



# Annual Report 2017-18

THE MEMORIAL  
UNIVERSITY  
PENSION PLAN

DEPARTMENT OF  
HUMAN RESOURCES,  
MEMORIAL  
UNIVERSITY OF  
NEWFOUNDLAND





# Annual Report of The Memorial University Pension Plan

April 1, 2017 to March 31, 2018

Department of Human Resources,  
Memorial University of Newfoundland  
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September 2018

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# Chairperson's Message

Honorable Al Hawkins  
Minister of Advanced Education, Skills and Labour  
West Block, Confederation Building  
P.O. Box 8700  
St. John's, NL  
A1B 4J6

Dear Minister Hawkins:

I am pleased to submit the 2017-18 Annual Report of the Memorial University Pension Plan. This report covers the period April 1, 2017 to March 31, 2018.

This is the first performance-based report to be presented under the Memorial University Pension Plan's Activity Plan for 2017-2020. This document sets forth in clear language how the University has addressed the objectives that were outlined in the plan.

My signature below is on behalf of the Board of Regents and is indicative of our accountability for the actual results reported.

Respectfully submitted,



**Iris Petten**  
Chair, Board of Regents

# Pension Plan Highlights

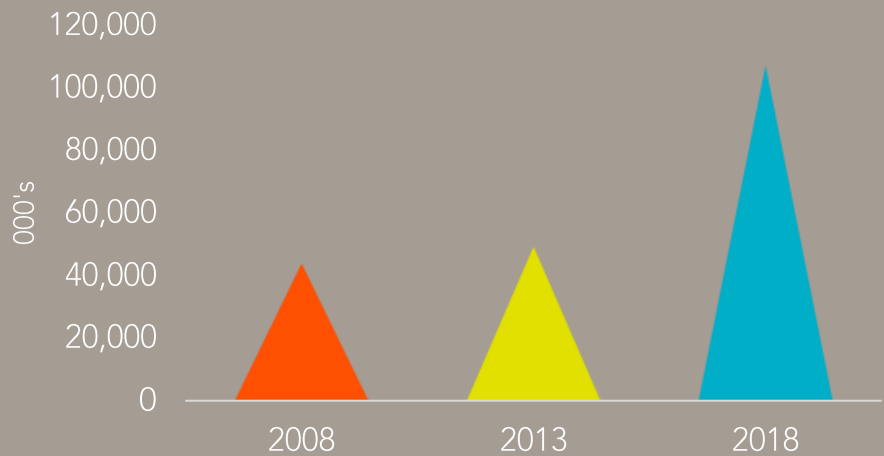
87%

Funded Ratio

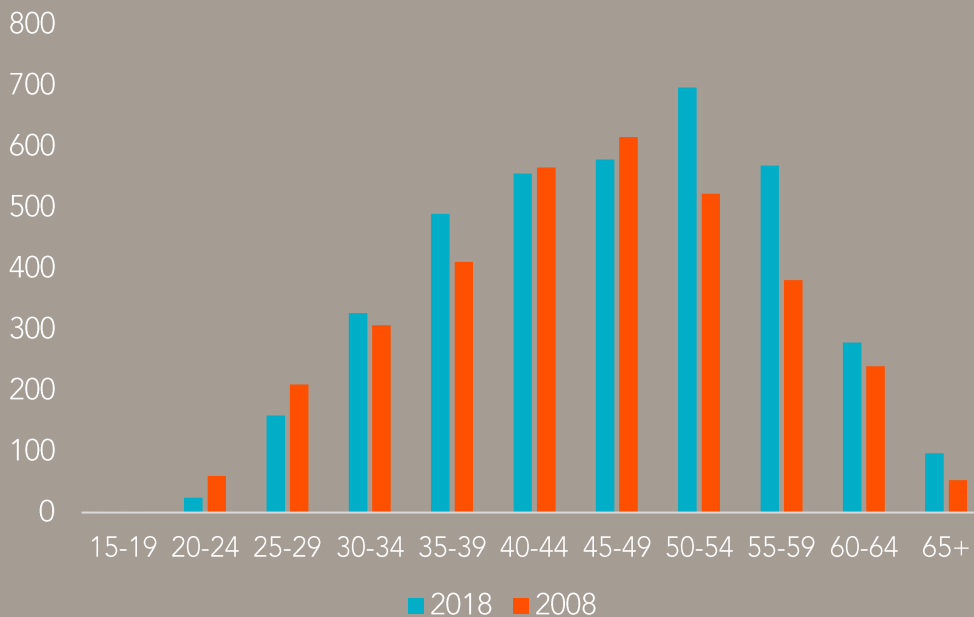
50/50

Joint Sponsorship discussions began on Dec. 14, 2017

Investment Income Comparison



Age Distribution - Active Members  
2018 vs. 2008



6.00%

Annualized Rate of Return

Benchmark Return

4.73%

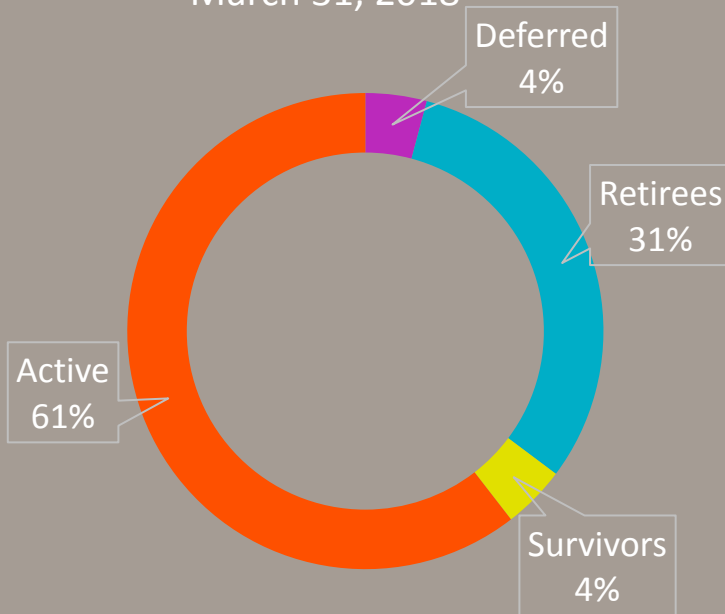
1.57  
Billion

Net Assets Available for Benefits

# Plan Member Highlights

	March 31				
	2018	2017	2016	2015	2014
Active Members	3,778	3,860	3,961	3,907	3,966
Average Age of Active Members	47.2	46.8	46.6	46.5	46.4
Retirees (incl. survivors)	2,209	2,084	1,961	1,796	1,688
Deferred Pensioners	260	252	268	362	314
Average Age at Retirement	61.30	61.23	61.02	60.97	60.94

Plan Membership  
March 31, 2018



2,047  
Females  
ACTIVE MEMBERS  
Males  
1,731

36  
Active employees  
over age  
71

Active Member to  
Retiree Ratio

2008 2.60 : 1

2018 1.71 : 1

# Pension Plan Overview

The three-year Activity Plan prepared for the Memorial University Pension Plan (the "Plan") set out the Plan's objectives for the period April 1, 2017 to March 31, 2020. This Annual Activity Report discusses the outcome of those objectives for the period April 1, 2017 to March 31, 2018 and provides additional information on the operation of the Plan for the year then ended. The Board of Regents, as trustee of the Fund, is responsible to ensure compliance with the **Memorial University Pensions Act** and operates under its own vision, mission, and mandate. Refer to the Activity Plan for more information on the Plan's mandate: [https://www.mun.ca/hr/services/benefits/Activity\\_Plan\\_2017-2020.pdf](https://www.mun.ca/hr/services/benefits/Activity_Plan_2017-2020.pdf)

## About the Plan

The Memorial University Pension Plan is one of the largest public sector pension plans in the Province and provides a lifetime defined benefit pension benefit upon retirement. The Plan is funded through contributions made by employees and Memorial, as well as income from its investments. The majority of employees at the University's main campuses are participants in the Plan (i.e., Grenfell Campus, Marine Institute, Labrador Institute, and the St. John's Campus).

## Pension Plan Design

The Plan is a contributory defined benefit pension plan, established in 1950 under statute of the provincial legislature. It is designed to provide retirement benefits to full-time permanent employees and qualifying contractual employees of the University. In addition, employees of certain separately incorporated entities of the University and affiliated employers are eligible to participate in the Plan. Benefits, which are integrated with the Canada Pension Plan, are based upon employees' years of pensionable service, best five-year average pensionable salary, and a two per cent accrual factor.



