

Financial Statements of

**HALIFAX REGIONAL
MUNICIPALITY PENSION PLAN**

Year ended December 31, 2017



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INDEPENDENT AUDITORS' REPORT

To the Members of the Halifax Regional Municipality Pension Committee

We have audited the accompanying financial statements of the Halifax Regional Municipality Pension Plan, which comprise the statement of financial position as at December 31, 2017, and the statement of changes in net assets available for benefits, statement of changes in pension obligations and statement of changes in surplus 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 Halifax Regional Municipality Pension Plan as at December 31, 2017, and changes in its net assets available for benefits, changes in pension obligations and changes in surplus for the year then ended in accordance with Canadian accounting standards for pension plans.

Chartered Professional Accountants, Licensed Public Accountants
June 14, 2018
Halifax, Canada

HALIFAX REGIONAL MUNICIPALITY PENSION PLAN

Financial Statements

Year ended December 31, 2017

Financial Statements

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HALIFAX REGIONAL MUNICIPALITY PENSION PLAN

Statement of Financial Position

December 31, 2017, with comparative figures for 2016

	2017	2016
Net Assets Available for Benefits		
Assets:		
Contributions receivable:		
Employers'	\$ 803,232	\$ 1,034,537
Employees'	758,813	994,751
Total receivables	1,562,045	2,029,288
Prepaid expenses	11,162	10,138
Investments held by trustee: HRM Master Trust (note 3)	1,839,755,931	1,674,014,651
Total assets	1,841,329,138	1,676,054,077
Liabilities:		
Accounts payable and accrued liabilities	954,546	1,024,238
Net assets available for benefits	\$ 1,840,374,592	\$ 1,675,029,839

Accrued Pension Obligations and (Deficit) Surplus

Accrued pension obligations (note 4)	1,880,173,000	1,607,539,000
(Deficit) surplus	(39,798,408)	67,490,839
Accrued pension obligations and (deficit) surplus	\$ 1,840,374,592	\$ 1,675,029,839

See accompanying notes to financial statements.

On behalf of the Halifax Regional Municipality Pension Committee:

_____ Member

_____ Member

HALIFAX REGIONAL MUNICIPALITY PENSION PLAN

Statement of Changes in Net Assets Available for Benefits

Year ended December 31, 2017 with comparative figures for 2016

	2017	2016
Increase in assets:		
Investment income	\$ 176,319,255	\$ 101,966,714
Contributions:		
Employees'	41,534,041	39,171,975
Employers'	42,893,986	40,456,851
Transfers from other pension plans	2,650,476	954,547
	87,078,503	80,583,373
Total increase in assets	263,397,758	182,550,087
Decrease in assets		
Administrative expenses (note 5)	6,692,498	6,597,649
Payments:		
Pension payments	80,344,479	76,601,132
Lump sum payments	11,016,028	34,507,765
	91,360,507	111,108,897
Total decrease in assets	98,053,005	117,706,546
Net increase in net assets available for benefits	165,344,753	64,843,541
Net assets available for benefits, beginning of year	1,675,029,839	1,610,186,298
Net assets available for benefits, end of year	\$1,840,374,592	\$1,675,029,839

See accompanying notes to financial statements.

HALIFAX REGIONAL MUNICIPALITY PENSION PLAN

Statement of Changes in Pension Obligations

Year ended December 31, 2017 with comparative figures for 2016

	2017	2016
Accrued pension obligation, beginning of year	\$ 1,607,539,000	\$ 1,552,494,000
Increase in pension obligations		
Interest on accrued pension obligation	116,940,000	110,571,000
Cost of benefits accrued during the year	58,225,000	54,790,000
Net impact of experience gains and losses relating to accrued pension obligation	21,995,000	793,000
Change in economic assumptions	152,359,000	-
Change in demographic assumptions	14,475,000	-
Total increase in pension obligations	363,994,000	166,154,000
Decrease in pension obligations		
Benefits paid	91,360,000	111,109,000
Total decrease in pension obligations	91,360,000	111,109,000
Net increase in accrued pension obligations	272,634,000	55,045,000
Accrued pension obligation, end of year	\$ 1,880,173,000	\$ 1,607,539,000

Statement of Changes in (Deficit) Surplus

Year ended December 31, 2017 with comparative figures for 2016

	2017	2016
Surplus, beginning of year	\$ 67,490,839	\$ 57,692,298
Net increase in net assets available for benefits	165,344,753	64,843,541
Net increase in accrued pension obligation	(272,634,000)	(55,045,000)
(Deficit) surplus, end of year	\$ (39,798,408)	\$ 67,490,839

See accompanying notes to financial statements.

