reviewed by management.

iv. Directly held real estate is valued based on estimated fair values determined by appropriate techniques and best estimates by management, appraisers, or both. Where external appraisers are engaged to perform the valuation, management ensures the appraisers are independent and compares the assumptions used by the appraisers with management's expectations based on current market conditions and industry practice to ensure the valuation captures the business and economic conditions specific to the investment.

v. Private fund investments include investments in real estate, infrastructure, and agriculture & timber assets. The fair value of a private fund investment where the Plan's ability to access information on underlying individual fund investments is restricted, such as under the terms of a limited partnership agreement, is equal to the value provided by the fund's general partner unless there is a specific and objectively verifiable reason to vary from the value provided by the general partner. These net asset values are reviewed by management.

vi. Derivatives, including futures, credit default swaps, interest rate swaps, total return swaps, and currency forward contracts, are valued at year-end quoted market prices, interest, spot and forward rates, where available. Where quoted prices are not available, appropriate alternative valuation techniques are used to determine fair value. The gains or losses from derivative contracts are included in the realized and unrealized gains or losses on investments.

vii. Absolute return strategy investments, comprised of hedge funds, are recorded at fair value based on net asset values obtained from each of the hedge funds' administrators. These net asset values are reviewed by management.

Significant accounting policies (continued)

e. Non-investment assets and liabilities

The fair value of non-investment assets and liabilities are equal to their amortized cost value and are adjusted for foreign exchange where applicable.

f. Receivable/payable for pending trades

For securities transactions, the fair value of receivable from pending trades and payable for pending trades approximate their carrying amounts due to their short-term nature.

g. Accrued pension obligation

The value of the accrued pension obligation of the Plan is based on a going concern method actuarial valuation prepared by an independent firm of actuaries using the projected unit credit method. The accrued pension obligation is measured in accordance with accepted actuarial methods using actuarial assumptions and methods adopted by TPPTI for the purpose of establishing the long-term funding requirements of the Plan. The actuarial valuation included in the financial statements is consistent with the valuation for funding purposes.

h. Contributions

Basic contributions from employers and members are recorded on an accrual basis. Service purchases that include but are not limited to leaves of absence and transfers from other pension plans are recorded and service is credited when the purchase amount is received.

In certain years, an additional contribution to the Plan may be required from the Minister of Finance and Treasury Board. In any indexing period in which there is an actuarial deficit and clause 27B(3)(a) of the Teachers' Pension Plan Regulations applies, the Minister must contribute to the Plan, no later than the beginning of the following indexing period, an amount equal to the actuarial value, as calculated by the Plan's actuary at the beginning of the indexing period, of the difference between:

i. the indexing of all pensions to which subsection 27B(3) applies for that indexing period at a rate of one-half of the percentage increase in the 12-month average CPI for that indexing period over the 12-month average CPI for the preceding indexing period to a maximum of 6% and, for all future indexing periods, at a rate of one-half of the assumed percentage increase in the 12-month average CPI determined in accordance with the actuarial assumptions and methods; and

ii. no indexing of all pensions to which subsection 27B(3) applies for that indexing period and, for all future indexing periods, indexing at a rate of one-half of the assumed percentage increase in the 12-month average CPI determined in accordance with the actuarial assumptions and methods.

Significant accounting policies (continued)

i. Benefits

Benefit payments to retired, surviving and disabled members, commuted value payments and refunds to former members, and transfers to other pension plans are recorded in the period in which they are paid. Accrued benefits are recorded as part of the accrued pension benefit obligation.

j. Administrative expenses

Administrative expenses, incurred for plan administration and direct investment management services, are recorded on an accrual basis. Plan administration expenses represent expenses incurred to provide direct services to the Plan members and employers. Investment management expenses represent expenses incurred to manage the Fund. Base external manager fees for portfolio management are expensed in investment management expenses as incurred.

k. Income taxes

The Fund is the funding vehicle for a registered pension plan, as defined by the *Income Tax Act* (Canada) and, accordingly is not subject to income taxes.

l. Future changes to accounting policies

No relevant new guidance has been issued by the International Accounting Standards Board.

4. Contributions

(in thousands of dollars)		2023		2022
Employer				
Matched current service	**$**	**119,966**	$	116,876
Matched past service		**50**		5
		120,016		116,881
Employee				
Matched current service		**119,966**		116,876
Matched past service		**50**		5
Unmatched past service		**725**		137
		120,741		117,018
Special contribution from the Province of Nova Scotia		**87,013**		61,642
	$	**327,770**	$	295,541

5. Investments and investment-related liabilities

a. The fair value of the Plan's investments and investment-related liabilities along with the related income as at and for the year ended December 31 are summarized in the following tables:

		2023			2022	
(in thousands of dollars)			%			%
Investments						
Fixed income						
Money market	$	168,324	3.0	$	109,839	2.0
Canadian bonds & debentures		199,336	3.6		214,921	4.0
Non-Canadian bonds & debentures		893,785	16.0		826,084	15.4
Canadian real return bonds		175,011	3.0		171,103	3.2
Equities						
Canadian		258,334	4.6		236,067	4.4
US		692,119	12.4		754,456	14.0
Global		761,363	13.6		676,761	12.6
Real assets						
Real estate		814,022	14.6		941,875	17.5
Infrastructure		836,724	15.0		728,248	13.5
Agriculture & timber		116,287	2.0		113,672	2.1
Absolute return strategies						
Hedge funds		565,446	10.1		587,422	10.9
Investment-related receivables						
Agreements to resell securities		33,756	0.6		-	-
Promissory note		14,592	1.2		14,592	0.3
Derivative-related, net		64,625	0.3		4,651	0.1
	$	5,593,724	100.0	$	5,379,691	100.0
Investment-related liabilities						
Derivative-related, net	$	2,253	100.0	$	(14,166)	100.0
	$	2,253	100.0	$	(14,166)	100.0
Net investments	$	5,591,471		$	5,365,525	

Investments and investment-related liabilities (continued)

2023

(in thousands of dollars)

	Investment income	Changes in market value of investments and derivatives: Realized	Unrealized	Total
Fixed income	$ 63,721	$ (14,251)	$ 44,847	$ 30,596
Equities	31,410	145,663	57,035	202,698
Real assets	57,403	42,432	(94,365)	(51,933)
Absolute return strategies	6	5,366	16,559	21,925
Derivatives	(368)	(21,108)	71,887	50,779
Other	6,392	-	(3,478)	(3,478)
	$ 158,564	$ 158,102	$ 92,485	$ 250,587

