

Nova Scotia
Public Service Superannuation Plan

ANNUAL REPORT

2017-
2018



*Public Service
Superannuation Plan
Trustee Inc.*

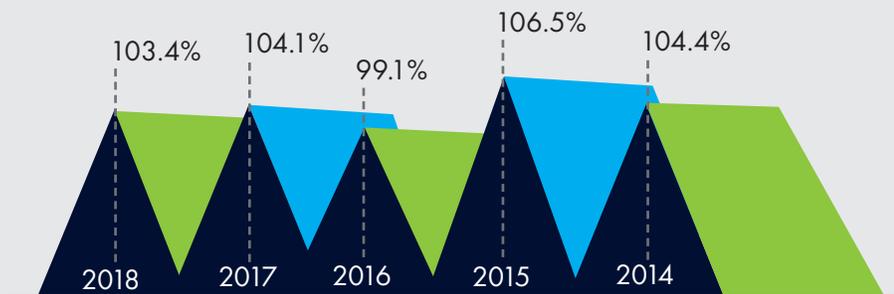
2017-2018 PSSP Annual Report

At a glance...

(As at March 31, 2018)

The Plan's Funded Ratio

The Public Service Superannuation Plan (Plan or PSSP) was 103.4 per cent funded on a market value basis*. The chart below highlights the Plan's funded status over the past 5 years.



* Market Value:

- Values the Plan's assets at fair-market value
- Reflects actual value of assets in the pension fund

Contributions and Benefits Paid

Plan member and employer contributions paid to the Plan:

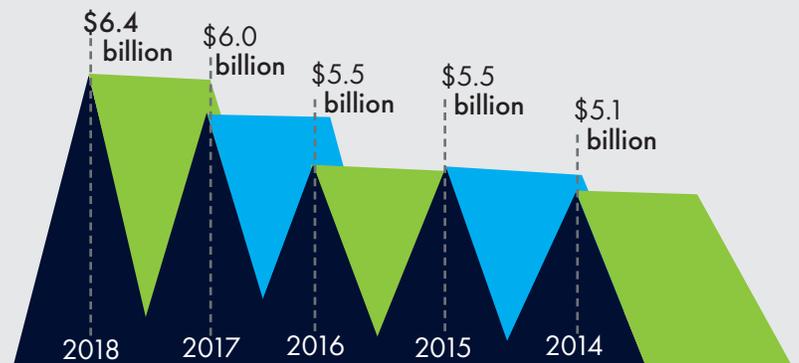
\$192 million

\$342 million

Benefits paid out to retirees and survivors.

Net Assets Available for Benefits

Net assets available for benefits were \$6.4 billion. This is an increase of \$400 million from the previous year.



The Plan's Investment Return

The Plan achieved a one year return of 5.77 per cent, gross of investment management fees (5.54 per cent net of investment management fees). The Fund's policy benchmark return for the fiscal year was 5.69 per cent.



2017-2018 PSSP Annual Report

At a glance...

(As at December 31, 2017)

Plan Membership

The Plan had a total of 35,621 members. The number of retirees grew by 497* to 16,248. The number of active Plan members also increased by 183 to 17,211.



* This figure reflects the net increase in retirees year over year. It factors in deaths, and also includes all persons receiving a pension (e.g. surviving spouses/ex-spouses, children, and dependants).

** Inactive members are Plan members who have terminated employment, but have not yet retired or removed their funds from the Plan.

Membership Facts:

47.8 Average age of an active member

70.0 Average age of a retired member

15 Pensioners over 100 years of age

794 New retirees. This figure reflects only the number of members who retired in 2017.

\$20,795 Average annual lifetime pension (retired member)

1.06 The Plan has 1.06 active members for every 1 retiree. The higher the ratio of active members to retirees, the healthier a pension plan is.

Annual Pensions in Pay

Value of Annual Pension (\$)

	<\$15K	\$15-\$30K	\$30-\$45K	\$45-\$60K	\$60K+
Retired Members <65	715	1,396	1,356	534	219
Retired Members >65	4,186	3,025	1,123	411	220
Survivors	2,184	705	123	39	12

1. The "annual pension in pay" is the amount paid from the PSSP only. Plan members may also receive income from the Canada Pension Plan, the Old Age Security program, and/or the Guaranteed Income Supplement.
2. The category "survivors" includes surviving spouses/ex-spouses, children, and dependants.
3. The figures provided are estimates, based on currently-available data.
4. Determination of a pension is formulaic, based on each member's unique combination of years of pensionable service and highest average salary. For more information on the pension formula, please visit our website at www.nspssp.ca/publicservice/members/mid-career/pension-benefit/pension-benefit-formula

As at December 31, 2017, there were approximately 3,160 Plan members eligible to retire from the Plan with an unreduced pension. The chart below shows the number of Plan members over the next several years who will be able to retire with an unreduced pension.

December 31, 2018	3,773 Plan members
December 31, 2020	5,106 Plan members
December 31, 2022	6,293 Plan members

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Italicized terms, with the exception of statutes, that appear in the Report to Members and Investment Management sections are defined in the Glossary.

ABOUT

The Public Service Superannuation Plan is one of the largest public sector pension plans in the Province. The Plan is a registered *target benefit pension plan* that offers you a lifetime pension benefit when you retire. Your pension benefit is funded by contributions made by you and your employer, as well as by investment income generated by the Plan's investment assets. This Annual Report details the Plan's investment performance and financial health as at March 31, 2018.

We want your feedback! We welcome your comments and feedback to help us better understand what information about your pension you would like to receive. Please email your comments on this Annual Report to: PSSPTI@nspension.ca
For individual pension questions, please refer to our contact information on page 62.



Message from the Trustee Chair

Ronald Smith, FCPA, FCA. ICD.D

On behalf of the Public Service Superannuation Plan Trustee Inc., I am pleased to present the annual report of the Public Service Superannuation Plan for the fiscal year ended March 31, 2018. This report provides you with details on the financial health of the Plan and a comprehensive review of its investment activities.

In 2017-2018, the Plan achieved a positive rate of return on investments of 5.77 per cent (gross of investment management expenses), generating \$343 million in total investment income. The total net assets for the Plan were approximately \$6.4 billion and, as of March 31, 2018, the Plan was 103.4 per cent funded.

During 2017-2018, we continued our work on the comprehensive review of the Public Service Superannuation Act (PSSA), which is now coming to completion. The PSSA Review was conducted by an Independent Reviewer and included a thorough review of the Plan's benefit design, funding policy, and governance structure. We would like to thank all who participated in the Review and contributed to its success.

In 2017-2018, the Trustee held 7 board meetings. During these meetings we continued our focus on a number of important initiatives, including membership growth, member engagement, and strategic planning.

Our focus on membership growth is intended to improve the Plan's aging demographic profile. Since it was first implemented in 2015, this membership growth initiative has expanded the PSSP membership by almost 1,700 active members and 700 retirees. Our guiding principle for membership growth is that it must enhance the long-term sustainability of the Plan and be cost neutral to the Plan and its existing members.

In 2017-2018, we also continued to explore ways to enhance Plan member engagement, by focusing on pension plan education and retirement planning. This included expanding our communications with Plan members through social media with the implementation of our Twitter account, @yourNSPSSP.

The Trustee is proud to report that the Public Service Superannuation Plan Fund paid out \$342 million in benefits to retired members and beneficiaries in 2017-2018, thus making both a substantial contribution to the retirement security of thousands of Nova Scotian families and a significant injection of money into the economy of the Province. In 2018-2019, we will continue to work on initiatives that focus on promoting retirement security for today's Plan members and generations yet to come.

The Trustee would like to thank the Pension Services Corporation team for their continued dedication to providing high-quality Plan member services, investment administration, and board support.

Board of Directors

Public Service Superannuation Plan Trustee Inc. (As at March 31, 2018)

Public Service Superannuation Plan Trustee Inc. (PSSPTI) is comprised of an independent Chair and 12 directors, who represent the NSGEU, NSGREA, CUPE Local 1867, non-union employees, the Nova Scotia Government, and other employers.

PSSPTI held 7 board meetings in 2017-2018. Directors also attended committee meetings and various educational training sessions throughout the year. For more information on PSSPTI, please visit our website at www.nspsssp.ca



Ronald Smith, FCPA, FCA, ICD.D

PSSPTI Chair

The Chair is an Ex-Officio member on all committees. The Chair's annual compensation is \$24,000.

Board Meeting Attendance: 7 of 7



Geoff Gatien

Associate Deputy Minister and Controller
Department of Finance and Treasury Board
PSSPTI Vice-Chair

Committee: Audit, Actuarial, & Risk
Employer Representative

Board Meeting Attendance: 6 of 7



Nancy MacLellan

Associate Deputy Minister
Department of Community Services
PSSPTI Vice-Chair

Committee: Governance, Chair
Non-Bargaining Unit Rep.

