



June 30, 2019

DALHOUSIE UNIVERSITY

PENSION PLAN

ANNUAL REPORT



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Introduction

The 2019 Dalhousie University Pension Plan Annual Report provides members with an overview of the Plan's membership and governance, and information on the funded status of the Plan based on the most recent actuarial valuation as of March 31, 2019 and extrapolated to June 30, 2019 and investment fund performance.

MESSAGE TO DALHOUSIE UNIVERSITY STAFF PENSION PLAN MEMBERS

Your pension from the Dalhousie University Staff Pension Plan ("the Plan") can be one of your most important financial assets in retirement, which makes the security of your pension and the financial health of the Plan important. We hope this report provides you with a better understanding of how the Plan is managed, as well as its current financial status.

The Plan's financial health is shaped by the benefits it offers and the environment in which it operates, affected by factors such as investment market cycles, the life expectancy of Plan members and many others. Added to this is a requirement to conduct periodical valuations to assess the Plan's current funded status. As the Plan is currently required to file annual valuations, it is expected that the annual funding requirement will be subject to volatility. The University works with our Plan members, trustees and employee groups to ensure the Plan is viable, and the work has gone well; however, persistent underfunding of the Pension Trust Fund remains an area of concern.

The latest actuarial valuation of the Plan (as of March 31, 2019) identified a \$6.4 million deficit. Contributions, and plan returns exceeding the actuarial targets since the last valuation as of March 31, 2018, offset by cost of indexing and pension mortality experience reduced the going concern deficit by \$13.2 million. Details of the financial status of the Plan and the most recent valuation results (as of March 31, 2019) are included in this report (pages 6-8).

The collective objective of Plan members, trustees and the sponsor is to continue to work together to create and maintain a Plan that supports the needs of its community and remains sustainable for years to come.



Ian C. Nason
Vice President, Finance and Administration

About the Pension Plan

Your pension from the Plan is an important component along with the income you may receive from the Canada Pension Plan, Old Age Security and other personal savings, to fund your retirement.

The Dalhousie University Plan is a defined benefit (DB) Plan. This means that at retirement, you receive a monthly pension from the Plan that is determined in advance based on a set formula.

Your pension is guaranteed to you for your lifetime and depending on your marital status and the option you select at retirement, your spouse could also receive pension payments from the Plan after your death.

CONTRIBUTIONS

Every pay day, members contribute a percentage of their earnings into the Plan. Currently, members contribute 4.65% of pensionable earnings up to \$5,000, plus 6.15% of pensionable earnings above \$5,000. As of July 1, 2012, members started making supplementary contributions of 2% of their earnings. In total, members contribute on average about 8.06% of pensionable earnings.

Dalhousie University contributed 10.40% of pensionable earnings to March 31, 2019, which is funded primarily by the operating budget. This will decrease to 9.26% of pensionable earnings as a result of the March 31, 2019 actuarial valuation. The contributions from both the members and the University, together with the investment returns thereon, provide the pension benefits promised by the Plan to all members and their beneficiaries. Dalhousie University's contributions may vary, depending on the level of the pension fund's assets, plan demographics, and on economic conditions.

Calculating your pension

The pension formula is important to understand as it lets you know how your benefits are calculated. To determine your annual pension, the formula uses your years of service and the average of your best three years of earnings in the following calculation:

$$\begin{array}{r} \text{The average of your best} \\ \text{three years of earnings} \\ \text{(maximum of \$151,278 in 2019)} \\ \times \\ \text{years of service in the Plan} \\ \text{(maximum of 35 years)} \\ \times \\ 2\% \end{array}$$

What the words mean

Going-concern

When a plan's funding status is evaluated assuming that the plan will be maintained indefinitely. This is also known as long-term basis.

Solvency

The provincial pension regulator requires a plan's funding status to also be evaluated assuming the plan will be terminated (or be "wound up") on the day of the valuation. This is also known as short-term basis.

Funded status

The degree to which a plan's liabilities are funded ($\text{plan assets} \div \text{plan liabilities}$) equals a funded percentage.

Plan documents

For more information about the Plan, visit the Dalhousie University pension website at www.dal.ca/pension.

Governance and administration

Dalhousie University has a structure in place for the governance and administration of the Plan that consists of the Board of Governors, the Pension Advisory Committee and Fund Trustees. The Plan is unique in that it is comprised of two trust funds – the Pension Trust Fund (PTF) and Retirees’ Trust Fund (RTF). Here is a summary of the responsibilities of each.

The Board of Governors – Plan Sponsor and Administrator	
<ul style="list-style-type: none"> • Acts as the Administrator of the Plan • Monitors the investment of the Plan assets • Amends Plan rules subsequent to PAC recommendations • Collects and deposits member contributions and contributions from the employer 	<ul style="list-style-type: none"> • Maintains all necessary administrative records • Provides members with information on the Plan • Issues annual pension statements to Plan members • Pays pension benefits

Pension Advisory Committee (PAC)
<ul style="list-style-type: none"> • Considers matters relating to pension benefits and the administration of the Plan • Makes recommendations respecting the administration of the Plan and Plan design • Seeks to promote awareness and understanding of the Plan among its members

PTF/RTF Trustees
<ul style="list-style-type: none"> • Implement investment policies to align with the Plan’s obligations • Oversee fund investment management • Retain investment managers • Present financial statements of the pension funds’ assets

PAC ACTIVITIES – 2018/2019

The PAC met four times between July 1, 2018 and June 30, 2019 to report on and discuss a number of pension topics. Some of the topics addressed include:

- Updates on Plan assets and liabilities, including reports on asset and liability growth throughout the year:
- Presentation in January by a representative from the National Institute on Ageing at Ryerson, regarding pension adequacy and alternate ways to measure adequacy in addition to income replacement ratios.
- Discussion and review of the pension valuations for March 31, 2018 , and review of the assumptions to be used for the March 31, 2019 valuation;
- Review and recommendations fo a housekeeping amendment for the pension plan text, to ensure that the wording of the plan text is consistent with the Pension Benefits Act. This did not involve any changes to benefits or costs.

- Meaningful engagement by all PAC representatives in discussion about cessation of transfers from the PTF to the RTF at retirement. Pensions in pay would continue to be paid from the RTF. Future pensions would be paid from the PTF. Actuarial advice strongly suggests that cessation of transfers will improve the long term health of the Plan.
- Initial discussion in June 2019 regarding proposed changes by the province to the funding framework for pension plans, which might impact the Dalhousie pension plan.

PAC Members – 2018/2019	
<p>Members</p> <ul style="list-style-type: none"> • Ian Blair (NSGEU 77, part year) • Level Chan (Board) • Choi Chua (NSGEU 77) • Steven Critch (NSGEU 99) • Robert Jack (Board) • Jodi Lazare (DFA) • Ken MacDermid (Board) • Chris Minard (NSGEU 77, part year) • Ian Nason (Board) • Jonathan Shapiro (DFA, Chair) • Jasmine Walsh (Board, Vice-Chair) 	<p>Observers/Alternates</p> <ul style="list-style-type: none"> • Randy Barkhouse (ADRP – Observer) • Corrine Carey (NSGEU – Observer) • Laurie Creelman (Secretary) • Chris Minard (NSGEU 77, Alternate) • Jody Pace (NSGEU 77, Alternate) • Kurt Sampson (DPMG – Non-Voting, Alternate) • Colin Spinney (Board, Alternate) • Drew Tavener (NSGEU 99, Alternate) • Matthew Timmons (DPMG – Non-voting, Alternate) • Meghan Wagstaff (DPMG – Non-voting) • Faye Woodman (ADRP – Observer, Alternate)

PTF/RTF TRUSTEE ACTIVITIES – 2018/2019

The PTF and RTF Trustees met five times from July 1, 2018 to June 30, 2019 to:

- Review investment policies and governance processes,
- Assess and monitor investment strategies and performance, and
- Review and consider discretionary indexation.

