



**2017**  
ANNUAL  
REPORT

NEW BRUNSWICK  
**Teachers'**  
— PENSION PLAN —

New Brunswick Teachers' Pension Plan  
Annual Report 2017

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# Glossary

**Actuarial Valuation** - A report which is prepared every three years as required by legislation which documents the results of the funding valuation, the going concern actuarial valuation, a hypothetical wind-up valuation, and the risk management procedures; the last actuarial valuation prepared for the NBTPP was performed as at August 31, 2016.

**Cost Certificate** - A report as required by legislation which is prepared as at the Plan year end in the years where an Actuarial Valuation is not required which outlines the extrapolated financial position of the Plan, the estimated contribution requirements and normal cost of benefits to accrue over the plan year following the cost certificate plan year end, and a review of any actions which may be required under the terms of the Funding Policy; the last cost certificate prepared for the NBTPP was performed as at August 31, 2017.

**Indexing Adjustment Benefit (IAB, also known as “indexation”)** – the cost of living adjustment applied to NBTPP pension benefits based on all or a portion of the changes in the Consumer Price Index averaged over 12 months.

**NBPSPP** - The New Brunswick Public Service Pension Plan, co-owner in equal parts with the NBTPP of Vestcor Corp.

**NBTPP** - The New Brunswick Teachers’ Pension Plan.

**NBTPP Fund** – The pension fund for the NBTPP.

**PBA** – The *Pension Benefits Act*, provincial legislation that the New Brunswick Teachers’ Pension Plan is subject to and must comply with for certain provisions as stipulated under the TPPA.

**TPPA** – The *Teachers’ Pension Plan Act*, provincial legislation that governs the New Brunswick Teachers’ Pension Plan. The TPPA also specifies the PBA provisions applicable to the New Brunswick Teachers’ Pension Plan.

**Vestcor Inc.** – Provides investment management and administration services to the NBTPP. Formerly two separate entities: Vestcor Investment Management Corporation (VIMC) and Vestcor Pension Services Corporation (VPSC).

# Chairperson Letter

On behalf of the Board of Trustees for the New Brunswick Teachers' Pension Plan, I am pleased to present our 2017 Annual Report.

In 2017, the NBTPP benefitted from an investment return of 8.36% (gross of investment management fees), exceeding the performance benchmark of 7.27%. This return resulted in \$453.1 million in net investment income being added to the Plan. More importantly the Plan's long-term returns also remain strong versus the return assumed by the actuary.

During the year our Plan's actuary provided a Cost Certificate as of August 31, 2017, where it was determined that the Plan's Funded Ratio (extrapolated funding status) remained strong at 105.4%. This solid funded status provided cost of living adjustments to all active and retired members, as per the Plan Text, of 1.47% and 1.11% respectively, which will be applied as of January 1, 2019.

Although we are very pleased that our investment returns are once again positive, as a Board, we have continued to focus on the long-term security and sustainability of our Plan. We implemented some important governance practices in 2017, including:

- the development of a communication strategy, providing focus to the Board and our service providers in communicating with members and stakeholders more effectively and clearly. Part of this strategy, involved the development of a brand for our Plan, unveiled in the spring of 2018; and
- the implementation of a survey to determine the effectiveness of our Board in meeting the Plan's needs.

On behalf of the Board, I want to thank our service providers, for their continued contributions to our Plan, and to our members for the ongoing support and trust. I also wish to personally thank my fellow Trustees for their commitment and dedication to the work of our Board.

Sincerely,



Larry Jamieson  
Chairperson

July 16, 2018  
Fredericton, New Brunswick

# Membership Highlights

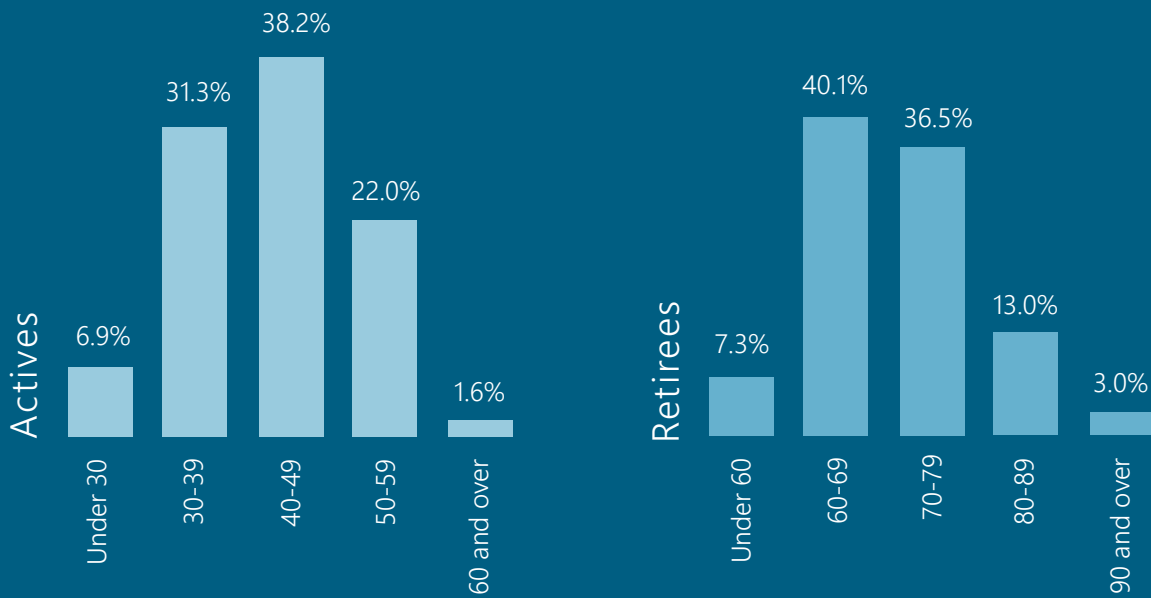
as of August 31, 2017

**18,936**  
Total Members

**Deferred**  
1,596

**Actives**  
8,171

**Retirees & Survivors**  
9,169





# The Purpose of the NBTTP





Provide secure pensions to teachers upon retirement and until death (including subsequent benefits to their spouse and eligible dependents as applicable).

Focus on managing risk so that there is a high degree of security that full base benefits will be provided.

Provide future Indexing Adjustment Benefits and other Ancillary Benefits (e.g. early retirement subsidies) for teachers and retirees to the extent that the funds are available for such benefits.

# NBTPP Governance

## Board of Trustees

The NBTPP Board of Trustees (the “Board”) is the Administrator of the NBTPP (the “Plan”). As Administrator, the Board is responsible for the overall governance and administration of the Plan in accordance with the *Teachers’ Pension Plan Act*, the *Pension Benefits Act* and Regulations, the *Income Tax Act* (Canada) and the Plan’s governing documents. These duties include setting the levels of contributions and benefits in accordance with the Funding Policy, in addition to oversight of the pension benefits administration and investment management.

The Board consists of eight Trustees. The New Brunswick Teachers’ Federation appoints half of the Trustees and the other half is appointed by the provincial government. In addition, two observers are appointed by the New Brunswick Teachers’ Federation. These observers have the right to attend meetings of the Board of Trustees, but do not have voting powers.

The Board was established in July 2014, and as of December 31, 2017, the initial slate of trustees was still in place. See page 10 for the list of Trustees and observers.



## Fiduciary Duty

The Trustees appointed to the Board hold a fiduciary duty towards the Plan, meaning they do not represent the party who appointed them; rather, they must act in the best interest of the Plan and its members at all times when administering the affairs of the Plan.

They are entrusted with the property of another person; in this case, it consists of the pensions and related benefits of the Plan's members. Trustees are required by law to place the interests of the Plan and its members above their own, and conduct themselves with the highest standards of integrity, honesty, independence, fairness, openness and competence.

Trustees must abide to a Code of Ethics and Business Conduct policy. Failure by any of the Trustees to properly exercise their fiduciary duty, e.g., not disclosing or addressing conflicts of interest, can result in disciplinary actions, revocation of the trustee appointment, or even civil or criminal prosecution.

## Board Education

Members of the Board are required to regularly participate in continuing education programs in order to be effective in their trustee work and make the best decisions for the Plan and its members. The continuing education is designed to enhance their knowledge and understanding of pension governance, administration and investments.

The Board receives ongoing education through the regular collection of news and articles of interest, structured presentations at board meetings as well as appropriate conferences and seminars. In 2017, the Board received presentations on the upcoming Canada Pension Plan enhancements, low volatility investment strategies, Vestcor's operational processes and cybersecurity risk management, Funding Policy application scenarios, highlights and key takeaways from the Advanced Trust Management Standards™ certificate program and the 50<sup>th</sup> Annual Canadian Employee Benefits Conference.

The Board of Trustee's Growth and Development Program was established to set out education guidelines in order to assist the trustees in meeting their fiduciary duty with regard to education. This program is comprised of an initial trustee orientation session and a trustee growth and development program which recognizes the evolving nature of Board responsibilities and most importantly trustee development.

## Board Expenses

Members of the Board who are not employed by the appointing Parties to participate in meetings and other affairs of the NBTPP receive a per diem of \$250 for attending meetings, preparing for meetings, attending educational activities, and travel time according to the per diem and travel expense policy as approved by the Board. In addition, reasonable expenses incurred by the Trustees and observers in order to attend meetings and participate in educational activities are reimbursed. In 2017, three Trustees and one observer were eligible to receive per diems, and four Trustees and one observer were reimbursed for travel expenses.

As reported previously, the NBTPP and NBPSPP are also the co-owners of Vestcor Corp., the holding company for Vestcor Corp. The NBTPP and NBPSPP share the costs of transitioning to and operating under this holding company structure.

The cost of the Board function for 2017 was \$45,164, compared to \$47,644 in 2016. A breakdown of the Board's expenses is provided below.

	2016	2017
Translation	\$3,412.10	\$4,791.70
Meeting Expenses	2,621.14	1,058.31
Education	-	2,034.54
Travel	6,077.26	7,249.77
Per Diem	31,824.21	20,641.07
Vestcor Corp*	3,708.85	9,389.09
	<b>\$47,644.00</b>	<b>\$45,164.48</b>

\*These expenses include translation, meeting, travel and per diem as they related to Vestcor Corp. Board meetings.

## Board Committees

As outlined within the Board's governing documents, the Board has the ability to establish committees of the Board and delegate certain functions to these committees. Two committees have been established: the Governance Committee and the Audit Committee. The Governance Committee meets quarterly and the Audit Committee meets semi-annually. Each committee presents a report of their meetings with decisions to the full Board for consideration and approval.

### *Governance Committee*

The Governance Committee assists the Board in fulfilling its responsibilities in ensuring that governance and communication policies and practices are in keeping with evolving best practices. This includes matters relating to governance documents, ethics, trustee orientation and education, trustee compensation, risk management, etc.

### *Audit Committee*

The Audit Committee assists the Board in fulfilling its responsibilities in ensuring the integrity of the NBTPP Fund's financial reporting and disclosure processes, the appointment of the external auditor, the adequacy and effectiveness of internal controls, financial risk management and compliance with legal and regulatory requirements.

## Meeting Attendance

Trustees are expected to attend Board meetings and the meetings of the committees of which they are a member. The following table indicates the number of meetings held in 2017 and the attendance of the trustees and observers.

	Board	Audit Committee	Governance Committee
Larry Jamieson, Chair	5/5	–	–
David Nowlan, Vice-Chair	5/5	2/2	–
Leonard Lee-White	4/5	–	4/5
Marcel Larocque	4/5	2/2	–
Michael Springer	5/5	–	5/5
Reno Thériault	5/5	–	5/5
Jane Garbutt	5/5	–	–
Jennifer Morrison	5/5	2/2	–
Robert Fitzpatrick (observer)	3/5	–	–
Caroline Foisy (observer)	5/5	–	–

For a summary of the Board of Trustees' activities in 2017, see Appendix A on page 22.