Board Meeting Attendance: 6 of 7



Paul Hagen, Coordinator, SAP Business Support Centre, Department of Education

Committee: Audit, Actuarial, & Risk, Chair
Investment

NSGEU Representative

Board Meeting Attendance: 7 of 7



Cynthia Yazbek

Executive Director
Labour and Advanced Education

Committee: Plan Regulations, Chair
Governance

Employer Representative

Board Meeting Attendance: 6 of 7



Dave Peters, Retiree

Committee: Audit, Actuarial, & Risk
NSGREA Representative

Board Meeting Attendance: 7 of 7



Keiren Tompkins, Retiree

Committee: Governance
Plan Regulations

NSGEU Representative

Board Meeting Attendance: 7 of 7



Cathy Rankin

Director, Benefits, Public Service Commission

Committee: Governance

Employer Representative

Board Meeting Attendance: 7 of 7



Mike MacIsaac,

NS Highway Workers/CUPE Local 1867

Committee: Audit, Actuarial, & Risk

CUPE Representative

Board Meeting Attendance: 7 of 7



Ian Johnson, Retiree

Committee: Investment
Plan Regulations

NSGEU Representative

Board Meeting Attendance: 7 of 7



Chris Daly

Director of Policy, Planning and Research
College Services - NSCC

Committee: Investment

Employer Representative

Board Meeting Attendance: 6 of 7



Leo McKenna

Chief Financial Officer
Workers' Compensation Board

Committee: Investment, Chair

Employer Representative

Board Meeting Attendance: 7 of 7



Paula Boyd

Superintendent of Pensions
Department of Finance and Treasury Board

Committee: Plan Regulations

Employer Representative

Board Meeting Attendance: 6 of 6

* Joined in June 2017

Plan Governance

The PSSP is governed by the Public Service Superannuation Act and its regulations. The Plan transitioned to a joint governance structure on April 1, 2013. The trustee of the PSSP is Public Service Superannuation Plan Trustee Inc. (PSSPTI or Trustee). PSSPTI has the fiduciary responsibility for the PSSP, manages its investment assets, and is responsible for its overall operations and investment decisions. At the direction of and under the oversight of PSSPTI, Nova Scotia Pension Services Corporation (Pension Services Corp.) administers the PSSP.

The section below explains the PSSP's governance structure and the respective roles and responsibilities of the key entities.

Public Service Superannuation Plan Trustee Inc.

- is the Trustee of the PSSP and the Public Service Superannuation Fund
- has the fiduciary responsibility for the Plan and owns the investment assets
- is responsible for the Plan's overall operations and investment decisions
- sets policy framework and strategic direction for the investment assets
- is run by a 13-person board of directors (Board) that includes 6 representatives of employees including 3 members from NSGEU, 1 from NSGRE, 1 from CUPE, and 1 non-union employee member, as well as 6 representatives from the NS government and other employers, plus an independent chair

PSSPTI oversees all aspects of the Plan through the four following committees:

Audit, Actuarial, and Risk

Oversees 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

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

Investment

Monitors investment performance. Reviews and approves all investment management policies.

Plan Regulations

Supports PSSPTI in identifying, proposing and finalizing amendments to the PSSP regulations.

The Board of Directors of Nova Scotia Pension Services Corporation

- oversees the operation of Pension Services Corp., the administrator of the Plan
- sets strategic direction, approves operational budget, and makes key decisions
- is comprised of joint representation from PSSPTI and Teachers' Pension Plan Trustee Inc. (TPPTI)
- is an 8-person board, with alternating co-chairs, comprised of 4 representatives from PSSPTI and 4 representatives from TPPTI

Nova Scotia Pension Services Corporation

- manages day-to-day operation of Plan investments and benefit administration
- provides Plan member, retiree, and employer services

Trustee Initiatives

Growing the PSSP membership

In an effort to address the Plan's aging demographic challenges, PSSPTI developed a strategy to grow the PSSP membership. A key element of this membership growth strategy includes allowing new employers to join or transfer their existing pension plans into the PSSP.

Since it was first implemented in 2015, this membership growth initiative has expanded the PSSP membership by almost 1,700 active members and 700 retirees.

Employers that have joined or transferred into the PSSP include: Sherbrooke Village Restoration Commission; South Shore Public Libraries; Cape Breton University; Acadia University; Université Sainte-Anne; University of King's College; Halifax Harbour Bridges and, most recently, Cape Breton Regional Municipality.

PSSPTI's guiding principles throughout these transactions have been that a transfer into the PSSP must be beneficial to the long-term sustainability of the PSSP and cost neutral to its existing members.

Growing the PSSP membership to promote long-term financial sustainability is a key strategic focus for PSSPTI. PSSPTI continues to pursue growth opportunities and is in discussions with several potential employers.

2017 PSSP Review

A comprehensive review (Review) of the PSSP is now coming to completion. Amendments to the *Public Service Superannuation Act* (Act) received Royal Assent on April 18, 2018.

The Review was mandated by Section 47 of the Act. The Public Service Superannuation Plan Trustee Inc. (PSSPTI) commissioned the Review in late 2016. The process spanned more than two years.

The Review report set out 12 main recommendations for PSSPTI to consider, in response "to stakeholder concerns, changes in the Canadian pension landscape and to build on the Plan's success." The recommendations fell into the following primary areas:

- benefits and eligibility, funding policy, and actuarial assumptions;
- governance;
- strategic considerations; and
- plan text updates and 'housekeeping matters'

You can read the final Review report, a summary of steps taken, and more on our website at: www.nspssp.ca/publicservice/about/psspti-reviews/2017-pssp-review

PSSPTI would like to take this opportunity to thank all who participated in the Review and contributed to its success. The next PSSP review under Section 47 of the Act will occur in 2022.

Member Engagement

In 2017-2018, we continued to explore ways to enhance Plan member engagement by focusing on pension plan education and retirement planning. This included expanding our communications with Plan members through social media with the implementation of our Twitter account, @yourNSPSSP.



Since it was first implemented in 2015, this membership growth initiative has expanded the PSSP membership by approximately 2,400 members: 1,700 active members and 700 retirees.

Nova Scotia Pension Services Corporation

Pension Services Corp.'s service teams are responsible for providing pension services to Plan members, retirees, and employers. When a Plan member retires, Pension Services Corp. manages pension payments and provides assistance throughout the retirement process. Client Service Consultants also aid Plan members in making informed retirement decisions.

Client and Employer Services 2017-2018 Results



24,815
Calls answered

90%
of calls were answered in less than 20 seconds

Reciprocal Transfers

33 transfers into the Plan

41 transfers out of the Plan

33
Pre-retirement seminars were held across Nova Scotia

My Retirement Plan website

<https://nspensions.hroffice.com>

My Retirement Plan (MRP) website allows active Plan members secure access to their personal pension information online.

Since the MRP website launched in 2015, Plan members have used the site to obtain pension estimates and view their Annual Member Statements. The site's usage statistics for 2017 are below:

The Pension Projection tool was used

4,947 times

The Annual Statement tool was used

2,825 times

The Pension Profile tool was used

1,201 times

"We continue to review our suite of services in anticipation of members' and employers' evolving needs. We look forward to developing more online materials to support them as they make their retirement decision, and as they manage their pension throughout their lifetime."

- Kim Blinn
Chief Pensions Officer

Visit us online:

www.novascotiapension.ca

www.nspssp.ca

@yourNSPSSP

Plan Valuation

The *funded ratio* is equal to the Plan's *assets* divided by the Plan's *liabilities*, expressed as a percentage. A *funded ratio* of 100 per cent or more means that the Plan is fully funded (i.e. there are sufficient *assets* to cover *liabilities*, based on current market values and actuarial assumptions).

More details about the assumptions that were used, and their impact on the valuation of Plan *liabilities*, may be found in the Report on the Actuarial Valuation (December 31, 2017) which is available on our website at:

www.nspssp.ca/publicservice/members/publications/actuarial-valuation

While the Plan Valuation Report is completed each year as at December 31, the Plan's fiscal year-end is March 31.

As at March 31, 2018, the Plan had total *liabilities* of approximately \$6.1 billion and a surplus of \$207 million. The *funded ratio* was 103.4 per cent.

Plan Valuation highlights:

- The Plan's *experience gain* on investment assets in calendar year 2017, relative to the *assumed rate of return* at the beginning of the year of 6.15 per cent, was \$88 million.
- The Plan's *return on investment assets* in fiscal year 2017-2018 was 5.77 per cent.
- Plan *liabilities* were valued at December 31, 2017 with a *funded ratio* of 104.3 per cent.
- Plan *liabilities* were extrapolated to March 31, 2018 resulting in a *funded ratio* of 103.4 per cent using market value of *assets* at that date.

How the Plan's surplus/deficit is calculated...

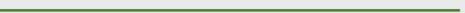
As at March 31, 2018

A Plan's surplus/deficit is calculated by deducting the Plan's *liabilities* from the Plan's *assets*. All figures below are rounded to the nearest \$1 million.

Assets
\$6,353
million



Liabilities
\$6,146
million



Surplus
\$207
million





Investment Management *Discussion and Analysis*

This section includes information on the PSSP Fund and the factors that influenced its 2017-2018 investment performance.



Overview

The Goal

The primary goal of the Public Service Superannuation Fund (Fund) is to invest pension assets in a manner that maximizes investment returns, within an acceptable level of risk, which enables the Fund to meet the long-term funding requirements of the Plan.

