



Nova Scotia Public Service
Long Term Disability Plan Trust Fund

2017

ANNUAL REPORT





TABLE OF CONTENTS

CEO MESSAGE.....	2
BOARD OF TRUSTEES	4
FUNDING POSITION.....	5
CLAIMS ADMINISTRATION – LONG TERM DISABILITY.....	7
INVESTMENT MANAGER REPORT	12
PERFORMANCE ANALYTICS & CUSTODIAL REPORT.....	15



CEO MESSAGE

*WE ARE VERY PLEASED TO PROVIDE
YOU WITH THE 2017 ANNUAL REPORT
FOR THE NOVA SCOTIA PUBLIC SERVICE
LONG TERM DISABILITY PLAN TRUST FUND
(THE PLAN).*

We take our responsibility as trustees and staff of the Nova Scotia Public Service Long Term Disability Plan Trust Fund to heart. Ensuring the financial stability of the Plan is key; however, does not overshadow our goal to ensure Plan members receive the service they need. We are committed to working closely with our Plan sponsors, the NSGEU and the Province of NS, our participating employers, who have entrusted us with providing long term disability services to their employees, and our claims administrator, Manulife.

In November, Linda Power's seven year tenure as Board chair ended. The chair is appointed jointly by the Plan sponsors and is entrusted to provide guidance and leadership. I would like to thank Linda on behalf of all at the Plan for her expertise and commitment to the Board, and for her role in the Plan's growth over the last seven years. I am pleased to inform - effective February 2018 - Doug Stewart will step into the position of chair.

The Board also saw the departure of Cynthia Yazbek, Geoffrey Gaten and Grant Vaughan. Their insight and dedication will be missed. In particular, I would like to acknowledge the service of Grant Vaughan, a trustee of the Plan since 1996. Grant's knowledge of the Plan and commitment to Plan members was evident in over twenty years of trusteeship. Newly appointed, we welcome to the Board Dana MacKenzie, Robert Bourgeois, and Jim Gosse.

*EMPLOYEES ARE AN
EMPLOYER'S
NUMBER ONE
RESOURCE*

*WE TAKE OUR ROLE
IN ENSURING THEY
ARE HEALTHY AND
RESILIENT
SERIOUSLY*



The trustees continue to attend educational events throughout the year, expanding their knowledge and demonstrating their commitment to the Plan.

In the spring of 2017, our Plan sponsors Laura Lee Langley, Commissioner, Public Service Commission, and Jason MacLean, NSGEU President, NSGEU, presented to the Board their vision for creating a workplace culture with a positive approach to mental health. The trustees unanimously committed to partnering with and supporting the creation of a new Office of Workplace Mental Health. Officially announced in April of 2018, we share in our Plan sponsor's excitement with regard to this new initiative to promote and support mental health and wellness.

On behalf of the Board and staff, I am pleased to present the 2017 Annual Report and look forward to 2018.

Respectfully,



Anna MacIsaac
Chief Executive Officer



BOARD OF TRUSTEES

THE PROVINCE OF NOVA SCOTIA AND THE NOVA SCOTIA GOVERNMENT AND GENERAL EMPLOYEES UNION ESTABLISHED THE NOVA SCOTIA PUBLIC SERVICE LONG TERM DISABILITY PLAN TRUST FUND IN 1985.

The legal basis for the Trust is an Agreement and Declaration of Trust. The agreement provides for the appointment of eleven trustees to form the Board of Trustees (The Board).

Five members are appointed by the NSGEU (the Union), one of whom is designated by the Canadian Union of Public Employees (CUPE). Five members are appointed by the Province of Nova Scotia (the employer) through the Lieutenant Governor in Council, one of whom is designated by the Nova Scotia Health Authority. The union and the employer jointly appoint an independent chair.



Top (from left to right): Mike MacIsaac, Darren McPhee, Shannon York, Jim Gosse
Middle (from left to right): Dana MacKenzie, Corinne Carey, Geoff Piers, Rob Bourgeois
Bottom (from left to right): Paul Hagen, Cathy Rankin



FUNDING POSITION

THE PLAN'S FINANCIAL POSITION HAS REMAINED STABLE MOVING FROM A \$71.0 MILLION FUNDING MARGIN AT THE END OF 2016 TO A PROJECTED \$73.3 MILLION FUNDING MARGIN AT THE END OF 2017.

The Plan's liabilities are calculated using an actuarial valuation that provides an estimate of the funds necessary to meet the Plan's commitment to its beneficiaries. The most recent actuarial valuation was completed on December 31, 2016 by Morneau Shepell, the firm appointed by the Board of Trustees to provide the Plan's actuarial services. The 2016 valuation estimated the Plan's benefit liabilities to be \$83.0 million. The market value of the Plan's net assets at December 31, 2016 was \$154.0 million, resulting in a funding margin of \$71.0 million at that time.

The Plan's financial position has been extrapolated to December 31, 2017 by projecting Plan liabilities using an estimated cost of new claims and actual benefit payments, and by updating asset values to reflect actual investment returns earned to the end of 2017. The extrapolation also reflects the decision to provide ad hoc indexing to qualifying claims in pay at the end of calendar years 2017 and 2018.