NBTPP Board  
of Trustees

Governance  
Committee

Audit  
Committee

Plan  
Administration  
and Investment  
Management

VESTCOR

Auditor in  
2017

KPMG

Actuary in  
2017

MORNEAU  
SHEPELL

Larry Jamieson

Chair

*Executive Director, New Brunswick Teachers' Association*

David Nowlan

Vice-Chair | Audit Committee

*Assistant Comptroller, Treasury Board, Province of New Brunswick*

Marcel Larocque

Trustee | Audit Committee

*Deputy Executive Director, Association des enseignantes et des enseignants francophones du Nouveau-Brunswick*

Leonard Lee-White

Trustee | Governance Committee

*Assistant Deputy Minister, Department of Finance, Province of New Brunswick*

Jane Garbutt

Trustee

*Vice-President of Corporate Operations and Administration, Ocean Capital Investments Limited*

Michael Springer

Trustee | Governance Committee

*Retired Teacher, and former Director of Teacher Welfare with the New Brunswick Teachers' Association*

Reno Thériault

Trustee | Chair of the Governance Committee

*Retired Teacher, and former Executive Director of the Association des enseignantes et des enseignants francophones du Nouveau-Brunswick*

Jennifer Morrison

Trustee | Chair of the Audit Committee

*Treasurer, University of New Brunswick*

Robert Fitzpatrick

Observer

*Retired Teacher, and former Executive Director of the New Brunswick Teachers' Association*

Caroline Foisy

Observer

*Deputy Executive Director, New Brunswick Teachers' Federation*

## Governing Documents

The NBTPP is governed by a number of important documents that have been agreed to by the pension plan parties that serve to guide the Board of Trustees in its oversight of the Plan.

### [Agreement and Declaration of Trust of the New Brunswick Teachers' Pension Plan:](#)

The Agreement and Declaration of Trust came into effect on July 1, 2014, the conversion date to the NBTPP. This document ensures that the *TPA* pension fund continues as a trust fund under the NBTPP. The document also outlines the powers and duties of the Board of Trustees as Plan Administrator.

### [New Brunswick Teachers' Pension Plan Text](#)

The NBTPP Text describes the detailed provisions of the Plan as it applies to eligibility, contribution and benefit calculations, retirement, as well as to the Funding Policy, Investment Policy, and risk management framework required by the *Teachers' Pension Plan Act* and the *Pension Benefits Act*.

### [Funding Policy](#)

The Funding Policy is the tool used by the Board of Trustees to manage the risks inherent in the NBTPP. It provides guidance and rules regarding decisions that may have to be made by the Board of Trustees based on the results of the actuarial funding valuations and risk management tests. The Board is required to regularly monitor the economic and demographic environment and update the Funding Policy or recommend its amendment. Confirmation of the annual review of the Funding Policy must be submitted to the Superintendent of Pensions.

### [Statement of Investment Policies](#)

The Statement of Investment Policies outlines the investment policy for the NBTPP Trust, taking into account that it must be managed in a way that provides secure pension benefits in the vast majority of economic scenarios.

The Statement of Investment Policies details the asset mix of the NBTPP Trust (i.e. how the pension fund is to be invested) and the benchmarks against which the investment returns are measured. It must be reviewed annually by the Board, and the confirmation of this review must be submitted to the Superintendent of Pensions.

For a list of amendments made to the governing documents in 2017, please refer to the NBTPP Pension News newsletters available at [vestcor.org/nbtpp](http://vestcor.org/nbtpp). Current versions of these documents are also available online.

# Operation of the NBTPP

## Integration of our Investment and Administration Service Providers

Vestcor, which is owned jointly by the NBTPP and the New Brunswick Public Service Pension Plan (NBPSPP), serves as the main service provider to your plan.

Vestcor is the product of the amalgamation of Vestcor Pension Services Corporation and Vestcor Investment Management Corporation. The process of amalgamation began in 2017. Full amalgamation of the companies to form Vestcor Inc. occurred on January 1, 2018.

This integration allows Vestcor to offer a unified approach to governance best practices, risk management and organizational effectiveness, while continuing to provide the same quality and cost-effective services.

For more information on Vestcor, please visit [Vestcor.org](http://Vestcor.org).

## Plan Administration Services

The Board signed an administration agreement with Vestcor to handle the day-to-day administration of the NBTPP. Vestcor collects employee contributions and pays out benefits in accordance with the plan provisions. They also provide pension services to help members understand their benefit entitlements.

Vestcor prepares annual statements for each member, communicates with members and stakeholders through newsletters and other communication tools, and prepares regulatory submissions to the Superintendent of Pensions.

## Investment Management Services

Vestcor is the investment manager for the NBTPP, as outlined in a five-year, renewable service agreement. Vestcor is responsible for the implementation of the NBTPP Statement of Investment Policies.

Vestcor also provides investment advice by using its asset/liability modelling and risk management capabilities to project the specific pension plan cash flow data, and portfolio optimization tools to model the risks and returns of potential investment strategies. From this work, Vestcor develops recommendations for an asset mix which is presented to the Board of Trustees for review and approval.

Vestcor receives employers' and employees' pension contributions and invests them in a diversified mix of asset classes according to the NBTPP Statement of Investment Policies. Vestcor also transfers sufficient funds to provide for the monthly pension benefit payment requirements.



## Actuarial Services

An actuary is an expert in the mathematics of finance, statistics and risk theory. The *Teachers' Pension Plan Act* requires that the NBTPP undergo an actuarial valuation for funding purposes by a professionally accredited actuary at least once every three years following the July 1, 2014 conversion date. The Board of Trustees approves the actuarial assumptions used for the valuation.

The actuary is also engaged to provide an actuarial valuation of the pension plan on a going concern basis (i.e., assumes the Plan continues to operate normally) and on a solvency basis (i.e., the Plan is assumed to be wound up on the valuation date) in accordance with standards set by the Canadian Institute of Actuaries. To prepare these valuations, the actuary uses current plan membership data and asset mix information.

In the years in which an actuarial valuation report is not undertaken, a cost certificate with respect to the funding policy is prepared. The most recent actuarial report and cost certificates are available at [Vestcor.org/NBTPP](http://Vestcor.org/NBTPP).

Morneau Shepell was reappointed as the actuary for the NBTPP for the Cost Certificate Report as at August 31, 2017.

## Auditing Services

The independent auditor is responsible to express an opinion as to whether the financial statements of the NBTPP have been presented fairly by conducting an audit in accordance with Generally Accepted Auditing Standards.

KPMG was selected as the auditor for the NBTPP for 2017.



# Cost of Administering the NBTPP

Administration costs for the NBTPP consist of pension administration services and investment management services provided by Vestcor Corp., a related party entity in which the NBTPP holds a 50% ownership interest, as well as the costs incurred by the Board itself.

Total administration costs for the year ended December 31, 2017 were \$9,834,000 compared to \$9,830,000 for the same period in 2016. Although costs increased year over year by \$4,000, as a percentage of average pension fund assets, total administration costs fell to 0.177% in 2017 compared to 0.182% in 2016. Of this, 0.04% related to administration costs, which is unchanged year over year and 0.137% is related to investment management costs, a decline of 0.05% year over year. This is also significantly lower than would be charged by private sector service providers. These cost savings contribute to long-term benefits security for all Plan members.

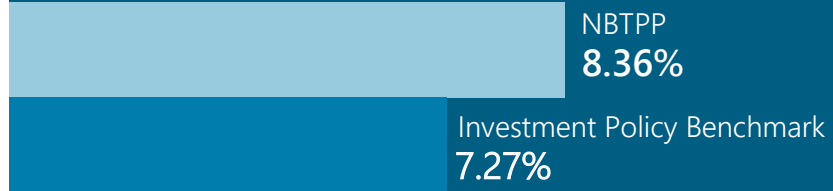
## Reporting Period Note

The plan year end is August 31, 2017 for purposes of the actuarial valuation and cost certificate; however, the financial statements are prepared as at December 31, 2017 to coincide with the plan's year end for income tax purposes. Accordingly the results of the actuarial valuation are extrapolated to December 31.

# Financial Statement Highlights

Year ended December 31, 2017

2017 Investment Performance



Net Investment Income



Contributions



Benefits Paid Out



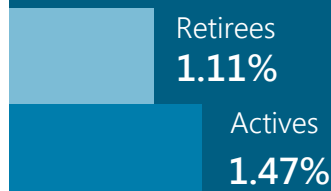
# Cost Certificate Highlights

At August 31, 2017

Funding Policy Valuation Ratio



Indexing Adjustment Benefit



100% of the increase in CPI for Actives and 75% for retirees, as per the Plan Text.

# Actuarial Valuation Process

Every three years, the Board of Trustees retains an independent actuarial firm to prepare a valuation of the plan (also referred to as an actuarial valuation). The valuation compares the money in the pension plan (i.e., Plan's Assets) with an estimate of the total value of benefits earned by teachers and retirees (i.e., Plan's Liabilities) as the valuation date.

An estimate of the Plan's Liabilities is calculated by the actuary using a number of economic assumptions (e.g., interest rates) and demographic assumptions (e.g., life expectancy).

In the years that a valuation is not conducted, legislation requires that a cost certificate with respect to ensuring a review of the actions that may be required under the funding policy be completed by an independent actuarial firm at each Plan year-end.

The most recent Cost Certificate was prepared as of August 31, 2017 and reviewed and approved by the Board of Trustees on March 27, 2018.

It is important to note that the annual employee and employer contributions that are being made to the NBTPP exceed the normal cost (i.e., cost of one year of service in the Plan). The additional contributions are used to enhance benefit security and to provide for future indexing.

More information is available at [Vestcor.org](http://Vestcor.org).

## Excess Contributions

<b>August 31, 2017</b>	<b>% of total payroll</b>
Total Normal Cost	16.91%
<hr/>	
Contributions	
<hr/>	
Members	10.50%
<hr/>	
Employer Initial Contributions	9.75%
<hr/>	
Employer Temporary Contributions	
<hr/>	
For 5 years after July 1, 2014	0.75%
<hr/>	
For 10 years after July 1, 2014	0.75%
<hr/>	
For 15 years after July 1, 2014	0.75%
<hr/>	
Total	22.50%
<hr/>	
<b>Excess Contributions</b>	<b>5.59%</b>

The funding valuation funded status compares the fair market value of the Plan's Assets to the Plan's extrapolated Liabilities. The Plan's extrapolated Liabilities are based on the benefits earned up to August 31, 2017, and it assumes the Plan continues indefinitely.

## Extrapolated Funding Results - Funded Status

<b>August 31, 2017</b>	<b>\$ in millions</b>
Market Value of Assets	\$5,596.5
<hr/>	
Funding Policy Extrapolated Liabilities	
<hr/>	
Total Funding Policy Actuarial Liabilities	\$5,307.7
<hr/>	
Funding Policy Valuation Excess	\$288.8
<hr/>	
<b>Funded Ratio</b>	<b>105.4%</b>

The extrapolated funding status of the Plan has changed from 105.6% as at August 31, 2016 to 105.4% as at August 31, 2017.

# Investment Performance

The Pension Fund is invested in accordance with the Statement of Investment Policies (SIP), which outlines the requirement to manage the Trust in a manner that recognizes the interdependency of the Plan's liabilities and expected cash flows for the base benefits and ancillary benefits, the closed group funded ratio, the Funding Policy, the risk management goals and the application of the risk management procedures. This document is available online at [Vestcor.org/NBTPP](http://Vestcor.org/NBTPP).

The investment objectives are as follows:

- In the long term, to preserve the capital value of the Pension Trust, and to provide the best possible long-term real return on investments while continuing to achieve the risk management goals as set out in the Funding Policy.

The target asset mix (policy portfolio) may experience uneven returns from year-to-year consistent with general economic and investment cycles, but a diversified portfolio of long-term assets will partially mitigate the variability of the returns.

- Over shorter time periods, to achieve competitive rates of return on each major asset class while avoiding undue investment risk and excessive market volatility.
- Over the medium term, to provide moving average rates of return in excess of the policy benchmark returns. A value-added contribution of 0.42%, after deducting all investment management costs is the four year target.