The SIP&G

The investment of pension assets is guided by the Fund's Statement of Investment Policies & Goals (SIP&G) as written by PSSPTI. The SIP&G sets out the parameters within which investments may be made. These parameters include permissible investments and the policy *asset mix* of the four main *asset classes*: *equities*, *fixed income*, *real assets*, and *absolute return strategies*. The Investment Beliefs, also found within the SIP&G, state the general principles upon which investments are made. The SIP&G is available on our website at: www.nspssp.ca/publicservice/about/psspti-policies

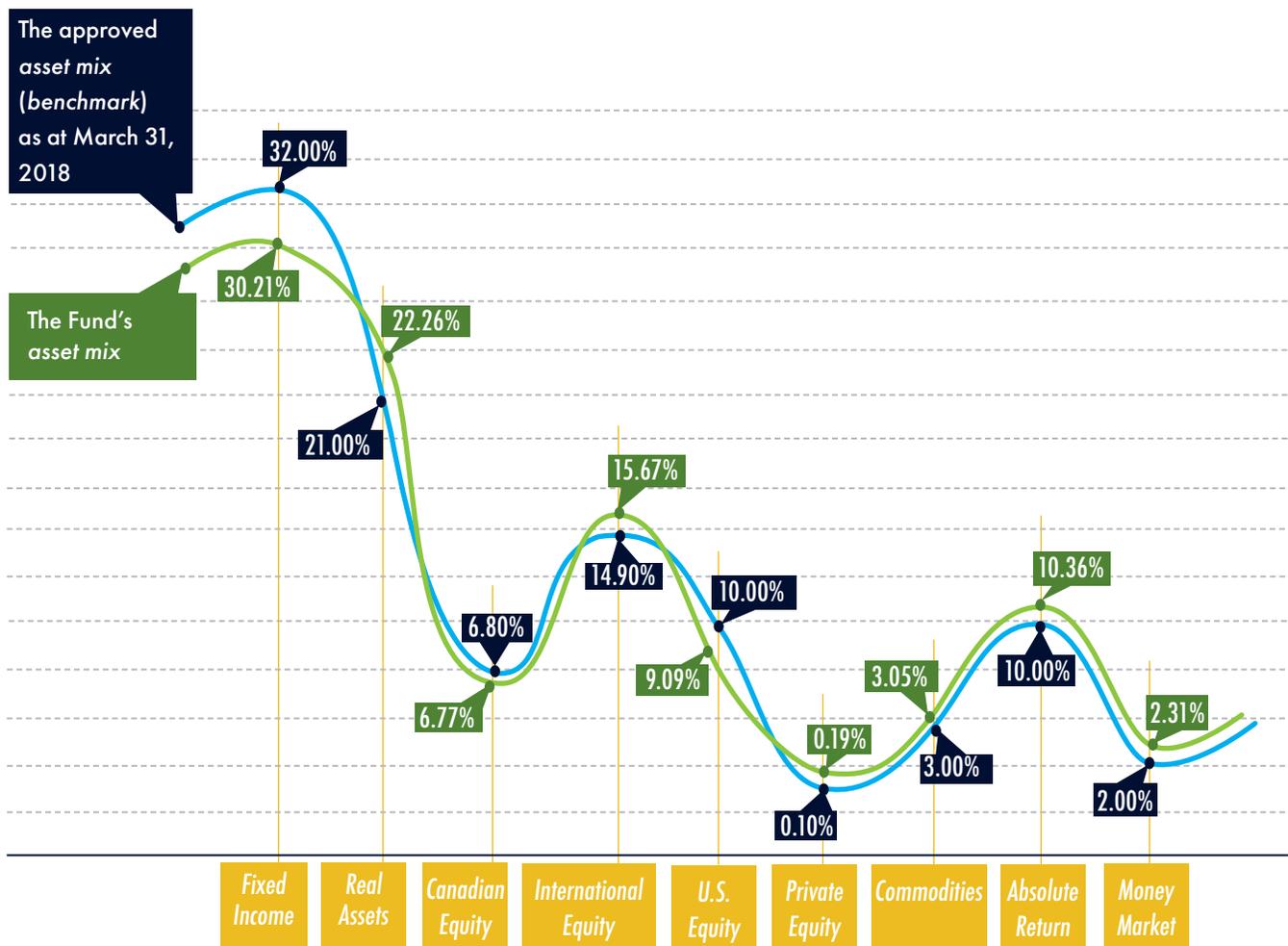


Asset Mix

In 2015, the Trustee completed an *asset liability* study which led to the approval of a new policy *asset mix*. The purpose for the change was the desire to further diversify the Fund and lower volatility without diminishing future investment returns. The new policy *asset mix* reduces the Fund's exposure to *equities*, increases the targeted allocation to *real assets* and alternatives, while increasing the exposure to *fixed income* credit.

In 2017-2018, the Trustee continued to focus on the implementation of the new policy *asset mix*. Transitioning the current policy *asset mix* to the new targeted *asset mix* progressed during the year, with additional investments in the *real asset* portfolio including plans for a new timber and agriculture mandate. Commodity assets were repositioned to a stand-alone portfolio for better *benchmark* alignment. The transition is expected to be largely completed over the next year as investments within the *real asset* portfolio are secured.

Over the year, positioning of the Fund's *asset classes* was maintained close to *benchmark*. As global economics continue to stabilize and start to grow, inflationary pressures are building with tighter labour markets. *Equity* markets rallied substantially during the year on the prospect of aggressive United States tax cuts. As an offset, central banks are tightening monetary policy by starting to raise interest rates and reversing or stopping their previous quantitative easing policies. As capital markets transition to this new global macro-economic backdrop, meaningful over or *underweight* asset positionings were not established.





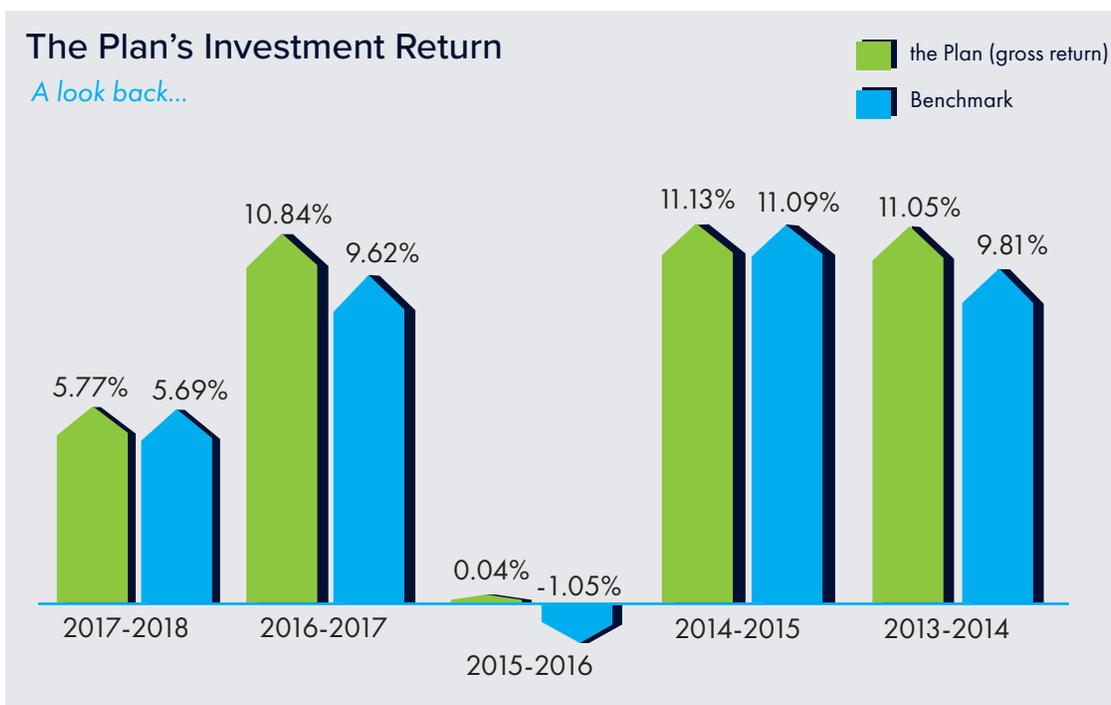
2017-2018 Investment Performance

For the fiscal year ending March 31, 2018, the Public Service Superannuation Fund (the Fund) achieved a one year return of 5.77 per cent, *gross of investment management fees* (5.54 per cent net of investment management fees). The Fund's policy *benchmark* for the fiscal year was 5.69 per cent and the *actuarial assumed rate of return* of 6.05 per cent.

The S&P 500 Index gained 13.99 per cent during the period. The US economy experienced robust economic growth and strong employment during 2017. The beginning of 2018 saw the momentum from the Tax Cuts and Job Act continue until February when markets fell over fears of rising interest rates and expensive valuations. After a brief recovery, the selloff continued late in the quarter due to US led trade tensions.

Canadian *equities* lagged most global markets with the S&P TSX Composite index gaining only 1.71 per cent. Modest gains in oil prices and a strong Canadian economy were not enough to outweigh growing investor concerns with North American Free Trade Agreement (NAFTA) negotiations making little progress over several contentious issues.

International *equities*, as measured by the MSCI EAFE index, gained 5.34 percent as investors reacted positively to political developments and stronger growth in Europe. In the United Kingdom, Brexit concerns continued to cloud the outlook for business and investment. Japanese *equities* performed well in the last four months of 2017 as Prime Minister Shinzo Abe won another victory in a snap election giving investors renewed confidence in the continuation of existing fiscal policies. International *equities* were also affected by the fear that the US may enter into a global trade war, causing markets to decline in the latter part of the fiscal year.





2017-2018 Investment Performance continued...

Emerging Market *equities* were the strongest performer of the year with the MSCI EM index advancing 22.01 per cent. Synchronized global growth and a strong rally from Chinese technology giants proved to be a powerful force for emerging markets despite tensions over a global trade war.

US *fixed income* delivered modest results with the Bloomberg Barclays US Credit index returning 2.59 per cent. The Federal Reserve raised rates three times in 2017 pushing short term yields higher. Long term yields were relatively unchanged during the year as inflation remained modest, leading to a flattening yield curve. Corporate credit spreads remained stable during the year as corporate earnings expectations rose with the passing of the US tax reform bill.

Canadian *fixed income* delivered small positive results with the FTSE/TMX Universe Bond index returning 1.36 per cent. The Bank of Canada highlighted the country's strong macro-economic performance during the first half of 2017 as it raised short term rates twice during the year. After the second hike in September, the Bank of Canada became more dovish, pushing out expectations for future hikes.

For the Fund, active performance was modestly weak in a strong market environment. The Fund's performance, on a net basis, underperformed the *benchmark* by 35 basis points. Negative performance versus their *benchmarks*, by the Fund's emerging market *equity* managers and the hedge fund program, impacted the Fund.