HALIFAX REGIONAL MUNICIPALITY PENSION PLAN

Notes to Financial Statements

Year ended December 31, 2017

1. Description of the Plan:

The following description of the Halifax Regional Municipality Pension Plan (the "Plan") is a summary only. For more complete information, reference should be made to the Plan Text. The Plan is registered in accordance with the Nova Scotia Pension Benefits Act. Its Provincial registration number is 238063. The Plan's registered office is located at 1809 Barrington Street, Suite 1108, Halifax, Nova Scotia, Canada.

(a) General:

The Plan is a defined benefit pension plan. However, it also has a defined contribution component (members of the Current Plan division may elect to make optional contributions in respect of non-regular earnings).

The Halifax Regional Municipality Master Trust (the "Master Trust") acts as the investment vehicle for the Plan and the Halifax Regional Water Commission Employees' Pension Plan (the "HRWC Plan").

The Plan became effective April 1, 1998, as a result of the merger of the following pension plans sponsored by the Halifax Regional Municipality (the "HRM") (the "Prior Plans"):

- Prior City of Dartmouth Employees' Retirement Pension Plan;
- Prior Halifax County Municipality Full-time Retirement Pension Plan;
- Prior City of Halifax Superannuation Plan; and
- Prior Metropolitan Authority Employees' Pension Plan.

Members who were members of the Prior Plans could elect to accrue benefits which closely matched what was provided by their respective Prior Plans. However, effective April 1, 1998 a new set of provisions were developed (the "Current Plan"). Active members and members on long-term disability of all Prior Plans were provided the option to accrue future service under the Current Plan, as well as the option to convert their benefits accrued under Prior Plans prior to April 1, 1998 to the Current Plan terms.

HALIFAX REGIONAL MUNICIPALITY PENSION PLAN

Notes to Financial Statements (Continued)

Year ended December 31, 2017

1. Description of the Plan (continued):

(b) Eligibility for membership:

Full-time employees are eligible to become members of the Plan immediately upon commencement of full-time employment. Part-time employees are eligible to join on the first day of January or July following completion of 12 months of continuous service provided the employee has earned at least 25% of the Years' Maximum Pensionable Earnings ("YMPE") or have 700 hours of employment in the preceding 12 months or as may otherwise be provided by an applicable collective agreement. Participation is compulsory for eligible full-time employees and optional for eligible part-time employees (unless participation is required under a collective agreement). The Mayor and Councilors of the HRM may join the plan on or after taking office with the HRM.

(c) Funding policy:

The Plan requires participating employers and members to make contributions. 2017 contribution rates are reported in Note 7. The contribution rate is equal to the percentage of the member's earnings that is required to pay the cost of providing the member's benefits, as determined by the Plan's actuary.

(d) Service pension:

The service pension available for each division of the Plan can be summarized as follows:

Current Plan

The member will be entitled to a pension equal to 2% of the member's average annual pensionable earnings in the highest 3 consecutive years under the defined benefit provision multiplied by the number of years of credited service in the Plan. The maximum pension payable per year of service is the maximum pension as specified in the Income Tax Act. The member will also be entitled to transfer the value of the optional defined contribution account to a locked-in Retirement Account or it may be left in the Plan to increase the member's pension.

HALIFAX REGIONAL MUNICIPALITY PENSION PLAN

Notes to Financial Statements (Continued)

Year ended December 31, 2017

1. Description of the Plan (continued):

Prior City of Halifax Superannuation Plan

The member will be entitled to a pension equal to 2% of the member's average annual pensionable earnings in the highest 3 consecutive years under the defined benefit provision multiplied by the number of years of credited service in the Plan subject to a maximum of 35 years of credited service. The maximum pension per year of service is the maximum pension as specified in the Income Tax Act.