PTF/RTF Trustees – 2018/2019
<ul style="list-style-type: none"> • David Cameron (RTF only) • Paul Conrod • Greg Hebb • Ian Nason • Aubrey Palmeter • Ron Pink • Robert Richardson

Actuarial status of the Plan

The actuarial valuation as of March 31, 2019 reported the funded status of the Plan based on the Plan's assets and liabilities.

WHAT IS AN ACTUARIAL VALUATION?

To determine the Plan's financial health, an actuarial valuation of the Plan is performed at least once every three years. An actuarial valuation helps determine if the Plan is on track to having sufficient funds to pay out all the benefits to members. Since no one can precisely predict all the factors that will affect the Plan, reliance on the best estimates from the valuation are taken to determine what, if any, steps need to be taken to bring the Plan back to financial health.

The valuation looks at how much money there is in the Plan (the Plan's assets) and how much money the Plan needs to pay out the benefits promised (the Plan's liabilities) in two ways – the going-concern (long-term) basis and the solvency (short-term) basis. If the funded status on a solvency basis falls below 85%, the Plan is required to complete an actuarial valuation annually until the funded status meets or exceeds 85%.

RESULTS OF THE VALUATION

The most recent valuation as of March 31, 2019 showed that the Plan had a deficit on both a short-term and a long-term basis.

The following table shows the results of the March 31, 2019 valuation.

	Pension Trust Fund (\$ millions)		Retirees' Trust Fund (\$ millions)		Total Plan (\$ millions)	
	Going-concern (long-term)	Solvency (short-term)	Going-concern (long-term)	Solvency (short-term)	Going-concern (long-term)	Solvency (short-term)
Value of assets	727,614	726,414	661,653	661,653	1,389,267	1,388,067
Liabilities	(764,608)	(976,187)	(631,101)	(728,608)	(1,395,709)	(1,704,795)
Deficit	(36,994)	(249,773)	30,552	(66,955)	(6,442)	(316,728)
Funded status	95.2%	74.4%	104.8%	90.8%	99.5%	81.4%

The funded status tells us if the Plan has enough assets to cover all its liabilities. The total Plan slightly improved on the going-concern funded status, and modestly declined on a solvency basis. Of concern, however, is the discrepancy in the going-concern funded status of the two funds. The PTF, which supports the earned benefits of active members, (who will be future retirees) has a persistent deficit position.

An extrapolation, not a full valuation, of the liabilities associated with the pensioners' going concern liabilities to June 30, 2019 was completed by the actuary and showed a decrease of \$4.8 million in the going concern deficit to \$1.6 million.

The Plan's next valuation will be completed as of March 31, 2020.

A WORD ABOUT INDEXATION

The Dalhousie University Pension Plan has an indexation provision, which means monthly pension payments may be increased to keep pace with inflation. However, indexation in any year is not automatic; it depends on the financial status and investment performance of the RTF.

Financial markets go through periods of both positive and negative returns, which in turn impact the investment performance of the fund. Although the fund is expected to realize positive growth from the markets over time, there will be periods of volatility and asset value declines. The Plan's indexation is based on an excess return formula. Should the RTF's 3-year net annualized return exceed the prescribed hurdle rate of 5.05%, the excess can be used to provide indexation up to a maximum of CPI. Catch up on indexation that may have been missed in previous years may be granted at the discretion of the RTF Trustees at times when the RTF is in a surplus position. Continued market volatility and increasing life expectancies of Plan members are major factors that the RTF Trustees carefully consider when they deliberate on the use of any surplus for catch up on past missed indexation.

The RTF's 3-year return net of expenses at June 30, 2019 was 7.550% providing an "excess interest" of 2.50%. CPI for the year ended June 30, 2019 was 2.021%, thus under the Plan's excess interest basis for indexation that provides the lesser of the excess or CPI, indexation on January 1, 2020 for eligible pensioners will be 2.021%, the amount of full CPI. The Plan gives the RTF Trustees the discretion to use up to one-half of any surplus that an actuarial valuation may have identified in the Fund for catch-up indexation. The actuarial valuation at March 31, 2019 identified an RTF surplus of \$30.6 million. This small amount of surplus will decline as a result of 2.021% indexation that commences January 2020. As a result, the Trustees determined that it would not be prudent to provide any additional catch-up indexation until a stronger surplus position exists.

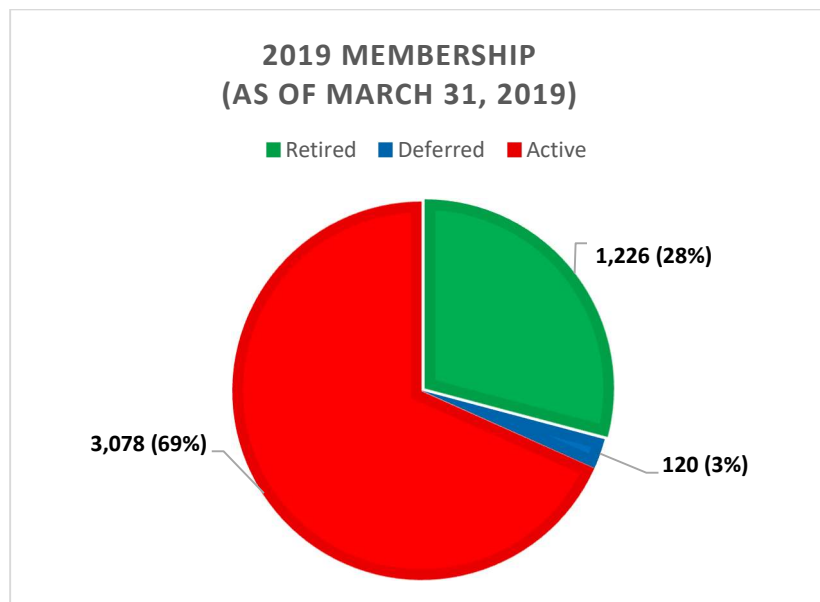
Plan membership and funding

PLAN MEMBERSHIP

Each Plan member belongs to one of three categories of Plan membership:

1. **Active** – members who are currently employed by Dalhousie University and are making their regular contributions to the Plan.
2. **Deferred** – members who have departed Dalhousie University and who have decided to delay collecting pension benefits until a later date.
3. **Retired** – members who are receiving a pension from the Dalhousie University Plan. This category includes survivors of former Dalhousie University employees.

Here’s a snapshot of membership in the Plan as of the most recent valuation from March 31, 2019.