Did you know?

You can view the PSSP's Quarterly Investment Reports online at:

www.nspssp.ca/publicservice/members/publications/investment-policies-and-reports

The PSSP's Quarterly Investment Reports are posted online shortly after each quarter end and include detailed information such as the Fund's investment returns and *asset mix*.





2017-2018 Economic Review and Outlook

Global

The year 2017 was marked by heightened geopolitical tensions between countries and deep political divides within countries. This, however, did little to slow economic activity as global output grew by 3.8 per cent, 0.2 per cent faster than projected in the fall.¹ Global growth had the broadest synchronous movement since 2010 with notable upside surprises coming from Europe and Asia.

The global outlook for growth in both 2018 and 2019 has been revised upward by 0.2 per cent to 3.9 per cent. This outlook reflects increased growth momentum and the potential impact of the US tax reform bill passed at the end 2017.² Faster than expected tightening of monetary policy and political uncertainty in many countries pose downside risks to the global outlook going forward.

The global outlook for growth in 2018 and 2019 has been revised upward by 0.2 per cent to 3.9 per cent.

North America

The Canadian economy delivered surprisingly strong growth in 2017, with the International Monetary Fund (IMF) measuring Canadian output growth to be 3.0 per cent in 2017, the second strongest among advanced economies behind only Spain. Much of this growth, however, was due to the oil price recovery and speculative housing demand in Ontario. Consumers remained a key driver in the Canadian economy as the fastest job gains in 14 years masked elevated debt levels and pushed the jobless rate to a four-decade low.

Growth in Canada is expected to slow from 3.0 per cent to approximately 2.1 per cent in 2018.³ While financial conditions and commodity prices are expected to remain supportive, higher interest rates and more stringent mortgage rules should slow consumer spending and home sales going forward. The major risk to the outlook for the Canadian economy remains the resolution of the NAFTA negotiations with the US and Mexico.

Growth in Canada is expected to slow from 3.0 per cent to approximately 2.1 per cent in 2018.

The US economy grew for the 34th quarter in a row in the fourth quarter of 2017. This expansion ranks as the third longest on record and produced 2.3 per cent growth for the year. The US economy was strong on many fronts. Investment spending rebounded from 2016 adding much needed capacity, the US consumer continues to be bolstered by steady job gains and home sales rose to decade highs as ownership rates increased for the first time in 13 years.⁴

The US economy is expected to grow 2.9 per cent in 2018.⁵ The US tax policy change is expected to stimulate activity in the short term as businesses increase investment in response to the corporate tax cut. There is some risk to the economy as the Federal Reserve continues to raise rates and starts to reverse their previous purchases of US treasuries. The potential impact to treasury yields will be amplified as the tax reform bill will add to the budget deficit, further increasing the supply of US treasuries.



2017-2018 Economic Review and Outlook continued...

Developed International

Growth in Europe gained substantial momentum in 2017, reaching 2.4 per cent, 0.7 per cent above what was previously expected.⁶ Broad based improvements across member countries were supported by monetary stimulus and strengthening global demand. Despite unemployment reaching the lowest level since 2009, inflation remained weak as wage growth remained subdued and the appreciation of the Euro put downward pressure on import prices.

Growth in the Euro area is expected to continue during 2018, albeit at a more modest pace as the momentum of domestic demand slows and policy stimulus is gradually unwound.

In Japan, growth picked up to 1.7 per cent in 2017.⁷ The recovery in consumer spending and investment, as well as the implementation of fiscal stimulus helped support domestic demand. Labour market conditions in Japan continued to tighten as unemployment reached a 22 year low; however, low wage growth has kept inflation well below the Bank of Japan's target.

Growth in Japan is expected to slow to 1.2 per cent in 2018 as fiscal stimulus is withdrawn from the economy and export growth moderates.⁸ The aging population and shrinking labour force continue to weigh negatively on long term growth prospects for Japan.

Emerging Markets

Emerging Market growth accelerated to 4.8 per cent in 2017.⁹ The recovery in commodity prices helped to spur a recovery in commodity exporters and was supported by strong demand from commodity importers. Indicators such as industrial production and purchasing managers indices are at multi-year highs among emerging economies suggesting continued momentum into 2018, especially among commodity exporting nations.¹⁰

Emerging Market growth is expected to continue to strengthen to 4.9 per cent in 2018.¹¹ The outlook is predicated on improved global manufacturing activity, robust global trade, stabilizing commodity prices and favourable financing conditions as advanced economies continue to recover.

Emerging Market growth is expected to continue to strengthen to 4.9 per cent in 2018.

1 *International Monetary Fund World Economic Outlook Update, January 2018, pg 8, Table 1*

2 *Ibid*

3 *Ibid*

4 *North American Outlook; BMO Capital Markets, February 21, 2018*

5 *International Monetary Fund World Economic Outlook Update, April 2018, pg 8, Table 1*

6 *International Monetary Fund World Economic Outlook Update, April 2018, pg 8, Table 1*

7 *Ibid*

8 *Ibid*

9 *Ibid*

10 *Global Economic Prospects, World Bank Group, January 2018, pg 19*

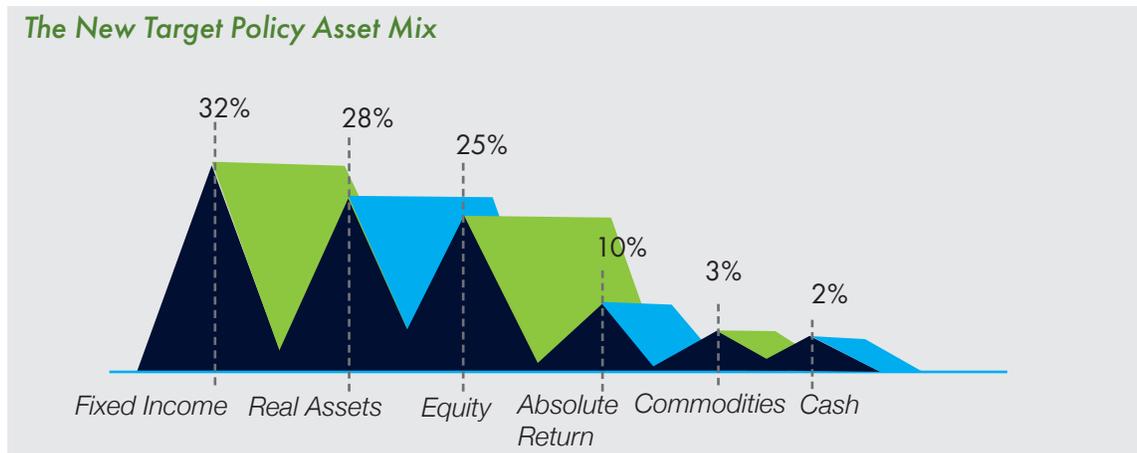
11 *International Monetary Fund World Economic Outlook Update, April 2018, pg 8, Table 1*



2017-2018 Investment Accomplishments

Over the past two years, the Trustee has focused on the implementation of the 2015-2016 *asset liability* study. Through the adoption of a new policy *asset mix*, the study recommended expanding *real assets* while decreasing *equities*; the main reason being to reduce volatility of Fund returns.

In 2017-2018, significant progress was made towards the completion of the *asset mix* transition. The Trustee approved several new infrastructure investments and real estate acquisitions continued. A new *real asset* sub sector, agriculture/timber, was approved and investments were initiated. All of the investments were funded out of the *equity* portfolio.



To further diversify the Fund, implementation of the new private *equity* program was completed with investments started in the fall.

Building on the work completed so far, the Trustee continued to develop its sustainable investment program. Focusing on climate change, the Trustee issued a Statement of Climate Change which identified engagement as a strategy to influence corporate management to move to more responsible and sustainable practices. In December, the Trustee supported joining Climate Action 100+, a five year investor led initiative to engage more than 100 of the world's largest carbon emitters with the purpose of curbing emissions, strengthening climate-related financial disclosures and improving governance of climate change.



Looking Ahead to 2018-2019

Risk will be a general theme for the Trustee over the coming year. High valuations in a number of markets increased market volatility and the impact these factors may have on the Fund over the next year will be of prime concern. Resources will be focused on identifying ways to further protect the Fund and manage risk.

With the necessary steps put in place to complete the funding of the *real asset* portfolio and the new private *equity* portfolio, the transition to the new policy *asset mix* will be completed as commitments within these portfolios are drawn down. Over the next year, the Trustee will monitor the completion of these portfolios and their performance within the Fund.

The Trustee will continue to progress the sustainable investment program. The focus will be on the engagement strategy and improving corporate disclosures related to climate change, climate risk and the impact of environmental, social and governance factors on the Fund.

		Fund Investment Returns				
		quarter	annualized			Since Inception
	Q1	1 year	4 year	10 year		
Fund	0.57%	5.77%	6.85%	6.42%	7.75%	
Benchmark	0.61%	5.69%	6.23%	5.71%	7.10%	

as at March 31, 2018

* Fund returns are reported gross of investment management fees.

Financial Statements of Public Service Superannuation Plan Year ended March 31, 2018

INDEPENDENT AUDITORS' REPORT

To the Public Service Superannuation Plan Trustee Inc.

We have audited the accompanying financial statements of Public Service Superannuation Plan, which comprise the statement of financial position as at March 31, 2018, and the statements of changes in net assets available for benefits, changes in pension obligation and changes in surplus (deficit) for the year then ended, and notes, comprising a summary of significant accounting policies and other explanatory information.

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these 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.

Auditors' Responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on our judgement, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the entity's preparation and fair presentation of the financial statements 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. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

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

Opinion

In our opinion, the financial statements present fairly, in all material respects, the financial position of Public Service Superannuation Plan as at March 31, 2018 and the changes in its net assets available for benefits, changes in pension obligation and changes in surplus (deficit) for the year then ended in accordance with Canadian accounting standards for pension plans.