### PENSION FORMULA:

2% x best 5-year average salary x years of pensionable service (inclusive of a "bridge benefit" to age 65)

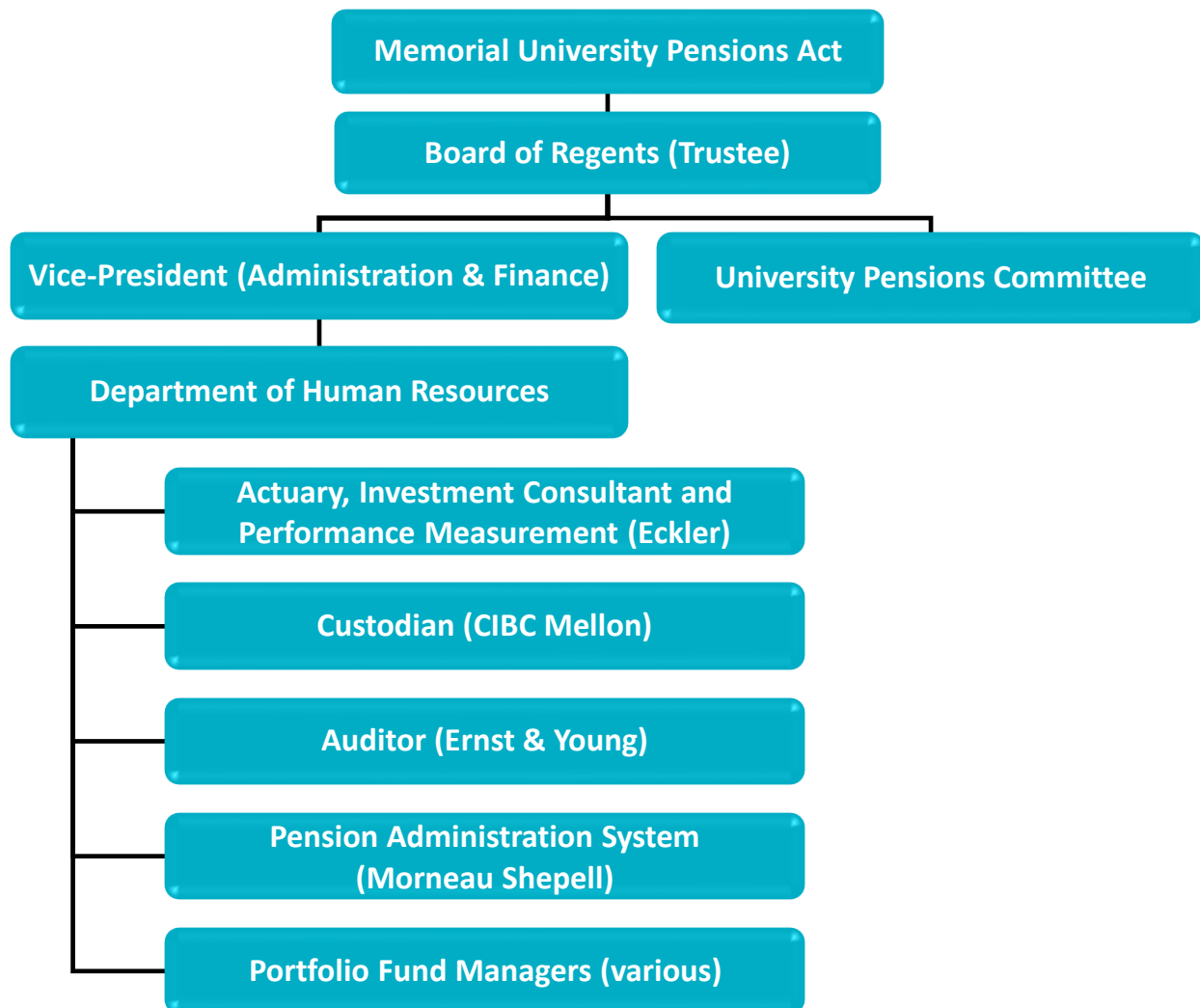


## Authority and Administration

The Plan operates under authority of the **Memorial University Pensions Act**, which prescribes the Board of Regents of the University as trustee. To assist with its responsibilities as trustee, the Board has established a University Pensions Committee to provide advice on matters relating to the Plan. This advisory committee, which has representation from across the entire University community, operates under terms of reference set out by the Board. The actual administration of the Plan is carried out by the University's Department of Human Resources.

The administrative and governance structure of the Plan is outlined below:

Figure 1: Organization Chart



# Investments

All employee and University contributions are paid into the Memorial University Pension Fund (the Fund) for investment by external investment managers. The Statement of Investment Policy and Objectives that has been developed to guide the investment of the Fund, sets out a policy asset mix with the objective of maintaining predictable and stable benefit costs and contributions within a reasonable and acceptable level of risk. The Fund is invested in 13 separate investment mandates that include equities, traditional fixed income, real estate, and mortgages. Of the total investment, 31 per cent has been allocated to foreign equity markets.

The University Pensions Committee routinely monitors the performance of the Fund and where appropriate will recommend changes to the investment policy and its implementation. During the 2017-18 fiscal year, the Board of Regents approved a recommendation of the Committee to move the 10 per cent international equity allocation from a single mandate to three separate mandates, each having a distinct investment strategy and style. The objective was to improve upon performance expectations and lower the risk profile through diversification. For a more detailed description of the investment structure, please refer to Tables 1 and 2.



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## Investing Locally

Through the Greystone Real Estate Fund, the Pension Plan is invested locally in: “351 Water Street” and “Scotia Place” in St. John’s and the “Beclin Business Park” in Mount Pearl. The investment management firms engaged to manage the real estate portfolio routinely assess the local marketplace to identify further investment opportunities.

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## Policy Asset Mix

The policy asset mix set for the investment of the Fund is set out below:

Table 1: Policy Asset Mix

Asset Class	Percentage Allocation	Benchmark Index
Canadian Equity	25%	S&P/TSX
U.S. Equity	21%	S&P 500
International Equity	10%	MSCI ACWI ex-US
Canadian Fixed Income	25%	FTSE TMX Universe
Cash/Short Term	3%*	n/a
Real Estate	8%	CPI + 4%
Mortgages	8%	60% TMX short + 40% TMX mid + 0.5%

\* Note: For monthly re-balancing purposes, cash is included with active fixed income.

### Rebalancing of Assets

The actual distribution of assets will vary from the policy asset mix over time due to the impact of market forces. Once an asset class moves outside a pre-determined range, a re-balancing will be performed by the University to move funds to, or from, that asset class to bring it back in line with investment policy limits.

## Investment Manager Benchmark Distribution

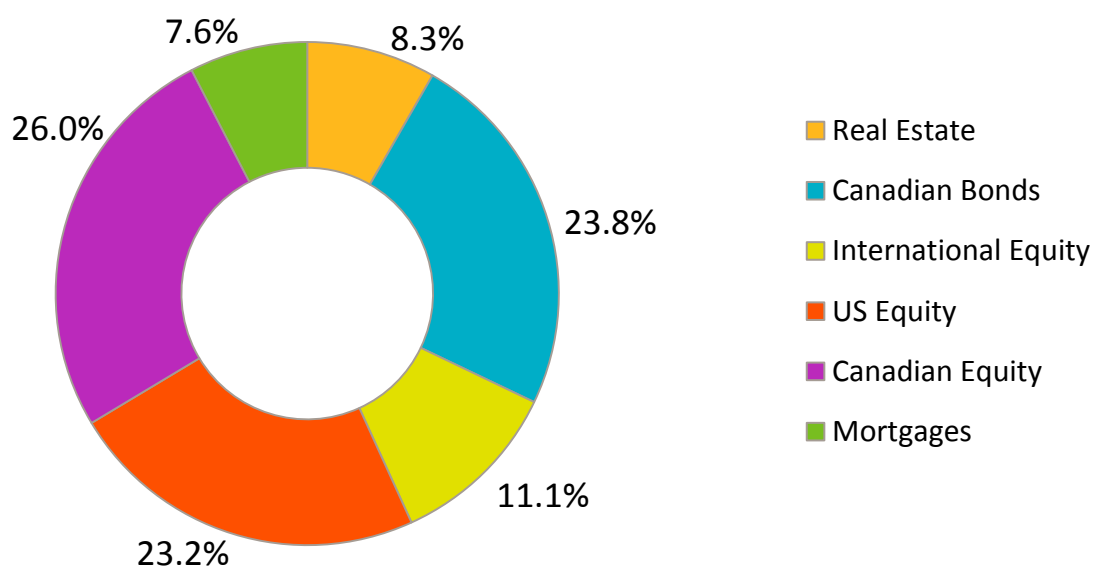
The Fund is invested by external institutional investment management firms. Their mandates and fund allocations are detailed in the table below:

Table 2: Benchmark Distribution

Manager	Mandate	Benchmark Allocation	Actual Allocation March 31, 2018
Jarislowsky Fraser Limited	Canadian Equity	12.5%	13.6%
Connor Clark & Lunn	Canadian Equity	6.25%	6.1%
Fidelity Investments Canada	Canadian Equity	6.25%	6.3%
Greystone Managed Investments Inc.	Canadian Fixed Income	7.75%	6.7%
Jarislowsky Fraser Limited	Canadian Fixed Income	7.75%	5.4%
CIBC Global Asset Management Inc.	Indexed Bonds	12.5%	11.7%
Alliance Bernstein	US Equity	21%	23.2%
Wellington	International Equity	3.75%	4.2%
Fiera	International Equity	3.75%	4.2%
Baillie Gifford	International Equity	2.5%	2.7%
IAM Real Estate Group	Real Estate	3.2%	3.0%
Greystone Managed Investments Inc.	Real Estate	4.8%	5.3%
Greystone Managed Investments Inc.	Mortgages	8%	7.6%

The relative distribution of assets across the entire Fund, as at March 31, 2018, is illustrated in the following chart:

Figure 2: Distribution of Assets



## Investment Performance

For the year ended March 31, 2018 the Fund achieved an annual return of 6.0 per cent which was slightly ahead of the Pension Plan's long term objective of 5.8 per cent, established for discounting liabilities. In a universe of similarly invested funds it ranked in the 21<sup>st</sup> percentile where the 1<sup>st</sup> percentile represents the top performer and the 100<sup>th</sup> percentile, the worst.