Active membership details

	As of March 31, 2019	As at March 31, 2018
Average age	48.6	48.7
Average credited service	11.6	11.8
Average pensionable salary	\$86,136	\$84,628
Average accumulated contributions	\$78,398	\$82,257

Retired membership details

	As of March 31, 2019	As at March 31, 2018
Average age	72.7	72.6
Average annual lifetime pension	\$38,109	\$37,814

PLAN FUNDING

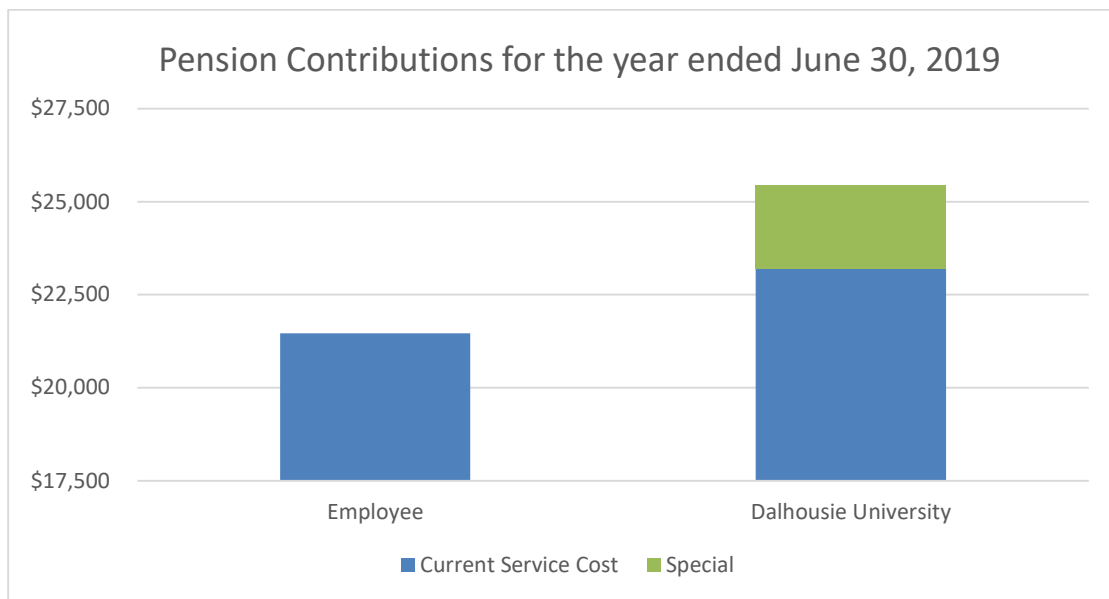
When the valuation shows a Plan deficit, Dalhousie University must adjust its level of contributions to the Plan. For the last number of years, Dalhousie University has been paying contributions in the form of:

1. Regular contributions towards the cost of the benefits that active members accrue in each year, and
2. Special payments to fund the deficit in the Plan.

The following table shows Dalhousie University's contributions to the Plan during the fiscal year July 1, 2018 to June 30, 2019.

	July 1, 2018 to June 30, 2019
Regular matching and over-matching contributions	9.31%
Special payments	1.09%
Total	10.40%

The graph below shows the total contributions made to the Plan from July 1, 2018 to June 30, 2019.



A number of Canadian defined benefit plans have had to deal with increasing costs. Some plans have increased contributions, addressed benefit design, or both. In 2012, Dalhousie employee contributions increased by 2%, with a corresponding salary increase of 2% to offset the contribution increase.

Investments

FINANCIAL MARKETS JULY 1, 2018 TO JUNE 30, 2019

Public equities in Canada, U.S. and overseas markets all posted positive returns for the twelve-month period ending June 30, 2019. U.S. equities were the strongest performing sector with the S&P 500 returning 10.41% in USD, followed by Canadian equities with the TSX returning 3.87%. Over the one-year period the Canadian dollar strengthened relative to the USD and most international currencies causing these returns to be lower in Canadian dollar terms. Canadian bonds, as represented by FTSE Universe, returned 7.36% for the one-year period as yields fell. Inflation, as measured by the consumer price index, increased by 2.02%.

The following table provides major market returns for the one-year period ending June 30, 2019.

Market returns for the one-year period ending June 30, 2019

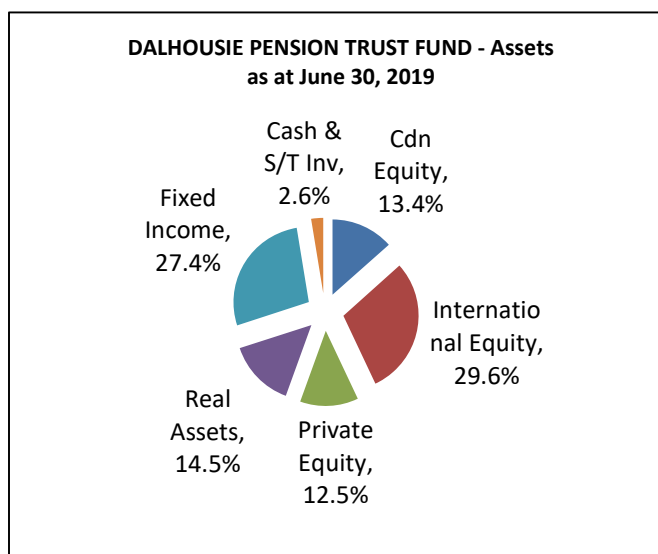
Canada (TSX)	U.S. (S&P 500) CAD	U.S. (S&P 500) USD	International (EAFE- CAD)	International (EAFE- local)	Canadian Bonds (FTSE Universe)	Canadian CPI
3.87%	9.81%	10.41%	0.52%	2.17%	7.36%	2.02%

ASSET MIX

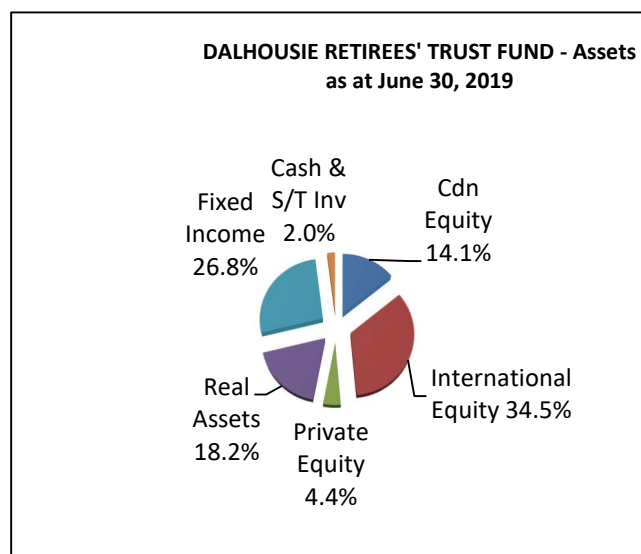
Without question, one of the most important parts of a successful investment strategy is the asset mix and the distribution of assets among multiple asset classes. In addition, multiple external investment managers are used within each asset class to provide additional diversification. As noted in the *Governance and administration* section of this report, reviewing the asset mix policies to ensure that they meet the Plan's objectives with acceptable levels of risk are the Trustees' responsibilities. Given this strategic nature, the asset mixes are reviewed on an annual basis. In February 2015, the Trustees increased private equity and real estate by 2.5%. As previously reported for the RTF, the targeted allocation for public equities will remain at 40% but will be allowed to drift higher until private placement subscriptions in the real assets and private equity areas can be closed and capital called for those commitments.

The following diagrams illustrate how the Plan's assets under the PTF and RTF were distributed as of June 30, 2019.