## Asset Mix

The NBTPP Board of Trustees last reviewed and confirmed their current Statement of Investment Policies dated November 24, 2016 on September 21, 2017, including the target asset mix. The actual asset mix as at December 31, 2017 is shown in the table below:

	Actual Portfolio as at December 31, 2017	Target SIP
<b>Fixed Income</b>		
Short-Terms Assets (Cash)	0.8%	1.0%
Canadian Government Bonds	15.6%	15.7%
Corporate Bonds	15.6%	15.7%
<b>Total Fixed Income</b>	<b>32.0%</b>	<b>32.4%</b>
<b>Public Equity</b>		
Standard Indices:		
Canada	8.1%	8.0%
U.S.	6.4%	6.8%
International (EAFE)	5.8%	6.5%
Low Volatility Equity:		
Canada	5.0%	5.0%
U.S.	6.7%	6.8%
International (EAFE)	6.5%	6.5%
Emerging Markets	3.0%	3.0%
<b>Total Public Equity</b>	<b>41.5%</b>	<b>42.6%</b>
<b>Inflation-Linked</b>		
Real Return Bonds	5.0%	5.0%
Real Estate	4.2%	4.0%
Infrastructure	4.1%	4.0%
<b>Total Inflation-Linked</b>	<b>13.3%</b>	<b>13.0%</b>
<b>Alternative Investments</b>		
Absolute Return Strategies	8.0%	8.0%
Private Equity	4.8%	4.0%
<b>Total Alternatives</b>	<b>12.8%</b>	<b>12.0%</b>
<b>Asset Mix Strategy</b>	<b>0.4%</b>	-
<b>TOTAL</b>	<b>100.0%</b>	<b>100.0%</b>

The slight deviations of the asset class weights between the actual and target asset mixes are due to:

1. Market Price Movements. In other words, as asset prices change, weights naturally change as well. Vestcor is authorized to allow weights for asset classes to slightly deviate from policy weights to minimize transaction costs; however, weights are rebalanced to policy weights once deviations go beyond an allowable range.
2. Asset Mix Policy Choices. When market conditions warrant, Vestcor will make slight modifications to allocations for clients as permitted in the investment policy statement that invest in Vestcor's Asset Mix Strategy pooled fund to take advantage of opportunities that exist in the market.

## 2017 Returns

The nominal return for the NBTPP was 8.36% for the year ended December 31, 2017. As this return was in excess of the actuarial assumed return of 5.85%, it contributed to an increase in the closed group funded ratio for the Plan. This resulted in approximately \$453.2 million in net investment income added to the Plan for the year. The chart below illustrates the nominal return compared to the benchmark return for the one-year and four-year periods, as well as since Vestcor began managing the fund.

Investment Performance as at December 31, 2017



The overall nominal return in excess of the portfolio benchmark resulted in 1.10% of gross value added for the year. After deducting investment management costs of 0.14%, the net value added to the pension fund was 0.96%, well in excess of the target value add of 0.42%.



The one-year nominal returns by asset class compared to their respective benchmark returns are shown in the table below:

## 2017 Returns by Asset Class

*Calculated in Canadian Dollars*

<b>Asset Class</b>	<b>Return</b>	<b>Benchmark</b>	<b>Value Added</b>
<b>Fixed Income</b>			
Short-Terms Assets (Cash)	1.11%	0.56%	0.54%
Government Bonds	2.60%	2.18%	0.41%
Corporate Bonds	2.93%	3.38%	(0.45%)
<b>Inflation-Linked</b>			
Real Return Bonds	0.93%	0.72%	0.20%
Real Estate	12.57%	5.01%	7.56%
Infrastructure	9.20%	5.46%	3.73%
<b>Absolute Return Strategies</b>	<b>5.28%</b>	<b>0.56%</b>	<b>4.71%</b>
<b>Public Equity</b>			
Canada	9.31%	9.10%	0.22%
U.S.	13.75%	13.69%	0.06%
International (EAFE)	18.46%	16.82%	1.64%
<b>Low Volatility Equity</b>			
Canada	10.08%	7.77%	2.32%
U.S.	6.65%	10.49%	(3.84%)
International (EAFE)	14.29%	13.63%	0.65%
Emerging Markets	17.85%	18.40%	(0.55%)
<b>Private Equity</b>	<b>17.75%</b>	<b>14.65%</b>	<b>3.10%</b>
<b>Asset Mix Strategy</b>			<b>0.02%</b>
<b>Total</b>	<b>8.36%</b>	<b>7.27%</b>	<b>1.10%</b>

For general commentary regarding investment performance, market events and the behaviour of asset classes, please visit [Vestcor.org/marketupdate](http://Vestcor.org/marketupdate). Information is added on a quarterly basis.

The audited financial statements for the NBTPP are available on page 25, and provide detailed information on the Plan's performance for the year ended December 31, 2017.

The Schedule of Composite Performance prepared by Vestcor for the NBTPP is available at [Vestcor.org/NBTPP](http://Vestcor.org/NBTPP). This additional report follows the Global Investment Performance Standards (GIPS®) of the Chartered Financial Analysts' Institute. Vestcor's policies and procedures used in preparing this report are independently verified

# Appendix A

## Summary of Board Decisions and Accomplishments for 2017

The following provides a summary of the activities of the Board of Trustees from January to December 2017 (other than regular business and standing items).

### Plan Documents and Oversight

The Board reviewed and approved the following governing and other supporting items for the Plan:

- The Actuarial Valuation as at August 31, 2016;
- The annual review of the Funding Policy with the following modifications:
  - Correct a typo in paragraph III.B.1 (Contribution Rate Increases), to remove wording relating to a non-existent section B.4;
  - Update the discount rate and mortality paragraphs under Section VI (Actuarial Assumptions) of the policy, in order to reflect the assumptions used in the valuation report;
  - Update the wording pertaining to the contingency reserve terminology to clarify that the contingency reserve is a portion of the Fund; and
  - A few minor housekeeping items.
- The annual review of the Statement of Investment Policies (no modifications required);
- The Asset Liability Modelling presentation;
- The KPMG Audit Findings Report for the audit of the NBTPP for the fiscal year ended December 31, 2016;
- The Financial Statements of the NBTPP for the year ended December 31, 2016, as audited by KPMG; and
- Various amendments to the Plan Text.

The Board met all regulatory filing and disclosure requirements outlined under the *Pension Benefits Act* and the *Income Tax Act* (Canada).

## Board Governance

The Board reviewed and approved amendments to the following policies and practices as part of its annual review of its governance framework:

- Terms of Reference for the Board, the Audit Committee and the Governance Committee;
- The Code of Conduct and Ethics
- The Disclosure Policy;
- The Language Policy;
- Per Diem and Travel Expense Policy;
- Trustee and Observer Orientation and Education Policy; and
- Guidelines for the Nomination of New Trustees.

The Board also proceeded with the approval of the following items, supporting Board Governance:

- A Board self-assessment skills matrix;
- A Board of Trustees' meeting effectiveness survey;
- The inaugural Triennial Board Effectiveness Survey; and
- Directed Vestcor to develop the NBTPP Branding Guide.

## Member Services and Communications

The Board reviewed and approved the following items to support pension benefits administrative services for the Plan members:

- The 2017 spring and fall newsletters;
- The inaugural 2016 NBTPP Annual Report; and
- A NBTPP Communication Strategy.

## Service Provider Engagement

The Board engaged the following service providers:

- Vestcor Inc. for investment management and pension benefits administration services;
- Morneau Shepell LTD. for actuarial services;
- KPMG LLP., as the external auditor for the NBTPP financial statements for the year ended December 31, 2017;
- Boardworks Consulting Inc. to conduct the inaugural Board of Trustees Triennial Effectiveness Assessment; and
- Revolve for the development of the NBTPP logo.

## Pension Governance Effectiveness

The Board approved the Amended and Restated Vestcor Corp. Members' Agreement and the Vestcor Inc. Amalgamation Agreement.

# Appendix B

## *Public Interest Disclosure Act*

As required under **Section 18 – Report about disclosures** of the *Public Interest Disclosure Act*, the Board of Trustees hereby report that for 2017:

- there were no disclosures received or acted upon;
- no investigations were therefore commenced due to disclosure receipt;
- no claims had been referred from the Ombudsman under section 23; and
- no investigations were therefore commenced due to a referral receipt.

# Appendix C

## NBTPP Financial Statements

The financial statements of the NBTPP have been prepared and approved by the Board of Trustees. The Board is responsible for the integrity and fair presentation of the statements, including amounts based on best estimates and judgments.

The Board maintains systems of internal control and supporting procedures to provide reasonable assurance that accurate financial information is available, that assets are protected, and that resources are managed efficiently.

The Board is assisted in its responsibilities by its Audit Committee, consisting of three Board members. The Audit Committee reviews the financial statements and recommends them for approval by the Board. The Audit Committee also reviews matters related to accounting, auditing, internal control systems, financial risk management as well as the scope, planning and findings of audits performed by the external auditors.

New Brunswick Teachers' Pension Plan  
Financial Statements

December 31, 2017



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## INDEPENDENT AUDITORS' REPORT

To the Board of Trustees of the New Brunswick Teachers' Pension Plan

We have audited the accompanying financial statements of New Brunswick Teachers' Pension Plan (the "Entity"), which comprise the statement of financial position as at December 31, 2017 the statements of changes in net assets available for benefits and changes in pension obligations for the year then ended, and notes, comprising a summary of significant accounting policies and other explanatory information.

### *Management's Responsibility for the Financial Statements*

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

### *Auditors' Responsibility*

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

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on our 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, we consider internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

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

### *Opinion*

In our opinion, the financial statements present fairly, in all material respects, the financial position of the Entity as at December 31, 2017, and the changes in net assets available for benefits and changes in pension obligations for the year then ended in accordance with Canadian accounting standards for pension plans.

Chartered Professional Accountants  
Fredericton, Canada  
June 26, 2018

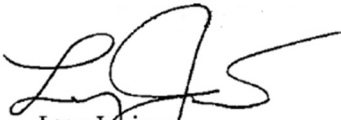
**NEW BRUNSWICK TEACHERS' PENSION PLAN**  
**Statement of Financial Position**  
*(In thousands of Canadian dollars)*  
**AS AT DECEMBER 31**

	<b>2017</b>	<b>2016</b>
<b>ASSETS</b>		
Investments <i>(notes 3 and 4)</i>	\$ 5,780,555	\$ 5,484,335
Contributions receivable from employers <i>(note 12)</i>	8,014	7,599
Contributions receivable from employees <i>(note 12)</i>	7,153	7,129
Other receivable	4	218
<b>Total assets</b>	<b>5,795,726</b>	<b>5,499,281</b>
<b>LIABILITIES</b>		
Accounts payable and accrued liabilities <i>(note 12)</i>	2,458	2,208
Net assets available for benefits	5,793,268	5,497,073
Pension obligations <i>(note 6)</i>	5,350,900	5,229,100
<b>SURPLUS</b>	<b>\$ 442,368</b>	<b>\$ 267,973</b>

*See accompanying notes to financial statements.*

Commitments *(note 13)*  
 Indemnification *(note 14)*

Approved on behalf of the Board of Trustees:

  
 Larry Jamieson  
 Chairman

  
 David Nowlan  
 Vice-Chair



**NEW BRUNSWICK TEACHERS' PENSION PLAN**  
**Statement of Changes in Net Assets Available for Benefits**  
(In thousands of Canadian dollars)  
**YEAR ENDED DECEMBER 31**

	<b>2017</b>	<b>2016</b>
<b>Increase in net assets</b>		
Net investment income (note 9)	\$ 453,151	\$ 328,189
Employer pension contributions (note 12)	74,835	74,608
Employee pension contributions (note 12)	65,431	60,516
	<u>593,417</u>	<u>463,313</u>
<b>Decrease in net assets</b>		
Pension benefits (note 10)	284,134	280,238
Refunds and transfers (note 10)	3,254	2,472
Administration expenses (note 11)	9,834	9,830
	<u>297,222</u>	<u>292,540</u>
<b>Increase in net assets available for benefits</b>	296,195	170,773
<b>Net assets available for benefits, beginning of year</b>	5,497,073	5,326,300
<b>Net assets available for benefits, end of year</b>	<u>\$ 5,793,268</u>	<u>\$ 5,497,073</u>

*See accompanying notes to financial statements.*

**NEW BRUNSWICK TEACHERS' PENSION PLAN**  
**Statement of Changes in Pension Obligations**  
(In thousands of Canadian dollars)  
**YEAR ENDED DECEMBER 31**

	<b>2017</b>	<b>2016</b>
<b>Pension obligations, beginning of year</b>	\$ 5,229,100	\$ 5,040,600
<b>Change in pension obligations:</b>		
Losses from changes in actuarial assumptions	—	207,900
Interest accrued on benefits	300,700	299,700
Experience gains	—	(133,000)
Normal actuarial cost	108,500	96,600
Benefits paid	(287,400)	(282,700)
	<u>121,800</u>	<u>188,500</u>
<b>Pension obligations, end of year</b>	<u>\$ 5,350,900</u>	<u>\$ 5,229,100</u>

*See accompanying notes to the financial statements.*

**NEW BRUNSWICK TEACHERS' PENSION PLAN**  
**Notes to Financial Statements**  
*(In thousands of Canadian dollars)*

**AS AT AND FOR THE YEAR ENDED DECEMBER 31, 2017**

**1. Description of the Pension Plan**

The following description is intended as a summary only. For complete information, reference should be made to the plan text.