Annual Return:

March 31, 2018 ..... 6.0%  
 March 31, 2017..... 11.9%

On a longer term annualized basis, the Fund continues to be a top performer within its peer comparator group. Over a five year period the annualized return of 9.78 per cent surpassed the benchmark by 1.56 percentage points. On a ten year basis the Fund has generated an annualized return of 7.39 per cent, an excess of 1.13 percentage points over the benchmark and ranking it in the 17<sup>th</sup> percentile.

The performance of the Fund has exceeded the benchmark in nine of the last ten years and has ranked above the median balanced fund in eight of those years. Selected performance metrics are as follows:

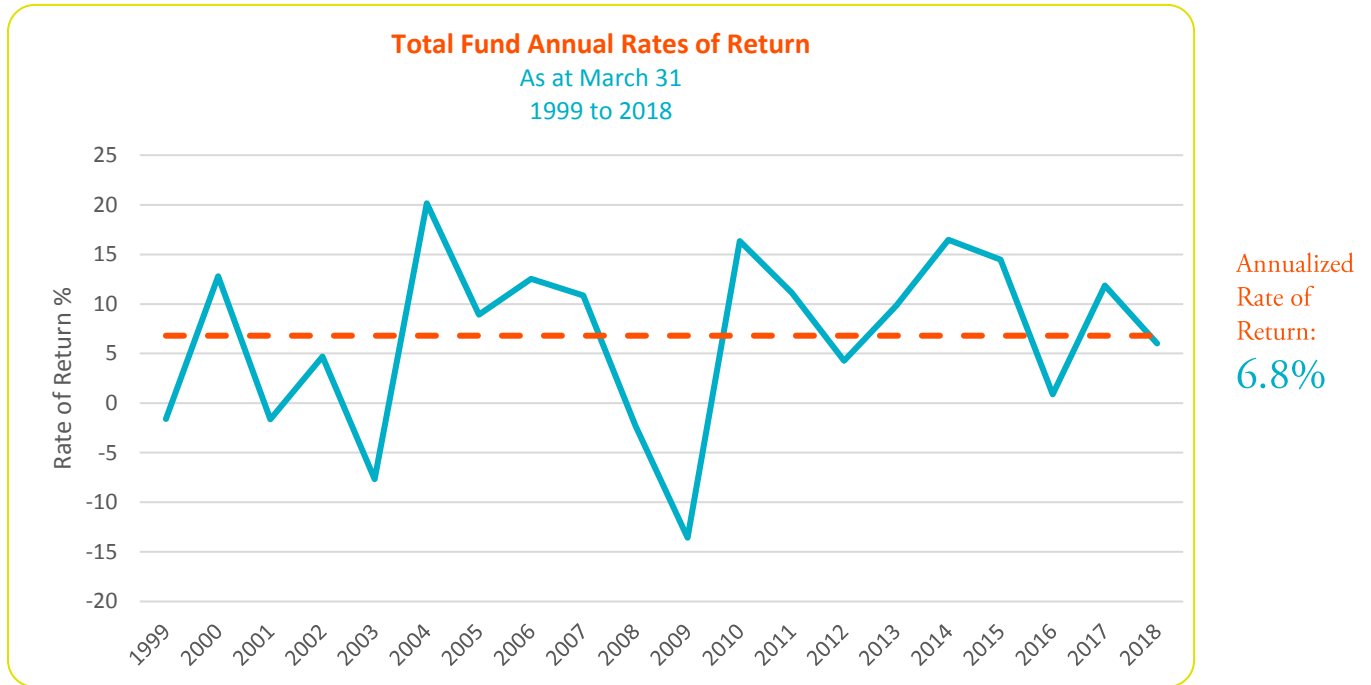
Table 3: Investment Performance

	1 year	4 years	5 years	10 years
Annualized Return	6.00%	8.17%	9.78%	7.39%
Benchmark Return*	4.73%	6.92%	8.22%	6.26%
Value Added	1.27%	1.25%	1.56%	1.13%
Percentile Ranking	21	3	4	17

\* The benchmark is the expected return of the Fund based upon a passive investment in the indices underlying the policy asset mix.

Figure 3: Rate of Return

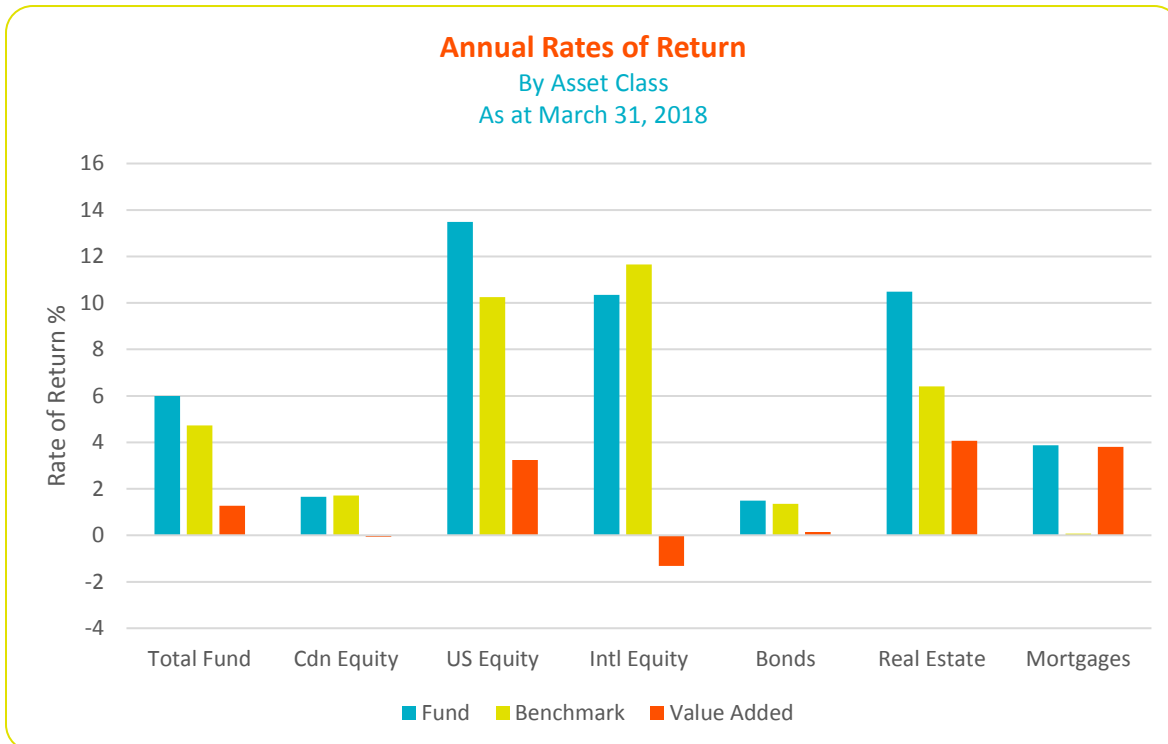
Annual fund returns over the period 1999 to 2018 are presented in the chart below.



Note: For presentation purposes, long term returns are available from 1999 onwards. Past returns should not be viewed as an indicator of future fund performance.

Figure 4: Asset Class Rate of Return

Annual returns by asset class for the one year period ended March 31, 2018 are shown below:



# Actuarial Valuation

An actuarial valuation of the Pension Plan was performed as at December 31, 2017 and the results have been extrapolated to March 31, 2018 for reporting purposes.

While an actuarial valuation of the Pension Plan is normally required at least once every three years for funding purposes, annual valuations have been performed since 2006. These valuations have been requested by the provincial Office of the Superintendent of Pensions as a condition of granting a solvency funding exemption under the **Pension Benefits Act Regulations**. The current exemption is in effect until December 31, 2018.