The logo for KPMG LLP, featuring the letters 'KPMG' in a bold, sans-serif font, followed by 'LLP' in a smaller font, all in black. A horizontal line is drawn underneath the text.

Chartered Professional Accountants, Licensed Public Accountants
June 25, 2018
Halifax, Canada

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Financial Statements of
Public Service Superannuation Plan
Year ended March 31, 2018

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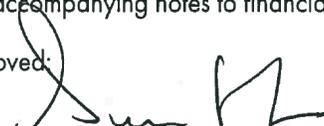


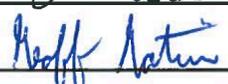
Statement of Financial Position

March 31, 2018, with comparative information for 2017	2018	2017
(in thousands of dollars)		
Net Assets Available for Benefits		
Assets		
Cash	\$ 38,967	\$ 44,045
Contributions receivable:		
Employers'	5,733	4,832
Employees'	5,639	4,510
Receivable from pending trades	14,906	20,264
Accounts receivable	2,175	3,305
Due from administrator (note 14)	186	2,270
Pension plan transfer deficits receivable (note 8)	2,538	3,163
Accrued investment income	18,842	17,564
Investments (note 5)	6,365,564	5,961,485
Total Assets	6,454,550	6,061,438
Liabilities		
Payable for pending trades	\$ 59,481	\$ 40,033
Accounts payable and accrued liabilities	3,778	3,816
Investment-related liabilities (note 5)	38,497	21,593
Total Liabilities	101,756	65,442
Net assets available for benefits	6,352,794	5,995,996
Purchases of service via instalment payments (note 7)	564	736
Fair value of net assets available for benefits	\$ 6,353,340	\$ 5,996,732
Accrued Pension Obligation and Surplus		
Accrued pension obligation (note 9)	\$ 6,146,368	\$ 5,757,998
Surplus:		
Funding surplus (note 9)	206,972	238,734
Commitments (note 10)	206,972	238,734
Accrued pension obligation and surplus	\$ 6,353,340	\$ 5,996,732

See accompanying notes to financial statements

Approved:

 Chair, Public Service Superannuation Plan Trustee Inc.

 Vice-Chair, Public Service Superannuation Plan Trustee Inc.



Statement of Changes in Net Assets Available for Benefits

March 31, 2018, with comparative information for 2017	2018	2017
(in thousands of dollars)		
Increase in Assets		
Contributions (note 4)	\$ 215,864	\$ 194,223
Transfers from other pension plans:		
Universities, municipalities & other (note 8)	176,873	58,085
Individuals	2,469	3,445
Interest on pension plan transfer deficits (note 8)	291	175
Investment activities (note 5)	163,773	188,633
Change in market value of investments (note 5)	179,225	405,490
Total increase in assets	738,495	850,051
Decrease in Assets		
Benefits paid (note 11)	354,663	339,645
Transfers to other pension plans	4,271	5,443
Administrative expenses (note 12)	22,763	22,996
Total decrease in assets	381,697	368,084
Increase in net assets available for benefits	356,798	481,967
Net assets available for benefits, beginning of year	5,995,996	5,514,029
Net assets available for benefits, end of year	\$ 6,352,794	\$ 5,995,996

See accompanying notes to financial statements.



Statement of Changes in Pension Obligation

March 31, 2018, with comparative information for 2017	2018	2017
(in thousands of dollars)		
Accrued pension obligation, beginning of year	\$ 5,757,998	\$ 5,563,552
Increase in accrued pension benefits:		
Interest on accrued pension obligation	354,117	342,158
Benefits accrued	139,831	135,664
Transfers from other pension plans and purchases of service	203,179	59,295
Changes in actuarial assumptions (note 9)	67,235	-
Net experience losses (note 9)	-	2,417
	764,362	539,534
Decrease in accrued pension benefits:		
Benefits paid and transfers to other pension plans	358,934	345,088
Net experience gains (note 9)	17,058	-
	375,992	345,088
Net increase in accrued pension benefits	388,370	194,446
Accrued pension obligation, end of period	\$ 6,146,368	\$ 5,757,998

Statement of Changes in Surplus (Deficit)

March 31, 2018, with comparative information for 2017	2018	2017
(in thousands of dollars)		
Surplus (deficit), beginning of year	\$ 238,734	\$ (49,039)
Increase in net assets available for benefits	356,798	481,967
(Decrease) increase in purchases of service via instalment payments	(190)	252
Net increase in accrued pension obligation	(388,370)	(194,446)
Surplus, end of year	\$ 206,972	\$ 238,734

See accompanying notes to financial statements.

Notes to Financial Statements

Year ended March 31, 2018
(in thousands of dollars)



Authority and description of Plan

The following description of the Public Service Superannuation 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 Public Service Superannuation Act (the “Act”) as part of the Acts of Nova Scotia. It is a contributory defined benefit pension plan that covers employees of the Province of Nova Scotia (the “Province”) and certain other public sector organizations. The Act established the Nova Scotia Public Service Superannuation 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 also contained in the Act and in the Regulations made under the Act.

Effective April 1, 2013, the Plan and the Fund transitioned to a new joint governance structure. The newly created Public Service Superannuation Plan Trustee Inc. (“PSSPTI”) assumed fiduciary responsibility for the Plan and the Fund from the Minister of Finance and Treasury Board. As of April 1, 2013, the Minister of Finance and Treasury Board no longer has further legal liability for the Plan and the Fund. These changes are outlined in the 2012 *Public Service Superannuation Act*. That act repealed the existing Public Service Superannuation Act and replaced it with a new *Public Service Superannuation Act*.

The PSSPTI 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 Plan’s Statement of Investment Policies & Goals (the “SIP&G”) as written by the PSSPTI. 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

The Plan is funded by investment earnings and employee and matching employer contributions of 8.4% of salary up to the Year’s Maximum Pensionable Earnings (the “YMPE”) and 10.9% of salary above the YMPE. The YMPE is a figure set annually by the Canada Pension Plan (the “CPP”).

Authority and description of Plan (continued)

Retirement benefits

The basic pension formula is 2% multiplied by the number of years of pensionable service multiplied by the highest average pensionable salary of the best five years. Vesting occurs after two years. Pensions are integrated with the CPP benefits at age 65.

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

- age 50 with an age plus service factor of 80 – “Rule of 80” (age 55 with an age plus service factor of 85 for members first hired by a participating employer on or after April 6, 2010);
- age 55 with two years of service (reduced pension);
- age 60 with two years of service.

Death benefits

Upon the death of a vested member, the surviving spouse is entitled to receive 66.67% of the member’s pension benefit payable for life (60% for the surviving spouse of a member first hired by a participating employer on or after April 6, 2010). Eligible children are entitled to receive 10% of the 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.

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.

Indexing

From January 1, 2011 to January 1, 2015, indexing of pensions in pay was at a rate of 1.25% annually. Subject to the conditions specified in the Act, as at January 1, 2016, and through to January 1, 2020, the annual rate of indexing is 0.85% per year.

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 – Pension Plans"). Section 4600 – Pension Plans 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 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 is 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 Public Service Superannuation Plan Trustee Inc. on June 25, 2018.

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 holding companies held are measured at the fair value of the underlying assets.

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 and private equity investments 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:

Income from investments is recorded on an accrual basis and includes interest, dividends and 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 retranslated into Canadian dollars at the exchange rate at that date.

Foreign currency differences arising on retranslation are recognized in the statement of changes in net assets available for benefits as a change in net unrealized gains (loss).

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 of its financial assets at fair value through the statement of changes in net assets available for benefits if it is classified as held for trading or is designated as such upon initial recognition. 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, attributable transaction costs are recognized in the statement of changes in net assets available for benefits as incurred. Financial assets 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 offset and the net amount 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 attributable 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, real return bonds 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, repurchase agreements and term deposits maturing within a year 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 private equity, real estate and infrastructure 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 under the terms of a limited partnership agreement, is equal to the value provided by the fund's general partner unless there is specific and objectively verifiable reason to vary from the value provided by the general partner.
- vi. Derivatives, including futures, options, interest rate swaps, credit default 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 the receivable from pending trades and the payable from pending trades approximate their carrying amounts due to their short term nature.

g. Accrued pension benefit obligation

The value of the accrued pension benefit 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 as at December 31 and then extrapolated to March 31. The accrued pension benefit obligation and its extrapolation is measured in accordance with accepted actuarial methods using actuarial assumptions and methods adopted by the PSSPTI for the purpose of establishing the long term funding requirements of the Plan. The actuarial valuation and extrapolated accrued pension benefit obligation included in the financial statements is consistent with the valuation for funding purposes.

h. Contributions

Basic contributions from employers and members due to the Plan as at the end of the year 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. assumptions and methods.

i. Benefits

Benefit payments to retired members, commuted value payments 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.

Significant accounting policies (continued)

k. Actuarial value of net assets and actuarial value adjustment

The actuarial value of net assets of the Plan is used in assessing the funding position of the Plan, including the determination of contribution rates. The actuarial value of net assets is determined by smoothing investment returns above or below the actuarial long term rate of return assumption over a five year period. The fair value of net assets is adjusted by the unrecognized actuarial value adjustment to arrive at the actuarial value of net assets.

l. 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.

m. Future changes to accounting standards

The following standard is not yet effective for the year ended March 31, 2018, and has not been applied in preparing these financial statements.

On July 24, 2014 the IASB issued the complete IFRS 9 (IFRS 9 (2014)). The mandatory effective date of IFRS 9 is for annual periods beginning on or after January 1, 2018 and must be applied retrospectively with some exemptions. Early adoption is permitted.