On July 1, 2014, the defined benefit pension plan created by the *Teachers' Pension Act* ("TPA") was repealed and converted to the New Brunswick Teachers' Pension Plan (the "NBTPP" or "Plan") pursuant to the *Teachers' Pension Plan Act* (the "TPPA" or "Act") of New Brunswick. The NBTPP is governed by a Board of Trustees consisting of an equal number of individuals appointed by the Province of New Brunswick, as employer, and representatives appointed by the New Brunswick Teachers' Federation.

The primary purpose of the NBTPP is to provide pensions to eligible teachers after retirement and until death in respect of their service as teachers, and their survivors. A further purpose is to provide secure pension benefits to teachers without an absolute guarantee but with a risk-focused management approach delivering a high degree of certainty that full lifetime pensions will be payable in the vast majority of potential future economic scenarios.

All members of the TPA became members of the NBTPP. A future employee will become a member of the NBTPP on the first date of employment as a teacher.

Employee contribution rates of 7.3% of eligible earnings up to the Yearly Maximum Pension Entitlement ("YMPE") and 9.0% of eligible earnings in excess of the YMPE increased to 8.5% of eligible earnings up to the YMPE and 10.2% of eligible earnings in excess of the YMPE respectively, effective July 1, 2014. Each contribution rate will increase by 0.5% respectively each July 1<sup>st</sup> until July 1, 2017, where the rates of 10.0% of eligible earnings up to the YMPE and 11.7% of eligible earnings in excess of the YMPE will remain in place until July 1, 2029. These rates are subject to adjustment as may be required under the limitations imposed by the Funding Policy from time to time.

Previously, the employer contributions were equal to the employees' contributions plus special payments as determined by an actuary. For the five years commencing July 1, 2014, the employer contribution rates are 11.5% up to the YMPE and 13.2% above the YMPE, subject to adjustment as may be required under the limitations imposed by the Funding Policy. For the next five years commencing July 1, 2019, the employer contribution rates will be 10.75% up to the YMPE and 12.45% above the YMPE, subject to adjustment under the Funding Policy. For the subsequent five years commencing July 1, 2024, the employer contribution rates will be 10.0% up to YMPE and 11.7% above the YPME, subject to adjustment under the Funding Policy.

On July 1, 2029, the required contribution amounts for teachers and the employers shall be equal. The contribution amounts shall be determined based on the average contribution rate produced by the formula of: (i) 9.25% of eligible earnings up to the YMPE and 10.95% of eligible earnings above the YPME for teachers who are plan members at the time, and (ii) 9.75% of earnings.

Pension benefits vest on the earliest of: (i) five years of employment as a teacher; (ii) two years of pensionable service; or (iii) two years of membership in the NBTPP and TPA. The normal retirement date is the first of the month following the later of attaining age 65 or the vesting date. Early retirement may be taken at the earliest of age 55 or 35 years of pensionable service or the sum of age plus years of pensionable service reaches 80 points (84 if the member became a teacher after July 1, 2014).

**1. Description of the Pension Plan (continued)**

A member's annual normal retirement pension ("lifetime pension") is equal to the sum of:

- A. In respect of service before July 1, 2014, the product of:
- (i) the number of years of the member's pensionable service before July 1, 2014, and
  - (ii) 1.3% of the annual average of the best five consecutive years of earnings at July 1, 2014, up to the annual average YMPE for 2014, 2013 and 2012, plus 2% of the excess of the annual average of the best five consecutive years of earnings at July 1, 2014 over the annual average YMPE for 2014, 2013 and 2012;

And

- B. In respect of service from July 1, 2014, the sum of (i) and (ii) for each calendar year (or prorated for a portion thereof):
- (i) 1.3% of the member's annualized earnings for the calendar year, up to the YMPE for the calendar year; and
  - (ii) 2.0% of the portion of the member's annualized earnings for the calendar year that are in excess of the YMPE for the calendar year.

Pensions accrued above are subject to regular indexing every January 1<sup>st</sup> following July 1, 2014 equal to 100% of the increase in the Consumer Price Index (CPI) (subject to a maximum of 4.75%) while the teacher is active, and equal to 75% of CPI (subject to a maximum of 4.75%) after the teacher's termination of employment, and contingent on the NBTTP's financial condition as outlined in the Funding Policy.

The normal form of pension is a pension payable in equal monthly instalments commencing on the member's pension commencement date and continuing throughout the lifetime of the member. For a member with a spouse or common-law partner at the time of the member's death, 50% of the member's pension (before application of reductions for early retirement) continues to such spouse or common-law partner. Should the member have dependent children at the time of his/her death, such dependent children may be entitled to a pension if there is no spouse or common-law partner or after the death of such spouse or common-law partner. A minimum amount of pension equal to the member's contributions with interest to retirement will be payable in total. Optional forms of pension are also available on an actuarially equivalent basis.

Early retirement is permitted as of the earliest of age 55, or 35 years of pensionable service or the age at which the member reaches 80 points (or 84 points if the member became a teacher after July 1, 2014).

On early retirement, an annual bridge benefit is payable in addition to the lifetime pension. The annual bridge benefit is payable to age 65 or to the death of the member, if earlier, and is equal to the sum of:

- A. In respect of service before July 1, 2014, the product of:
- (i) the number of years of the member's pensionable service before July 1, 2014, and
  - (ii) 0.7% of the annual average of the best five consecutive years of earnings at July 1, 2014 up to the annual average YMPE for 2014, 2013 and 2012;

And

- B. In respect of service from July 1, 2014, for each calendar year (or prorated for a portion thereof), 0.7% of the member's annualized earnings for the calendar year up to the YMPE for the calendar year.

## 1. Description of the Pension Plan *(continued)*

The portions of the lifetime pension and bridge benefit accrued for service up to July 1, 2014 are unreduced if the pension and bridge commence payment upon or after fulfillment of one of the following criteria:

- Achievement of the 87 points rule (age plus years of pensionable service)
- Age 60 and 20 years of pensionable service
- 35 years of pensionable service
- Age 65, with 5 years of continuous service or 2 years of pensionable service or plan membership.

If payment commences before any of these criteria are met, the normal retirement pension and bridge benefit shall each be reduced by 5/12% per month that the pension and bridge commencement date precedes the first day of the month in which the criterion is met.

The portions of the lifetime pension and bridge benefit accrued for service on and after July 1, 2014 are reduced by 5/12% per month that the pension and bridge commencement date precedes the first day of the month following the first of the following events:

- Achievement of the 91 points rule
- Age 62 and 20 years of pensionable service
- 35 years of pensionable service
- Age 65, with 5 years of continuous service or 2 years of pensionable service or plan membership.

If a member terminates employment or dies prior to achieving 5 years of continuous service or 2 years of pensionable service or plan membership, the member is entitled to a refund of the total amount of his/her contributions to the NBTTP and the TPA, if any, with interest.

If a member terminates employment before age 55 but after achieving 5 years of continuous service or 2 years of pensionable service or plan membership, the member may elect to receive:

- i. A deferred lifetime pension payable from the normal retirement date equal to the accrued pension to which the member is entitled as at his/her date of termination in accordance with the formula specified above for the normal retirement pension; or
- ii. To transfer the termination value calculated in accordance with the TPPA, to a registered retirement savings arrangement as allowed under the *Pension Benefits Act*.

## 2. Significant Accounting Policies

### *(a) Basis of presentation*

These financial statements have been prepared in accordance with Canadian accounting standards for pension plans in Part IV of the Chartered Professional Accountants' (CPA) of Canada Handbook. They are prepared to assist Plan members and others in reviewing the activities of the Plan for the fiscal year but they do not portray the funding requirements of the Plan (*note 7*) or the benefit security of individual plan members.

These financial statements have been prepared on a calendar year basis to conform with the Fund's deemed tax year end. These financial statements present the financial position, the changes in net assets available for benefits and the changes in pension obligations for the year ended December 31, 2017.

**2. Significant Accounting Policies (continued)**

All investment assets and liabilities are measured at fair value in accordance with International Financial Reporting Standards (“IFRS”) 13, *Fair Value Measurements*. In selecting or changing accounting policies that do not relate to its investment portfolio, Canadian accounting standards for pension plans require the Plan to comply on a consistent basis with either IFRS in Part I of the CPA Handbook or with Canadian accounting standards for private enterprises in Part II of the CPA Handbook. The Plan has chosen to comply on a consistent basis with IFRS.

These financial statements have been prepared in accordance with the significant accounting policies set out below. These financial statements were authorized for issue by the Board of Trustees on June 26, 2018.

*(b) Basis of measurement*

These financial statements have been prepared on the historical cost basis except for investments, which are measured at fair value in the Statement of Financial Position.

*(c) Financial instruments*

*(i) Classification, recognition and measurement*

Financial assets and financial liabilities are initially recognized in the Statement of Financial Position on the trade date, which is the date on which the Plan becomes a party to the contractual provisions of the instrument. A financial asset or liability is measured initially at fair value. Transaction costs are recognized in the Statement of Changes in Net Assets Available for Benefits as incurred.

Financial assets, on initial recognition, are required to be classified as measured at amortized cost, fair value through other comprehensive income (FVOCI) or fair value through profit or loss (FVTPL) according to the business model used for managing them and their contractual cash flow characteristics. Financial liabilities are classified as measured at amortized cost unless they are measured at FVTPL.

Financial assets that are held for trading or managed as part of a portfolio whose performance is evaluated on a fair value basis are measured at FVTPL because they are neither held to collect contractual cash flows nor held both to collect contractual cash flows and to sell financial assets.

The Plan has entered into an investment management agreement with Vestcor Inc. (“Vestcor”) to manage its pension fund assets on a fully discretionary basis. Certain of the Plan’s investments consist of units of pooled funds and limited partnerships offered by Vestcor (the “Vestcor Investment Entities”). The investments are managed and their performance is evaluated on a fair value basis. As such, the Plan classifies all investments as FVTPL with changes in fair value being recognized in net investment income in the Statement of Changes in Net Assets Available for Benefits.

The fair value of each investment in units of the Vestcor Investment Entities is based on the calculated daily net asset value per unit multiplied by the number of units held, and represents the Plan’s proportionate share of the underlying net assets at fair values determined using closing market prices.

The underlying investments held in the Vestcor Investment Entities are valued at fair value as of the date of the financial statements. 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 in the principal or, in its absence, the most advantageous market to which the Vestcor Investment Entities have access at that date.

The fair value of the underlying securities in the Vestcor Investment Entities that are traded in active markets (such as exchange-traded derivatives, debt and equity securities) are based on quoted market prices at the close of trading on the reporting date.

## 2. Significant Accounting Policies *(continued)*

### *(c) Financial instruments (continued)*

If there is no quoted price in an active market, then the Vestcor Investment Entities use valuation techniques that maximize the use of the relevant observable inputs and minimize the use of unobservable inputs. The chosen valuation technique incorporates all of the factors that market participants would take into account in pricing a transaction.

Certain of the Plan's financial assets and financial liabilities such as contributions and other receivables and accounts payable and accrued liabilities are subsequently measured at amortized cost, which is the cost at initial recognition, minus any reduction for impairment. The carrying amount of these assets and liabilities approximates fair value due to their short settlement period. At the reporting date, the Plan assesses whether there is objective evidence that a financial asset at amortized cost is impaired. If such evidence exists, the Plan recognizes an impairment loss as the difference between the amortized cost of the financial asset and the present value of the estimated future cash flows.