In addition to reporting on the solvency position of the Pension Plan, an actuarial valuation is performed to determine the ability of the Pension Plan to meet its obligations or “pension promises” on a going-concern basis. It is also used to project the cost of benefits that will accrue to active plan members in the years following the valuation. The results of the extrapolation to March 31, 2018 and the December 31, 2017 valuation are highlighted in the following table together with comparative figures for an extrapolation of the Pension Plan’s financial position to March 31, 2017:

Table 4: Actuarial Results

Actuarial Balance Sheet						
	March 31, 2018 (\$ Millions)		December 31, 2017 (\$ Millions)		March 31, 2017 (\$ Millions)	
	Going Concern	Solvency	Going Concern <sup>1</sup>	Solvency <sup>2</sup>	Going Concern	Solvency
Actuarial Value of Assets <sup>4</sup>	1,546.2	See Note 3) below	1,539.3	1,725.7	1,474.5	See Note 3) below
Actuarial Liabilities	1,798.4		1,778.9	2,142.2	1,736.6	
Unfunded Liability	(252.2)		(239.6)	(416.5)	(262.1)	

Notes:

- 1) The going concern unfunded liability, as at December 31, 2017 includes approximately \$77.4 million related to the introduction of indexing in July 2004. A financing plan is in place to amortize this portion of the unfunded liability over a remaining period of 26.5 years from December 31, 2017.
- 2) Solvency assets at December 31, 2017 include the present value of five years’ worth of going concern special payments (\$145.5 million).
- 3) An extrapolation of the solvency position was not performed as at March 31, 2017 or March 31, 2018.
- 4) The actuarial value of assets includes a fair value adjustment to “smooth” market effects over a 3 year period.

## Funding

The Pension Plan is being funded in accordance with the December 31, 2015 actuarial valuation, which disclosed a going-concern deficiency of \$297.2 million. Of this amount, approximately \$78.8 million was in respect of past service costs associated with the introduction of indexing in 2004. By special provision of the **Pension Benefits Act, 1997** (PBA), the University and employees are financing the indexing liability over a remaining period of 26.5 years from December 31, 2017 through contributions equivalent to 1.2 per cent of pensionable payroll (shared equally by the University and employees). The balance, namely \$218.4 million, must be liquidated by the University through special payments of 8.6 per cent of pensionable payroll over a period of 15 years. For the fiscal year 2015-16 and 2016-17, the University was given regulatory approval to defer the required going concern special payments. With respect to the 2017-18 special payment, the University has requested further deferral pending the outcome of negotiations with employee groups on joint sponsorship of the Pension Plan.

The Plan's unfunded liability is addressed as Issue Two in the Objectives section of this Activity Report.

## Current Service Cost

Current service cost is the basis upon which the Pension Plan's contribution rate for both employees and the University is determined. The current contribution rate, based upon the Pension Plan's funding valuation, is shown below:

Table 5: Contribution Rate

Rate Structure	Current Contribution Rate
Earnings up to Year's Basic Exemption under Canada Pension Plan	11.4%
Earnings between Year's Basic Exemption under Canada Pension Plan and the Year's Maximum Pensionable Earnings under Canada Pension Plan	9.6%
Earnings above Year's Maximum Pensionable Earnings under Canada Pension Plan	11.4%



Report On

# Performance

# 2017-18

Three primary issues and related goals and objectives as identified in the 2017-2020 Activity Plan.

## Responsible stewardship in the collection, investment and disbursement of the Fund

The Board of Regents, as trustee of the Fund, is responsible to ensure that funding objectives for the Plan are met and that contributions are invested in a prudent and timely manner. The funding objectives include an actuarially sound contribution rate, an appropriate investment strategy and a special payment stream to liquidate unfunded liabilities. The special payment stream is addressed in Issue Two. The Board must further ensure that the Plan is administered in accordance with the **Memorial University Pensions Act** and other governing legislation.

Over the past year of the Plan, the Board of Regents ensured that the funding objectives of the Plan were met and that current contributions were invested in a timely and prudent manner in accordance with all governing legislation. In doing so, they successfully achieved their objective as outlined in the 2017-2020 Activity Plan. During the period April 1, 2017 to March 31, 2018 a total of \$68.5 million in contributions from the University and its employees were paid into the pension fund for investment while the plan paid out a total of \$74.7 million in benefits to eligible retired employees and their beneficiaries. Over that same period, \$6.7 million in administrative expenses were paid in addition to \$7.7 million in termination benefits. The following details the Plan's successful achievement of the indicators, and therefore the objective presented in the activity plan for the 2017-18 fiscal year.

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### Objective

By March 31, 2018, the Memorial University Pension Plan will have met its funding objectives, including the awarding of monies to eligible retired members or their survivors and the payment of associated administrative expenses.

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#### Indicators:

- Collected and invested contributions  
During the 2017-18 fiscal year, the Plan collected a total of \$68,453,000 in contributions, representing amounts paid by the University and its employees and funds transferred from other employers' plans. All contributions are paid into the Pension Fund for investment by external investment managers. Summary information on the Plan's investment structure and performance has been included in this Report under the "Investments" section.
- Eligible retired members/survivors are receiving pension benefits  
The Plan paid a total of \$74,674,000 in benefits to eligible retired employees or their beneficiaries in 2017-18.
- Paid associated administrative expenses  
During 2017-18, the Plan paid a total in \$6,709,000 in administrative expenses and \$7,709,000 in termination benefits.

## 2018-19 Objective

By March 31, 2019, the Memorial University Pension Plan will have met its funding objectives, including the awarding of monies to eligible retired members or their survivors and the payment of associated administrative expenses.

**Indicators:** Collected and invested contributions

Ensured eligible retired members/survivors received pension benefits

Paid associated administrative expenses

### Unfunded Liability

As the employer, Memorial University must comply with the pension plan funding requirements of the **Pension Benefits Act, 1997** (PBA). When the Pension Plan experiences funding deficiencies, as measured by periodic actuarial valuations, the University must make additional special payments into the Pension Plan. The PBA requires that going concern deficiencies be amortized over a period not greater than 15 years, while solvency deficiencies must be paid over not more than 5 years. The University is exempt from the requirement to fund solvency deficiencies until December 31, 2018. In addition, through special provision under the PBA, the past service costs associated with the introduction of indexing in 2004 are being amortized over a remaining period of 26.25 years from March 31, 2018.

With respect to going concern funding, the University was given regulatory approval to defer the required special payments for 2015-16 and 2016-17. During these years the University had engaged its employee groups through the University Pensions Committee to study joint sponsorship of the Pension Plan. Subsequent to this, in the fall of 2017, negotiations began between the University and the representative unions on reaching agreement relative to the sharing of responsibility for the Pension Plan. These negotiations continued throughout the 2017-18 fiscal year and are expected to conclude in 2018-19. The proposed parties to joint sponsorship, the University and the unions, have reached preliminary consensus on many of the associated guiding principles and funding policy issues. The University has made a request to the Provincial Government for further deferral of annual special payments while pension reform negotiations are ongoing.

An actuarial valuation of the Pension Plan was performed as at December 31, 2015 for funding purposes and the next funding valuation is expected to be completed as at December 31, 2018. In the intervening years annual valuations are also performed. The going concern unfunded liability, revealed at December 31, 2015, was \$297.2 million and this includes approximately \$78.8 million in respect of indexing introduced in 2004. Under the PBA the balance of \$218.4 million would be amortized over a 15 year period with special annual payments of 8.6 per cent of pensionable payroll.



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## Objective

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By March 31, 2018, Memorial University will have utilized a funding policy to guide the long term sustainability of the Pension Plan and to address the unfunded liability.

**Indicator:** Developed a funding policy to guide the sustainability of the Pension Plan and address the unfunded liability.

Due to ongoing negotiations with employee groups on joint sponsorship, Memorial University did not meet the objective of utilizing a funding policy to guide the long term sustainability of the Pension Plan and to address the unfunded liability as set out in the 2017-2020 Activity Plan. A proposal to eliminate the unfunded liability upon conversion to joint sponsorship has, however, been developed in addition to the framework for a new funding policy. The University is working with employee groups and Government toward concluding these initiatives within the next fiscal year.

With respect to the portion of the unfunded liability related to indexing, this is being financed by ongoing contributions from the University and employees at a combined rate of 1.2 per cent of pensionable payroll. It is proposed that this financing arrangement will continue under a jointly sponsored Pension Plan.

## 2018-19 Objective

By March 31, 2019, Memorial University will have utilized a funding policy to guide the long term sustainability of the Pension Plan and to address the unfunded liability.

**Indicator:** Implemented a funding policy to guide the sustainability of the Pension Plan and address future surpluses and deficits.

### Joint Sponsorship

Within the province of Newfoundland and Labrador, other large public sector pension plans have undergone a transformational pension reform process which has culminated in the establishment of shared responsibility for pension plan management and funding.

In consideration of the Memorial University Pension Plan's status as a public sector pension plan and in recognition of its funding challenges, the Provincial Government has requested that the University and Pension Plan stakeholders also move to establish joint sponsorship of the Plan and formulate a funding policy to guide its future sustainability. Under this structure, the Pension Plan would be jointly sponsored by the University and employee groups and the sponsors will share equally in the Plan's management and funding.

During the fiscal year 2017-18, the University was working toward joint sponsorship of the Pension Plan with employee groups as represented by the Memorial University Faculty Association (MUNFA), the Canadian Union of Public Employees (CUPE), and the Newfoundland and Labrador Association of Public and Private Employees (NAPE). At March 31, 2018, negotiations were still ongoing and are expected to conclude before the end of the fiscal year 2018-19.