2022

(in thousands of dollars)

	Investment income	Changes in market value of investments and derivatives: Realized	Unrealized	Total
Fixed income	$ 52,125	$ (24,130)	$ (152,258)	$ (176,388)
Equities	30,733	126,220	(386,319)	(260,099)
Real assets	42,137	30,331	111,524	141,855
Absolute return strategies	-	35,531	20,117	55,648
Derivatives	6	(105,360)	(12,611)	(117,971)
Other	3,459	-	-	-
	$ 128,460	$ 62,592	$ (419,547)	$ (356,955)

b. Derivatives

Derivatives are financial contracts, the value of which is “derived” from the value of underlying assets or interest or exchange rates. The Plan utilizes such contracts to provide flexibility in implementing investment strategies and for managing exposure to interest rate and foreign currency volatility.

Notional amounts of derivative contracts are the contract amounts used to calculate the cash flows to be exchanged. They represent the contractual amount to which a rate or price is applied for computing the cash to be paid or received. Notional amounts are the basis upon which the returns from, and the fair value of, the contracts are determined. They do not necessarily indicate the amounts of future cash flows involved or the current fair value of the derivative contracts. They are a common measure of volume of outstanding transactions but do not represent credit or market risk exposure. The derivative contracts become favourable (assets) or unfavourable (liabilities) as a result of fluctuations in either market rates or prices relative to their terms. The aggregate notional amounts and fair values of derivative contracts can fluctuate significantly.

Investments and investment-related liabilities (continued)

Derivative contracts transacted either on a regulated exchange market or in the over-the-counter ("OTC") market, directly between two counterparties include the following:

Futures

Futures are transacted in standardized amounts on regulated exchanges and are subject to daily cash margining. The futures contracts that the Plan enters into are as follows:

- Government futures - contractual obligations to either buy or sell at a fixed value (the contracted price) government fixed income financial instruments at a predetermined future date. They are used to adjust interest rate exposure and replicate government bond positions. Long future positions are backed with high grade, liquid debt securities.

- Money market futures - contractual obligations to either buy or sell money market financial instruments at a predetermined future date at a specified price. They are used to manage exposures at the front end of the yield curve. Futures are based on short-term interest rates and do not require delivery of an asset at expiration. Therefore, they do not require cash backing.

Credit default swaps

Credit default swaps ("CDS") provide protection against the decline in value of the referenced asset as a result of specified events such as payment default or insolvency. The purchaser pays a premium to the seller of the CDS in return for payment related to the deterioration in the value of the referenced asset. The referenced asset for CDS is a debt instrument. They are used to manage credit exposure without buying or selling securities outright. Written CDS increase credit exposure (selling protection), obligating the Plan to buy bonds from counterparties in the event of a default. Purchased CDS decrease exposure (buying protection), providing the right to "put" bonds to the counterparty in the event of a default. Net long exposures are backed with high grade, liquid debt securities. Underlying credit exposures are continuously monitored.

Interest rate swaps

Interest rate swaps involve contractual agreements between two counterparties to exchange fixed and floating interest payments based on notional amounts. They are used to adjust interest rate yield curve exposures and substitute for physical securities. Long swap positions increase exposure to long-term interest rates and short positions decrease exposure. Long swap positions are backed with high grade, liquid debt securities.

Investments and investment-related liabilities (continued)

Total return swaps

Total return swaps are contractual agreements under which the total return receiver assumes market and credit risk on a bond or loan, where the total return payer forfeits risk associated with market performance but takes on the credit exposure that the total return receiver may be subject to. The total return receiver receives income and capital gains generated by an underlying loan or bond. In return, the total return receiver must pay a set rate and any capital losses generated by the underlying loan or bond over the life of the swap.

Currency forwards

Currency forwards are contractual obligations to exchange one currency for another at a specified price or settlement at a predetermined future date. Forward contracts are used to manage the currency exposure of investments held in foreign currencies. The notional amount of a currency forward represents the contracted amount purchased or sold for settlement at a future date. The fair value is determined by the difference between the market value and the notional value upon settlement.

Investments and investment-related liabilities (continued)

The following tables set out the notional values of the Plan's derivatives and their related assets and liabilities as at December 31:

2023

(in thousands of dollars)

	Notional value	Fair value Assets	Fair value Liabilities	Fair value Net
Derivatives				
Futures	$ 12,932	$ 1,459	$ (858)	$ 601
Credit default swaps	8,113	464	-	464
Interest rate swaps	47,690	294	(924)	(630)
Total return swaps	164,332	13,898	-	13,898
Currency forwards	2,364,455	45,287	-	45,287
	$ 2,597,522	$ 61,402	$ (1,782)	$ 59,620
Cash collateral		3,223	(471)	2,896
Notional and fair value	$ 2,597,522	$ 64,625	$ (2,253)	$ 62,372

2022

(in thousands of dollars)

	Notional value	Fair value Assets	Fair value Liabilities	Fair value Net
Derivatives				
Futures	$ 24,808	$ 17	$ (743)	$ (726)
Credit default swaps	2,400	80	-	80
Interest rate swaps	53,900	1,537	(2,509)	(972)
Total return swaps	97,980	-	(2,183)	(2,183)
Currency forwards	2,266,404	-	(8,610)	(8,610)
	$ 2,445,492	$ 1,634	$ (14,045)	$ (12,411)
Cash collateral		3,017	(121)	2,896
Notional and fair value	$ 2,445,492	$ 4,651	$ (14,166)	$ (9,515)

Investments and investment-related liabilities (continued)

The following tables set out the contractual maturities of the Plan's derivatives and their net related assets and liabilities as at December 31:

2023

(in thousands of dollars)		Under 1 year		1 to 5 years		5 to 10 years		Over 10 years		Total
Derivatives, net										
Futures	$	601	$	-	$	-	$	-	$	601
Credit default swaps		42		422		-		-		464
Interest rate swaps		(635)		(95)		35		65		(630)
Total return swaps		-		13,898		-		-		13,898
Currency forwards		45,287		-		-		-		45,287
	$	45,295	$	14,225	$	35	$	65	$	59,620
Cash collateral, net										2,752
Fair value, net	$	45,295	$	14,225	$	35	$	65	$	62,372

2022

(in thousands of dollars)		Under 1 year		1 to 5 years		5 to 10 years		Over 10 years		Total
Derivatives, net										
Futures	$	(726)	$	-	$	-	$	-	$	(726)
Credit default swaps		-		80		-		-		80
Interest rate swaps		-		(972)		-		-		(972)
Total return swaps		-		(2,183)		-		-		(2,183)
Currency forwards		(8,610)		-		-		-		(8,610)
	$	(9,336)	$	(3,075)	$	-	$	-	$	(12,411)
Cash collateral, net										2,896
Fair value, net	$	(9,336)	$	(3,075)	$	-	$	-	$	(9,515)

Cash is deposited or pledged with various financial institutions as collateral if the Plan was to default on payment obligations on its derivative contracts. On the statement of financial position, collateral is represented as part of the net balance of derivative-related receivables and liabilities.