The restatement of prior periods is not required and is only permitted if information is available without the use of hindsight. IFRS 9 (2014) introduces new requirements for the classification and measurement of financial assets. Under IFRS 9 (2014), financial assets are classified and measured based on the business model in which they are held and the characteristics of their contractual cash flows. The standard introduces additional changes relating to financial liabilities. It also amends the impairment model by introducing a new 'expected credit loss' model for calculating impairment. IFRS 9 (2014) also includes a new general hedge accounting standard which aligns hedge accounting more closely with risk management. This new standard does not fundamentally change the types of hedging relationships or the requirement to measure and recognize ineffectiveness; however it will provide more hedging strategies that are used for risk management to qualify for hedge accounting and introduce more judgment to assess the effectiveness of a hedging relationship. Special transitional requirements have been set for the application of the new general hedging model.

The Plan intends to adopt IFRS 9 (2014) in its financial statements for the annual period beginning on April 1, 2018. Management is in the process of determining the impact on the Plan's consolidated financial statements and related disclosures.

4.

Contributions

Year ended March 31	2018	2017
(in thousands of dollars)		
Employer:		
Matched current service	\$ 95,901	\$ 92,251
Matched past service	856	2,071
	96,757	994,322
Employee:		
Matched current service	95,891	92,269
Unmatched current service	21,929	5,157
Matched past service	849	2,071
Unmatched past service	438	404
	119,107	99,901
	\$ 215,864	\$ 194,223

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 March 31 are summarized in the following tables:

(in thousands of dollars)	2018		2017	
	Assets	%	Assets	%
Investment Assets				
Fixed Income				
Money Market	\$ 147,811	2.3	\$ 187,493	3.1
Canadian bonds & debentures	640,299	10.1	643,447	10.8
Non-Canadian bonds & debentures	1,108,873	17.4	995,100	16.7
Canadian real return bonds	202,646	3.2	200,075	3.4
Equities				
Canadian	423,095	6.6	471,754	8.0
US	558,329	8.8	585,523	9.8
Global	994,194	15.6	982,187	16.5
Private	12,196	0.2	-	-
Commodities	195,113	3.1	147,399	2.5
Real Assets				
Real estate	806,798	12.7	693,225	11.6
Infrastructure	600,878	9.4	396,019	6.6
Agriculture & timber	7,175	0.1	-	-
Absolute Return Strategy				
Hedge funds	662,381	10.4	658,663	11.0
Derivatives				
Derivative-related receivables	5,776	0.1	600	-
	\$ 6,365,564	100.0	\$ 5,961,485	100.0
Investment-related liabilities				
Derivative-related payables	\$ (38,497)	100.0	\$ (21,593)	100.0
	\$ (38,497)	100.0	\$ (21,593)	100.0
Net Investments	\$ 6,327,067		\$ 5,939,892	

Investments and investment-related liabilities (continued)

2018				
	Investment income	Changes in market value of investments and derivatives		
		Realized	Unrealized	Total
Fixed Income	\$ 63,178	\$ 15,822	\$ (58,278)	\$ (42,456)
Equities	46,120	147,290	(9,954)	137,336
Commodities	-	-	3,338	3,338
Real assets	53,575	6,105	77,489	83,594
Absolute return strategies	-	968	6,592	7,560
Derivatives	133	1,580	(11,727)	(10,147)
Other	767	-	-	-
	\$ 163,773	\$ 171,765	\$ 7,460	\$ 179,225

2017				
	Investment income	Changes in market value of investments and derivatives		
		Realized	Unrealized	Total
Fixed Income	\$ 67,046	\$ 51,673	\$ (36,443)	\$ (15,230)
Equities	48,199	88,980	193,695	282,675
Commodities	-	2,429	14,966	17,395
Real assets	72,312	12,476	18,798	31,274
Absolute return strategies	-	4,133	54,082	58,215
Derivatives	316	134,889	(134,188)	701
Other	760	-	-	-
	\$ 188,633	\$ 294,580	\$ 110,910	\$ 405,490

b. Derivatives

Derivatives are financial contracts, the value of which is “derived” from the value of underlying assets or interest or exchange rates. Derivatives provide flexibility in implementing investment strategies. The Plan utilizes such contracts to enhance investment returns 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

Investments and investment-related liabilities (continued)

in either market rates or prices relative to their terms. The aggregate notional amounts and fair values of derivative contracts can fluctuate significantly.

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.

Options

Options are contractual agreements under which the seller (writer) grants the purchaser the right, but not the obligation, either to buy (call option) or sell (put option), a security, exchange rate, interest rate, or other financial instrument or commodity at a predetermined price, at or by a specified future date. The seller (writer) of an option can also settle the contract by paying the cash settlement value of the purchaser's right. The seller (writer) receives a premium from the purchaser for this right. Purchased options are used to manage interest rate volatility exposures. Written options generate income in expected interest rate scenarios and may generate capital losses if unexpected interest rate environments are realized. Both written and purchased options will become worthless at expiration if the underlying instrument does not reach the strike price of the option. In the money portion of written options are covered by high grade, liquid debt securities.

Swaptions are contractual agreements that convey to the purchaser the right but not the obligation to enter into or cancel a swap agreement at a fixed future date or at any time within a fixed future period. The seller receives a premium from the purchaser for this right.

Investments and investment-related liabilities (continued)

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.

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 March 31.

2018				
(in thousands of dollars)				
	Notional value	FAIR VALUE		
		Assets	Liabilities	Net
Derivatives				
Futures	\$ 57,638	\$ 763	\$ (947)	\$ (184)
Options	15,000	-	(60)	(60)
Credit default swaps	43,650	1,241	(11)	1,230
Interest rate swaps	23,100	189	(111)	78
Total return swaps	800	-	(4)	(4)
Currency forwards	2,476,965	3,583	(37,364)	(33,781)
	\$ 2,617,153	\$ 5,776	\$ (38,497)	\$ (32,721)

2017				
(in thousands of dollars)				
	Notional value	FAIR VALUE		
		Assets	Liabilities	Net
Derivatives				
Futures	\$ 19,379	\$ 161	\$ (369)	\$ (208)
Options	-	-	-	-
Credit default swaps	2,375	18	(64)	(46)
Interest rate swaps	373,400	113	(701)	(588)
Total return swaps	-	-	-	-
Currency forwards	2,613,688	308	(20,459)	(20,151)
	\$ 3,008,842	\$ 600	\$ (21,593)	\$ (20,993)

Investments and investment-related liabilities (continued)

The following table summarizes the contractual maturities of the Plan's derivatives and their related assets and liabilities as at March 31:

2018				
(in thousands of dollars)				
	Under 1 year	1 to 5 years	Over 5 years	Total
Futures	\$ (184)	\$ -	\$ -	\$ (184)
Options	(60)	-	-	(60)
Credit default swaps	-	643	587	1,230
Interest rate swaps	-	189	(111)	78
Total return swaps	(4)	-	-	(4)
Currency forwards	(33,781)	-	-	(33,781)
	\$ (34,029)	\$ 832	\$ 476	\$ (32,721)

2017				
(in thousands of dollars)				
	Under 1 year	1 to 5 years	Over 5 years	Total
Futures	\$ (208)	\$ -	\$ -	\$ (208)
Options	-	-	-	-
Credit default swaps	9	9	(64)	(46)
Interest rate swaps	-	113	(701)	(588)
Total return swaps	-	-	-	-
Currency forwards	(20,151)	-	-	(20,151)
	\$ (20,350)	\$ 122	\$ (765)	\$ (20,993)

Cash is deposited or pledged with various financial institutions as collateral in the event that 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 cash balance of the Plan.

The fair value of cash held or pledged with other financial institutions as collateral and or margin as at March 31 is as follows.

Year ended March 31	2018	2017
(in thousands of dollars)		
Collateral	\$ 1,745	\$ 1,763
Margin	(969)	935
	\$ 776	\$ 2,698

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, accounts receivable, due from administrator, accrued investment income, pension benefits payable, payable for pending trades and accounts payable and accrued liabilities payable 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 estate, infrastructure, and private equity investments valued based on discounted future cash flow models which reflect assumptions that a market participant would use when valuing such an asset or liability.

Financial Instruments (continued)

The following table illustrates the classification of the Plan's financial instruments using the fair value hierarchy as at March 31:

2018				
(in thousands of dollars)	Level 1	Level 2	Level 3	Total
Investment assets				
Fixed Income				
Money Market	\$ 1,324	\$ 146,487	\$ -	\$ 147,811
Canadian bonds & debentures	207,496	432,803	-	640,299
Non-Canadian bonds & debentures	47,759	1,061,114	-	1,108,873
Canadian real return bonds	-	129,462	73,184	202,646
Equities				
Canadian	337,065	86,030	-	423,095
US	162,214	396,115	-	558,329
Global	606,314	387,880	-	994,194
Private	-	-	12,196	12,196
Commodities	-	195,113	-	195,113
Real Assets				
Real Estate	-	186,177	620,621	806,798
Infrastructure	-	-	600,878	600,878
Agriculture & timber	-	-	7,175	7,175
Absolute Return Strategies				
Hedge Funds	-	662,381	-	662,381
Derivatives				
Derivative-related receivables	763	5,013	-	5,776
	\$ 1,362,935	\$ 3,688,575	\$ 1,314,054	\$ 6,365,564
Investment-related liabilities				
Derivative-related receivables	\$ (1,007)	\$ (37,490)	\$ -	\$ (38,497)
	\$ (1,007)	\$ (37,490)	\$ -	\$ (38,497)
Net Investments	\$ 1,361,928	\$ 3,651,085	\$ 1,314,054	\$ 6,327,067

Financial Instruments (continued)

2017				
(in thousands of dollars)	Level 1	Level 2	Level 3	Total
Investment assets				
Fixed Income				
Money Market	\$ 786	\$ 186,725	\$ -	\$ 187,493
Canadian bonds & debentures	190,938	452,509	-	643,447
Non-Canadian bonds & debentures	41,753	953,347	-	995,100
Canadian real return bonds	-	125,140	74,935	200,075
Equities				
Canadian	370,875	100,879	-	471,754
US	163,837	421,686	-	585,523
Global	607,764	374,423	-	982,187
Private	-	-	-	-
Commodities	-	147,399	-	147,399
Real Assets				
Real Estate	-	185,168	508,057	693,225
Infrastructure	-	-	396,019	396,019
Agriculture & timber	-	-	-	-
Absolute Return Strategies				
Hedge Funds	-	658,663	-	658,663
Derivatives				
Derivative-related receivables	161	439	-	\$ 600
	\$ 1,376,096	\$ 3,606,378	\$ 979,011	\$ 5,961,485
Investment-related liabilities				
Derivative-related receivables	\$ (369)	\$ (21,224)	\$ -	\$ (21,593)
	\$ (369)	\$ (21,224)	\$ -	\$ (21,593)
Net Investments	\$ 1,375,727	\$ 3,585,154	\$ 979,011	\$ 5,939,892

Financial Instruments (continued)

There were no significant transfers between level 1 and level 2 financial instruments during the year ended March 31, 2018.