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### Objective

By March 31, 2018, the Memorial University Pension Plan will have transitioned to a jointly sponsored pension plan.

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**Indicator:** Began the development of a joint sponsorship agreement for the future management and funding of the Pension Plan.

Memorial University did not meet the objective of transitioning to a jointly sponsored pension plan by March 31, 2018. Negotiations did, however, begin with employee groups during the year and are expected to continue throughout 2018-19 with the objective of reaching agreement before March 31, 2019.

## 2018-19 Objective

By March 31, 2019, the Memorial University Pension Plan will have transitioned to a jointly sponsored pension plan.

**Indicators:** Continued negotiations with employee groups toward the development of a joint sponsorship agreement for the future management and funding of the Pension Plan.

Signed reform agreement.

Signed joint sponsorship agreement.

# Highlights and Partnerships

## Financial Highlights

Selected financial highlights for the Plan are shown in the table below. More detailed information can be found in the audited financial statements beginning on page 27 of this report.

Table 6: Financial Highlights

	March 31	
	2018	2017
Net Assets Available for Benefits *	1,569,748,000	1,500,468,000
One-Year Annual Rate of Return	6.00%	11.87%
Realized Investment Income	107,205,000	107,660,000
Pensions Paid**	71,679,000	66,380,000
Current Contributions: Employee	30,478,000	27,583,000
University	30,479,000	27,577,000
Buyback Contributions: Employee	3,538	4,892
University	201	191
University special payments:		
Going Concern	Nil	Nil
Solvency deficit (refunds)	3,757,000	2,907,000

\* Net assets available for benefits is reported at fair value and does not include the actuarial smoothing adjustment. Refer to note 6 of the accompanying financial statements for further information.

\*\* Not inclusive of death benefits or refunds.

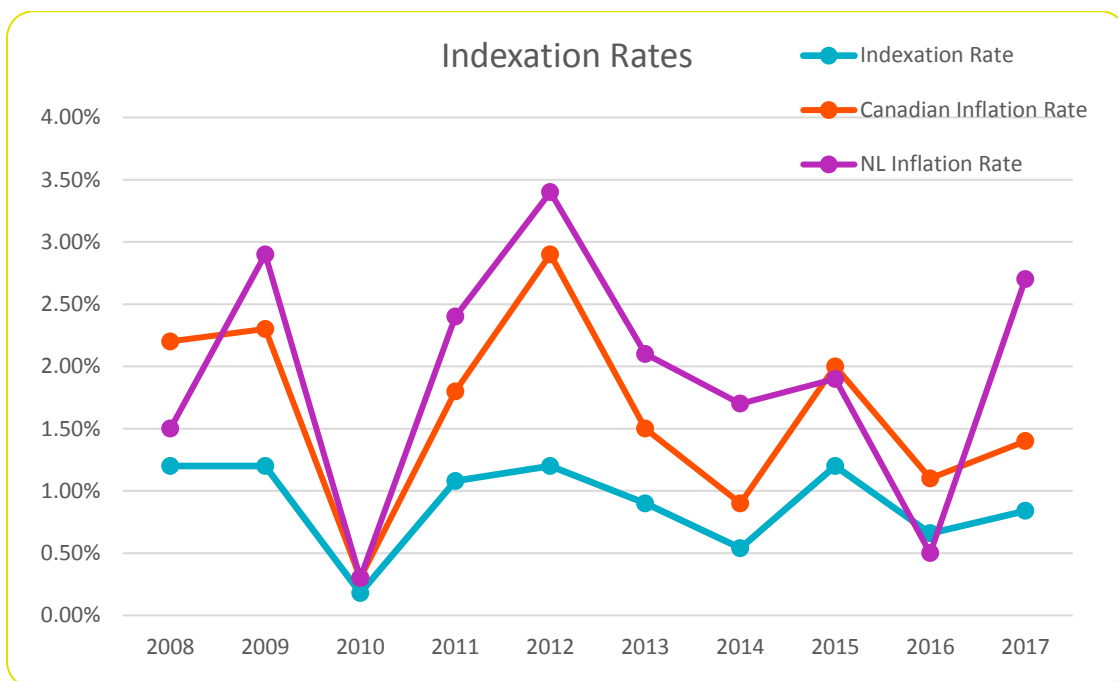


## Benefits Provision Indexing

On July 1, 2017, 1,586 retirees and survivors received a 0.84 per cent indexing adjustment to their pensions. Indexing was introduced under the Plan in July 2004, with yearly adjustments calculated as 60 per cent of the annual change in the consumer price index, as measured by Statistics Canada, to a maximum yearly increase of 1.2 per cent.

Figure 5: Indexation Rates

Indexation rates from 2008 to present are showing in the chart below:



## Membership Movement

Throughout the fiscal year the pension plan participant distribution will inevitably change with retirements, new hires, etc. Movement within the 2017-18 fiscal year is shown below:

Table 7: Membership Movement

Membership Group	March 31, 2018	April 1, 2017
Actives	3,778	3,860
Retirees	1,941	1,838
Survivor	268	246
Deferred	260	252

## Retirement Planning Seminars

To help Memorial employees plan for their retirement, full day retirement planning seminars are held annually. With almost 1,000 employees eligible for unreduced retirement by 2019, this year's seminar had approximately 200 participants. The seminar was open to employees and their spouses and was attended by those who anticipate retiring in the next



few years and those who are planning ahead for retirement in the years to come. During the seminar, participants learned about the University's pension and post-retirement benefits, the Canada Pension Plan and Old Age Security Benefits. Presentations were also provided by a representative of Memorial University of Newfoundland Pensioners' Association (MUNPA) and from a financial planning and consulting firm. The University also provides pension information sessions upon request from individual departments.

## Actuarial Valuation and Financial Position

A full valuation of the Plan was performed at December 31, 2017 and extrapolated to March 31, 2018 for financial reporting purposes. The results of this valuation are reported upon in an earlier section. The financial position of the Plan improved from the prior year due to:

- i. investment returns of 6.0 per cent exceeding the discount rate of 5.8 per cent; and
- ii. experience gains relative to the assumptions used to value pension liabilities

The Plan's funded position over the past five years is shown below:

Table 8: Financial Position

	March 31				
	2018 (000s)	2017 (000s)	2016 (000s)	2015 (000s)	2014 (000s)
Net Assets at Market Value	1,569,748	1,500,468	1,358,381	1,359,270	1,176,485
Pension Obligations	1,798,415	1,736,599	1,657,148	1,465,989	1,399,236
Deficit	228,667	236,131	298,767	106,719	222,751
Funded Ratio	87%	86%	82%	93%	84%

- Results of December 31 valuations are extrapolated to March 31 for financial reporting.
- Financial positions and funded ratios are reported at market value as per Pension Plan financial statements and do not reflect asset "smoothing" adjustments contained in actuarial valuation reports.

# Opportunities and Challenges Ahead

## Opportunities

The following areas of opportunity have been identified for 2018-19:

- Providing retirement planning seminars;
- Individual employee meetings on preparing for retirement.

## Challenges

The following challenges have been identified for 2018-19:

- Continued monitoring of the investment performance of fund managers and review of the Statement of Investment Policy and Objectives;
- Funding valuation at December 31, 2018;
- Continued negotiation with employee groups on reaching agreement on joint sponsorship of the Pension Plan and development of associated funding policy and governance documents.

# Conclusion

The Pension Plan performed well during the 2017-18 fiscal year. The growth in Plan assets outpaced pension liabilities leading to an improvement in the funded ratio which stood at 87 per cent at March 31, 2018. Net assets available for benefits increased by \$69.3 million to end the year at \$1.57 billion while pension liabilities grew to \$1.8 billion, representing an increase of \$62 million over the prior year.

On the investment side, the Pension Fund posted an annual return of 6.0 per cent for the year ranking it in the 21<sup>st</sup> percentile when compared to a universe of similarly invested funds. This result was slightly ahead of the Plan's actuarial hurdle of 5.8 per cent and was a contributor to the improved financial position. The unfunded liability measured on a market value basis, as reported in the Pension Plan's financial statements, declined by approximately \$7.5 million from the prior year to \$228.7 million at March 31, 2018.

Following extensive consultation with its Pension Committee, the University engaged the three major unions on campus in December 2017 to begin negotiations on reaching agreement on joint responsibility for the Pension Plan. Significant progress on the terms of sponsorship and the plan's future sustainability was made during the year. These negotiations will continue into 2018-19 with the objective of reaching agreement before March 31, 2019. The Provincial Government has been kept abreast of progress to date and will be further consulted as negotiations proceed.

The Board, through the work of the University administration and stakeholder groups, will continue its efforts to ensure that funding and governance goals are achieved and that the Pension Plan remains competitive and affordable for its constituent groups.

With respect to the objectives set out in the Board of Regents' three-year activity plan intended to guide the Plan for the fiscal years 2017-18 to 2019-20, the University met the funding objective relative to the collection, investment, and disbursement of the fund. As negotiations with plan stakeholders on joint sponsorship are ongoing, the objectives related to the unfunded liability and joint sponsorship have not been met. The University anticipates that these objectives will be fulfilled in 2018-19, subject to successful conclusion of joint sponsorship negotiations.