Prior City of Dartmouth Employees' Retirement Pension Plan

A member who contributed to Plan A, will be entitled to a pension equal to 2% of the member's earnings on which the member has made contributions. A member who retires after completing 25 years of credited service shall be entitled to a supplemental pension so as to provide an annual pension equal to 50% of the member's average earnings during the 60 consecutive months of credited service immediately preceding the member's retirement, death, or termination of employment.

A member who contributed to Plan B, will be entitled to a pension equal to 2% of the member's best five consecutive year average earnings multiplied by the member's credited service subject to a maximum of 35 years. A Plan B member who belongs to the respective bargaining unit of the police or firefighter unions will have a best three consecutive year average earnings used to determine the member's pension.

For both Plan A and Plan B members, the maximum pension per year of service is the maximum pension as specified in the Income Tax Act.

Prior Halifax County Municipality Full-time Retirement Pension Plan

A member will be entitled to a pension equal to 2% of the average of the highest three consecutive years earnings multiplied by the number of years of credited service in the Plan, subject to a maximum of 35 years. The maximum pension payable per year of service is the maximum pension as specified in the Income Tax Act.

HALIFAX REGIONAL MUNICIPALITY PENSION PLAN

Notes to Financial Statements (Continued)

Year ended December 31, 2017

1. Description of the Plan (continued):

Prior Metropolitan Authority Employees' Pension Plan

A member will be entitled to a pension equal to 1.5% of the member's average best five years earnings plus 0.5% of the excess of the member's average best five years earnings over and above the YMPE as defined by the Canada Pension Plan in the year of retirement and the two preceding years, multiplied by the number of years of contribution to a maximum of 70% of the best average five year earnings. Former employees of Dartmouth Transit, Nova Scotia Light and Power, and Halifax Transit Corporation are entitled to pension benefits as defined in the Plan. The maximum pension payable per year of service is the maximum pension as specified in the Income Tax Act.

(e) Survivors' pension & death benefits:

As with the service pension under the Plan, the survivor/death benefits vary depending on the division of the Plan under which the member has earned benefits. Under the Current Plan division, if a member dies before receipt of his/her first monthly pension payment, the member's spouse is entitled to receive either a lump sum payment equal to the commuted value of his/her pension, or an immediate or deferred pension. If the member does not have a spouse, the member's beneficiary is entitled to receive a lump sum payment equal to the commuted value of his/her pension. The spouse or beneficiary would also be entitled to the account of the member under the defined contribution provision of the Plan.

If a member dies within 10 years after retirement and did not have a spouse at retirement, the member's beneficiary will be entitled to a lump sum equal to the value of the pension for the remainder of the 10 year period. If the member has a spouse at retirement, the spouse is eligible for a lifetime pension equal to 66.67% of the pension payable to the member at the time of his/her death.

If both the member and the spouse die before receiving payments which total the member's required contributions plus interest balance at the date of the pension commencement, the remainder of this balance will be payable to the beneficiary or estate.

HALIFAX REGIONAL MUNICIPALITY PENSION PLAN

Notes to Financial Statements (Continued)

Year ended December 31, 2017

1. Description of the Plan (continued):

(f) Termination of membership:

As with the service pension under the Plan, the termination benefits vary depending on the division of the Plan under which the member has earned benefits. Under the Current Plan division, if a member's employment terminates for reasons other than death or retirement, the member will be entitled to:

- an unreduced deferred pension payable at the member's Optional Retirement Date, or an immediate reduced pension, if the member was eligible to retire at the members termination date; otherwise

- an unreduced deferred pension payable at the member's Normal Retirement Date.

If the member is not eligible to retire at the member's termination date, the member has an option to commute the value of the deferred pension and transfer the amount to a locked-in retirement account. The member's Defined Contribution Account balance, if any, would also be transferred to a locked-in retirement account.

If the member elects a deferred pension, the member's Defined Contribution Account balance, if any, with interest to the actual date of pension commencement will be used to increase the pension.

2. Significant accounting policies:

(a) Basis of presentation:

The financial statements are presented in accordance with Accounting Standards for Pension Plans in Part IV of the Chartered Professional Accountants Handbook (CPA), Section 4600 - Pension Plans. Section 4600 provides specific accounting guidance on investments and pension obligations. For accounting policies that do not relate to either investments or pension obligations, the Plan must consistently comply with either international financial reporting standards ("IFRS") in Part I of the CPA Handbook or accounting standards for private enterprises ("ASPE") in Part II of the CPA Handbook. The Plan has elected to comply, on a consistent basis, IFRS. To the extent that IFRS is inconsistent with Section 4600, Section 4600 takes precedence.