PTF asset mix as of June 30, 2019



RTF asset mix as of June 30, 2019



BREAKDOWN BY INVESTMENT TYPE

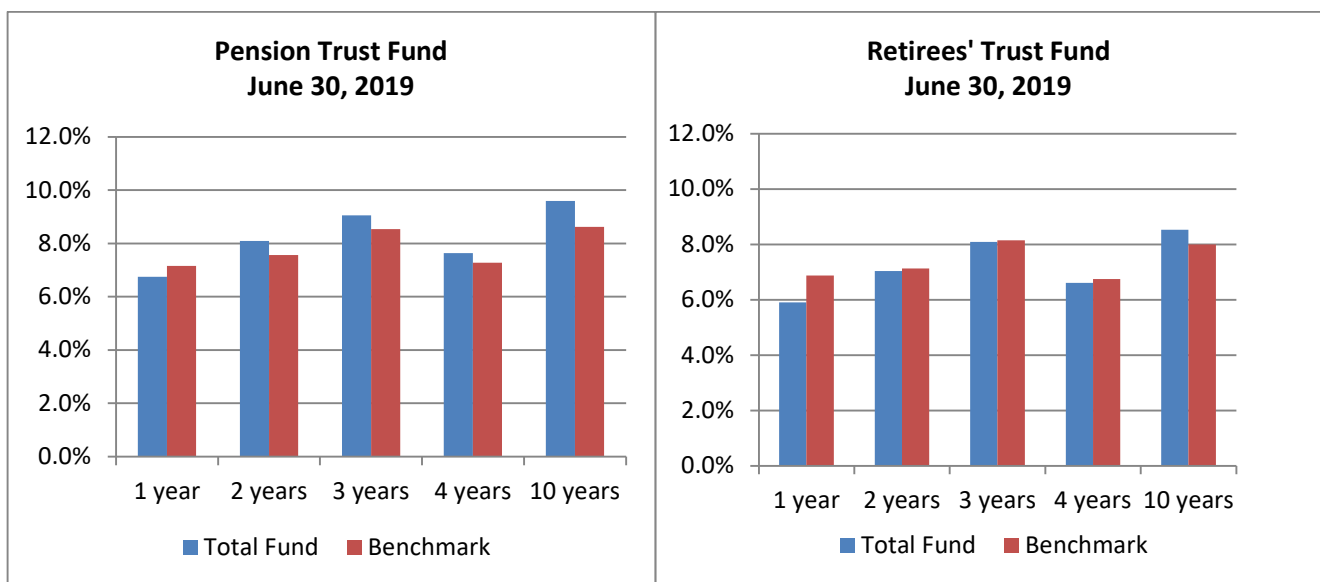
The tables below show how assets in the PTF and RTF were invested as of June 30, 2019 compared to the previous year.

Pension Trust Fund		
Asset Class	Market Value (\$millions) June 30	
	2019	2018
Equities		
Canadian Equities	\$ 101.6	\$ 104.0
U.S. Equities	112.8	137.4
Non-North American Equities	111.5	105.9
Alternatives		
Private Equity	95.0	91.8
Real Assets	109.8	101.9
Fixed Income		
Canadian bonds	194.2	181.1
Private Debt	13.5	9.6
Cash & equivalents	20.2	9.9
Total Assets	\$ 758.6	\$ 741.6

Retirees' Trust Fund		
Asset Class	Market Value (\$millions) June 30	
	2019	2018
Equities		
Canadian Equities	\$ 93.6	\$ 92.6
U.S. Equities	124.7	125.8
Non-North American Equities	104.0	98.4
Alternatives		
Private Equity	29.5	24.3
Real Assets	120.9	110.2
Fixed Income		
Canadian bonds & mortgages	164.5	154.5
Private Debt	13.6	10.5
Cash & equivalents	13.3	2.5
Total Assets	\$ 664.1	\$ 618.8

INVESTMENT PERFORMANCE

One measure of investment performance of the PTF and RTF is against a market index, also known as a policy benchmark. By comparing the investments to the benchmark, it can be determined how well the Funds are managed. The following graphs indicate that the annualized returns relative to the policy benchmark. The PTF has exceeded the benchmark for all periods except the 1 year, and the RTF, has exceeded the benchmark over the 10 years but fallen short of the benchmark in the one to four year periods. The RTF underperformance in the recent periods is due to asset mix, primarily the smaller allocation to private equity, as it is still building up to its target weight. The PTF's return for the year that ended June 30, 2019 was 6.75%, while the RTF achieved a 5.90% return. Over 15 years the PTF has returned 7.42% compared to a benchmark return of 6.88%, while the RTF has returned 7.03% compared to its benchmark return of 6.75%.



The Trustees' primary focus is on the actuarial return targets for each Fund required to meet the benefit objectives. Dalhousie University's two pension funds have met and exceeded their respective return targets over the last 24 years since the plan last enjoyed a strong surplus position. The PTF annualized return net of expenses was 7.97% as compared to its actuarial target of 6.68%, while the RTF achieved 7.58% versus its hurdle target of 5.05%. However, contribution holidays and benefit enhancements from the 1996 Pension Surplus Use Agreement as well as increases in mortality assumptions have left the Plan in a deficit position.

The Plan applies interest in determining a number of benefits and accumulations. When determining the interest to be credited on contributions made to the PTF, Nova Scotia pension legislation requires the interest crediting rate for the PTF to be based on a 12-month averaging period. The PTF crediting rate is 1.05% as of June 30, 2019. The RTF crediting rate continues to be based on a three-year annualized rate. The RTF rate effective January 1, 2020 is 7.55%.

For more information and to calculate your pension

If you have questions concerning the Dalhousie University Pension Plan, please contact Human Resources at 902-494-1782 or pensions@dal.ca.

You can also visit the Dalhousie University pension website at www.dal.ca/pension.

In addition, there is an online pension projection tool available to you to estimate your pension. You can find this tool on the Dalhousie University website at [Dal Online – Web for Employees](#).

Appendix – Audited financial statements of Dalhousie University Staff Pension Plan

Year ended June 30, 2019

Financial Statements of

**DALHOUSIE UNIVERSITY STAFF
PENSION PLAN**

Year ended June 30, 2019



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INDEPENDENT AUDITORS' REPORT

To the Dalhousie University Finance, Audit, Investment & Risk Committee

Opinion

We have audited the financial statements of the Dalhousie University Staff Pension Plan (the "Entity"), which comprise:

- the statement of financial position as at June 30, 2019;
- the statement of changes net assets available for benefits for the year then ended;
- the statement of changes in pension obligation for the year then ended;
- and notes, comprising a summary of significant accounting policies and other explanatory information

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

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Entity as at June 30, 2019, and the changes in net assets available for benefits and changes in pension obligation for the year then ended in accordance with Canadian accounting standards for pension plans.

Basis for Opinion

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

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

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



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

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

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

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

Auditors' Responsibilities for the Audit of the Financial Statements

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

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

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

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

We also:

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

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

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Entity's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.



- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Entity's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the Entity to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represents the underlying transactions and events in a manner that achieves fair presentation.
- Communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

KPMG LLP

Chartered Professional Accountants, Licensed Public Accountants
Halifax, Canada
November 13, 2019

DALHOUSIE UNIVERSITY STAFF PENSION PLAN

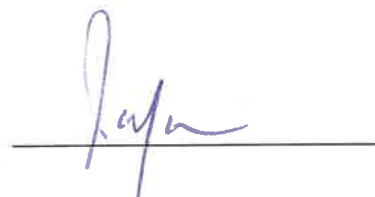
Statement of Financial Position

Year ended June 30, 2019, with comparative information for 2018
(In thousands of dollars)

	2019	2018
Assets:		
Investments (note 6)		
Canadian equities	\$ 197,202	\$ 196,271
U.S. equities	226,829	235,502
Non-North American equities	218,072	215,130
Total equities	642,103	646,903
Private equity	124,471	116,122
Real assets	229,586	211,929
Total alternatives	354,057	328,051
Canadian bonds and long-term notes	357,213	333,204
Mortgages	1,425	2,412
Private debt	27,232	20,107
Cash and short-term investments	34,792	32,525
Total investment assets	1,416,822	1,363,202
Receivables:		
Currency hedge	5,313	-
University contributions	2,178	2,208
Accrued income receivable	590	540
Total receivables	8,081	2,748
Total assets	1,424,903	1,365,950
Less liabilities:		
Investment liabilities – currency hedge	-	2,774
Termination withdrawals payable	909	1,889
Benefits payable	1,972	2,433
Accrued expenses	1,083	1,012
Due to Dalhousie University	165	4,267
Total liabilities	4,129	12,375
Net assets available for benefits	\$ 1,420,774	\$ 1,353,575
Pension obligation and surplus/(deficit)		
Pension obligation	\$ 1,422,419	\$ 1,346,083
Surplus/(deficit)	(1,645)	7,492
Pension obligation and surplus/(deficit)	\$ 1,420,774	\$ 1,353,575

See accompanying notes to financial statements.

On behalf of the Administrator:

DALHOUSIE UNIVERSITY STAFF PENSION PLAN

Statement of Changes In Net Assets Available for Benefits

Year ended June 30, 2019, with comparative information for 2018
(In thousands of dollars)

	2019	2018
Additions:		
Employees' contributions (note 4)	\$ 21,462	\$ 20,593
Employer's contributions (note 4)	25,443	25,271
	46,905	45,864
Additions from investments:		
Current period change in fair value of investments	55,016	79,616
Income from investments (note 7)	30,421	31,863
	85,437	111,479
Total additions	132,342	157,343
Deductions:		
Pension benefits	49,449	45,593
Termination withdrawals	7,543	10,913
Death benefits	801	1,421
Administrative expenses (note 8)	7,350	7,300
	65,143	65,227
Increase in net assets for the year	67,199	92,116
Net assets available for benefits, beginning of year	1,353,575	1,261,459
Net assets available for benefits, end of year	\$ 1,420,774	\$ 1,353,575

See accompanying notes to financial statements.

DALHOUSIE UNIVERSITY STAFF PENSION PLAN

Statement of Changes in Pension Obligation

Year ended June 30, 2019, with comparative information for 2018
(In thousands of dollars)

	2019	2018
Increase in pension obligation:		
Benefits accrued	\$ 44,607	\$ 43,150
Interest accrued on benefits	72,169	69,254
Plan improvements and indexation	11,343	6,585
Experience loss	6,010	-
	134,129	118,989
Decrease in pension obligation:		
Experience gain	-	2,312
Benefits paid	57,793	57,927
	57,793	60,239
Net increase in pension obligation	76,336	58,750
Pension obligation, beginning of year	1,346,083	1,287,333
Pension obligation, end of year	\$ 1,422,419	\$ 1,346,083

See accompanying notes to financial statements.

DALHOUSIE UNIVERSITY STAFF PENSION PLAN

Notes to Financial Statements, page 1

Year ended June 30, 2019
(In thousands of dollars)

1. Description of plan:

The Dalhousie University Staff Pension Plan (the "Plan") is a contributory defined benefit pension plan covering employees of Dalhousie University (the "University"). Under the Plan, contributions are made by the employees and the University. The Plan is registered under the Pension Benefits Act of Nova Scotia and is registered with the Canada Revenue Agency. Dalhousie University is the Administrator of the Plan. Assets of the Plan are held within two Funds, the Dalhousie Pension Trust Fund and the Dalhousie Retirees' Trust Fund. Contributions to the Plan are forwarded to the Dalhousie Pension Trust Fund and retirement benefit payments are funded by the Dalhousie Retirees' Trust Fund.

(a) Funding policy:

The University is required to meet the cost of all benefits not met by required contributions of members. The determination of the required contributions is made on the basis of an actuarial valuation.

(b) Current service pension:

The current service pension provides for a pension of 2% of the average best three years of pensionable salary received by the member multiplied by the number of years of participation in the plan up to a maximum of 35 years.

(c) Survivor's pension:

The normal form of pension payable to members with spouses includes a 66 2/3% survivor pension in respect of credited service up to June 30, 2004 with a minimum guarantee of 60 monthly payments. For credited service after June 30, 2004, the pension is paid for the member's life with a minimum guarantee of 84 monthly payments, which can be actuarially converted to provide for a survivor's pension.

(d) Death benefits before retirement:

A return is made of the greater of (a) the commuted value of the accrued post-1987 earned pension benefits plus the Member's pre-1988 contributions and interest or (b) the member's regular contributions plus interest, together with any vested entitlement in the University's matching contributions plus interest. For members with spouses, the minimum entitlement for benefits earned after 1987 is 100% of the commuted value of the benefits.

(e) Income taxes:

The Dalhousie University Staff Pension Plan is a Registered Pension Plan as defined in the Income Tax Act and is not subject to income taxes.

(f) Membership eligibility:

All full-time employees and regular part-time employees who commenced employment at Dalhousie University up to June 30, 1996 were eligible to join the Plan upon completion of at least 75 days of employment with the University. After June 30, 1996 membership shall date from the first day of the first full month employed, provided that the employee is then eligible.

DALHOUSIE UNIVERSITY STAFF PENSION PLAN

Notes to Financial Statements, page 2

Year ended June 30, 2019
(In thousands of dollars)

1. Description of plan (continued):

Statutory part-time employees may elect to join the Plan following completion of two consecutive calendar years of employment during which, in each of the calendar years, their earnings were at least 35% of the Canada Pension Plan year's maximum pensionable earnings ("YMPE"), or their hours worked were at least 700.

(g) Termination of membership:

On termination of employment, the member is entitled to receive either (a) a deferred pension, or (b) a termination transfer which shall be the greater of either commuted value, or the total of the member's contributions plus interest, together with any vested entitlement in the University's matching contributions plus interest, subject to minimum payout requirements of the member's contributions plus interest.

2. Basis of presentation:

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

3. Summary of significant accounting policies:

Summary of significant accounting policies:

- (a) The accompanying financial statements have been prepared on an accrual basis and present the financial position, changes in pension obligation, and changes in net assets available for benefits.
- (b) Investments:
 - (i) Investment transactions:

Investment transactions are recorded on the trade date.

DALHOUSIE UNIVERSITY STAFF PENSION PLAN

Notes to Financial Statements, page 3

Year ended June 30, 2019
(In thousands of dollars)

3. Summary of significant accounting policies (continued):

(ii) Index linked mortgages:

The interest rate is adjusted annually according to the change in the Consumer Price Index. In 2019, mortgage payments reduced the principal on a book value basis by \$903 (2018 - \$1,469). The cumulative decrease to date totals \$20,119.

(iii) Income from investments:

Income from investments includes interest income and dividend income. Income from securities directly held is recorded on an accrual basis. For certain private investments, income is recorded when received. Income from other fund investments is recognized upon the receipt of those funds' statements in which income declarations have been made.

(iv) Current period change in fair value of investments:

Current period change in fair value of investments includes all net realized and unrealized capital gains.

Gains or losses on sale or maturity of investments, based on the difference between average cost and proceeds, net of any selling expenses, are recorded at the time of disposition of the investment.

(v) Foreign currency exchange contracts:

Future foreign currency exchange contracts are entered into to manage foreign currency exposures. These contracts are not designated and documented as hedging relationships in accordance with CPA Canada Handbook Section 3856: Financial Instruments, and, accordingly, are measured at fair value.