6. Financial Instruments

a. Fair Values

The fair values of investments and derivatives are as described in note 3(d). The fair values of other financial assets and liabilities, being cash, contributions receivable, receivable from pending trades, accrued investment income, and payable for pending trades, approximate their carrying values due to the short-term nature of these financial instruments.

Fair value measurements recognized in the statement of financial position are categorized using a fair value hierarchy that reflects the significance of inputs used in determining the fair values.

Level 1: Fair value is based on inputs that reflect unadjusted quoted prices in active markets for identical assets or liabilities that the Investment Manager has the ability to access at the measurement date. Level 1 primarily includes publicly listed investments.

Level 2: Fair value is based on valuation methods that make use of inputs other than quoted prices included in Level 1, that are observable for the asset or liability, either directly or indirectly, including inputs in markets that are not considered to be active. Level 2 primarily includes debt securities and derivative contracts not traded on a public exchange and public equities not traded in an active market.

Level 3: Fair value is based on valuation methods where inputs that are based on non-observable market data have a significant impact on the valuation. Level 3 primarily includes real return bonds, real estate, infrastructure, and agriculture & timber investments valued based on financial statements and or investor statements. Promissory notes are valued at cost.

Financial Instruments (continued)

2023 (in thousands of dollars)		Level 1		Level 2		Level 3		Total
Investments								
Fixed income								
Money market	$	32,151	$	136,173	$	-	$	168,324
Canadian bonds & debentures		42,360		156,976		-		199,336
Non-Canadian bonds & debentures		26,605		867,180		-		893,785
Canadian real return bonds		-		106,028		68,983		175,011
Equities								
Canadian		167,478		90,856		-		258,334
US		395,762		296,357		-		692,119
Global		671,542		89,821		-		761,363
Real assets								
Real estate		-		32,120		781,902		814,022
Infrastructure		-		-		836,724		836,724
Agriculture & timber		-		-		116,287		116,287
Absolute return strategies								
Hedge funds		-		565,446		-		565,446
Investment-related receivables								
Agreements to resell securities		-		33,756		-		33,756
Promissory notes		-		-		14,592		14,592
Derivative-related, net		4,682		59,943		-		64,625
	$	1,340,580	$	2,434,656	$	1,818,488	$	5,593,724
Investment-related liabilities								
Derivative-related, net		1,329		924		-		2,253
	$	1,329	$	924	$	-	$	2,253
Net investments	$	1,339,251	$	2,433,732	$	1,818,488	$	5,591,471

Financial Instruments (continued)

2022

	Level 1	Level 2	Level 3	Total
Investments				
Fixed income				
Money market	$ 8,118	$ 101,721	$ -	$ 109,839
Canadian bonds & debentures	53,123	161,798	-	214,921
Non-Canadian bonds & debentures	79,628	746,456	-	826,084
Canadian real return bonds	-	103,999	67,104	171,103
Equities				
Canadian	148,665	87,402	-	236,067
US	361,467	392,989	-	754,456
Global	590,444	86,317	-	676,761
Real assets				
Real estate	-	40,722	901,153	941,875
Infrastructure	-	-	728,248	728,248
Agriculture & timber	-	-	113,672	113,672
Absolute return strategies				
Hedge funds	-	587,422	-	587,422
Investment-related receivables				
Agreements to resell securities	-	-	-	-
Promissory notes	-	-	14,592	14,592
Derivative-related, net	3,034	1,617	-	4,651
	$ 1,244,479	$ 2,310,443	$ 1,824,769	$ 5,379,691
Investment-related liabilities				
Derivative-related, net	(864)	(13,302)	-	(14,166)
	$ (864)	$ (13,302)	$ -	$ (14,166)
Net investments	$ 1,243,615	$ 2,297,141	$ 1,824,769	$ 5,365,525

There were no significant transfers between level 1, level 2, and level 3 financial instruments during the years ended December 31, 2023, and 2022.

Financial Instruments (continued)

The following tables present the changes in the fair value measurement in Level 3 of the fair value hierarchy:

2023

(in thousands of dollars)	Fixed income	Real assets	Investment-related receivables	Total
Balance, beginning of year	**$ 67,104**	**$ 1,743,073**	**$ 14,592**	**$ 1,824,769**
Purchases, contributed capital	**-**	**138,938**	**-**	**138,938**
Sales, capital returned	**(1,345)**	**(96,032)**	**-**	**(97,377)**
Realized gains	**333**	**39,230**	**-**	**39,563**
Unrealized gains (losses)	**2,891**	**(90,296)**	**-**	**(87,405)**
Balance, end of year	**$ 68,983**	**$ 1,734,913**	**$ 14,592**	**$ 1,818,488**

2022

(in thousands of dollars)	Fixed income	Real assets	Investment-related receivables	Total
Balance, beginning of year	$ 80,035	$ 1,206,176	$ 22,183	$ 1,308,394
Purchases, contributed capital	-	480,116	-	480,116
Sales, capital returned	(2,205)	(78,905)	(7,591)	(88,701)
Realized gains	502	16,962	-	17,464
Unrealized gains (losses)	(11,228)	118,724	-	107,496
Balance, end of year	$ 67,104	$ 1,743,073	$ 14,592	$ 1,824,769

The total realized and unrealized gains included in the change in market value of investments from level 3 financial instruments held as at December 31, 2023 and 2022, respectively, was ($47,842) and $124,960.