The following table shows the changes in the fair value measurement in Level 3 of the fair value hierarchy:

2018				
(in thousands of dollars)	Fixed Income	Private Equity	Real Assets	Total
Balance, beginning of year	\$ 74,935	\$ -	\$ 904,076	\$ 979,011
Purchases, contributed capital	-	12,436	276,433	288,869
Sales, capital returned	(872)	-	(29,708)	(30,580)
Realized gains	198	-	728	926
Unrealized gains (losses)	(1,077)	(240)	77,145	75,828
Balance, end of year	\$ 73,184	\$ 12,196	\$ 1,228,674	\$ 1,314,054

2017				
(in thousands of dollars)	Fixed Income	Private Equity	Real Assets	Total
Balance, beginning of year	\$ 76,065	\$ -	\$ 757,350	\$ 833,415
Purchases, contributed capital	-	-	188,130	188,130
Sales, capital returned	(985)	-	(65,354)	(66,339)
Realized gains	221	-	7,231	7,452
Unrealized gains (losses)	(366)	-	16,719	16,353
Balance, end of year	\$ 74,935	\$ -	\$ 904,076	\$ 979,011

The total income from level 3 instruments held as at March 31, 2018 and 2017, respectively, was \$76,754 and \$23,805.

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 private equity, real estate and infrastructure 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 March 31, 2018 in measuring financial instruments categorized as level 3 in the fair value hierarchy.

(in thousands of dollars)

Description	2018 Fair Value	Valuation Technique	Unobservable inputs
Unlisted direct real estate subsidiaries	\$ 489,456	Income approach technique: overall capitalization rate method and discounted cash flow method	Capitalization rates, discount rates
Unlisted private equity, real estate, infrastructure funds	739,218	Net asset value – audited financial statements	Information not available
Listed real return bond	73,184	Vendor supplied price - proprietary price model	Information not available

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 are most sensitive to changes in the discount rates.

	2018	2017
(in thousands of dollars)		
<u>Real estate subsidiaries</u>		
Minimum capitalization rate	3.80%	4.00%
Maximum capitalization rate	8.00%	8.00%
Increase of 25 basis points in capitalization rate	\$ (27,029)	\$ (16,508)
Decrease of 25 basis points in capitalization rate	31,527	21,784
Note: basis point is equal to 0.01%		

Financial Instruments (continued)

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

	2018	2017
(in thousands of dollars)		
Real estate subsidiaries		
Minimum discount rate	3.80%	3.90%
Maximum discount rate	9.30%	8.150%
Increase of 25 basis points in discount rate	\$ (12,951)	\$ (8,619)
Decrease of 25 basis points in discount rate	13,586	9,303
Note: basis point is equal to 0.01%		

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 as follows:

As at March 31	Number of Investments	Fair Value	2018 Cost	Number of Investments	Fair Value	2017 Cost
Public market investments	1	\$ 73,184	\$ 28,514	1	\$ 74,935	\$ 29,187
Private market investments	16	2,310,862	1,808,590	16	2,204,738	1,757,921
	17	\$2,384,046	\$1,837,104	17	\$ 2,279,673	\$ 1,787,108

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

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 Fund 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)

The following table summarizes the contractual maturities of all financial assets at March 31 by the earlier of contractual re-pricing or maturity dates:

2018							
(in thousands of dollars)	Under 1 year	1 to 5 years	5 to 10 years	Over 10 years	Total	Average yield (%) ⁽¹⁾	
Money Market	\$146,031	\$ -	\$ -	\$ -	\$ 146,031	-	
Bonds and debentures	92,680	501,452	402,402	434,412	1,430,946	3.7	
Real return bonds (2)	-	-	-	73,184	73,184	5.3	
	\$238,711	\$501,452	\$402,402	\$507,596	\$ 1,650,161	3.4	
Excluded pooled funds						449,464	
Total Fixed Income						\$ 2,099,625	

2017							
(in thousands of dollars)	Under 1 year	1 to 5 years	5 to 10 years	Over 10 years	Total	Average yield (%) ⁽¹⁾	
Money Market	\$185,697	\$ -	\$ -	\$ -	\$ 185,697	-	
Bonds and debentures	42,947	483,814	395,999	370,168	1,292,928	3.8	
Real return bonds (2)	-	-	-	74,935	74,935	5.3	
	\$228,644	\$483,814	\$395,999	\$445,103	\$ 1,553,560	3.5	
Excluded pooled funds						472,555	
Total Fixed Income						\$ 2,026,115	

The fixed income maturity schedule is exclusive of pooled bond & pooled real return bond funds.

1. The average effective yield reflects the estimated annual income of a security as a percentage of its year end fair value.
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 March 31, subject to interest rate changes, average duration due to a one percent increase (decrease) in interest rates and the change in fair value of those assets:

	2018	2017
(in thousands of dollars)		
Interest rate sensitive assets	\$ 1,651,222	\$ 1,552,718
Average duration for 1% increase in interest rates	(6.4)	(6.1)
Sensitivity to 1% increase in interest rates	\$ (104,970)	\$ (94,772)
Fair value after 1% increase in rates	\$ 1,546,252	\$ 1,457,946
Average duration for 1% decrease in interest rates	6.4	6.1
Sensitivity to 1% decrease in interest rates	\$ 104,970	\$ 94,772
Fair value after 1% decrease in rates	\$ 1,756,192	\$ 1,647,490

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. 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 and private equities due to a ten percent increase (decrease) in fair market values as at March 31:

	2018	2017
(in thousands of dollars)		
Total equity	\$ 1,987,814	\$ 2,039,464
10% increase in market values	198,781	203,946
Fair value after 10% increase	\$ 2,186,595	\$ 2,243,410
10% decrease in market values	(198,781)	(203,946)
Fair value after 10% decrease	\$ 1,789,033	\$ 1,835,518

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 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 2018.

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 March 31.

	2018	2017
(in thousands of dollars)		
Canadian		
Governments	\$ 477,972	\$ 463,945
Corporate	189,216	216,825
Non-Canadian		
Governments	47,759	41,753
Corporate	935,217	831,038
	\$ 1,650,164	\$ 1,553,561
Excluded pooled funds	449,465	472,554
Total fixed income	\$ 2,099,629	\$ 2,026,115

The credit risk schedule is exclusive of pooled bond and pooled real return bond funds.

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 Plan:

- 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.

Financial Instruments (continued)

Securities lending

The Plan engages in securities lending to enhance portfolio returns (note 13). 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 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.

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

	2018	
	Unhedged	Hedged
(in thousands of dollars)		
Canadian Dollar	\$ 2,578,674	\$ 4,766,867
United States Dollar	3,129,438	1,494,050
Euro	265,680	(65,426)
British Pound Sterling	160,067	(12,007)
Japanese Yen	95,641	73,997
Other	144,384	82,622
	\$ 6,373,884	\$ 6,340,103

Financial Instruments (continued)

	2017	
	Unhedged	Hedged
(in thousands of dollars)		
Canadian Dollar	\$ 2,507,975	\$ 4,427,999
United States Dollar	2,873,040	1,425,187
Euro	211,925	22,534
British Pound Sterling	145,210	(11,717)
Japanese Yen	83,798	41,703
Other	179,336	75,428
	\$ 6,001,284	\$ 5,981,134

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.

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

	2018		2017	
(in thousands of dollars)				
Fund assets and liabilities	\$	6,340,104	\$	5,981,133
10% increase in Canadian Dollar		(143,022)		(141,194)
Fund assets and liabilities after increase	\$	6,197,082	\$	5,839,939
10% decrease in Canadian Dollar		174,804		172,570
Fund assets and liabilities after decrease	\$	6,514,908	\$	6,153,703

Financial Instruments (continued)

v. Liquidity risk:

Liquidity risk is the risk that the Plan 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 42.1% 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 securities are approximately 26.8% 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 liquidity purposes and for payment of Plan liabilities. At March 31, 2018, the Plan had cash in the amount of \$38,967; March 31, 2017 \$44,045).

7.

Purchases of service via instalment payments

Purchases of service via instalment payments of \$546 (2017-\$736) represents the present value of outstanding employee and employer contributions that are due as a result of service purchases that are being paid for through payroll deductions. The liabilities associated with this service are already recognized in the accrued pension benefit obligation.

8.