HALIFAX REGIONAL MUNICIPALITY PENSION PLAN

Notes to Financial Statements (Continued)

Year ended December 31, 2017

2. Significant accounting policies (continued):

The Plan's financial statements are prepared on a going-concern basis and present the aggregate financial position of the Plan as a separate financial reporting entity independent of the participating employers and Plan members.

These financial statements were authorized for issue by the Halifax Regional Municipality Pension Committee on June 14, 2018.

(b) Fair value measurement:

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

In determining fair value, the Plan uses the guidance in IFRS 13, Fair Value Measurements ("IFRS 13"). As allowed under IFRS 13, if an asset or a liability measured at fair value has a bid and an ask price, the price within the bid-ask spread that is the most representative of fair value in the circumstances shall be used to measure fair value.

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

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

HALIFAX REGIONAL MUNICIPALITY PENSION PLAN

Notes to Financial Statements (Continued)

Year ended December 31, 2017

2. Significant accounting policies (continued):

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

All investment transactions are recorded at the point when the risks and rewards of ownership are transferred. Purchases and sales of publicly traded investments are recorded as of the trade date.

All changes in fair value are recognized in the statement of changes in net assets available for benefits as part of the investment income.

The fair value of the investment in Master Trust is valued at the unit value supplied by the Master Trust, which represents the Plan's proportionate share of underlying net assets at fair values determined using closing market prices.

While the Plan believes its valuation techniques are appropriate and consistent with other market participants, the use of different techniques or assumptions could result in different estimates of fair value at the statement of financial position date.

Fair value hierarchy

Investment assets and investment-related liabilities are classified and disclosed in one of the following categories reflecting the significance of inputs used in making the fair value measurement:

- Level 1 - quoted prices (unadjusted) in active markets for identical assets or liabilities;
- Level 2 - inputs other than quoted prices included in Level 1 that are observable for the assets or liabilities, either directly (i.e., as prices) or indirectly (i.e., derived from prices); and
- Level 3 - inputs for the assets or liabilities that are not based on observable market data (unobservable inputs).

HALIFAX REGIONAL MUNICIPALITY PENSION PLAN

Notes to Financial Statements (Continued)

Year ended December 31, 2017

2. Significant accounting policies (continued):

If different levels of inputs are used to measure the fair value of an investment, the classification within the hierarchy is based on the lowest level input that is significant to the fair value measurement.

(c) Investment transactions, income recognition and transaction costs:

Investment transactions are accounted for on a trade date basis.

Income from investments is reflected in investment activities and is recorded on an accrual basis and includes interest and dividends, as well as gains and losses that have been realized on disposal of investments and the unrealized appreciation and depreciation in the fair value of investments.

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

(d) Foreign currency translation:

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

Foreign currency differences arising on retranslation are recognized in the statement of changes in net assets available for benefits as part of investment income.

(e) Contributions:

Basic contributions from employers and members due to the Plan as at the end of the year are recorded on an accrual basis. Service purchases and transfers from other pension plans are recorded and service is created when the purchase amount is received.

(f) Benefits:

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

HALIFAX REGIONAL MUNICIPALITY PENSION PLAN

Notes to Financial Statements (Continued)

Year ended December 31, 2017

2. Significant accounting policies (continued):

(g) Administrative expenses:

Administrative expenses, incurred for plan administration and direct investment expenses, are recorded on an accrual basis. Plan administration expenses represent expenses incurred to provide services to the Plan members and employers. Investment expenses represent expenses incurred to manage the Plan investment portfolio.

(h) Use of estimates and judgments:

The preparation of financial statements in conformity with Canadian accounting standards for pension plans requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets and liabilities at the date of the statements and the reported amounts of changes in net assets available for benefits during the year. Actual results could 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. Significant estimates and judgments included in the financial statements include Level 2 and 3 investments in the fair value hierarchy and the accrued pension obligation. Actual results could differ from those estimates.