#### *(ii) Derecognition*

The Plan derecognizes a financial asset when the contractual rights to the cash flows from the asset expire, or are transferred in a transaction in which substantially all of the risks and rewards of ownership of the financial asset are transferred.

On derecognition of a financial asset, the difference between the carrying amount of the asset and the consideration is recognized in the Statement of Changes in Net Assets Available for Benefits as net investment income.

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

### *(d) Pension obligations*

The pension obligations recognized in the Statement of Financial Position are the actuarial present value of accrued pension benefits determined by using the accrued benefit (or unit credit) actuarial cost method in accordance with the requirement of paragraph 14(7)(a) of Regulation 2012-75 under the Act and actuarial assumptions which reflect management's best estimate for the future.

### *(e) Functional and presentation currency*

The financial statements are presented in Canadian dollars, which is the functional currency of the Plan.

### *(f) Use of estimates and judgments*

The preparation of the Plan's financial statements requires judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets and liabilities at the date of the Statement of Financial Position. Significant estimates and judgments are required in determining the reported estimated fair value of private investments, which are included in the underlying investments held in the Vestcor Investment Entities and the measurement of pension obligation, since these determinations may include estimates of expected future cash flows, rates of return, rates of retirement, mortality, rates in termination, discount rates and the impact of future events. Actual results may differ from those estimates. Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognized in the period in which the estimates are revised and in any future years affected.

## 2. Significant Accounting Policies *(continued)*

### *(g) Taxes*

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

### *(h) Contributions*

Contributions from the employers and pension plan members are recorded in the period that payroll deductions are made.

### *(i) Net investment income*

Net investment income represents the changes in fair value, realized and unrealized, in the value of the units held in each of the Vestcor Investment Entities. Investment transactions are recognized as of their trade date.

### *(j) Foreign currency translation*

Monetary assets and liabilities denominated in foreign currencies held within the Vestcor Investment Entities are translated at the prevailing rates of exchange at the date of the Statement of Financial Position. Investment income and expenses are translated at the exchange rates prevailing on the transaction date. Realized and unrealized exchange gains and losses are included in net investment income.

## 3. Investments

The Plan invests in units of the Vestcor Investment Entities, consisting of unit trust funds and limited partnership structures. Each Vestcor Investment Entity has a specific investment mandate. Investing in the Vestcor Investment Entities enables the Plan to achieve its required asset class weights in accordance with its Statement of Investment Policies (“SIP”). Following is a description of each Vestcor Investment Entity (“fund”) in which the Plan invested during the year ended December 31, 2017:

### *NBIMC Nominal Bond Fund*

This fund invests primarily in investment grade bonds (a minimum of triple-B rated by a major rating agency) of G-7 countries and Canadian provinces paying a nominal rate of interest. The performance objective is to add 20 basis points to its benchmark, the FTSE TMX Canada All Government Bond Index, over a four-year rolling average.

### *NBIMC Corporate Bond Fund*

This fund invests primarily in investment grade corporate bonds (a minimum of triple-B rated by a major rating agency) paying a nominal rate of interest. The performance objective is to add 20 basis points to its benchmark, the FTSE TMX All Corporate Bond Index, over a four-year rolling average.

### *NBIMC New Brunswick and Atlantic Canada Fixed Income Opportunity Fund*

This fund invests primarily in fixed income issued to finance economic activity in New Brunswick. The performance objective is to add 20 basis points to its benchmark, the FTSE TMX Canada All Government Bond Index, over a four-year rolling average.

### *NBIMC Money Market Fund*

This fund invests primarily in fixed income securities having a maturity of less than one year. The performance objective is to add 20 basis points to its benchmark. The benchmark is calculated as 93% of the FTSE TMX Canada 91 Day T-Bill Index and 7% of the One-day Canadian Call Loan Rate.

### **3. Investments (continued)**

#### *NBIMC Student Investment Fund*

This fund is managed by students at the University of New Brunswick who are registered in the Student Investment Fund Program. The overall benchmark for this fund is composed of 50% S&P/TSX60 Total Return Index, 45% FTSE TMX Canada All Government Bond Index, 4.65% FTSE TMX Canada 91 Day T-Bill Index and 0.35% One-day Canadian Call Loan Rate. Vestcor staff closely monitor the activities of this fund, including executing and processing all transactions on behalf of the students.

#### *NBIMC Canadian Equity Index Fund*

This fund invests in physical securities and derivative strategies to gain exposure to various segments of the S&P/TSX Composite Total Return Index. Leverage on derivative products is avoided by ensuring each derivative product is supported by an appropriate value of short-term investments. The performance objective is to add 40 basis points to its benchmark, the S&P/TSX Composite Total Return Index over four-year rolling periods.

#### *NBIMC Low Volatility Canadian Equity Fund*

This fund actively invests in securities to gain exposure to the MSCI Canada Minimum Volatility Total Return Index, Gross. The objective is to achieve a long-term rate of return equivalent to this index over four-year rolling periods.

#### *NBIMC External Canadian Equity Fund*

This fund is managed by external managers and invests in publicly traded Canadian equities. The performance objective is to add 150 basis points to its benchmark, the S&P/TSX Composite Total Return Index, over a four-year rolling average.

#### *NBIMC Canadian Equity Active Long Strategy Fund*

This fund seeks to add value through prudent selection of individual securities and sector allocations through over and under weighting of the index. The performance objective is to add 150 basis points to its benchmark, the S&P /TSX Composite Total Return Index.

#### *NBIMC External International Equity Fund*

This fund is managed by external managers and invests in publicly traded equities in markets in Europe, Australasia and the Far East. The performance objective is to add 150 basis points net of fees to its benchmark, the MSCI EAFE Total Return Index in \$C, Net, over a four-year rolling average.

#### *NBIMC EAFE Equity Index Fund*

This fund invests in securities in the MSCI EAFE Total Return Index in \$C, Net. The performance objective is to add 20 basis points net of fees to its benchmark, the MSCI EAFE Total Return Index in \$C, Net, over a four-year rolling average.

#### *NBIMC Low Volatility International Equity Fund*

This fund actively invests in securities in the MSCI EAFE Minimum Volatility (USD) Total Return Index in \$C, Net. The objective is to achieve a long-term rate of return equivalent to this index, net of fees, on an annualized four-year rolling average.



### 3. Investments (continued)

#### *NBIMC Low Volatility Emerging Markets Equity Fund – Class N*

This fund actively invests in securities in the MSCI Emerging Markets Minimum Volatility Total Return Index in \$C, Net. The objective is to achieve a long-term rate of return equivalent to this index, net of fees, on an annualized four-year rolling average. This fund was previously known as NBIMC Low Volatility Emerging Markets Equity Fund.

#### *NBIMC U.S. Equity Index (2017) Fund*

This fund passively invests in physical securities and derivatives to gain exposure to the S&P 500 Index. Leverage on derivative products is avoided by ensuring each derivative product is supported by an appropriate value of short-term investments. The performance objective is to match the return of the S&P 500 Total Return Index in \$C.

#### *NBIMC U.S. Equity Index Fund – Class N*

This fund passively invests in physical securities and derivatives to gain exposure to the S&P 500 Index. Leverage on derivative products is avoided by ensuring each derivative product is supported by an appropriate value of short-term investments. The performance objective is to match the return of the S&P 500 Total Return Index in \$C. This fund was previously known as NBIMC U.S. Equity Index Fund.

#### *NBIMC Low Volatility U.S. Equity (2017) Fund*

This fund actively invests in securities to gain exposure to the MSCI USA Minimum Volatility (USD) Total Return Index in \$C, Net. The objective is to achieve a long-term rate of return equivalent to this index, net of fees, on an annualized four-year rolling average.

#### *NBIMC Low Volatility U.S. Equity Fund – Class N*

This fund actively invests in securities to gain exposure to the MSCI USA Minimum Volatility (USD) Total Return Index in \$C, Net. The objective is to achieve a long-term rate of return equivalent to this index, net of fees, on an annualized four-year rolling average. This fund was previously known as NBIMC Low Volatility U.S. Equity Fund.

#### *NBIMC Inflation-Linked Securities Fund*

This fund invests primarily in fixed income instruments that are adjusted for inflation of G-7 countries. The performance objective is to add 10 basis points to its benchmark, the FTSE TMX Canada Real Return Bond Index, over a four-year rolling average.

#### *NBIMC Canadian Real Estate Fund*

This fund invests in private Canadian real estate investments, directly through a wholly owned subsidiary, NBIMC Realty Corp., or indirectly through limited partnerships or similar investment vehicles. The benchmark is inflation, as measured by the percentage change in the twelve-month average CPI-Canada All Items Index, plus 4%.

#### *NBIMC Canadian Real Estate Investment Trust Fund*

This fund invests in publicly traded Canadian real estate investment trust securities. The performance objective is to add 15 basis points to its benchmark, the S&P/TSX Capped REIT Total Return Index.

#### *NBIMC Non-Canadian Private Real Estate Fund*

This fund invests in private non-Canadian real estate investments directly or indirectly through limited partnerships or similar investment vehicles. The benchmark is inflation, as measured by the percentage change in the twelve-month average CPI-Canada All Items Index, plus 4%.

### 3. Investments (continued)

#### *Vestcor Investments Private Real Estate, L. P.*

This fund invests in private domestic and international real estate investments through co-investments, limited partnerships or similar investment vehicles. The benchmark is inflation, as measured by the percentage change in the twelve-month average CPI-Canada All Items Index, plus 4%.

#### *NBIMC International Real Estate (2017) Fund*

This fund invests primarily in publicly traded securities of international Real Estate Investment Trusts (REITs). The performance objective is to add 150 basis points to the countries' blended REIT Equity Indices in \$C (currently FTSE NAREIT all equity REIT Total Return Index in \$C), net of fees, over the long-term.

#### *NBIMC International Real Estate Fund – Class N*

This fund invests primarily in publicly traded securities of international Real Estate Investment Trusts (REITs). The performance objective is to add 150 basis points to the countries' blended REIT Equity Indices in \$C (currently FTSE NAREIT all equity REIT Total Return Index in \$C), net of fees, over the long-term. This fund was previously known as the NBIMC International Real Estate Fund.

#### *NBIMC Public Infrastructure (2017) Fund*

This fund provides additional investment diversification by providing infrastructure-like exposure with enhanced liquidity. The performance objective is to add 150 basis points to its benchmark over a four year average. The benchmark is inflation, as measured by the percentage change in the twelve-month average CPI-Canada All Items Index, plus 4%.

#### *NBIMC Public Infrastructure Fund – Class N*

This fund provides additional investment diversification by providing infrastructure-like exposure with enhanced liquidity. The performance objective is to add 150 basis points to its benchmark over a four year average. The benchmark is inflation, as measured by the percentage change in the twelve-month average CPI-Canada All Items Index, plus 4%. This fund was previously known as the NBIMC Public Infrastructure Fund.

#### *NBIMC Infrastructure Fund*

This fund provides additional investment diversification through direct investment in infrastructure through co-investment structures. The performance objective is to achieve a 4% real rate of return over a four year average investment horizon.

#### *Vestcor Investments Infrastructure, L. P.*

This fund provides additional investment diversification through direct investment in infrastructure through co-investment structures. The performance objective is to achieve a 4% real rate of return over a long-term investment horizon.

#### *NBIMC North American Market Neutral (2017) Fund*

This fund focuses on adding value through security selection within its universe of the S&P/TSX Composite Total Return Index as well as certain publicly traded US-listed stocks. Favored securities are purchased and offset by a corresponding short position in another security within the same sector. The portfolio is supported by a cash underlay and its performance objective is to add 350 basis points annually over a four-year moving average basis to its benchmark. The benchmark is calculated as 93% of the FTSE TMX Canada 91 Day T-Bill Index and 7% of the One-day Canadian Call Loan Rate.

**3. Investments (continued)**

*NBIMC North American Market Neutral Fund – Class N*

This fund focuses on adding value through security selection within its universe of the S&P/TSX Composite Total Return Index as well as certain publicly traded US-listed stocks. Favored securities are purchased and offset by a corresponding short position in another security within the same sector. The portfolio is supported by a cash underlay and its performance objective is to add 350 basis points annually over a four-year moving average basis to its benchmark. The benchmark is calculated as 93% of the FTSE TMX Canada 91 Day T-Bill Index and 7% of the One-day Canadian Call Loan Rate. This fund was previously known as the NBIMC North American Market Neutral Fund.