Fair value assumptions and sensitivity

Level 3 financial instruments are valued using various methods. Listed real return bonds are valued by a third-party using broker prices and comparable securities. Certain unlisted real estate, infrastructure, and agriculture & timber funds are valued using various methods including overall capitalization method and discount rate method. Real estate subsidiaries are valued using the overall capitalization method and discount rate method and the valuations are significantly affected by non-observable inputs, the most significant of which are the capitalization rate and the discount rate.

Financial Instruments (continued)

Significant unobservable inputs used in measuring fair value:

The table below sets out information about significant unobservable inputs used at December 31, 2023 in measuring financial instruments categorized as level 3 in the fair value hierarchy.

(in thousands of dollars)

Description	2023 Fair value	2022 Fair value	Valuation technique	Unobservable inputs
Unlisted real estate subsidiaries	**$ 655,656**	$ 736,222	Income approach technique: overall capitalization rate method and discounted cash flow method	Capitalization rates, discount rates
Unlisted funds: real estate, infrastructure, agriculture & timber	**1,079,256**	1,006,851	Net asset value – audited financial statements	Information not available
Listed real return bond	**68,983**	67,104	Vendor supplied price - proprietary price model	Information not available
Unlisted promissory notes	**14,592**	14,592	Issued by subsidiaries; valued at cost	N/A
	$ 1,818,488	$ 1,824,769		

The following analysis illustrates the sensitivity of the Level 3 valuations to reasonably possible capitalization rate and discount rate assumptions for real estate properties where reasonably possible alternative assumptions would change the fair value significantly.

Valuations determined by the direct capitalization method and discount cash flow method are most sensitive to changes in the capitalization rates and discount rates.

(in thousands of dollars) **Unlisted direct real estate subsidiaries**	2023	2022
Direct capitalization method		
Minimum capitalization rate	**3.50%**	3.50%
Maximum capitalization rate	**7.50%**	7.25%
Increase of 25 basis points in capitalization rate	**$ (36,927)**	$ (40,543)
Decrease of 25 basis points in capitalization rate	**$ 40,194**	$ 44,801
Discounted cash flow method		
Minimum discount rate	**3.35%**	3.40%
Maximum discount rate	**9.77%**	9.52%
Increase of 25 basis points in discount rate	**$ (23,091)**	$ (18,395)
Decrease of 25 basis points in discount rate	**$ 23,816**	$ 18,454

Note: 1 basis point is equal to 0.01%

Financial Instruments (continued)

The Plan does not have access to underlying information that comprises the fair market value of real return bonds, and certain real estate and infrastructure fund investments. The fair market value is provided by the general partner or other external managers. In the absence of information supporting the fair market value, no other reasonably possible alternative assumptions could be applied.

Significant investments
The Plan's investments, each having a fair value or cost exceeding one per cent of the fair market value or cost of net investment assets and liabilities are as follows:

As At December 31, 2023

(in thousands of dollars)

	Number of investments		Fair value		Cost
Public market investments	**1**	**$**	**68,983**	**$**	**25,972**
Private market investments	**20**		**2,267,637**		**1,800,924**
	21	**$**	**2,336,620**	**$**	**1,826,896**

As At December 31, 2022

(in thousands of dollars)

	Number of investments		Fair value		Cost
Public market investments	1	$	67,104	$	26,984
Private market investments	21		2,426,735		1,860,251
	22	$	2,493,839	$	1,887,235

The Plan's significant private market investments consist of fixed income and equity pooled funds, commodities, real estate, infrastructure, and agriculture & timber.

Financial Instruments (continued)

b. Investment risk management

Risk management relates to the understanding and active management of risks associated with all areas of the business and the associated operating environment. Investments are primarily exposed to interest rate volatility, market price fluctuations, credit risk, foreign currency risk and liquidity risk. The Plan has set formal goals, policies, and operating procedures that establish an asset mix among equity, fixed income, real assets, absolute return strategy investments and derivatives that requires diversification of investments within categories and set limits on the size of exposure to individual investments and counterparties. Risk and credit committees have been created to regularly monitor the risks and exposures of the Plan. Trustee oversight, procedures and compliance functions are incorporated into Plan processes to achieve consistent controls and to mitigate operational risk.

i. Interest rate risk

Interest rate risk refers to the fact that the Plan's financial position will change with market interest rate changes, as fixed income securities are sensitive to changes in nominal interest rates. Interest rate risk is inherent in the management of a pension plan due to prolonged timing differences between cash flows related to the Plan's assets and cash flows related to the Plan's liabilities. To properly manage the Plan's interest rate risk, appropriate guidelines on the weighting and duration for the bonds and other fixed income investments are set and monitored.

Financial Instruments (continued)

2023

(in thousands of dollars)

	Under 1 year	1 to 5 years	5 to 10 years	Over 10 years	Total	Average yield (%)(1)
Fixed income						
Money market	$ 166,329	$ -	$ -	$ -	$ 166,329	-
Bonds & debentures	22,082	203,673	205,841	209,226	640,822	4.1
Real return bonds (2)	-	-	-	68,983	68,983	5.3
	$ 188,411	$ 203,673	$ 205,841	$ 278,209	$ 876,134	3.4
Pooled funds					560,322	
Total fixed income					$ 1,436,456	

2022

(in thousands of dollars)

	Under 1 year	1 to 5 years	5 to 10 years	Over 10 years	Total	Average yield (%)(1)
Fixed income						
Money market	$ 107,346	$ -	$ -	$ -	$ 107,346	-
Bonds & debentures	72,618	192,303	191,701	172,829	629,451	4.3
Real return bonds (2)	-	-	-	67,104	67,104	5.3
	$ 179,964	$ 192,303	$ 191,701	$ 239,933	$ 803,901	3.8
Pooled funds					518,046	
Total fixed income					$ 1,321,947	

1. The average effective yield reflects the estimated annual income of a security as a percentage of its year-end fair value. The total average yield is the weighted average of the average yields shown.

2. Real return bond yields are based on real interest rates. The ultimate yield will be impacted by inflation as it occurs.

The fair value of the Plan's investments is affected by short-term changes in nominal interest rates. Pension liabilities are exposed to the long-term expectation of rate of return of the Fund as well as expectations of inflation and salary escalation.