(i) Basis measurement:

The financial statements have been prepared on the historical cost basis, except for the investment in the HRM Master Trust which is measured at fair value through the statement of changes in net assets available for benefits.

(j) Income taxes:

The Plan is a registered plan, as defined by the Canadian Income Tax Act and, accordingly is not subject to Canadian income taxes.

(k) Functional and presentation currency:

These financial statements are presented in Canadian dollars, which is the Plan's functional currency.

(l) Future changes to accounting policies:

The following standard is not yet effective for the year ended December 31, 2017 and has not been applied in preparing these financial statements:

HALIFAX REGIONAL MUNICIPALITY PENSION PLAN

Notes to Financial Statements (Continued)

Year ended December 31, 2017

2. Significant accounting policies (continued):

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

The restatement of prior periods is not required and is only permitted if information is available without the use of hindsight. IFRS 9 (2014) introduces new requirements for the classification and measurement of financial assets. Under IFRS 9 (2014), financial assets are classified and measured based on the business model in which they are held and the characteristics of their contractual cash flows. The standard introduces additional changes relating to financial liabilities. It also amends the impairment model by introducing a new 'expected credit loss' model for calculating impairment. IFRS 9 (2014) also includes a new general hedge accounting standard which aligns hedge accounting more closely with risk management.

This new standard does not fundamentally change the types of hedging relationships or the requirement to measure and recognize ineffectiveness; however it will provide more hedging strategies that are used for risk management to qualify for hedge accounting and introduce more judgment to assess the effectiveness of a hedging relationship. Special transitional requirements have been set for the application of the new general hedging model.

The Plan intends to adopt IFRS 9 (2014) in its financial statements for the annual period beginning on January 1, 2018. The Plan is in the process of calculating the impact of this transition and has yet to quantify.

3. Investments in the Master Trust:

The investment in the Master Trust is recorded at its fair value. The Plan's interest in the Master Trust represents 93.89% (2016 - 93.99%) of the Master Trust units. The remaining units are held by the HRWC Plan. The co-mingling of investments does not affect the actuarial liabilities or the net assets available for benefits of the Plan.

The fair value of the investment in the Master Trust is determined as at the date of the statement of financial position as described in note 2(b). The fair value of the investment in the Master Trust is categorized as a Level 2 investment under fair value hierarchy measurement.

Section 67 (3) of the *Pension Benefits Act Regulations* requires disclosure of each investment asset that has a fair value greater than two percent of the fair value of all the investment assets of the Plan. The following schedule presents a listing of all investments held by the Master Trust that have a fair value greater than two percent of the fair value of the Plan's investment in the Master Trust.

HALIFAX REGIONAL MUNICIPALITY PENSION PLAN

Notes to Financial Statements (Continued)

Year ended December 31, 2017

3. Investments in the Master Trust (continued):

2017	Investment type	Market value
Wellington Management Global Total Return Fund	Foreign Bonds	\$ 78,508,175
Putnam Canadian Fixed Income Global Alpha Fund	Canadian Bonds	60,114,608
Wellington Emerging Markets Local Equity Fund	Emerging Market Equities	49,599,133
GCM Grosvenor Opportunistic Investments, LP	Limited Partnership	42,254,525
Blackrock Active Canadian Equity Fund	Canadian Equities	41,742,354
UBS (UK) Real Estate Funds Selection Global Ex Canada, L.P.	Limited Partnership	38,175,949
		\$ 310,394,744
2016	Investment type	Market value
Blackrock Active Canadian Equity Fund	Canadian Equities	\$ 74,962,196
Wellington Management Global Total Return Fund	Foreign Bonds	69,873,471
Putnam Canadian Fixed Income Global Alpha Fund	Canadian Bonds	57,329,048
GCM Grosvenor Opportunistic Investments, L.P.	Limited Partnership	44,856,589
ACM Bernstein SICAV Emerging Consumer Portfolio	Foreign Equity	36,535,123
UBS (UK) Real Estate Funds Selection Global Ex Canada, L.P.	Limited Partnership	35,783,937
Minto Multi-Residential Income Partners I, L.P.	Limited Partnership	34,080,977
Macquarie European Infrastructure Fund 4 L.P.	Limited Partnership	33,590,544
		\$ 387,011,885

HALIFAX REGIONAL MUNICIPALITY PENSION PLAN

Notes to Financial Statements (Continued)

Year ended December 31, 2017

4. Obligations for pension benefits:

An actuarial valuation was conducted as at December 31, 2016 to determine the present value of the accrued pension obligation using the projected accrued benefit actuarial cost method prorated on service and best estimate assumptions by Eckler Ltd., a firm of consulting actuaries. The next actuarial valuation of the Plan will be required as at a date not later than December 31, 2017 or as at the date of an earlier amendment to the Plan, in accordance with the minimum requirements of the Nova Scotia Pension Benefits Act (the "PBA").