*NBIMC Quantitative Strategies (2017) Fund*

This fund adds value by investing in either long or short positions where announced mergers or dual class share structures present arbitrage potential. Short positions are supported by cash underlay. The objective is to add 350 basis points annually over a four year moving average basis to its benchmark. The benchmark is calculated as 93% of the FTSE TMX Canada 91 Day T-Bill Index and 7% of the One-day Canadian Call Loan Rate.

*NBIMC Quantitative Strategies Fund – Class N*

This fund adds value by investing in either long or short positions where announced mergers or dual class share structures present arbitrage potential. Short positions are supported by cash underlay. The objective is to add 350 basis points annually over a four year moving average basis to its benchmark. The benchmark is calculated as 93% of the FTSE TMX Canada 91 Day T-Bill Index and 7% of the One-day Canadian Call Loan Rate. This fund was previously known as the NBIMC Quantitative Strategies Fund.

*NBIMC Quantitative Equity Strategic Beta (2017) Fund*

This fund adds value by investing in either long or short positions, primarily in equities in the MSCI ACWI Index. Short positions are supported by cash underlay. The objective is to add 350 basis points annually over a four year moving average basis to its benchmark. The benchmark is calculated as 93% of the FTSE TMX Canada 91 Day T-Bill Index plus 7% One-day Canadian Call Loan Rate.

*NBIMC Quantitative Equity Strategic Beta Fund – Class N*

This fund adds value by investing in either long or short positions, primarily in equities in the MSCI ACWI Index. Short positions are supported by cash underlay. The objective is to add 350 basis points annually over a four year moving average basis to its benchmark. The benchmark is calculated as 93% of the FTSE TMX Canada 91 Day T-Bill Index plus 7% One-day Canadian Call Loan Rate. This fund was previously known as the NBIMC Quantitative Equity Strategic Beta Fund.

*NBIMC New Brunswick and Atlantic Canada Equity Opportunity Fund*

This fund invests in public and private equities or instruments convertible into equities of New Brunswick and Atlantic Canada companies. The performance objective is to achieve a 4% real rate of return over a long-term investment horizon.

*NBIMC Private Equity Fund*

This fund is managed by external managers that invest primarily in non-publicly traded securities of U.S. and European companies. The performance objective is to add 350 basis points over its benchmark, a weighted average of S&P/TSX, S&P 500 and MSCI EAFE total return indices in \$C.

**3. Investments (continued)***Vestcor Investments Private Equity, L. P.*

This fund is managed by external managers that invest primarily in non-publicly traded securities of U.S. and European companies. The performance objective is to add 350 basis points over its benchmark, a weighted average of the S&P/TSX, S&P 500 and MSCI EAFE total return indices in \$C.

*NBIMC Asset Mix Strategy Fund*

This fund adds value through active asset mix decisions by Vestcor's internal Asset Mix Strategy Committee. The objective is to add 10 basis points of absolute return.

Following are details of the Plan's investment holdings as at December 31:

<i>(\$ thousands)</i>	<b>Number of Units (rounded)</b>	<b>Unit Value (in dollars)</b>	<b>Fair Value 2017</b>	<b>Fair Value 2016</b>
<b>Fixed Income</b>				
NBIMC Nominal Bond Fund	332,954	2,692	\$ 896,150	\$ 810,957
NBIMC Corporate Bond Fund	706,480	1,279	903,834	863,624
NBIMC New Brunswick and Atlantic Canada Fixed Income Opportunity Fund	1,625	3,300	5,362	5,844
NBIMC Money Market Fund	27,158	1,627	44,178	73,458
NBIMC Student Investment Fund	528	3,656	1,931	1,811
			1,851,455	1,755,694
<b>Equities</b>				
NBIMC Canadian Equity Index Fund	84,068	3,743	314,691	298,435
NBIMC Low Volatility Canadian Equity Fund	168,434	1,725	290,493	273,509
NBIMC External Canadian Equity Fund	18,756	4,443	83,339	74,891
NBIMC Canadian Equity Active Long Strategy Fund	45,783	1,493	68,371	62,245
NBIMC External International Equity Fund	48,631	2,517	122,413	99,749
NBIMC EAFE Equity Index Fund	129,623	1,673	216,899	243,985
NBIMC Low Volatility International Equity Fund	167,024	2,233	372,943	355,533
NBIMC Low Volatility Emerging Markets Equity Fund – Class N	155,003	1,117	173,121	164,950
NBIMC U.S. Equity Index (2017) Fund	121,815	3,022	368,081	—
NBIMC U.S. Equity Index Fund – Class N	—	—	—	364,182
NBIMC Low Volatility U.S. Equity (2017) Fund	137,327	2,832	388,850	—
NBIMC Low Volatility U.S. Equity Fund – Class N	—	—	—	371,004
			2,399,201	2,308,483
<b>Inflation-Linked Assets</b>				
NBIMC Inflation-Linked Securities Fund	78,856	3,642	287,221	278,428
NBIMC Canadian Real Estate Fund	34,098	4,930	168,117	150,048
NBIMC Canadian Real Estate Investment Trust Fund	6,859	1,369	9,393	25,982
NBIMC Non-Canadian Private Real Estate Fund	10,392	1,134	11,783	9,566
Vestcor Investments Private Real Estate, L. P.	10,704	1,037	11,095	—
NBIMC International Real Estate (2017) Fund	5,358	7,683	41,159	—
NBIMC International Real Estate Fund – Class N	—	—	—	39,358
NBIMC Public Infrastructure (2017) Fund	105,916	1,074	113,709	—
NBIMC Public Infrastructure Fund – Class N	—	—	—	131,388
NBIMC Infrastructure Fund	54,632	1,757	95,961	84,710
Vestcor Investments Infrastructure, L. P.	24,173	1,103	26,675	—
			765,113	719,480

**3. Investments (continued)**

<i>(\$ thousands)</i>	<b>Number of Units (rounded)</b>	<b>Unit Value (in dollars)</b>	<b>Fair Value 2017</b>	<b>Fair Value 2016</b>
<b>Alternative Investments</b>				
NBIMC North American Market Neutral (2017) Fund	88,312	1,394	123,128	—
NBIMC North American Market Neutral Fund – Class N	—	—	—	119,578
NBIMC Quantitative Strategies (2017) Fund	124,042	1,520	188,453	—
NBIMC Quantitative Strategies Fund – Class N	—	—	—	175,651
NBIMC Quantitative Equity Strategic Beta (2017) Fund	138,829	1,085	150,871	—
NBIMC Quantitative Equity Strategic Beta Fund – Class N	—	—	—	143,198
NBIMC New Brunswick and Atlantic Canada Equity Opportunity Fund	2,867	6,392	18,327	14,503
NBIMC Private Equity Fund	71,252	3,502	249,493	229,341
Vestcor Investments Private Equity, L. P.	15,763	784	12,352	—
			742,624	682,271
<b>Tactical Asset Allocation</b>				
NBIMC Asset Mix Strategy Fund	17,094	1,296	22,162	18,407
			\$ 5,780,555	\$ 5,484,335

**4. Fair Value of Financial Instruments**

Investments are valued at fair value with changes in fair values over time recognized in net investment income.

The determination of fair value is dependent upon the use of measurement inputs with varying degrees of subjectivity. The level of subjectivity can be classified and is referred to as the fair value hierarchy. The fair value hierarchy levels are:

**Level 1** – Quoted market prices in active markets. This is considered to be the most reliable input for fair value measurement. A financial instrument is regarded as quoted in an active market if quoted prices are readily or regularly available from an exchange or prices represent actual and regularly occurring market transactions on an arm's length basis.

**Level 2** – Inputs (other than quoted prices included within Level 1) that are observable for the investment, either directly or indirectly. These inputs include quoted prices for similar investments in active markets, quoted prices for identical or similar investments in markets that are not active, and inputs other than quoted prices that are observable for the investment. These are inputs that are derived principally from, or corroborated by, observable market data by correlation or other means.

**Level 3** – Inputs that are unobservable that are used to measure fair value when observable inputs are not available. Unobservable inputs reflect subjective assumptions that market participants may use in pricing the investment.

Pooled fund units are classified as a Level 2 investment since the units are priced based on each pooled fund net asset value, which is observable, but the units are not traded in an active market. As at December 31, 2017 the fair value of investments classified as Level 2 was \$5,730,433 (2016 - \$5,484,335).

Units in each of the Vestcor Investments Private Real Estate, L.P., Vestcor Investments Infrastructure, L.P. and the Vestcor Investments Private Equity, L.P. are Level 3. There were no significant transfers between Level 2 and Level 3 during the year. As at December 31, 2017 the fair value of investments classified as Level 3 was \$50,122 (2016 - \$—).

#### 4. Fair Value of Financial Instruments (continued)

The Vestcor Investments Private Real Estate, L. P. holds investments in international real properties, indirectly through wholly owned holding companies invested in limited partnership structures. At December 31, 2017, an increase or decrease of 25 bps change in the capitalization rate used by the independent property appraisers would have a decrease or increase on the valuation of this fund's investments in the amount of \$757 or \$815 respectively. The maximum exposure to loss in this fund is the fair value of its investments plus uncalled commitments (see note 13).

The Vestcor Investments Infrastructure, L. P. invests indirectly through co-investments in certain underlying infrastructure assets. The independent valuations received for each of the fund's investments suggest an aggregate range of values of \$24,250 to \$27,538 as at December 31, 2017. It is reasonably possible that the valuations used by this fund may require material adjustment to the carrying amount of its investments. The maximum exposure to loss in this fund is the carrying value of its investments.

The Vestcor Investments Private Equity, L. P. invests in units of limited partnerships managed by well-known, experienced general partners. Excluding the publicly-traded holdings, a 1% increase or decrease in the per unit net asset values reported by the limited partnerships would increase or decrease the carrying value of investments in this fund at December 31, 2017 by \$123. It is reasonably possible that the valuations used by the fund may require material adjustment to the carrying value of its investments. The maximum exposure to loss in this fund is the fair value of its investments plus uncalled commitments (see note 13).

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

Year ended December 31, 2017	Fair Value, beginning of period \$	Gains (losses) in profit or loss \$	Purchases \$	Sales \$	Fair Value, end of period \$
Vestcor Investments Private Real Estate, L. P.	—	600	10,529	(34)	11,095
Vestcor Investments Infrastructure, L. P.	—	2,318	25,525	(1,168)	26,675
Vestcor Investments Private Equity, L. P.	—	(876)	13,229	(1)	12,352

#### 5. Financial Instrument Risk Management

Financial instruments are exposed to risks such as market, interest rate, credit and liquidity risk.

(a) **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. Market risk includes foreign currency risk, interest rate risk and pricing risk among others. The principal lever for managing market risk is to invest in widely diversified countries, sectors, and issuers. The Plan holds investments in pooled funds that invest in active and passive investment strategies and are diversified among domestic and international markets.

## 5. Financial Instrument Risk Management (continued)

Investment strategies used by the Vestcor Investment Entities may involve the use of financial derivatives such as forward foreign exchange contracts or total return swaps. Investment strategies also include “market neutral” strategies whereby an investment in a long position in one stock is matched with a short position in another stock, typically within the same industry sector. With the limited exception of prudent financing for investments in real property, the SIP (*note 8*) precludes the use of leverage in the investment portfolio. Accordingly, to the extent that there is market exposure from derivative investments and short positions, each Vestcor Investment Entity will hold cash underlay equal to the amount of market exposure. Market neutral strategies help to mitigate market risk through adherence to maximum investment limits and stop-loss constraints, and have a lower correlation to broad market indices.

Vestcor conducts certain of its investment activities in the Vestcor Investment Entities on behalf of the Plan by trading through broker channels on regulated exchanges and in the over-the-counter market. Brokers typically require that collateral be pledged against potential market fluctuations when trading in derivative financial instruments or when shorting security positions. As at December 31, 2017, the fair value of the Plan’s underlying securities that have been deposited or pledged with various financial institutions as collateral or margin on account was \$284,554 (2016 - \$222,747) (*see note 5(c)*).