Financial Instruments (continued)

Interest rate sensitivity

The Plan's investments in fixed income and fixed income related derivatives are sensitive to interest rate movements. The following table represents the assets held in the Plan as at December 31, subject to interest rate changes, average duration due to a one percent increase (decrease) in interest rate and the change in fair value of those assets:

	2023	2022
(in thousands of dollars)		
Interest rate sensitive assets	**$ 927,644**	$ 802.997
Average duration for 1% increase in interest rates	**(4.2)**	(4.9)
Sensitivity to 1% increase in interest rates	**(39,274)**	(39,480)
Fair value after 1% increase in rates	**$ 888,370**	$ 763,517
Average duration for 1% decrease in interest rates	**4.2**	4.9
Sensitivity to 1% decrease in interest rates	**39,274**	39,480
Fair value after 1% decrease in rates	**$ 966,918**	$ 842,477

ii. Market price risk

Market price risk is the risk of fluctuation in market values of investments from influences specific to a particular investment or from influences on the market as a whole, such as geopolitical risk. Market price risk does not include interest rate risk and foreign currency risk which are also discussed in this note. As all of the Plan's financial instruments are carried at fair value with fair value changes recognized in the statement of changes in financial position, all changes in market conditions will directly result in an increase (decrease) in net assets. Market price risk is managed by the Plan through the construction of a diversified portfolio of instruments traded on various markets and across various industries.

Financial Instruments (continued)

Market sensitivity
The Plan's investments in equities are sensitive to market fluctuations. The following table represents the change in fair value of the Plan's investment in public equities due to a ten percent increase (decrease) in fair market values as at December 31:

(in thousands of dollars)	2023	2022
Total equity	**$ 1,711,816**	$ 1,667,284
10% increase in market values	**171,182**	166,728
Fair value after 10% increase in market values	**$ 1,882,998**	$ 1,834,012
10% decrease in market values	**(171,182)**	(166,728)
Fair value after 10% decrease in market values	**$ 1,540,634**	$ 1,500,556

iii. Credit risk
Credit risk is the risk of loss in the event the counterparty to a transaction fails to discharge an obligation and causes the other party to incur a loss. Credit risk is generally higher when a non-exchange traded financial instrument is involved because the counterparty for the traded financial instrument is not backed by an exchange clearing house. Credit risk associated with the Plan is regularly monitored and analyzed through risk and credit committees.

Fixed income
The Plan's Fixed Income Program includes two main sectors: the Government Sector and the Corporate Sector. One benefit to managing these two pieces separately is to provide the opportunity to access physical government bonds when required. When markets are at their utmost distress these may be the only securities available for liquidation. Managing the Corporate Sector and the Government Sector separately allows for the adjustment of credit risk within the Fixed Income Program by changing the allocation between these two sectors - increasing the Government Sector through periods of market duress and increasing the Corporate Sector through periods of stability. This approach also allows the active management of the Corporate Sector and taking active decisions where returns can be maximized. In order to minimize the exposure to credit risk, a comprehensive investment policy has been developed. There were no significant concentrations of credit risk in the portfolio in 2023, and 2022.

Financial Instruments (continued)

The fair values of the Plan's fixed income investments exposed to credit risk are categorized in the following table as at December 31:

(in thousands of dollars)	2023	2022
Fixed income		
Canadian		
Governments	**$ 164,318**	$ 133,269
Corporate	**160,695**	153,076
Non-Canadian		
Governments	**26,605**	79,628
Corporate	**524,516**	437,928
	$ 876,134	$ 803,901
Pooled funds	**560,322**	518,046
Total fixed income	**$ 1,436,456**	$ 1,321,947

Financial Instruments (continued)

Derivatives
The Plan is exposed to credit-related losses in the event counterparties fail to meet their payment obligations upon maturity of derivative contracts. The Plan limits derivative contract risk by dealing with counterparties that have a minimum “A” credit rating. In order to mitigate this risk, the Fund:

i. Deals only with highly rated counterparties, with whom International Swap and Derivative Association agreements have been executed, normally major financial institutions with a minimum credit standard of “A” rating, as supported by a recognized credit rating agency; and

ii. Credit risk represents the maximum amount that would be at risk as at the reporting date if the counterparties failed completely to perform under the contracts, and if the right of offset proved to be non-enforceable. Credit risk exposure on derivative contracts is represented by the receivable replacement cost of contracts with counterparties, less any prepayment collateral or margin received, as at the reporting date.

Securities lending
The Plan engages in securities lending to enhance portfolio returns (see note 11). Through a securities lending program at the Plan’s custodian, the Plan lends securities for a fee to approved borrowers. Credit risk associated with securities lending is mitigated by requiring the borrowers to provide high quality collateral. In the event that a borrower defaults completely or in part, the custodian will replace the security at its expense. Regular reporting of the securities lending program ensures that its various components are continuously being monitored.

iv. Foreign currency risk
Foreign currency risk is the risk that the value of future cash flows of a financial instrument will fluctuate because of changes in foreign exchange rates. The Plan primarily invests in financial instruments and enters into transactions denominated in various foreign currencies, other than its measurement currency. Consequently, the Plan is exposed to risk that the exchange rates of the various currencies may change in a manner that has an adverse effect on the value of the portion of the Plan’s investment and non-investment assets or liabilities denominated in currencies other than the Canadian dollar. Foreign currency risk is hedged by using foreign exchange forward contracts. A policy of hedging up to 100% of the currency exposure helps to mitigate this risk.

The Plan’s currency policy allows for the management of risk of investment and non-investments assets and liabilities held in the Fund through hedging strategies that are implemented through the purchase of forward currency contracts. The forward currency contracts offset the Plan’s foreign currency exposure, hence reducing the Plan’s foreign currency risk.

Financial Instruments (continued)

The Plan's investment and non-investment assets and liabilities that are held in the Fund are represented as unhedged and hedged currency exposures as at December 31 in the following table:

December 31, 2023	Unhedged	Hedged
(in thousands of dollars)		
Summary FX exposure		
Canadian dollar	$ 1,811,057	$ 4,095,084
United States dollar	3,092,431	1,428,463
Euro	324,198	(77,580)
British pound sterling	143,758	62,440
Japanese yen	120,126	120,016
Other	214,846	123,280
	$ 5,706,416	$ 5,751,703

December 31, 2022	Unhedged	Hedged
(in thousands of dollars)		
Summary FX exposure		
Canadian dollar	$ 1,820,970	$ 3,945,688
United States dollar	2,933,490	1,387,374
Euro	287,292	(123,718)
British pound sterling	135,710	53,924
Japanese yen	98,325	98,656
Other	203,537	108,789
	$ 5,479,324	$ 5,470,713

After the effect of hedging, and without change in all other variables, a ten percent increase (decrease) in the Canadian dollar against all other currencies would (decrease) increase the fair value of the Plan's investment and non-investment assets and liabilities held in the Fund, respectively.