The accrued pension obligation as at December 31, 2017 is based on the actuarial valuation of the Plan as at December 31, 2016 extrapolated to December 31, 2017 by Eckler Ltd. The main components of the change in the present value of the accrued pension obligation at December 31, 2016 and our projections at December 31, 2017 are as follows:

	December 31, 2017 Extrapolated	December 31, 2016 Extrapolated
Actuarial present value of accrued pension obligation, beginning of year	\$ 1,607,539,000	\$ 1,552,494,000
Interest on accrued pension obligation	116,940,000	110,571,000
Cost of benefits accrued during the year	58,225,000	54,790,000
Benefits paid	(91,360,000)	(111,109,000)
Net impact of experience gains and losses relating to accrued pension obligation	21,995,000	793,000
Change in economic assumptions	152,359,000	-
Change in demographic assumptions	14,475,000	-
Actuarial present value of accrued pension obligation, end of the year	\$ 1,880,173,000	\$ 1,607,539,000

HALIFAX REGIONAL MUNICIPALITY PENSION PLAN

Notes to Financial Statements (Continued)

Year ended December 31, 2017

4. Obligations for pension benefits (continued):

The 2017 actuarial valuation report will not be complete until after the Plan's financial statements are published.

The major economic and demographic assumptions used in the December 31, 2017 extrapolation were as follows:

	2017	2016
Discount rate	6.4%	7.25%
Rate of salary increase, per annum	2.75%	3.0%
	plus an age related scale representing merit increases	
Mortality rates	2014 Canadian Pensioner Mortality Table, Private Sector projected generationally with Scale CPM-B	
Retirement Age	60% at the earliest age at which an unreduced pension is payable, remainder at normal retirement date	

5. Administrative expenses:

The Plan is charged with administrative and certain other expenses incurred on behalf of the Plan.

	2017	2016
Investment expenses	\$ 4,542,339	\$ 4,663,747
Pension administration expenses	1,590,331	1,325,362
Governance expenses	559,828	608,540
	\$ 6,692,498	\$ 6,597,649

- Investment expenses include all costs associated with investment and risk management.
- Pension administration expenses include all costs associated with pension calculations and plan member service.
- Governance expenses include all costs associated with governance including committee costs, audit, legal, actuarial and consulting fees.

HALIFAX REGIONAL MUNICIPALITY PENSION PLAN

Notes to Financial Statements (Continued)

Year ended December 31, 2017

5. Administrative expenses (continued):

Total Administrative expenses as a percentage of net assets available for benefits is 0.36% (2016 - 0.39%).

6. Investment risk management:

Risk management relates to the understanding and active management of risks associated with all areas of the business and the associated operating environment. Investments are primarily exposed to interest rate, credit, market, liquidity and foreign currency risk. The Pension Committee has set formal policies and operating procedures that establish an asset mix among equity, fixed income investments, private debt, private equity, real estate and infrastructure that require diversification of investments within categories, a set limit on the size of exposure to individual investments, and a requirement to use A-rated counterparties.

(a) Interest rate risk:

Interest rate risk refers to the fact that the underlying assets of the Master Trust's financial position will change with market interest rates changes as fixed income securities are sensitive to changes in nominal interest rates. Interest rate risk is inherent in the management of a pension plan due to prolonged timing differences between cash flows related to the Plan's assets and cash flows related to the Plan's liabilities.

Excluding all other variables, a one percent increase (decrease) in nominal interest rates would decrease (increase) the fair value of the Plan's portion of the Master Trust by \$13,744,665 (2016 - \$13,334,860).