Financial Statements  
Memorial University of Newfoundland  
Pension Plan

March 31, 2018

## **INDEPENDENT AUDITORS' REPORT**

To the Board of Regents of  
**Memorial University of Newfoundland**

We have audited the accompanying financial statements of the Memorial University of Newfoundland Pension Plan, which comprise the statement of financial position as at March 31, 2018, and the statements of changes in net assets available for benefits and changes in pension obligations for the year then ended and 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 the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditors 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 in our audit 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 the Memorial University of Newfoundland Pension Plan as at March 31, 2018, and the changes in its net assets available for benefits and changes in its pension obligations for the year then ended in accordance with Canadian accounting standards for pension plans.

March 21, 2019  
St. John's, Canada

*Ernst & Young LLP*

Chartered Professional Accountants

## Memorial University of Newfoundland Pension Plan

### STATEMENT OF FINANCIAL POSITION

As at March 31

[thousands of dollars]

	<u>2018</u>	<u>2017</u>
<b>ASSETS</b>		
<b>Receivables</b>		
Contributions receivable	687	2,144
Accrued interest and dividends	2,252	2,411
Amounts due from pending trades	323	3,488
Due from Memorial University of Newfoundland [note 4]	1,745	4,275
	<u>5,007</u>	<u>12,318</u>
<b>Investments [notes 5 &amp; 10]</b>		
Cash and short-term investments	48,160	36,601
Bonds and debentures	371,686	364,311
Equities	900,427	876,033
Real estate	128,995	104,422
Mortgages	120,022	115,545
	<u>1,569,290</u>	<u>1,496,912</u>
<b>Intangible assets</b>	<u>218</u>	<u>262</u>
<b>Total assets</b>	<u>1,574,515</u>	<u>1,509,492</u>
<b>LIABILITIES</b>		
Accounts payable and accrued expenses	1,320	1,152
Accrued pension refunds	1,948	2,955
Amounts payable from pending trades	1,499	4,917
<b>Total liabilities</b>	<u>4,767</u>	<u>9,024</u>
<b>Net assets available for benefits</b>	<u>1,569,748</u>	<u>1,500,468</u>
Pension obligations	<u>(1,798,415)</u>	<u>(1,736,599)</u>
<b>Deficit</b>	<u>(228,667)</u>	<u>(236,131)</u>

See accompanying notes

On behalf of the Board:

  
Chair of the Board of Regents

  
Chair of the Finance Committee



## Memorial University of Newfoundland Pension Plan

### STATEMENT OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS

Year ended March 31  
[thousands of dollars]

	<u>2018</u>	<u>2017</u>
<b>INCREASE IN ASSETS</b>		
<b>Investment income</b>		
Interest income	11,778	16,296
Dividend income	20,967	22,319
Current-period (decrease) increase in fair value of investments	(17,286)	52,334
Realized gain on sale of investments	74,460	69,045
	<u>89,919</u>	<u>159,994</u>
<b>Contributions [note 7]</b>		
Employee - current service	30,478	27,583
- past service	3,538	4,892
Employer - current service	30,479	27,577
- past service	201	191
- special payments	3,757	2,907
	<u>68,453</u>	<u>63,150</u>
<b>Total increase in assets</b>	<u>158,372</u>	<u>223,144</u>
<b>DECREASE IN ASSETS</b>		
Benefits paid	71,679	66,380
Refunds of contributions	7,709	7,560
Death benefits	2,995	870
Administrative expenses [note 8]	6,709	6,247
<b>Total decrease in assets</b>	<u>89,092</u>	<u>81,057</u>
<b>Increase in net assets</b>	<b>69,280</b>	142,087
Net assets available for benefits, beginning of year	<u>1,500,468</u>	1,358,381
<b>Net assets available for benefits, end of year</b>	<u>1,569,748</u>	<u>1,500,468</u>

See accompanying notes

## Memorial University of Newfoundland Pension Plan

### STATEMENT OF CHANGES IN PENSION OBLIGATIONS

Year ended March 31  
[thousands of dollars]

	<u>2018</u>	<u>2017</u>
Actuarial present value of accrued pension benefits, beginning of year	<b>1,736,599</b>	1,657,148
Experience gains	<b>(19,831)</b>	(6,343)
Changes in actuarial assumptions/methodology	<b>556</b>	-
Interest accrued on benefits	<b>100,993</b>	96,761
Benefits accrued	<b>62,481</b>	63,843
Benefits paid, death benefits and refunds of contributions	<b>(82,383)</b>	(74,810)
<b>Actuarial present value of accrued pension benefits, end of year [note 6]</b>	<b><u>1,798,415</u></b>	<u>1,736,599</u>

*See accompanying notes*

# Memorial University of Newfoundland Pension Plan

## Notes to Financial Statements

March 31, 2018

[tabular amounts in thousands of dollars]

### 1. DESCRIPTION OF PLAN

The following description of the Memorial University of Newfoundland Pension Plan [the “Plan”] is a summary only. For more complete information, reference should be made to the *Memorial University Pensions Act (the “Act”)*.

#### General

The Plan is a contributory defined benefit pension plan covering eligible employees of Memorial University of Newfoundland [the “University”] in accordance with the Act.

Where differences exist between the provisions of the Act and the Newfoundland *Pensions Benefits Act, 1997* [the “PBA”], the minimum standards prescribed by the PBA will prevail unless the Plan provisions exceed these standards.

#### Funding policy

The Plan is subject to the funding provisions of section 35 of the PBA and section 12 of the PBA Regulations which require that the employer contribute an amount equal to the normal actuarial cost allocated to the employer in the most recently filed actuarial valuation. In addition, where the Plan experiences a solvency deficiency, the employer is required to contribute an amount sufficient to liquidate the solvency deficiency within five years of the solvency valuation date. Likewise, going concern unfunded liabilities are required to be liquidated by the employer over a period not exceeding 15 years.

#### Provincial guarantee

The Plan is being underwritten by the Province of Newfoundland and Labrador. Section 6 of the Act states:

All pensions, payments, and refunds and all expenses of the administration of this Act are a charge upon and payable out of the fund and if at any time there is not sufficient money at the credit of the fund for those purposes as they fall due for payment the Minister of Finance shall pay to the board an amount to cover the deficiency, and the board shall deposit that amount to the fund.

#### Service pensions

A service pension is available based on the number of years of service times two percent of the best five-year average pensionable salary. Pensions are indexed from age 65 at the rate of 60% of the annual change in the Consumer Price Index, as measured by Statistics Canada, to a maximum annual increase of 1.2%.

# **Memorial University of Newfoundland Pension Plan**

## **Notes to Financial Statements**

March 31, 2018

[tabular amounts in thousands of dollars]

### **Survivors' pensions**

A survivor pension is paid to a surviving principal beneficiary or dependent child, as defined in the Act, of a member who has a minimum of two years' credited service.

### **Death refunds**

A death refund is payable to the estate of a pensioner or survivor where such pensions have not been paid to the full extent of the individual's contributions plus interest. In a similar manner, a death refund is payable to the estate of a contributor where no survivor pension is paid. A death refund may also be paid to a surviving principal beneficiary who elects to transfer the commuted value of their survivor pension from the Plan where the death of a contributor precedes the commencement of their pension.

### **Refunds**

Upon application and subject to locking-in provisions, a terminated employee may withdraw their contributions and accumulated interest.

### **Income taxes**

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

## **2. BASIS OF PRESENTATION**

These financial statements have been prepared on a going concern basis as set out in Section 4600, Pension Plans, in Part IV of the Chartered Professional Accountants of Canada ["CPA Canada"] Accounting Handbook. These financial statements present the information of the Plan as a separate reporting entity independent of the sponsor and participants of the Plan.

## **3. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES**

### **Use of estimates**

The preparation of financial statements in conformity with Canadian accounting standards for pension plans requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the year. Actual results could differ from these estimates. These estimates are reviewed periodically and, as adjustments become necessary, they are reported in earnings in the period during which they become known. Areas of key estimation include the actuarial assumptions for the determination of the

# **Memorial University of Newfoundland Pension Plan**

## **Notes to Financial Statements**

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[tabular amounts in thousands of dollars]

pension obligations [see note 6] and the fair value of investments [see note 10].

### **Investments**

Investments are stated at fair value and transactions are recorded as of the trade date. Fair value is the amount of consideration that would be agreed upon in an arm's length transaction between knowledgeable willing parties who are under no compulsion to act. In determining fair value, adjustments have not been made for transaction costs as they are not considered to be significant. The change in the difference between the fair value and cost of investments, at the beginning and end of each fiscal year, is reflected in the statement of changes in net assets available for benefits as current-period change in fair value of investments.

Fair value of investments is determined as follows:

Bonds, debentures and equities are valued at year-end quoted market prices where available. Where quoted prices are not available, estimated fair value is calculated using comparable securities. In the case of bonds and debentures, fair value measurement is based upon the bid price whereas equities are valued at the mid-point of the bid-ask spread.