Financial Instruments (continued)

The following table below represents these changes in the Plan's investment and non-investment assets and liabilities held in the Fund as at December 31:

	2023	2022
(in thousands of dollars)		
Fund assets and liabilities	**$ 5,751,702**	$ 5,470,713
10% increase in Canadian Dollar	**(150,602)**	(138,639)
Fund assets and liabilities after increase	**$ 5,601,100**	$ 5,332,074
10% decrease in Canadian Dollar	**184,069**	169,447
Fund assets and liabilities after decrease	**$ 5,935,771**	$ 5,640,160

v. **Liquidity risk:**
Liquidity risk is the risk that the Plan's does not have sufficient cash to meet its current payment liabilities and acquire investments in a timely and cost-effective manner. Liquidity risk is inherent in the Plan's operations and can be impacted by a range of situation specific and market-wide events including, but not limited to, credit events and significant movements in the market. Cash obligations are fulfilled from contributions to the Plan, cash income of the Plan and planned dispositions of Plan assets as required. Cash requirements of the Plan are reviewed on an ongoing basis to provide for the orderly availability of resources to meet the financial obligations of the Plan. The Plan's cash management policy ensures that the quality and liquidity of the investment vehicles within the cash portfolios are consistent with the needs of the Plan.

Approximately 35% (2022 - 33%) of the Plan's investments are in liquid securities traded in public markets, consisting of fixed income and equities. Pooled funds consisting of exchange traded fixed income, equities, and real estate are approximately 18.6% (2022 - 21%) of the Plan's investments and are liquid within 30 days or less. Although market events could lead to some investments becoming illiquid, the diversity of the Plan's portfolios should ensure that liquidity is available for benefit payments. The Plan also maintains cash on hand for liquidly purposes and for payment of Plan liabilities. At December 31, 2023, the Plan had cash in the amount of $189,362 (2022 - $127,768).

7. Accrued pension obligation

a. Actuarial assumptions

The actuarial present value of the accrued pension obligation is an estimate of the value of pension obligations of the Plan in respect of benefits accrued to date for all active and inactive members including pensioners and survivors. As the experience of the Plan unfolds, and as underlying conditions change over time, the actual value of accrued benefits payable in the future could be materially different than the actuarial present value.

Actuarial valuations of the Plan are required every year by the Act and provide an estimate of the accrued pension obligation (Plan liabilities) calculated using various economic and demographic assumptions, based on membership data as at the valuation date. The Plan's consulting actuaries, Eckler Limited, performed a valuation as at December 31, 2023 and issued their report in April 2024. The report indicated that the Plan had an unfunded liability of $1,617,042 (2022 - $1,818,807).

The actuarial valuation calculates liabilities for each member on the basis of service earned to date and the employee's projected five-year highest average salary at the expected date of retirement, or in the case of pensioners and survivors, on the basis of the amount of pension being paid to them. The projected unit credit method was adopted for the actuarial valuation to determine the current service cost and actuarial liability.

	2023	2022
Discount rate	**5.80% per annum**	5.70% per annum
Inflation	**2.00% per annum**	2.10% per annum
Salary	**2.00% per annum plus promotional ranging from 0.00% to 7.50%**	2.10% per annum plus promotional ranging from 0.00% to 7.50%
YMPE and maximum pension increase	**2024: YMPE $68,500.00, maximum pension $3,610.00 2025+: increase at 2.75% per annum**	2023: YMPE $66,600.00, maximum pension $3,507.67 2024+: increase at 2.85% per annum
Indexing	**1.10% per annum for retirements prior to August 1, 2006 and no indexing for retirements on or after August 1, 2006**	1.20% per annum for retirements prior to August 1, 2006 and no indexing for retirements on or after August 1, 2006
Retirement age	**50% of active members who achieve eligibility for an unreduced pension under the rule of 85 prior to age 62 will retire when they first become eligible; the remainder of active and all inactive members will retire at the earliest of: age 65 with 2 years of service, 35 years of service; and age 62 with 10 years of service**	50% of active members who achieve eligibility for an unreduced pension under the rule of 85 prior to age 62 will retire when they first become eligible; the remainder of active and all inactive members will retire at the earliest of: age 65 with 2 years of service, 35 years of service; and age 62 with 10 years of service
Mortality	**107% (male)/99% (female) of 2014 Public Sector Mortality Table projected generationally with CPM improvement Scale B**	107% (male)/99% (female) of 2014 Public Sector Mortality Table projected generationally with CPM improvement Scale B

Accrued pension obligation (continued)

The assumed real rates of increases in pensionable earnings (i.e. increase in excess of the assumed inflation rate) are dependent on the attained age of the members.

Demographic assumptions are used to estimate when future benefits are payable to members and beneficiaries, including assumptions about mortality rates, termination rates, and patterns of early retirement. Each of these assumptions is updated periodically, based on a detailed review of the experience of the Plan and on the expectations for future trends.

b. Experience losses

Experience losses of $65,914 arose during the year ending December 31, 2023 (2022 – losses of $33,882), from differences between the actuarial assumptions and actual results, causing an increase to the accrued pension obligation.

8. Commitments

The Plan has committed capital to investments in real estate, infrastructure, and agriculture & timber over a definitive period of time. The future commitments are generally payable on demand based on the capital needs of the related investment. The table below indicates the capital amount committed and outstanding as at December 31, 2023.

December 31, 2023	Committed	Outstanding
(in thousands of dollars)		
United States dollar		
Real estate	25,000	4,343
Infrastructure	538,537	95,510
	USD 563,537	USD 99,853
Euro		
Infrastructure	75,000	27,157
	EUR 75,000	EUR 27,157
Canadian dollar		
Infrastructure	5,000	25
	CAD 5,000	CAD 25

9. Benefits

(in thousands of dollars)	2023	2022
Pension benefits paid	$ **383,303**	$ 376,125
Survivor benefits paid	**32,760**	27,149
Disability benefits paid	**18,954**	18,891
Refunds paid to terminated members	**4,224**	3,947
	$ **439,241**	$ 426,112

10. Administrative Expenses

The Plan is charged by its service providers, including Nova Scotia Pension Services Corporation, a related entity, for professional and administrative services. The following is a summary of these administrative expenses.