Foreign currency risk arises from holding investments denominated in currencies other than the Canadian dollar. All of the Plan’s investments are in Canadian dollar denominated Vestcor Investment Entities; however, certain of the Vestcor Investment Entities invest in assets denominated in foreign currencies or domiciled in foreign jurisdictions. The SIP permits hedging of foreign currency exposure at the portfolio manager’s discretion. Approximately 34.8% (2016 – 35.3%) of the Plan’s underlying investments are denominated in currencies other than the Canadian dollar, with the largest foreign currency exposure being to the U.S. dollar of 19.7% (2016 – 19.7%) and the Euro of 3.9% (2016 – 4.2%).

A 1% absolute increase or decrease in the value of the Canadian dollar against all other currencies with all other variables held constant would result in an approximate decrease or increase in the value of the net investment assets at December 31, 2017 of \$20,123 (2016 – \$19,470).

Interest rate risk refers to the effect on the market value of investments due to fluctuation of interest rates. The Plan invests in certain Vestcor Investment Entities that invest in fixed income securities whose fair values are sensitive to interest rates. The SIP requires Vestcor to adhere to guidelines on duration and yield curve, which are designed to mitigate the risk of interest rate volatility.

If interest rates increased by 1%, and all other variables are held constant, the potential loss in fair value to the net investment assets at December 31, 2017 would be approximately \$179,799 (2016 – \$171,353).

Pricing risk is the risk that equity investments will change in value due to future fluctuations in market prices caused by factors specific to an individual equity investment or other factors affecting all equities traded in the market. The Plan is exposed to price risk associated with the underlying equity investments held in the Vestcor Investment Entities. If equity market price indices declined by 1%, and all other variables are held constant, the potential loss at December 31, 2017 would be approximately \$26,166 (2016 – \$25,375).

**5. Financial Instrument Risk Management (continued)**

(b) **Credit Risk:** The Plan is exposed to credit-related risk in the event that pooled fund investment in a derivative or debt security counterparty defaults or becomes insolvent. Vestcor has established investment criteria which are designed to manage credit risk by establishing limits by issuer type and credit rating for fixed income and derivative credit exposure. Vestcor monitors these exposures monthly. Such derivative and short and long-term debt securities are restricted to those having investment grade ratings, as provided by a third party rating agency. In addition, each counterparty exposure is restricted to no more than 5% of total assets. Investment grade ratings are BBB and above for longer term debt securities and R-1 for short-term debt. Any credit downgrade below investment grade is subject to review by the Board of Trustees.

The quality of the aggregate credit exposure in the underlying Vestcor Investment Entities at December 31 is as follows:

<i>(\$ thousands)</i>	<b>2017</b>	<b>2016</b>
AAA	\$ 775,778	\$ 608,891
AA	352,186	564,293
A	819,594	744,266
BBB	274,001	272,511
R-1	181,006	185,542
Other	42,435	38,270
	<b>\$ 2,445,000</b>	<b>\$ 2,413,773</b>

The highest concentration of credit risk at each year end is with Government of Canada bonds.

(c) **Liquidity Risk:** Liquidity risk is the risk of not having sufficient funds available to meet cash demands. Sources of liquidity include pension contributions collected from the employers and employees as well as redemption of units in Vestcor Investment Entities. Uses of liquidity include payments to the plan beneficiaries, plan service providers and purchases of units of Vestcor Investment Entities.

The Plan's asset mix is specifically designed to ensure that sufficient liquid assets are available to meet pension benefit obligations as they are required. Other than cash, treasury bills and bankers' acceptances, the most liquid asset class is government bonds whereas privately-held debt, equity, real estate and infrastructure investments are considered highly illiquid due to the lack of a readily available market and the longer term to maturity for these investments.

Net liquid assets are defined to include the fair value of all assets excluding private equity, private real estate, private infrastructure, New Brunswick regional investments, and the Plan's proportionate share of the fair value of collateral pledged with brokers and counterparties, and any unfunded investment commitments. Net liquid assets is a non-GAAP measure.



**5. Financial Instrument Risk Management (continued)**

The following table shows the determination of net liquid assets as at December 31:

<i>(\$ thousands)</i>	<b>2017</b>	<b>2016</b>
Net assets available for benefits	\$ 5,793,268	\$ 5,497,073
Less investment in:		
NBIMC New Brunswick and Atlantic Canada Fixed Income Opportunity Fund ( <i>note 3</i> )	(5,362)	(5,844)
NBIMC Canadian Real Estate Fund ( <i>note 3</i> )	(168,117)	(150,048)
NBIMC Non-Canadian Private Real Estate Fund ( <i>note 3</i> )	(11,783)	(9,566)
Vestcor Investments Private Real Estate, L. P. ( <i>note 3</i> )	(11,095)	—
NBIMC Infrastructure Fund ( <i>note 3</i> )	(95,961)	(84,710)
Vestcor Investments Infrastructure, L. P. ( <i>note 3</i> )	(26,675)	—
NBIMC New Brunswick and Atlantic Canada Equity Opportunity Fund ( <i>note 3</i> )	(18,327)	(14,503)
NBIMC Private Equity Fund ( <i>note 3</i> )	(249,493)	(229,341)
Vestcor Investments Private Equity, L. P. ( <i>note 3</i> )	(12,352)	—
Collateral pledged ( <i>note 5(a)</i> )	(284,554)	(222,747)
Investment commitments ( <i>note 13</i> )	(180,888)	(178,629)
<b>Net liquid assets</b>	<b>\$ 4,728,661</b>	<b>\$ 4,601,685</b>

(d) Securities Lending: The Plan's SIP permits Vestcor to enter into a securities lending arrangement externally with their securities custodian or internally among the Vestcor Investment Entities with the objective of enhancing portfolio returns.

Under the external program, the securities custodian, who is an independent third party, may loan securities owned by the Vestcor Investment Entities to other approved borrowers in exchange for collateral in the form of readily marketable government-backed securities equal to at least 105% of the value of securities on loan and a borrowing fee. Vestcor has restricted the approved borrowers under the external securities lending program to manage exposure to counterparty credit risk. As at December 31, 2017, underlying securities in the amount of \$1,172,109 (2016 – \$600,978) were loaned on behalf of the Plan.

Under the internal securities lending program, certain Vestcor Investment Entities may loan securities to a borrowing Vestcor Investment Entity subject to an intra-fund collateral management agreement and a borrowing fee. As at December 31, 2017, underlying securities in the amount of \$67,419 (2016 – \$44,930) were loaned on behalf of the Plan and \$65,236 (2016 – \$45,863) were borrowed.

**6. Pension Obligations**

(a) Actuarial Methodology: On conversion of the TPA from a defined benefit plan to a target benefit plan, an actuarial valuation report was prepared by Morneau Shepell, the independent actuary to document:

- the results of the initial funding valuation, as required under paragraph 17(1) of the New Brunswick *Teachers' Pension Plan Act* ("TPPA");
- the Conversion Plan as required under sub-paragraph 100.6(2)(a)(i) of the *Pension Benefits Act (New Brunswick)*; and
- the results of the going-concern actuarial valuation as required under paragraph 16(1) of the TPPA in order to determine the maximum eligible employer contribution for the NBTPP under paragraph 147.2(2) of the *Income Tax Act (Canada)*.

**6. Pension Obligations (continued)**

The *TPPA* requires that a funding valuation be prepared at least once every three years and be submitted to the Superintendent of Pensions. In the years in which an actuarial valuation report is not submitted to the Superintendent of Pensions, a cost certificate with respect to the funding policy is prepared in accordance with section 9 of regulation 91-195 and submitted to the Superintendent of Pensions. The most recent triennial funding valuation was prepared as of August 31, 2016 by the independent actuary. The results of this valuation have been extrapolated to December 31, 2017. The next funding valuation is expected to be prepared no later than August 31, 2019.

The funding valuation actuarial liabilities and normal cost were calculated using the accrued benefit actuarial cost method in accordance with the requirements of paragraph 17(9) of the *TPPA*.

The funding policy valuation actuarial liabilities are equal to the actuarial present value of benefits earned by members for services prior to the valuation date, taking into account the actuarial assumptions. The actuarial liabilities take into account the increases in accrued pensions due to regular cost-of-living adjustments granted to active and retired members.

The funding valuation normal cost is equal to the actuarial present value of benefits expected to be earned by members in the year following the valuation date.

The extrapolation is based on the most recent actuarial valuation conducted for the Plan. The valuation results are then projected to:

1. Increase the pension obligation with interest to the date of the extrapolation using the applicable discount rate;
2. Increase the pension obligation by the current benefit costs based on actual contributions to the Plan plus interest to the date of the extrapolation; and
3. Decrease the pension obligation by the actual benefit payments made during the period to the date of the extrapolation.

**6. Pension Obligations (continued)**

(b) Actuarial Assumptions: The main assumptions used in determining the funding valuation actuarial liabilities as of the respective extrapolation dates, and normal cost for the year following the extrapolation dates are as follows:

	<b>December 31, 2017</b>	<b>December 31, 2016</b>
Discount rate	5.85% per annum	5.85% per annum
Inflation rate	2.25% per annum	2.25% per annum
Indexing of active members' accrued pensions	100% of inflation*	100% of inflation*
Indexing of retiree pensions	75% of inflation*	75% of inflation*
Mortality	CPM 2014 Public Table generational mortality using improvement scale CPM-B with an adjustment factor of 0.90 for both males and females.	CPM 2014 Public Table generational mortality using improvement scale CPM-B with an adjustment factor of 0.90 for both males and females.
Number of years before unreduced retirement age according to provisions in effect at December 31, 2013:		
• Under 5 years	45% at 85 points, 45% at 87 points and 10% at 90 points, but not later than attainment of 35 years of service or age 60	
• Over 5 years	45% at 89 points, 45% at 91 points and 10% at 94 points, but not later than attainment of 37 years of service or age 62	
Termination of employment	None	

\*Inflation is adjusted down by 0.15% for purposes of indexing to take into account the impact of the 4.75% cap applied under the Plan for indexing purposes.

There were no changes in actuarial assumptions during 2017 (2016 - \$207,900).

(c) Experience gains: Experience gains represent the change in the pension obligation due to the difference between expected experience and actual results. During 2017, there were no experience gains (2016 - \$133,000).

(d) Sensitivity analysis: The discount rate used to estimate the present value of pension obligations has a significant effect on the pension obligation at the end of the year. As of December 31, 2017, a decrease of 100 basis points in the discount rate would have increased the pension obligation by \$779,800 (2016 - \$763,400).

(e) Funding valuation assets: The financial position of the Plan on a funding basis is determined by deducting the funding valuation actuarial liabilities from the funding valuation asset value.

**7. Funding Policy**

The following is only a summary of the main features of the funding policy, and should not be relied upon for a formal interpretation of the terms of the funding policy.

The funding policy is the tool required pursuant to the Act that the Board of Trustees uses to manage the risks inherent in a target benefit plan. The funding policy provides guidance and rules regarding decisions that must, or may, as applicable, be made by the Board of Trustees concerning funding levels, contributions and benefits.

The purpose of the NBTTP is to provide a highly secure lifetime pension at retirement and maintain scheduled escalated adjustments at their target level if the Plan can afford it.

## 7. Funding Policy *(continued)*

The funding policy sets out two financial goals that underlie the Plan's objectives:

- (a) The Funding Goal is to achieve a closed group funding ratio of 100% plus a Contingency Reserve of 10%.
- (b) The Risk Management Goal is to achieve at least a 97.5% probability that the past base benefits at the end of each year will not be reduced over a 20-year period:

The above risk management goal is measured at every triennial actuarial valuation using an asset liability model with future economic scenarios developed using a stochastic process.

The funding policy sets out the decisions to be made by the Board of Trustees. These decisions are based on the closed group funded ratio calculated as the market value of the assets divided by the funding liabilities. Depending upon the level of the closed group funded ratio, decisions may have to be made under either a funding deficit recovery plan or a funding excess utilization plan.

The funding deficit recovery plan is triggered when over a three-year moving average:

- the closed group funded ratio of the Plan falls below 100%; and
- contributions in excess of normal cost are not enough to bring the closed group funded ratio above 100% over 15 years.