(b) Credit risk:

Credit risk is the risk of loss due to the potential of the issuer of the debt not making agreed payments (principal, interest or both). Counterparty risk is the risk that the counterparty of a contract will not fulfil their contractual obligation. Credit risk is mitigated through the management of the Master Trust assets within generally accepted parameters of safety and prudence, using a diversified investment program. Investments must adhere to specific limitations as outlined in the Halifax Regional Municipality Statement of Investment Policies and Procedures for the Defined Benefit Pension Plan (the "Statement of Investment Policies and Procedures").

HALIFAX REGIONAL MUNICIPALITY PENSION PLAN

Notes to Financial Statements (Continued)

Year ended December 31, 2017

6. Investment risk management (continued):

The Plan is exposed to credit-related losses in the event of non-performance by counterparties to derivative financial instruments held by the Master Trust. In order to mitigate this risk, the Master Trust deals only with highly-rated counterparties, normally major financial institutions.

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

(c) Market risk:

Market risk is the risk that the value of an investment will fluctuate as a result of changes in market prices (other than those arising from foreign currency risk or interest rate risk), whether those changes are caused by factors specific to the individual financial instrument, its issuer, or factors affecting all similar financial instruments traded in the market. The Master Trust's policy is to invest in a diversified portfolio of investments, based on criteria established in the Statement of Investment Policies and Procedures, to mitigate the impact of market risk.

The Master Trust's investments in equities are sensitive to market fluctuations. After the effect of derivative contracts, and without a change in all other variables, a ten percent increase (decrease) in market values of all publicly listed equity, less equity derivatives, would increase (decrease) the fair value of the Plan's portion of the Master Trust by \$59,742,420 (2016 - \$55,001,334).

HALIFAX REGIONAL MUNICIPALITY PENSION PLAN

Notes to Financial Statements (Continued)

Year ended December 31, 2017

6. Investment risk management (continued):

(d) Liquidity risk:

Liquidity risk is the risk of not being able to meet the Plan's cash requirements in a timely and cost effective manner. Liquidity requirements are managed through income generated from the investment in the Master Trust, monthly contributions made by members and participating employers and by investing in publicly traded liquid assets that are easily sold and converted to cash. The sources of funds are used to pay pension benefits, make additional investments and fund operating expenses. The Plan's primary future liabilities include the accrued pension obligation of the Plan.

Approximately 52% (2016 - 48%) of the Master Trust's investments are in liquid securities traded in public markets, consisting of fixed income and equities. Pooled funds consisting of exchange traded equities are approximately 10% (2016 - 13%) of the Master Trust's investments and are liquid within 30 days or less.

(e) Foreign currency risk:

Foreign currency risk arises from the Master Trust's holding of foreign currency denominated investments. Fluctuations in the relative value of the Canadian dollar against these foreign currencies can result in a positive or a negative effect on the fair value of investments. Foreign currency risk is controlled by limiting investments in foreign holdings through the asset allocation guidelines set forth in the Statement of Investment Policies and Procedures, and through hedging the risk with derivative forward contracts.

Assuming the current foreign currency forward contracts remain in place, and without a change in all other variables, a ten percent increase (decrease) in the Canadian dollar against all other currencies would decrease (increase) the fair value of the Plan's portion of the Master Trust by \$76,319,083 (2016 - \$67,181,971).

HALIFAX REGIONAL MUNICIPALITY PENSION PLAN

Notes to Financial Statements (Continued)

Year ended December 31, 2017

7. Funding policy:

(a) Member contribution rates under the defined benefit pension plan are as follows:

	January 1, 2016 to December 31, 2017	January 1, 2014 to December 31, 2015	April 1, 2006 to December 31, 2013
Current plan division:			
Public Safety Occupations hired after April 1, 1998	12.56%	12.31%	10.71%
Public Safety Occupations hired after July 1, 1994 under the former Halifax Plan	12.56%	12.31%	10.71%
Other Public Safety Occupations who elected the "Rule of 75"	12.91%	12.66%	11.06%
Other members	12.21%	11.96%	10.36%
Dartmouth plan division:			
Public Safety Occupations Members contributing at a lower rate	11.72%	11.49%	9.96%
Other members	10.42%	10.19%	8.66%
Other members	11.42%	11.19%	9.66%
Halifax plan division:			
Public Safety Occupations hired after July 1, 1994	12.26%	12.01%	10.41%
Other members	11.91%	11.66%	10.06%
County plan division:			
All members	11.71%	11.46%	9.86%
Metro plan division:			
All members	12.01% up to YMPE 12.91% above YMPE	11.76% up to YMPE 12.66% above YMPE	10.16% up to YMPE 11.06% above YMPE

Members contributing under the Current Plan division also have the option to contribute to a defined contribution provision of 6.3% of their overtime and other non-regular earnings. Police officers contributing under the Current Plan division also have the option to contribute 12.6% of police extra-duty earnings.