	2023	2022
(in thousands of dollars)		
Plan administration:		
Office and administration services	**$ 6,234**	$ 5,724
Actuarial & consulting services	**191**	98
Audit services	**56**	58
Legal services	**41**	59
Other professional services	**29**	30
	6,551	5,969
Investment expenses:		
Investment management services	**9,574**	9,131
Transaction costs	**452**	647
Custody services	**515**	506
Advisory & consulting services	**317**	307
Information services	**224**	215
	11,082	10,806
HST	**1,689**	1,582
	$ 19,322	$ 18,357

Investment management and performance fees included in the unrealized gains/ (losses) on investments consisting of pooled funds, limited partnerships and subsidiaries are estimated at $30,127 (2022 - $24,664) using financial statements and or investor statements where available, and when not available, estimates based on investment management contracts. These fees are not direct expenses of the Plan and therefore are not included in administrative expenses.

11. Securities lending

The Plan participates in a securities lending program where it lends securities that it owns to third parties for a fee. For securities lent, the Plan receives a fee and the borrower provides readily marketable securities of higher value as collateral which mitigates the credit risk associated with the program. When the Plan lends securities, the risk of failure by the borrower to return the loaned securities is alleviated by such loans being continually collateralized. The securities lending agent also provides indemnification if there is a shortfall between collateral and the lent security that cannot be recovered. The securities lending contracts are collateralized by securities issued by, or guaranteed without any limitation or qualification by, the government of Canada or the governments of other countries.

The following table represents the estimated fair value of securities that were loaned out and the related collateral as at December 31:

		2023		2022
(in thousands of dollars)				
Securities on loan	**$**	**138,486**	$	154,928
Collateral held	**$**	**148,345**	$	167,026

12. Related party transactions

Investments held by the Plan include bonds & debentures of the Province of Nova Scotia. The total fair value of these investments is $781 (0.01% of Fund assets and liabilities) as at December 31, 2023 ($904 (0.02% of Fund assets and liabilities) at December 31, 2022).

The Plan's administrator, Nova Scotia Pension Services Corporation, an entity co-owned by Teachers' Pension Plan Trustee Inc. and Public Service Superannuation Plan Trustee Inc. for the purpose of providing pension plan administration and investment services, charges the Plan at cost, an amount equal to the expenses incurred to service the Plan. As Nova Scotia Pension Services Corporation operates on a cost recovery basis, the Plan loans cash to its administrator, as required to pay upcoming expenses or to purchase capital assets. The administration expense charged to the Plan for the year ending December 31, 2023 was $6,531 (2022 - $6,032). The amount due to the administrator as at December 31, 2023 was $768 (2022 – $813).

13. Interest in subsidiaries

The Plan's subsidiaries were created for the purposes of providing investment earnings from real estate, infrastructure and other investment arrangements. The Plan's subsidiaries are presented on a non-consolidated basis. The following table shows the fair values of the Plan's subsidiaries as at December 31:

Subsidiary	Purpose	Ownership %	2023 Fair value	2022 Fair value
(in thousands of dollars)				
TPP Investments RE Inc.	**Real estate**	**100**	**$ 609,626**	$ 719,057
TPP Investments CS Inc.	**Infrastructure**	**100**	**224,743**	233,564
NT Combined Investments Inc.	**Equities**	**48**	**207,273**	308,802
TPP Investments BR Inc.	**Infrastructure**	**100**	**140,513**	102,589
TPP Investments II Inc.	**Real estate**	**100**	**139,538**	146,487
TPP Investments AX Inc.	**Infrastructure**	**100**	**60,509**	58,441
HV Combined Investments Inc.	**Hedge funds**	**37**	**35,654**	25,182
TPP Investments ES Inc.	**Real estate**	**100**	**32,738**	35,609
TPP Investments MU Inc.	**Infrastructure**	**100**	**29,795**	21,013
TPP Investments KA Inc.	**Infrastructure**	**100**	**28,928**	20,873
TPP Investments AC Inc.	**Infrastructure**	**100**	**17,912**	13,856
TPP Investments HY Inc.	**Infrastructure**	**100**	**6,924**	-
			$ 1,534,153	$ 1,685,473

The Plan either has 100% controlling interest or significant influence over its subsidiaries' cash flows. Funding is made via capital investment from the Plan. Certain subsidiaries have commitments that must be funded directly through capital investment by the Plan. These amounts are included in the Plan's commitments (note 8). Financing is provided as required via shareholder loans and is payable on demand to the Plan.

14. Capital management

The main objective of the Fund is to sustain a certain level of net assets in order to meet the Plan's pension obligations. The TPPTI (see note 1) manages the contributions and plan benefits as required by the Act and its related Regulations. The TPPTI approves and incurs expenses to administer the commerce of the Fund as required by agreement between the Province and the Union.

Under the direction of the TPPTI, the Fund provides for the short-term financial needs of current benefit payments while investing members' contributions for the longer-term security of pensioner payments. The TPPTI exercises duly diligent practices and has established written investment policies and procedures, and approval processes. Operating budgets, audited financial statements, yearly actuarial valuations and reports, and as required, the retention of supplementary professional, technical and other advisors, are part of the Fund governance structure.

The Fund fulfils its primary objective by adhering to specific investment policies outlined in its SIP&G, which is reviewed annually by TPPTI. The Fund manages net assets by engaging knowledgeable investment managers who are charged with the responsibility of investing existing funds and new funds (current year's employee and employer contributions) in accordance with the SIP&G. Increases in net assets are a direct result of investment income generated by investments held by the Fund and contributions into the Fund by eligible employees and participating employers. The main use of net assets is for benefit payments to eligible Plan members.

Under the 2014 Agreement, minimum funding targets were established, with objectives of having assets of the Plan reach levels of 80-90% of the actuarial liabilities on or before December 31, 2025, at least 85-95% on or before December 31, 2030, and at least 90-100% on or before December 31, 2035. These funding targets are required to be regularly reviewed, including a comprehensive review in 2020 and further reviews every 5 years thereafter.

GLOSSARY

Actuarial assumed rate of return (discount rate): The long term rate of return assumed by the Plan's external actuary in determining the value of the Plan's liabilities. Also, referred to as the discount rate.