Short-term notes, treasury bills and term deposits maturing within a year are valued at amortized cost, which, together with accrued interest income, approximates fair value given the short-term nature of these instruments.

Guaranteed investment certificates and term deposits maturing after one year are valued at fair value determined as 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 fund investments are valued at the unit value supplied by the pooled fund administrator, which represents the Plan's proportionate share of underlying net assets at fair value determined using closing market prices.

The investment in real estate is comprised of units in both a closed-end real estate fund and an open-end real estate fund. The fair value of properties in both funds is determined at least annually by independent accredited appraisers. New acquisitions are carried at cost for the first 12 months.

### **Investment income**

Investment income, which is recorded on the accrual basis, includes realized gains (losses) on the sale of investments, interest income, dividends and unrealized changes in fair value.

## **Memorial University of Newfoundland Pension Plan**

### **Notes to Financial Statements**

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[tabular amounts in thousands of dollars]

#### **Realized gain on sale of investments**

The realized gain on the sale of investments is the difference between proceeds received and the average cost of investments sold.

#### **Recognition of contributions and benefits**

Contributions and benefits are recognized on the accrual basis of accounting.

All current service and required contributions from the University and Plan participants, respectively, are reflected in the year of the Plan participant's earnings.

#### **Foreign currency translation**

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

Foreign currency denominated transactions including cost amounts, are translated into Canadian dollars at the rates of exchange in effect on the dates of the related transactions.

#### **Intangible assets**

Intangible assets are amortized on the basis of their estimated useful lives using the straight line method and the following duration:

Software	10 years
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#### **Fair value of financial instruments**

Investment assets and liabilities are measured at fair value as disclosed elsewhere in these financial statements. Other assets and liabilities do not have significant fair value risk as they are all due within twelve months.

#### **4. DUE FROM MEMORIAL UNIVERSITY OF NEWFOUNDLAND**

The treasury function of the Plan is administered by the University and, therefore, the Due from Memorial University of Newfoundland account represents funds owed to the Plan by the University.

## Memorial University of Newfoundland Pension Plan

### Notes to Financial Statements

March 31, 2018

[tabular amounts in thousands of dollars]

#### 5. INVESTMENTS

[a] The following table summarizes investments at fair value:

	<u>2018</u>	<u>2017</u>
Cash and short-term investments	<u>48,160</u>	36,601
Canadian bonds and debentures:		
Federal	71,148	48,154
Provincial	51,605	60,637
Corporate	64,568	73,863
Pooled funds	<u>184,365</u>	181,657
	<u>371,686</u>	364,311
Canadian equities:		
Common stock	288,967	286,131
Pooled funds	<u>111,707</u>	108,745
	<u>400,674</u>	394,876
Foreign equities:		
Common stock	325,065	321,875
Pooled funds	<u>174,688</u>	159,282
	<u>499,753</u>	481,157
Total equities	<u>900,427</u>	876,033
Canadian Real estate	<u>128,995</u>	104,422
Canadian Mortgages	<u>120,022</u>	115,545
	<u>1,569,290</u>	1,496,912

[b] Realized losses arising from foreign currency translation amounted to \$311,920 for the year ended March 31, 2018 [2017 – loss of \$35,409]. For financial statement presentation purposes, these amounts have been included in realized gain on sale of investments.

# Memorial University of Newfoundland Pension Plan

## Notes to Financial Statements

March 31, 2018

[tabular amounts in thousands of dollars]

### 6. OBLIGATION FOR PENSION BENEFITS

The present value of accrued pension benefits was determined using the projected benefits method prorated on service and the administrator's best estimate assumptions. The Actuary, Eckler Limited, performed an actuarial valuation as at December 31, 2017, and extrapolated the results to March 31, 2018, with the next valuation to be completed as at December 31, 2018.

The actuarial present value of benefits as at March 31, 2018, was estimated to be \$1,798,415 [2017 – \$1,736,599]. The statement of changes in pension obligations outlines the principal components of change in actuarial present value from one year to the next.

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 December 31, 2017, valuation were:

<b>Discount rate</b>	<b>Salary escalation rate</b>
5.8% [2017 – 5.8%] pre- and post-retirement	4.0% [2017 – 4.0%] per annum

The actuarial value of net assets available for benefits has been determined at amounts that reflect long-term market trends [consistent with assumptions underlying the valuation of the accrued pension benefits]. The fair value is the underlying basis and incorporates an investment reserve calculated as the unamortized difference between expected and actual investment returns over a period of three years.

The actuarial asset values used in the extrapolations for 2018 and 2017 were as follows:

	<b>2018</b>	<b>2017</b>
Net assets available for benefits	<b>1,569,748</b>	1,500,468
Actuarial value changes not reflected in fair value of net assets	<b>(23,530)</b>	(25,942)
Actuarial value of net assets available for benefits	<b>1,546,218</b>	1,474,526



# Memorial University of Newfoundland Pension Plan

## Notes to Financial Statements

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[tabular amounts in thousands of dollars]

### 7. FUNDING POLICY

Pursuant to the Act, employees are required to contribute to the Plan in accordance with the following schedule:

- 11.4% of pensionable earnings up to the Year's Basic Exemption ["YBE"] under the *Canada Pension Plan Act*;
- 9.6% of pensionable earnings above the YBE up to and including the Year's Maximum Pensionable Earnings ["YMPE"] under the *Canada Pension Plan Act*;
- 11.4% of pensionable earnings above the YMPE.

The University is required to contribute an amount equal to the contributions paid by employees and any additional amounts required to be paid by an employer under the PBA. For the period April 1, 2015, to March 31, 2017, the University was exempt from the going concern funding requirements of the PBA thereby allowing deferral of the 2015/16 and 2016/17 special payments against the Plan's unfunded liability. The University was also granted a deferral of the special payment otherwise required for 2017/18 pending the outcome of negotiations with employee groups on joint sponsorship of the Plan.

With respect to solvency, the University is exempt to December 31, 2018, from the PBA requirement to liquidate solvency deficiencies within five years of the solvency valuation date. Where the solvency ratio is below prescribed limits the University will, however, make special payments into the fund representing the solvency deficiency on refunds and transfers paid out of the fund.

A valuation of the Plan was performed as at December 31, 2017, and the results have been extrapolated to March 31, 2018, for financial statement reporting. The extrapolation revealed that the going concern unfunded liability is \$252.2 million at March 31, 2018, based on current Plan provisions and PBA requirements. A portion of the unfunded liability relates to the past service cost of indexing, introduced under the Plan, effective July 1, 2004. A funding arrangement was implemented coincident with the introduction of indexing to liquidate this unfunded liability over a period of 40 years. At March 31, 2018, approximately 26.25 years are remaining in the amortization schedule. The indexing liability is amortized on a declining balance basis along with recognition that if the indexing contributions (i.e., an additional 0.6% of payroll being made by both the University and Employees) exceed the originally scheduled amortization payment, then 15 years' worth of these excess contributions can be accounted for when determining the University's special payments.

The plan is currently being funded based upon the December 31, 2015, actuarial valuation which disclosed a going concern unfunded liability of \$297.2 million. The University is required to make special payments to amortize the unfunded liability over a period of not more than 15 years. The portion of the going concern unfunded liability (after accounting for the indexing liability) to be amortized was \$218.4 million and the required amortization payment for fiscal 2018/2019 is \$30.8 million [or 9.8% of pensionable payroll]. The next actuarial valuation for funding is due no

## Memorial University of Newfoundland Pension Plan

### Notes to Financial Statements

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[tabular amounts in thousands of dollars]

later than December 31, 2018 [i.e., within three years of the December 31, 2015, actuarial valuation]. The December 31, 2017, valuation of the Plan revealed that the current service cost of benefits accruing to members had increased by 0.6% over the levels identified in the December 31, 2015, valuation. Current service costs are shared equally between the University and employees.

#### 8. ADMINISTRATIVE EXPENSES

Administrative expenses are paid by the University on behalf of the Plan. The Plan then reimburses the University on a monthly basis. A detailed breakdown of these expenses is as follows:

	<u>2018</u>	<u>2017</u>
Administrative expenses:		
Actuarial fees	354	287
Administrative Services	279	267
Audit fees	12	11
Custodial fees	339	332
Investment management fees	5,219	4,854
Salaries and benefits	449	444
Amortization	44	44
Other fees	13	8
	<u>6,709</u>	<u>6,247</u>

#### 9. INTANGIBLE ASSETS

	<u>2018</u>			<u>2017</u>		
	<u>Cost</u>	<u>Accumulated Amortization</u>	<u>Net Book Value</u>	<u>Cost</u>	<u>Accumulated Amortization</u>	<u>Net Book Value</u>
Software	437	219	218	3437	1175	2262

# Memorial University of Newfoundland Pension Plan

## Notes to Financial Statements

March 31, 2018

[tabular amounts in thousands of dollars]

### 10. FAIR VALUE MEASUREMENTS, FINANCIAL RISKS AND RISK MANAGEMENT

The fair value of investments is as described in notes 3 and 5[a]. The fair value of other financial assets and liabilities, namely contributions receivable, accrued interest and dividends, due from Memorial University of Newfoundland, accounts payable and accrued expenses, and accrued pension refunds are measured at amortized cost. The fair value of amounts due from pending trades and amounts payable from pending trades is represented by the fair value of the underlying securities.