HALIFAX REGIONAL MUNICIPALITY PENSION PLAN

Notes to Financial Statements (Continued)

Year ended December 31, 2017

7. Funding policy (continued):

(b) Participating Employers' Required Contributions:

Under the Plan, the cost of most benefits is to be shared equally between the members and participating employers. Participating employers therefore contribute at the same rates as shown in the previous table other than for the following exceptions: for members accruing service under the Prior Dartmouth Plan division, participating employers contribute 1.1 times the members' required contributions. Also, participating employers will only match 12.21% of pensionable earnings out of the 12.91% of pensionable earnings to be contributed by the members in Public Safety Occupations who elected to have the "Rule of 75". Employers will match the 6.3% optional contributions made by members on overtime and other non-regular earnings, but employers do not match the 12.6% optional contributions made by members on police extra-duty earnings.

8. Fair value of financial assets and financial liabilities:

The fair values of investments are as described in Note 3. The fair values of other financial assets and liabilities being receivables, prepaid expenses and accounts payable and accrued liabilities approximate their carrying values due to the short-term nature of these instruments.

9. Fund management:

Investment management is the responsibility of the Master Trust's appointed investment managers and investment staff in the HRM Pension Office subject to compliance with the Statement of Investment Policies and Procedures as approved by the Pension Committee. The investment objective of the Master Trust is to earn an annualized rate of return of at least 6.4% (2016 - 6.5%) over the long term. A strategy of investment in assets of short-term investments, bonds, equities, real estate, infrastructure, private equity, and private debt is aimed at achieving the objective.

HALIFAX REGIONAL MUNICIPALITY PENSION PLAN

Notes to Financial Statements (Continued)

Year ended December 31, 2017

10. Securities lending:

The Master Trust participates in a securities lending program whereby it lends securities that it owns to third parties for a fee through a securities lending agent ("agent"). For securities loaned, the Master Trust receives a fee and the borrower provides readily marketable securities of higher value as collateral to the Master Trust's agent which mitigates the credit risk associated with the program. When the Master Trust lends securities, the risk of failure by the borrower to return the loaned securities is alleviated by such loans being continually collateralized. If the borrower is unable to return the securities, the agent is authorized to sell the collateral and purchase identical securities to return to the Master Trust. If the collateral is not sufficient and there is a shortfall between the value of the collateral and loaned security that cannot be recovered, the agent is responsible to acquire additional securities for the Master Trust at its costs. As at December 31, 2017, securities with an estimated fair value of \$220,902,384 (2016 - \$141,969,077) were loaned out, while collateral held had an estimated fair value of \$235,118,345 (2016 - \$150,308,910). The securities lending contracts are collateralized by Government of Canada sponsored agency bonds, Government of Canada bonds and treasury notes, Provincial Government bonds, agency mortgaged back securities, foreign government bonds and treasury notes and Canadian common stocks.

11. Related party transactions:

During the year, the Halifax Regional Municipality provided information technology services and certain computer equipment to the Plan at no charge.

12. Capital management:

The main objective of the Plan is to sustain a certain level of net assets in order to meet its pension obligations. The Pension Committee manages the contributions and plan benefits as required by the Plan and its applicable Regulations. The Pension Committee approves and incurs expenses to administer the Plan. Under the direction of the Pension Committee, the Plan provides for the short term financial needs of current benefit payments while investing member's contributions for the longer term security of pensioner payments. The Pension Committee exercises due diligent practices and has established written investment policies and procedures, and approval processes. Operating budgets, audited financial statements, annual actuarial valuations and reports, and as required, the retention of supplementary professional advisors, are part of the Plan's governance structure.