Asset(s): Financial and real items owned by the Plan which have a monetary value, including cash, stocks, bonds, real estate, etc.

Asset Mix: The allocation of funds to be used for investment purposes between different types of assets, including cash, stocks, bonds, real estate, etc.

Asset Liability Study: An asset liability study analyzes a pension fund's risk and reward profile by examining not only the plan's assets but also the Plan's liabilities. The study is designed to evaluate the probable change in liabilities over time in order to develop asset allocation recommendations that best meet these liabilities.

Benchmark: A standard against which the performance of the Plan's return on investment can be measured.

Equity(ies): Common or preferred stock representing ownership in a company.

Funded Ratio: A ratio of the Plan's assets to liabilities, expressed as a percentage. A ratio above 100 per cent indicates that the Plan has more assets than required to fund its future estimated liabilities.

Gross Domestic Product (GDP): Is the total market value of all final goods and services produced in a country in a given year. GDP is one of the primary indicators used to gauge the health of a country's economy.

Gross of investment management fees: Refers to the fact that the return on investment is reported before the deduction of management fees or expenses.

Indexing: Refers to the linking of retirement payments made to some retirees with overall price increases in the economy, as measured by the Consumer Price Index.

International Monetary Fund (IMF): An organization of 188 countries working to foster global monetary cooperation, secure financial stability, facilitate international trade, promote high employment and sustainable economic growth, and reduce poverty around the world.

Liabilities: An estimate of the current value of future obligations of the Plan as a result of retirement commitments made to past, current, and future employees.

MSCI Europe, Australasia and Far East (EAFE) Index: s a stock market index that is designed to measure the equity market performance of developed markets outside of the U.S. and Canada.

MSCI Emerging Markets (EM) Index: Is a stock market index that captures large and mid-capitalization representation across 23 emerging market countries.

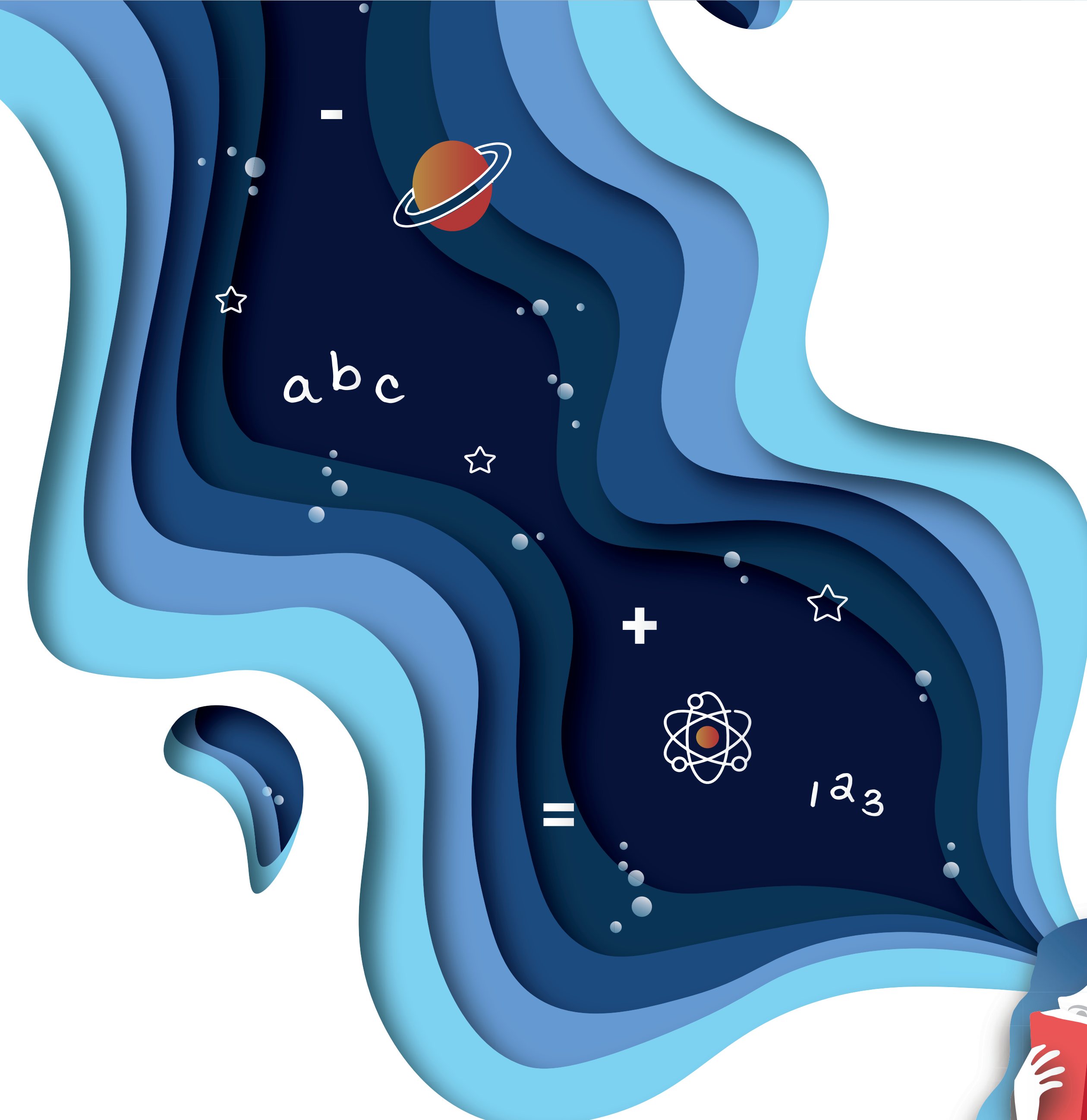
Net of investment management fees: Refers to the fact that the return on investment is reported after the deduction of management fees or expenses.

Overweight/Underweight: Refers to the difference relative to the benchmark portfolio. Underweight indicates less than the benchmark, while overweight indicates more than the benchmark.

Return on investment(s): A performance measure used to evaluate the efficiency of the Plan's investments, expressed as a percentage gain or loss on the initial investment at the beginning of the period.

Unfunded Liability: An unfunded liability is present when the Plan's funded ratio is below 100 per cent. The unfunded liability is a measure, in dollars, of the amount by which the Plan's liabilities exceed its assets.

Volatility: A measure of the variation in the price of a security or the returns of the Plan. High volatility indicates increased risk.



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