(vi) Alternative investments include private equity, real estate, and infrastructure investments.

(c) Financial assets and financial 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. Upon initial recognition, attributable transaction costs are recognized in the statement of changes in net assets available for benefits as incurred.

Plan measures all of its investments at fair value through the statement of changes in net assets available for benefits.

All other non-derivative financial assets including contributions receivable are measured at amortized cost.

DALHOUSIE UNIVERSITY STAFF PENSION PLAN

Notes to Financial Statements, page 4

Year ended June 30, 2019
(In thousands of dollars)

3. Summary of significant accounting policies (continued):

The Plan derecognizes a financial asset when the contractual rights to the cash flows from the asset expire, or it transfers the rights to receive the contractual cash flows in a transaction in which substantially all the risks and rewards of ownership of the financial asset are transferred or in which the Plan neither transfers nor retains substantially all the risks and rewards of ownership and does not retain control of the financial asset.

On derecognition of a financial asset, the difference between the carrying amount of the asset and consideration received is recognized in the statement of changes in net assets available for benefits as a net realized gain or loss on sale of investments.

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.

The Plan derecognizes a financial liability when its contractual obligations are discharged, cancelled or expired.

The Plan considers its accounts payable and accrued liabilities to be a non-derivative financial liability.

(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.

Financial assets and liabilities are offset and the net amount presented in the statement of net assets available for benefits 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 price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date.

DALHOUSIE UNIVERSITY STAFF PENSION PLAN

Notes to Financial Statements, page 5

Year ended June 30, 2019
(In thousands of dollars)

3. Summary of significant accounting policies (continued):

In determining fair value, the Plan adopted the guidance in IFRS 13, Fair Value Measurement ("IFRS 13"), in Part I of the CPA Canada Handbook. 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 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 current period change in fair value of investments.

DALHOUSIE UNIVERSITY STAFF PENSION PLAN

Notes to Financial Statements, page 6

Year ended June 30, 2019
(In thousands of dollars)

3. Summary of significant accounting policies (continued):

Fair values of investments are determined as follows:

Any separately managed 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.

Short-term notes, treasury bills 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.

Any interest bearing securities directly held are valued at the present value of estimated future cash flows discounted at interest rates in effect on the last business day of the year for investments of a similar type, quality and maturity.

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.

Real estate, resource properties and private capital investment values are determined using independent appraisals.

(e) Interfund accounts:

The interfund balances between the Plan's Funds and Dalhousie University attract or pay interest at prime less 2%.

(f) Foreign currency translation:

The fair values of foreign currency denominated investments included in the statement of net assets available for benefits are translated into Canadian dollars at year-end rates of exchange. Gains and losses arising from translations are included in the current period change in fair value of investments.

Foreign currency denominated transactions are translated into Canadian dollars at the rates of exchange on the dates of the related transactions.

(g) Use of estimates:

The preparation of financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenue and expense during the year. Actual results could differ from those estimates.

DALHOUSIE UNIVERSITY STAFF PENSION PLAN

Notes to Financial Statements, page 7

Year ended June 30, 2019
(In thousands of dollars)

4. Funding policy:

The Plan requires employees to contribute 4.65% of the first \$5,000 of annual salary plus 6.15% of annual salary in excess of \$5,000 to maximum pensionable earnings. The University has made annual contributions matching those required from employees. Employees made an additional 2% supplementary contribution of salary to maximum pensionable earnings.

The University is required to fund benefit costs not fully met by the employees' contributions and the University's matching contributions. Pursuant to the March 31, 2018 actuarial valuation, the University has been required to make additional overmatching contributions of 3.25% of pensionable earnings (2018 – 3.27%) and another \$2.8 million (2018 - \$3.4 million) in deficit reduction contributions.

Under the terms of the Plan, employees may be able to make additional voluntary contributions to the Fund and to buy back eligible past service.

Contributions	2019	2018
Employee		
Regular	\$ 15,237	\$ 14,626
Supplemental	4,900	4,727
Pension buy-backs, reciprocals & additional voluntary	1,325	1,240
Total employee contributions	\$ 21,462	\$ 20,593
Employer		
Matching	\$ 15,165	\$ 14,672
Overmatching and deficit reduction	\$ 10,278	10,599
Total employer contributions	25,443	25,271
Total contributions	\$ 46,905	\$ 45,864

The Nova Scotia Pension Benefits Act exempts Nova Scotia universities from solvency funding, thereby limiting funding to that determined by a going concern valuation.

5. Obligations for pension benefits:

An actuarial valuation as of March 31, 2019 was made by Eckler Ltd., a firm of consulting actuaries. The actuarial present value of accrued pension benefits was determined using the projected benefit method prorated on service and the Administrator's best estimate assumptions. The actuary extrapolated the results of the March 31, 2019 valuation to yield the June 30, 2019 results, while June 30, 2018 results were extrapolated from the March 31, 2018 valuation.

The assumptions used in determining the actuarial value of accrued pension benefits were developed by reference to expected long-term market conditions. Significant long-term actuarial assumptions used in the valuation and extrapolation were:

DALHOUSIE UNIVERSITY STAFF PENSION PLAN

Notes to Financial Statements, page 8

Year ended June 30, 2019
(In thousands of dollars)

5. Obligations for pension benefits (continued):

	2019	2018
Asset rate of return	5.35%	5.38%
Salary escalation rate	3.57%	3.56%
Retirement age	determined by age for each year between ages 55 -71	
Cost Method	Projected unit credit method	
Mortality	2014 Canadian Pension Mortality Table (Public Sector) Projected generationally with CPM improvement scale B	

6. Investments:

Investments are presented by mandate, which may include cash, short-term investments, or other investments that are presented separately on the Statement of Financial Position.

	2019	2018
<u>Canadian Equities Mandates:</u>		
Burgundy Asset Management - Canadian equities	\$ 81,486	\$ 84,156
Burgundy Focus Canadian Equity Fund	21,150	23,521
Montrusco Bolton Equity Income Trust Fund	44,216	41,716
Fiera North American Market Neutral Fund	48,038	47,026
<u>U.S. Equities Mandates:</u>		
Ashford Capital Management - U.S. small cap equities	67,617	79,699
Wedge Capital Management - U.S. large cap equities	-	94,636
Fiera US Equity - U.S. large cap equities	83,803	-
Wellington Management – US SMID cap equities	30,047	30,706
State Street S&P MidCap Index Fund	55,944	58,053
<u>Non-North American Equities Mandates:</u>		
First Eagle International Value Fund	47,099	45,667
Addenda EAFE Fund	54,497	51,227
Burgundy EAFE Fund	53,106	51,758
Fiera EAFE Fund	60,872	55,631
<u>Private Capital Mandates:</u>		
Commonfund Capital Partners L.P - fund of funds	70,101	63,996
JP Morgan Asset Management - fund of funds	20,541	20,489
Pantheon Europe Fund V 'A' - fund of funds	1,904	2,491
F&C – fund of funds	31,925	29,146
Balance carry-forward	772,346	779,918

DALHOUSIE UNIVERSITY STAFF PENSION PLAN

Notes to Financial Statements, page 9

Year ended June 30, 2019
(In thousands of dollars)