Universities, municipalities & other authorities pension plan transfers

On May 4, 2015, the University Pension Plan Transfer Act (Bill No. 102) was proclaimed to facilitate the transfer of university pension plans to the Plan and on November 9, 2016, the Municipalities and Other Authorities Pension Plan Transfer Act (Bill No. 55) was also proclaimed to facilitate the transfer of pension plans of municipalities and other authorities to the Plan.

Both the University Pension Plan Transfer Act and the Municipalities and Other Authorities Pension Plan Transfer Act allow the Trustee to enter into an agreement with a university, municipality or other authority to transfer, in whole or in part, assets and liabilities of a designated plan to the Plan and to allow the members, the survivors of the members, the post-transfer employees of the transferring party and the survivors of the post-transfer employees to participate in the Plan.

The Trustee's guiding principle throughout this transfer process is that it must be beneficial to the long-term sustainability of the Plan and cost-neutral to the Plan and Plan members. A transfer to the Plan resulting in a deficit to the associated liability is recovered with interest owing from the transfer date. The pension plan transfer deficits receivable as at March 31, 2018 totaled \$2,538 (2017 - \$3,163). The interest earned on the deficits receivable during the year totaled \$291 (2017 - \$175).

9.

Accrued pension obligation

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 conducted annually, 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, Mercer, performed a valuation as at December 31, 2017 and issued their report in June 2018. The report indicated that the Plan had a funding excess of \$254,878 (December 31, 2016 - \$160,833). 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 on the pension in pay, for retired members and survivors. The projected unit credit method was adopted for the actuarial valuation to determine the current service cost and actuarial liability. Under this method, the cost of providing benefits to an individual member will increase as the individual member ages and gets closer to retirement.

The assumed increases in the real rate of pensionable earnings (i.e. increase in excess of the assumed inflation rate) are dependent on the attained age of the members. These rates are based on recent experience of the Plan and current expectations for future years.

Accrued pension obligation (continued)

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.

The major economic and demographic assumptions used in the December 31 valuation were as follows:

	2018	2017
Discount rate	6.05% per annum	6.15% per annum
Inflation	2.00% per annum	2.00% per annum
Salary	2.50% per annum plus merit ranging from 0.00% to 2.50%	1.50% per annum for 1 year, 2.50% per annum thereafter plus merit ranging from 0.00% to 2.50%
Retirement age	<ul style="list-style-type: none"> • 10% at age 59; • 20% at age 60; • 10% at each age 61-64; • 50% at each age 65-69; • 100% at age 70 <p>However, 20% each year after EURD, if it is greater</p> <p>40% at 35 years of service</p>	<ul style="list-style-type: none"> • 10% at age 59; • 20% at age 60; • 10% at each age 61-64; • 50% at each age 65-69; • 100% at age 70 <p>However, 20% each year after EURD, if it is greater</p> <p>40% at 35 years of service</p>
Mortality	120% of CPM 2014 Publ with generational mortality using 100% of CPM-B	120% of CPM 2014 Publ with generational mortality using 100% of CPM-B

The accrued pension obligation as at March 31 is determined by an extrapolation performed by the Plan's actuary of the Plan's liabilities from December 31 of the immediately preceding calendar year, as reflected in the actuarial valuation. The following table reflects the extrapolated funding surplus as at March 31.

	2018 Extrapolated	2017 Extrapolated
Actuarial value of assets	\$ 6,352,340	\$ 5,996,732
Accrued pension obligation	6,146,368	5,757,998
Funding surplus	\$ 206,972	\$ 238,734

10. Commitments

The Plan has committed capital to investment in real estate and infrastructure 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 March 31, 2018.

2018	Committed	Outstanding
(in thousands of dollars)		
Private equity	275,000 USD	265,123 USD
Real estate	45,000 USD	4,791 USD
Real estate	20,000 EUR	829 EUR
Infrastructure	75,255 CAD	9,334 CAD
Infrastructure	393,495 USD	111,853 USD
Infrastructure	15,000 GBP	2,228 GBP
Agriculture & timber	25,000 USD	219,433 USD

11. Benefits

(in thousands of dollars)	2018	2017
(in thousands of dollars)		
Benefits paid to retired members	\$ 309,978	\$ 288,449
Benefits paid to survivors	32,016	36,705
Refunds paid to terminated members	12,669	14,491
	\$ 354,663	\$ 339,645

12. 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.

	2018	2017
(in thousands of dollars)		
Plan administration:		
Office and administration services	\$ 5,355	\$ 5,153
Legal services	97	62
Actuarial services	110	95
Audit services	39	37
Other professional services	130	123
Bad debts	-	14
	5,731	5,484
Pension plan transfer-related costs:		
Professional services	171	194
Recovery (note 8)	(171)	(194)
	-	-
Investment expenses:		
Investment management fees	13,244	13,694
Transaction costs	764	882
Custody services	540	467
Advisory & consulting services	298	326
Information services	209	211
	15,055	15,580
HST	1,977	1,932
	\$ 22,763	\$ 22,996

The Plan's administrator, Nova Scotia Pension Services Corporation, annually reviews the resources required to service the Plan. The allocation of office and administrative expenses is reviewed and approved by the Nova Scotia Pension Services Corporation Board of Directors and the Plan Trustee before the beginning of each fiscal year.

Investment management and performance fees included in the unrealized gains/(losses) on investment vehicles consisting of pooled funds, limited partnerships and holding companies are estimated at \$26,075 (2017 - \$24,164). These fees are not direct expenses of the Plan and therefore are not included in administrative expenses.

13. 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 March 31:

	2018	2017
(in thousands of dollars)		
Securities on loan	\$ 433,228	\$ 425,366
Collateral held	\$ 462,910	\$ 460,685

14. Related party transactions

Investments held by the Plan include debentures of the Province of Nova Scotia. The total fair value of these investments was \$4,155 (0.1% of total investment assets and liabilities) as at March 31, 2018 (2017 - \$3,906 (0.1% of total investment assets and liabilities)).

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 in order to service the Plan. The administration expense charged to the Plan before HST for the year ending March 31, 2018 was \$5,672 (2017 - \$5,399).

As Nova Scotia Pension Services Corporation operates on a cost recovery basis, the Plan advances or loans cash to its administrator, as required, to pay upcoming expenses or to purchase capital assets. The amount due to the Plan was \$186 at March 31, 2018 (2017 - \$2,270).

15. 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 March 31:

Subsidiary	Purpose	Ownership %	2018 Fair Value	2017 Fair Value
(in thousands of dollars)				
NT Combined Investments Inc.	Equities	54	\$ 396,115	\$ 421,686
PSS Investments RE Inc.	Real estate	100	393,724	306,380
PSS Investments CS Inc.	Infrastructure	100	198,116	146,671
PSS Investments II Inc.	Real estate	100	154,308	144,216
PSS Investments ES Inc.	Real estate	100	72,589	57,461
PSS Investments IV Inc.	Infrastructure	100	74,840	47,178
PSS Investments AX Inc.	Infrastructure	100	49,099	-
HV Combined Investments Inc.	Hedge funds	63	28,694	29,570
PSS Investments III Inc.	Infrastructure	100	20,749	19,940
PSS Investments AI Inc.	Private equity	100	12,196	-
PSS Investments CS II Inc.	Infrastructure	100	4,742	6,024

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 10). Financing is provided as required via shareholder loan and is payable on demand to the Plan.

16. Capital management

The main objective of the Plan is to sustain a certain level of net assets in order to meet the Plan's pension obligations. The PSSPTI (note 1) manages the contributions and benefits as required by the Public Service Superannuation Act and its related Regulations. The PSSPTI approves and incurs expenses to administer the commerce of the Plan in accordance with the Act.

Capital management (continued)

Under the direction of the PSSPTI, the Plan provides for the short term financial needs of current benefit payments while investing members' contributions for the longer term security of pensioner payments. The PSSPTI 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 Plan's governance structure.

The Plan fulfils its primary objective by adhering to specific investment policies outlined in its SIP&G, which is reviewed annually by PSSPTI. The Plan 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 Plan and contributions into the Plan by eligible employees and participating employers. The main use of net assets is for benefit payments to eligible Plan members.

17.

Comparative information

Certain 2017 comparative information have been reclassified to conform to the financial statement presentation adopted for the current year.

Glossary

Absolute Return Strategies: An investment strategy which focuses on generating positive returns in rising and falling capital markets.

Actuarial assumed rate of return: 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.

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.

Experience gain: A measure of the difference between actual results and expected results based on assumptions. A gain (loss) indicates the plan performed better (worse) than expected.

Fixed Income: *Assets* that generate a predictable stream of interest such as bonds and debentures.

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

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.

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

Real Assets: Physical real estate, infrastructure and commodity *assets* such as apartments, bridges, tolls, gold and farmland that are invested in either directly or through pooled vehicles.

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.

Target benefit pension plan (TBP): A TBP is similar to a traditional defined benefit pension plan, with fixed contributions and pre-determined levels based on years of service and some average salary calculation. For a TBP, however, if the funding level falls below a given threshold, adjustments must be made (which may include future benefits). TBPs are typically governed by more formal and robust funding policies than are usually found in traditional defined benefit pension plans.



For questions relating to your Public Service Superannuation Plan, contact Pension Services Corp. at:

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All information presented in this document is premised on the Plan rules and criteria which currently exist under the Public Service Superannuation Act (PSSA) and the Regulations made thereunder. This document explains in plain language the financial status of the Nova Scotia Public Service Superannuation Plan. Plan members, beneficiaries, and others who wish to determine their legal rights and obligations under the Plan should refer to the PSSA, the Plan Regulations, or other legal documents as appropriate. In the event of a discrepancy between the information provided in this document and the legislation and/or legal documents, the latter takes precedence