If this occurs, the following actions in order of priority must be taken to return the closed group funded ratio to 100% (including the impact of the contributions in excess of the normal cost) over 15 years:

1. Maximum increase in total contributions of 3.0% of earnings (shared equally between the employer and the employees), provided the total increase is at least equal to 1.0% of earnings.
2. Reduction in the following benefits, in the order indicated:
  - a. Reduce the level of escalated adjustments applicable to future service of active members until eliminated;
  - b. Reduce the level of future escalated adjustments applicable to the post-retirement period for all retirees and their survivors until eliminated;
  - c. Reduce the level of future escalated adjustments applicable the past service of active members for the pre-retirement period until eliminated;
  - d. Reduce other ancillary benefits and future accrual rates such that the amount of savings, when combined with c. above, equates to an amount of no more than 10% of payroll over 15 years;
  - e. At the discretion of the Board of Trustees, reduce the base benefits of active employees (subject to a certain maximum); and
  - f. As a last resort, reduce the base benefits of retirees and claimants in the same proportion as active members under e. above, and for all participants equally thereafter, to the extent necessary to bring the funded ratio to 100% over 15 years.

The funding excess utilization plan is triggered when the closed group funded ratio is in excess of 100%. At that time, the Board of Trustees must take or consider taking the following actions in the order of priority:

1. Reverse any benefit reductions implemented as part of funding deficit recovery plan, in the reverse order in which they were implemented, such that the closed group funded ratio is still expected to reach 100% within 15 years after the reversal;
2. Establish a contingency reserve of at least 15% of the funding liabilities of the Plan;
3. If the closed group funded ratio exceed 115%, apply a reduction in total contributions of 3% of earnings (shared equally between the employer and the employees);
4. If the closed group funded ratio exceeds 120%, reinstate any lost cost-of-living adjustments due to the implementation of past funding deficit recovery plans; and

## 7. Funding Policy *(continued)*

5. If all the above steps have been taken, the Board of Trustees may propose benefit changes provided various criteria of risk management are met, and other conditions, and such proposals are approved by the Superintendent of Pension and submitted to the Parties.

The maximum amount that can be spent on benefit improvements in 4. and 5. above is 1/5<sup>th</sup> of the funds that make up the excess of the closed group funded ratio over 110% at the valuation date that triggered the action.

The funding policy also provides a description of the main actuarial assumptions to be used in the funding valuation, as well as the process to be followed for its annual review.

## 8. Capital

The capital of the NBTPP is represented by the net assets available for benefits. The NBTPP must be managed in a manner which recognizes the interdependency of the SIP, the risk management goals set out in the funding policy and applicable regulatory requirements.

The Board of Trustees is responsible for the establishment of a SIP, including approval of a recommended investment asset mix that seeks to deliver the long-term investment returns necessary for the sustainability of the NBTPP. Determining the asset mix requires information from independent actuarial valuations as well as expectations concerning financial markets and uses a portfolio optimization process. This process has the intent of achieving the maximum investment returns possible while meeting the risk management tests in the funding policy. The recommended strategic asset allocation is reviewed on at least an annual basis to ensure that it remains appropriate. The SIP was last reviewed and approved by the Board of Trustees on September 21, 2017.

Once approved, Vestcor is responsible for the implementation of the asset mix decision including day-to-day investment activities and monitoring of investment risk controls. Vestcor produces quarterly reporting of investment performance, policy compliance, and trends and changes in investment risks for the Board of Trustees.

The Board-approved SIP outlines the following investment objectives:

- i. In the long term, to preserve the capital value of the Pension Fund but also provide the best possible long-term real return on investments while continuing to achieve the risk management goals;
- ii. Over shorter time periods, to achieve competitive rates of return on each major asset class while avoiding undue investment risk and excessive market volatility; and
- iii. Over the medium term, to provide rates of return in excess of those achieved by passive management of the policy portfolio. A value added contribution of 0.42%, after deducting all investment management costs, is the portfolio's target four-year moving average rate of return.

**9. Net Investment Income**

Net investment income represents the changes in fair value, realized and unrealized, in the units held in each of the Vestcor Investment Entities. Net investment income (loss) for the year ended December 31 is as follows:

<i>(\$ thousands)</i>	<b>2017</b>	<b>2016</b>
<b>Fixed Income</b>		
NBIMC Nominal Bond Fund	\$ 22,335	\$ 11,671
NBIMC Corporate Bond Fund	25,371	32,493
NBIMC New Brunswick and Atlantic Canada Fixed Income Opportunity Fund	198	145
NBIMC Money Market Fund	398	562
NBIMC Student Investment Fund	119	170
	<b>48,421</b>	<b>45,041</b>
<b>Equities</b>		
NBIMC Canadian Equity Index Fund	27,633	64,161
NBIMC Low Volatility Canadian Equity Fund	27,257	42,965
NBIMC External Canadian Equity Fund	6,884	11,355
NBIMC Canadian Equity Active Long Strategy Fund	5,776	11,656
NBIMC External International Equity Fund	21,164	(2,797)
NBIMC EAFE Equity Index Fund	40,109	(2,598)
NBIMC Low Volatility International Equity Fund	49,816	(4,604)
NBIMC Low Volatility Emerging Markets Equity Fund – Class N	28,191	6,817
NBIMC U.S. Equity Index (2017) Fund	230,600	—
NBIMC U.S. Equity Index Fund – Class N	(180,188)	33,925
NBIMC Low Volatility U.S. Equity (2017) Fund	155,887	—
NBIMC Low Volatility U.S. Equity Fund – Class N	(128,544)	32,819
	<b>284,585</b>	<b>193,699</b>
<b>Inflation-Linked Assets</b>		
NBIMC Inflation-Linked Securities Fund	2,960	8,432
NBIMC Canadian Real Estate Fund	22,570	13,912
NBIMC Canadian Real Estate Investment Trust Fund	1,638	15,493
NBIMC Non-Canadian Private Real Estate Fund	2,112	(78)
Vestcor Investments Private Real Estate, L.P.	600	—
NBIMC International Real Estate (2017) Fund	24,590	—
NBIMC International Real Estate Fund – Class N	(24,024)	4,135
NBIMC Public Infrastructure (2017) Fund	6,724	—
NBIMC Public Infrastructure Fund – Class N	(1,575)	2,592
NBIMC Infrastructure Fund	12,289	6,011
Vestcor Investments Infrastructure, L.P.	2,318	—
	<b>50,202</b>	<b>50,497</b>

**9. Net Investment Income (continued)**

<i>(\$ thousands)</i>	<b>2017</b>	<b>2016</b>
<b>Alternative Investments</b>		
NBIMC North American Market Neutral (2017) Fund	12,137	—
NBIMC North American Market Neutral Fund – Class N	(7,160)	5,150
NBIMC Quantitative Strategies (2017) Fund	30,857	—
NBIMC Quantitative Strategies Fund – Class N	(19,829)	11,619
NBIMC Quantitative Equity Strategic Beta (2017) Fund	11,688	—
NBIMC Quantitative Equity Strategic Beta Fund – Class N	(4,439)	4,554
NBIMC New Brunswick and Atlantic Canada Equity Opportunity Fund	3,918	845
NBIMC Private Equity Fund	40,862	14,077
Vestcor Investments Private Equity, L.P.	(876)	—
	<b>67,158</b>	<b>36,245</b>
<b>Tactical Asset Allocation</b>		
NBIMC Asset Mix Strategy Fund	2,785	2,707
<b>Net investment income</b>	<b>\$ 453,151</b>	<b>\$ 328,189</b>

**10. Pension Benefits**

A breakdown of pension benefits by type is as follows:

<i>(\$ thousands)</i>	<b>2017</b>	<b>2016</b>
Retirements	\$ 263,855	\$ 260,900
Terminations	832	791
Disability	7,721	7,764
Survivor	12,739	11,802
Other	2,241	1,453
	<b>\$ 287,388</b>	<b>\$ 282,710</b>

These benefits are presented in the Statement of Changes in Net Assets Available for Benefits as:

<i>(\$ thousands)</i>	<b>2017</b>	<b>2016</b>
Pension benefits	\$ 284,134	\$ 280,238
Refunds and transfers	3,254	2,472
	<b>\$ 287,388</b>	<b>\$ 282,710</b>

## 11. Administrative Expenses

The Plan is charged by its service providers, including Vestcor, a related party, for professional and administrative services. The following is a summary of these administrative expenses:

<i>(\$ thousands)</i>	<b>2017</b>	<b>2016</b>
Plan administration fees:		
Office and administration services ( <i>note 12</i> )	\$ 1,563	\$ 1,734
Consulting	86	93
Legal fees	6	73
Actuarial services	96	20
Audit fees	41	55
Regulatory fees	11	10
Member communications	72	67
Board of Trustees	45	47
	<u>1,920</u>	<u>2,099</u>
Investment management costs:		
Investment management fees ( <i>note 12</i> )	6,278	6,467
Securities custody	469	429
	<u>6,747</u>	<u>6,896</u>
HST	1,167	835
	<u>\$ 9,834</u>	<u>\$ 9,830</u>

## 12. Related Party Transactions

The Plan is related to the Province of New Brunswick including its departments, agencies, school districts, regional health authorities, crown corporations and other crown entities. The Board of Trustees determines the amounts of contributions to and payments from the Plan.

Pursuant to the *Vestcor Act*, on July 8, 2016 the Plan is a member of a not-for-profit, non-share company, Vestcor Corp.. On October 1, 2016 Vestcor Corp. acquired a 100% interest in two operating companies: Vestcor Investment Management Corporation and Vestcor Pension Services Corporation that were amalgamated to become Vestcor Inc. on January 1, 2018. Vestcor is the sole shareholder of Vestcor Investments General Partner, Inc. As at December 31, 2017, Vestcor Investments General Partner, Inc. is the general partner in three limited partnerships in which the Plan holds a limited partnership interest: Vestcor Investments Private Real Estate, L. P., Vestcor Investments Infrastructure, L. P. and Vestcor Investments Private Equity, L. P. (*note 3*).

All of the Plan's investments included in the Statement of Financial Position are in Vestcor Investment Entities which entitle the Plan to an undivided interest in the underlying assets (*note 3*). In addition, the NBIMC Canadian Real Estate Fund and NBIMC Private Equity Fund have made certain of their direct and indirect real estate investments using wholly owned subsidiary company structures.

Included in the investments in the Vestcor Investment Entities are underlying investments in New Brunswick provincial and municipal bonds that are recorded at their fair values as at December 31, 2017 of \$25,876 (2016 – \$28,149).



**12. Related Party Transactions (continued)**

Pension administration expenses and investment management fees paid to Vestcor for the year are described in note 11. At December 31, 2017 amounts owing to Vestcor for investment management fees of \$2,037 (2016 – \$1,289) and for pension administration expenses of \$126 (2016 – \$352) are included in accounts payable and accrued liabilities.

**13. Commitments**

The NBIMC Canadian Real Estate Fund, the NBIMC Non-Canadian Private Real Estate Fund, the Vestcor Investments Private Real Estate, L. P., the NBIMC Infrastructure Fund, the NBIMC Private Equity Fund and the Vestcor Investments Private Equity, L. P. have committed to enter into investments, which may be funded over the next several years in accordance with the terms and conditions agreed to in various partnership agreements. The Plan's share of unfunded commitments as at December 31 is:

<i>(\$ thousands)</i>	<b>2017</b>	<b>2016</b>
NBIMC Canadian Real Estate Fund	\$ 3,801	\$ 11,130
NBIMC Non-Canadian Private Real Estate Fund	5,527	2,641
Vestcor Investments Private Real Estate, L. P.	8,904	—
NBIMC Infrastructure Fund	2,309	6,486
NBIMC Private Equity Fund	108,870	144,790
Vestcor Investments Private Equity, L. P.	51,477	13,582
	<b>\$ 180,888</b>	<b>\$ 178,629</b>

**14. Indemnification**

Pursuant to the Agreement and Declaration of Trust, a first lien and charge against the assets of the Plan is provided as indemnification to the Board of Trustees against any liability incurred, including defence costs. The Plan may be required to compensate these individuals in the event of a claim being made against them. The contingent nature of these indemnification obligations prevents the Plan from making a reasonable estimate of the maximum potential payments that may be required. The Plan has not received any claims or made any payments pursuant to such indemnifications.