#### Fair value hierarchy

	2018	2017
<b>Level 1</b>		
Cash & short term investments	48,160	36,601
Equities	614,032	608,005
	<b>662,192</b>	644,606
<b>Level 2</b>		
Equities	286,395	268,028
Bonds & debentures	371,686	364,311
Mortgages	120,022	115,545
	<b>778,103</b>	747,884
<b>Level 3</b>		
Real estate	128,995	104,422
	<b>1,569,290</b>	1,496,912

Financial instruments measured at fair value are classified according to a fair value hierarchy that reflects the importance of the data used to perform each valuation. The fair value hierarchy is made up of the following levels:

Level 1- valuation based on quoted prices (unadjusted) in active markets for identical assets or liabilities;

Level 2- valuation techniques based on inputs other than quoted prices included in Level 1 that are observable for the asset or liability and derived, either directly as prices or indirectly from prices;

Level 3- valuation techniques using inputs for the asset or liability that are not based on observable market data (unobservable inputs).

## Memorial University of Newfoundland Pension Plan

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[tabular amounts in thousands of dollars]

The fair value hierarchy requires the use of observable data on the market each time such data exists. A financial instrument is classified at the lowest level of hierarchy for which significant input has been considered in measuring fair value. There have been no significant transfers between Levels for all reporting periods presented.

The following table summarizes the changes in the fair value of financial instruments classified in Level 3 for the year ended March 31:

#### Level 3

	2018	2017
<b>Real estate</b>		
Balance at beginning of year	<b>104,423</b>	97,823
Net purchases	<b>15,000</b>	1,500
Net Dispositions	<b>(415)</b>	(328)
Net dividends earned	<b>1,756</b>	2,009
Net dividends transferred out	<b>(1,588)</b>	(1,829)
Net realized gains	<b>92</b>	72
Net unrealized gains	<b>9,896</b>	5,356
Administrative expenses	<b>(168)</b>	(180)
	<b>128,995</b>	104,423

Fair values of investments are exposed to price risk, liquidity risk and credit risk.

#### Price risk

Price risk is comprised of currency risk, interest rate risk, and market risk.

[a] **Currency risk:** Currency risk relates to the possibility that the investments will change in value due to future fluctuations in the U.S., Euro, and other international foreign exchange rates. For example, a 5% strengthening of the Canadian dollar against the U.S. dollar at March 31, 2018, would have decreased the U.S. investment value by approximately \$18,000,000. Conversely, a 5% weakening of the Canadian dollar against the U.S. dollar at March 31, 2018, would have increased the U.S. investment value by approximately \$18,000,000.

A 5% strengthening of the Canadian dollar against the U.K. Pound at March 31, 2018, would have decreased the U.K. investment value by approximately \$1,100,000. Conversely, a 5% weakening of the Canadian dollar against the U.K. Pound at March 31, 2018, would have increased the U.K. investment value by approximately \$1,100,000.

## Memorial University of Newfoundland Pension Plan

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A 5% strengthening of the Canadian dollar against the Euro at March 31, 2018, would have decreased the European investment value by approximately \$2,300,000. Conversely, a 5% weakening of the Canadian dollar against the Euro at March 31, 2018, would have increased the European investment value by approximately \$2,300,000.

A 5% strengthening of the Canadian dollar against the Swiss Franc at March 31, 2018, would have decreased the Swiss investment value by approximately \$970,000. Conversely, a 5% weakening of the Canadian dollar against the Swiss Franc at March 31, 2018, would have increased the Swiss investment value by approximately \$970,000.

[b] **Interest rate risk:** Interest rate risk relates to the possibility that the investments will change in value due to future fluctuations in market interest rates, thereby impacting pension liabilities which are exposed to longer-term fixed-income instruments. Duration is an appropriate measure of interest rate risk for fixed-income funds as a rise in interest rates will cause a decrease in bond prices: the longer the duration, the greater the effect. At March 31, 2018, the average duration of the bond portfolio was 7.3 years. Therefore, if interest rates were to increase by 1%, the value of the bond portfolio would drop by 7.3%.

	Within 1-year	1-5 years	5-10 years	Over 10 years	No specific maturity	Total
Cash and short-term investments	1,243	—	—	—	—	1,243
Bonds and debentures						
Federal	—	37,769	24,490	8,890	—	71,148
Provincial	—	8,351	12,597	30,656	—	51,605
Corporate	4,371	32,906	10,721	16,570	—	64,568
Pooled funds	—	—	—	—	184,365	184,365
Total bonds and debentures	4,371	79,026	47,808	56,116	184,365	371,686
Total fixed income	5,614	79,026	47,808	56,116	184,365	372,929

[c] **Market risk:** Market risk relates to the possibility that the investments will change in value due to future fluctuations in market prices. This risk is reduced by the Plan's investment policy which incorporates diversification of the investment portfolio across various asset classes and within each asset class. Equity price risk is managed by investing in Canadian, U.S. and international equities through the use of five external investment managers utilizing differing investment styles. The equity portfolio is diversified across a range of economic sectors and companies and is limited to stocks traded on recognized stock exchanges.

# Memorial University of Newfoundland Pension Plan

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[tabular amounts in thousands of dollars]

Fixed-income market risk is managed by diversifying across various government and corporate issuers and by maintaining minimum quality ratings of “A” as determined by recognized bond rating agencies. The minimum quality rating for the pooled index bond fund is “BBB”.

Price risk can be measured in terms of volatility, i.e., the standard deviation of change in the value of a financial instrument within a specific time horizon. Based on the volatility of the Plan’s current asset class holdings shown below, the expectation is that over the long term (15 years), the Plan will return approximately 5.9%, with a 95% probability of the 15 year annualized return falling within the range of 2.0% to 9.6%.

<b>Asset class</b>	<b>Estimated volatility %</b>
Canadian equities	+/- 18.70
U.S. equities	+/- 17.70
International equities	+/- 18.90
Real estate	+/- 8.20
Mortgages	+/- 3.60
Cash and short-term investments	+/- 1.50
Canadian bonds and debentures	+/- 3.80

<b>Held-for-trading securities</b>	<b>Market value at March 31, 2018</b>	<b>Investments %</b>
Cash and short-term investments	<b>48,160</b>	3.1
Canadian bonds and debentures	<b>371,686</b>	23.7
Canadian equities	<b>400,674</b>	25.5
U.S. equities	<b>325,065</b>	20.7
International equities	<b>174,688</b>	11.1
Canadian real estate	<b>128,995</b>	8.2
Canadian mortgages	<b>120,022</b>	7.7
<b>Total</b>	<b>1,569,290</b>	100.0

<b>Benchmark for investments</b>	<b>% change</b>	<b>Net impact on market value</b>
S&P/TSX Composite Index	+/- <b>18.70</b>	+/- 74,926
S&P 500 C\$	+/- <b>17.70</b>	+/- 64,285
MSCI EAFE C\$	+/- <b>18.90</b>	+/- 33,016
CPI	+/- <b>8.20</b>	+/- 10,569
Blended FTSE TMX (60% short; 40% mid)	+/- <b>3.60</b>	+/- 4,321
FTSE TMX Universe	+/- <b>3.80</b>	+/- 14,124

# Memorial University of Newfoundland Pension Plan

## Notes to Financial Statements

March 31, 2018

[tabular amounts in thousands of dollars]

### Liquidity risk

Liquidity risk is the risk of being unable to generate sufficient cash or its equivalent in a timely and cost-effective manner in order to meet commitments as they come due. The primary liabilities in the Plan are future benefit obligations [see note 6] and operating expenses. Liquidity requirements are managed through net monthly contributions and by investing in sufficiently liquid [e.g., publicly traded] equities, pooled funds and other easily marketable instruments.

### Credit risk

Credit risk relates to the possibility that a loss may occur from failure of a fixed-income security issuer. At March 31, 2018, the maximum risk exposure for this type of investment amounts to \$371,686. The Plan limits credit risk by purchasing individual fixed-income instruments that have a credit rating of "A" or higher as rated by recognized Canadian bond rating services. The Plan also owns units of an indexed bond fund which may hold fixed-income instruments with credit ratings of "BBB" and above.

The following table shows the percentage of fixed-income holdings in the portfolio by credit rating:

Rating	<u>%</u>
AAA	40.7
AA	32.4
A	19.5
BBB	<u>7.4</u>

## 11. CAPITAL DISCLOSURES

The purpose of the Plan is to provide pension benefits to Plan members. The Plan's objective when managing capital is to preserve assets in a manner that provides it with the ability to continue as a going concern. To accomplish this objective, a broadly diversified investment portfolio is utilized to achieve the highest rate of return within an acceptable level of risk. With the assistance of an outside consultant, the Plan's pension advisory committee and the University's administration department regularly monitor the asset mix to ensure compliance with the Statement of Investment Policies and Objectives.