6. Investments (continued):

	2019	2018
Balance carried forward	772,346	779,918
<u>Real Estate and Infrastructure Mandates:</u>		
CU Real Property (6) Limited Partnership - Canadian real estate	13,770	18,849
GPM Real Property (11) (12) and (13) - Canadian real estate	46,518	43,001
CBRE Clarion Securities - global real estate	72,497	66,593
Lazard Global Listed Infrastructure (Canada) Fund	53,927	48,677
JP Morgan Global Maritime Investment Fund	5,637	5,911
JP Morgan Infrastructure Investments Fund	18,643	18,436
Crestpoint Real Estate	15,725	10,936
Brookfield SREP III	3,714	-
<u>Fixed Income Mandates:</u>		
CIBC Pooled Canadian Bond Index Fund	108,574	101,023
Addenda Capital Bond Fund	74,495	69,776
Canso Broad Corporate Fund	71,840	67,059
BlackRock CorePlus Universe Bond Fund	102,304	95,320
Canso Private Loan Fund	10,271	10,754
Brookfield BREF V	8,190	5,431
Crestline Specialty Lending II	8,771	3,922
First National Financial - index linked mortgages	1,425	2,412
<u>Other:</u>		
RBC Investor Services - cash and notes	15	3,030
Bank of Nova Scotia - bank account	28,160	12,154
Total investments	\$ 1,416,822	\$ 1,363,202

7. Income from investments:

	2019	2018
Canadian equities	\$ 5,673	\$ 4,863
U.S. equities	2,239	2,640
Non-North American equities	4,107	4,207
Private equity	(1,296)	(814)
Real assets	7,965	7,304
Bonds and long-term notes	11,315	13,394
Cash and short-term investments	418	269
Total income from investments	\$ 30,421	\$ 31,863

DALHOUSIE UNIVERSITY STAFF PENSION PLAN

Notes to Financial Statements, page 10

Year ended June 30, 2019
(In thousands of dollars)

8. Administrative expenses:

	2019	2018
Investment management fees	\$ 5,390	\$ 5,471
Investment custodial, performance, consulting fees	535	550
Benefits administration	456	414
Benefits actuarial and consulting fees	727	629
Audit fees	33	32
Interfund expense	3	1
General administration	206	203
Total administrative expenses	\$ 7,350	\$ 7,300

9. Financial instruments and investment risks:

Financial instruments are utilized to replicate certain market exposures or to assist in the management of investment risks. Investments are primarily exposed to foreign currency, interest rate, market and credit risks. The Funds have set formal policies and procedures that establish an asset mix among equity, fixed income and alternative investments, require diversification of investments within categories, and limit exposure to individual investments, counterparties and foreign currencies.

(a) Fair value of financial assets and financial liabilities:

The fair values of investments are as described in note 3(b). The fair values of other financial assets and liabilities, being cash and short-term investments, accrued income receivable, due from Dalhousie University, and liabilities approximate their carrying values due to the short-term nature of these instruments.

(b) Market risk:

Market risk is the risk that the value of an investment will fluctuate as a result of changes in market prices, whether those changes are caused by factors specific to the individual investment or factors affecting all securities traded in the market. The Funds' policies are to invest in a diversified portfolio of investments, based on criteria established in the Statements of Investment Policies and Guidelines, to mitigate the impact of market risk.

(c) Interest rate risk:

The Funds' fixed income investments are subject to the risk of rising interest rates. Should interest rates rise by 1.0%, it is estimated that the broad Canadian fixed income market could depreciate 8.9% in value. For the Funds, this could result in a loss of \$34.1 million, or 2.4% of the total Funds. The Funds seek to manage this risk by diversifying their exposures to the Canadian fixed income market, by investing a portion in a pooled fund that utilizes broad holdings to replicate the overall Canadian fixed income market, a portion to a pooled fund strategy that changes the duration of the portfolio to position itself for anticipated interest rate movements, a fund that utilizes multiple strategies and markets to manage return, an allocation to Canadian corporate credit fixed income strategies that offer higher yield and that experience interest rate movements that differ from the broad market, and a final portion to floating rate debt.

DALHOUSIE UNIVERSITY STAFF PENSION PLAN

Notes to Financial Statements, page 11

Year ended June 30, 2019
(In thousands of dollars)

9. Financial instruments and investment risks (continued):

(d) 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 mitigated through the management of the assets within generally accepted parameters of safety and prudence, using a diversified investment program. Investments must adhere to specific limitations as outlined in the Funds' Statements of Investment Policies and Guidelines.

The Funds of the Plan engage in currency forward contracts to manage currency risk. The Funds will be subject to credit risk with respect to the counterparties with which they enter into these currency forward contracts. The Funds' managers seek to minimize this risk by using numerous counterparties, and with assessments and detailed on-going credit analysis of the counterparties.

(e) Other price risk:

Other price risk is the risk that the fair value of an investment will fluctuate because of changes in market prices (other than those arising from foreign currency or interest rate risk), whether those changes are caused by factors specific to the individual investment or factors affecting all securities traded in the market. An adverse change of 1% would lead to an approximate \$11.8 million decline in the overall value of the Funds. Since all other variables are held constant in assessing price risk sensitivity, it is possible to extrapolate a 1% absolute change in the fair value to any absolute percentage change in fair value.

(f) Liquidity Risk:

Liquidity risk refers to the risk that the Plan's associated funds do not have sufficient cash to meet their current payment liabilities, including benefit payments, and to acquire investments in a timely and cost-effective manner. The liquidity position of the Funds are monitored regularly with updated cash forecasts to ensure they have sufficient funds to fulfill their obligations.

(g) Derivative financial instruments:

Derivatives are financial contracts, the values of which are derived from the values of underlying assets, interest rates, or exchange rates. Foreign currency risk arises from the Funds' holdings of foreign currency-denominated investments. Foreign currency risk is controlled by the Funds' currency hedging policies. The Funds utilize derivative contracts directly for managing exposure to foreign currency volatility. Pooled funds or fund-of-funds that the Funds invest in may also use derivative contracts to replicate or to reduce the exposure to certain financial markets or specific securities. Derivative contracts, transacted either on a regulated exchange market or in the over-the-counter market directly between two counterparties, include:

(i) Future and forward contracts:

Future and forward contracts are contractual obligations either to buy or sell a specified amount of money market securities, bonds, equity indices, commodities or foreign currencies at predetermined future dates and prices. Future contracts are transacted in standardized amounts on regulated exchanges and are subject to daily cash margining. Forward contracts are customized contracts transacted in the over-the-counter market.

DALHOUSIE UNIVERSITY STAFF PENSION PLAN

Notes to Financial Statements, page 12

Year ended June 30, 2019
(In thousands of dollars)

9. Financial instruments and investment risks (continued):

(ii) Option contracts:

Option contracts are agreements in which the right, but not the obligation, is acquired by the option purchaser from the option writer either to buy or sell, on or before a specified date, a predetermined amount of a financial instrument at a stated price.

At June 30, the Funds directly had the following derivative contracts outstanding:

	Notional Amounts		Fair Values	
	2019	2018	2019	2018
Foreign exchange contracts:				
Forward contracts	\$ 216,009	\$ 224,868	\$ 5,313	\$ (2,774)

These forward contracts have contractual maturities of less than one year.

The foreign currency exposure at June 30 is summarized as follows (\$ Canadian):

	2019	2018
Through direct investment:		
United States	\$ 136,426	\$ 240,820
Non-North American	31,524	29,221
Through pooled funds:		
United States	275,344	176,238
Non-North American	249,403	235,920
Total	\$ 692,697	\$ 682,199

The Plan follows a foreign currency hedging strategy. The objective of the strategy is to provide partial protection of the base Canadian dollar value of the non-Canadian dollar denominated assets against a change in the value of the non-base currency. US dollar denominated publicly-traded securities are hedged within a range on 0% - 65% of their value, while the range for publicly-traded securities denominated in other foreign currencies is between 10% - 55% of their value. As at June 30, 2019, if the Funds were unhedged and the Canadian dollar appreciated by 10% against all other currencies, the stated value of the assets would decrease by \$69.3 million (2018 - \$68.2 million).

DALHOUSIE UNIVERSITY STAFF PENSION PLAN

Notes to Financial Statements, page 13

Year ended June 30, 2019
(In thousands of dollars)

9. Financial instruments and investment risks (continued):

(h) Fair values:

Canadian accounting standards for pension plans require disclosure of a three-level hierarchy for fair value measurements based on the transparency of inputs to the valuation of an asset or liability as of the financial statement date. A financial instrument's level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. The inputs or methodology used for valuing investments are not necessarily an indication of the risk associated with investing in those investments. The three levels are defined as follows:

Level 1: Fair value is based on quoted market prices in active markets for identical assets or liabilities. Level 1 assets and liabilities generally include equity securities traded in an active exchange market.

Level 2: Fair value is based on observable inputs other than Level 1 prices, such as quoted market prices for similar (but not identical) assets or liabilities in active markets, quoted market prices for identical assets or liabilities in markets that are not active, and other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities. Level 2 assets and liabilities include debt securities with quoted prices that are traded less frequently than exchange-traded instruments and derivative contracts whose values are determined using a pricing model with inputs that are observable in the market or can be derived principally from or corroborated by observable market data. This category generally includes mutual and pooled funds, hedge funds, Government of Canada, provincial and other government bonds, Canadian corporate bonds, and certain derivative contracts.

Level 3: Fair value is based on non-observable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities. This category generally includes private equity investments and securities that have liquidity restrictions.

Securities with no readily available market are generally valued according to the market approach, which attempts to apply a fair value standard by referring to meaningful third-party transactions, comparable public market valuations and/or the income approach.

DALHOUSIE UNIVERSITY STAFF PENSION PLAN

Notes to Financial Statements, page 14

Year ended June 30, 2019
(In thousands of dollars)

9. Financial instruments and investment risks (continued):

The following is a summary of the inputs used as of June 30 in valuing the financial assets carried at fair value:

Financial Assets	2019	2018
Level 1		
Equity securities - Canadian	\$ 84,199	\$ 86,611
Equity securities - non-Canadian	167,448	269,179
Cash in bank	28,160	12,154
Level 2		
Pooled funds - Canadian equities	113,404	112,263
Pooled funds - non-Canadian equities	409,248	311,013
Pooled funds - fixed income	358,638	335,590
Short-term and other	15	3,030
Level 3		
Private equity	124,471	116,122
Private real assets	104,007	97,133
Private debt	27,232	20,107
	\$ 1,416,822	\$ 1,363,202

The following table summarizes the changes in the fair value of the Plan's financial instruments classified as Level 3 investments:

Level 3 Financial Assets	Private Equity	Private Real Assets	Private Debt	Total
Fair Value, July 1, 2018	\$ 116,122	\$ 97,133	\$ 20,107	\$ 233,362
Net realized & unrealized gains	14,511	12,570	2,087	29,168
Purchases, net of redemptions	(6,162)	(5,696)	5,038	(6,820)
Fair Value, June 30, 2019	124,471	104,007	27,232	255,710
Fair Value, July 1, 2017	\$ 99,680	\$ 64,782	\$ 23,256	\$ 187,718
Net realized & unrealized gains	18,006	57,477	(10,771)	64,713
Purchases, net of redemptions	(1,564)	(25,126)	7,622	(19,069)
Fair Value, June 30, 2018	116,122	97,133	20,107	233,362

DALHOUSIE UNIVERSITY STAFF PENSION PLAN

Notes to Financial Statements, page 15

Year ended June 30, 2019
(In thousands of dollars)

9. Financial instruments and investment risks (continued):

Fair values of the level 3 financial assets represent valuations of the Plan's Funds' unit holdings in partnerships, and are provided by the general partners of the funds in which the Plan's Funds participate. Underlying private equity valuations can be based on a combination of factors such as comparable public market valuations, comparable private market transaction multiples, and discounted future expected income and cash flows. Private real asset valuations are provided annually by independent appraisals that focus on comparable properties, current leases, market capitalization rates, and market activity. Private debt loans have been acquired at discounted prices and are primarily carried at cost.

10. Capital risk management:

The capital of the Plan is represented by the net assets available for benefits. The main objective is to sustain a certain level of net assets in order to meet the pension obligations of the Plan. The Plan fulfils its primary objective by adhering to the Statement of Investment Policies and Guidelines (the "SIP&G") of the Pension Trust Fund and the Retirees' Trust Fund, which are reviewed annually by the respective trustees.

The investments of the Trust Funds were allocated within the allowed asset category ranges, as of the date of the Plan's financial statements. The following table presents the consolidated asset allocation of the two trust funds for each asset category and total investments, along with appropriate benchmarks:

Asset categories	Benchmark	Asset allocation (%)	
		2019	2018
Canadian equities	S&P TSX Composite	13.9	14.4
U.S. equities	S&P 500	16.0	17.3
Non-north American equities	MSCI EAFE	15.4	15.8
Private equity	S&P 500 + 4%	8.8	8.5
Real assets	T-Bills + 6%	16.2	15.5
Bonds and long-term notes	FTSE TMX Universe	27.2	26.1
Cash and cash equivalents		2.5	2.4
Total investments		100.0	100.0

The Plan's investments are within the asset allocation target ranges as at June 30, 2019.

The Plan's investment positions expose it to a variety of financial risks which are discussed in note 9. 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 approved SIP&G. The allocations of trust assets among various asset categories are monitored by the Plan administrator on a monthly basis. A comprehensive review is conducted quarterly, which includes measurement of returns, comparison of returns to appropriate benchmarks and risk analysis.

DALHOUSIE UNIVERSITY STAFF PENSION PLAN

Notes to Financial Statements, page 16

Year ended June 30, 2019
(In thousands of dollars)

10. Capital risk management (continued):

Increases in net assets available for benefits are a direct result of investment income generated by investments held by the Plan and contributions into the Plan by eligible employees and by the University. The employer is required under the Pension Benefits Act (Nova Scotia) to pay contributions, based on actuarial valuations, necessary to ensure the benefits are funded. More details on employee and employer contributions that were paid during the year is disclosed in note 4. There were no contributions past due as at June 30, 2019.

The main use of net assets is for benefit payments to eligible Plan members. The Plan is required to file Plan financial statements with Nova Scotia Superintendent of Pensions. There is no change in the way capital is managed this year.

11. Commitments:

Certain of the alternative investments contain contractual capital commitments. At June 30, 2019, the Funds had outstanding future commitments of \$2.8 million (2018 - \$6.5 million) in Canadian real estate; US \$21.5 million (2018 – US \$26.6 million) and €10.5 million (2018 - €10.9 million) in private equity investments; US \$9.9 million (2018 – US \$12.8 million) in private global real estate; and US \$20.9 million (2018 – US \$27.0 million) in private debt.

12. Related party transactions:

During the year, Dalhousie University provided investment administration, benefit administration, payroll, and accounting services. These recoverable service costs for 2019 were \$822 (2018 - \$769). The transactions were in the normal course of operations and were measured at the exchange amount.