The Plan's projected benefit liabilities as at December 31, 2017 are \$86.7 million. The value of the Plan's net assets available for benefits at December 31, 2017 is \$160.0 million. The end result is the Plan's financial position has remained relatively stable, moving from a \$71.0 million funding margin at the end of 2016 to a projected \$73.3 million funding margin at December 31, 2017.

The following table shows the funding position of the Plan for the last five years.

FUNDING POSITION FOR THE LAST FIVE YEARS

YEAR END	2013*	2014	2015*	2016	2017*
Assets (minus accounts payable) \$ millions	137.0	145.7	149.1	154.0	160.0
Accrued Liabilities for Benefits \$ millions	70.7	78.1	80.0	83.0	86.7
Funding Margin \$ millions	66.3	67.6	69.1	71.0	73.3
Funded Ratio	194%	187%	186%	186%	185%
MCCSR Requirement \$ millions		22.0		20.7	
MCCSR Ratio		307%		343%	
Asset Adjustment		1.0		(7.0)	
Adjusted Funding Margin \$ millions		0.7		64.0	
Contingency Reserve \$ millions		42.9		47.0	
Contingency Reserve Ratio		160%		136%	

*Based on extrapolated liability results

Source: Morneau Shepell

The Plan is currently working on a number of initiatives related to measuring and responding to its funded position. An examination of the assumptions and methods used to estimate the Plan's benefit liabilities has begun and may result in changes reflected in the next actuarial valuation. In addition, a review of the Plan's funding targets and approach is also planned. This review will include an evaluation of both the appropriate level of contingency reserves for the Plan and actions to be considered when the Plan's funding margin is outside its target range. Care will be taken to ensure that the Plan's funding approach is consistent with the rules governing the Plan.

The Plan has adopted a schedule for valuations every second year; accordingly, the next formal actuarial valuation of the Plan is scheduled for December 31, 2018.



CLAIMS ADMINISTRATION – LONG TERM DISABILITY

THE PLAN PROVIDES LTD BENEFITS TO NOVA SCOTIA PUBLIC SECTOR EMPLOYEES WHO BECOME DISABLED FROM WORK DUE TO ILLNESS OR INJURY.

The Board of the Plan has outsourced the LTD claims administration to Manulife Financial. The Plan office is in continual communication with Manulife, ensuring agreed upon service standards and expectations are met. Working closely with Manulife and with the individual needs of Plan members, and employers in mind, disability claims management practices are developed in conjunction with current industry best practices.

Using proven claims management strategies, it is the goal of the Plan to provide an LTD Plan that meets the needs of today while also planning for the future.



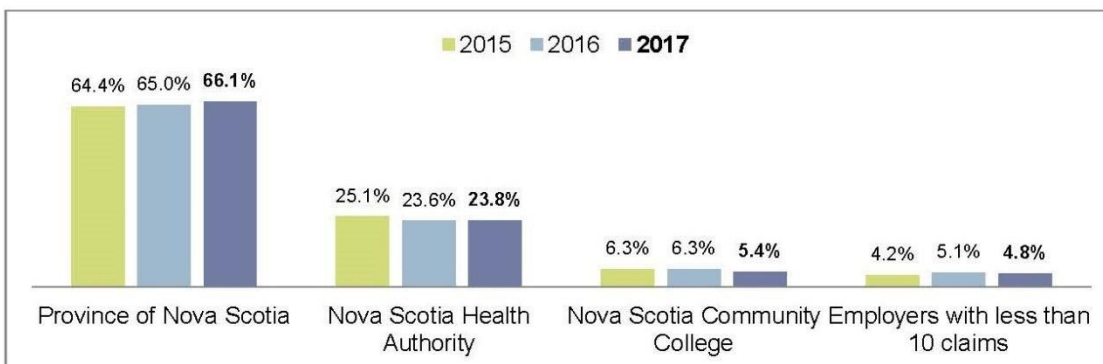
LTD CLAIMS FOR THE PAST FIVE YEARS



Source: Manulife Financial

As evident from the chart, claims fluctuate from year to year. The focus is on ensuring claim decisions reflect the LTD Plan document and Plan members are provided appropriate claims management services.

LTD CLAIMS DISTRIBUTION BY EMPLOYER - DECEMBER 31, 2017



Source: Manulife Financial



Since 2015, there has not been a significant change in the distribution of claims by employer. As would be expected, Plan members employed with the Province of Nova Scotia make up two thirds of the Plan's claims.

LTD CLAIMS ACTIVITY FOR 2017

YEAR END	2016	2017	% Change
Active Claims as of January 1st	526*	572	8.7%
Approved Claims	182	142	-21.9%
Minus Claims Resolved	136	154	13.2%
Active Claims as of December 31st	572	560	-2.0%

*Claim balances are accurate as of the business day

Source: Manulife Financial

A decline in the number of claims received in 2017 factored into the decrease in claims as of year-end 2017.

LTD CLAIMS RESOLVE FOR A NUMBER OF REASONS - DECEMBER 31, 2017

YEAR	Return to Work	Retirement/ Benefit Expiry	Death	Change of Definition*	Other Contractual	Other Reason	Total Claims Resolved
2015	51	61	20	3	2	16	153
2016	76	35	9	4	3	9	136
2017	59	51	14	4	3	23	154

* Disabled from own-occupation, but not any occupation

Source: Manulife Financial

When reviewing the reasons why claims resolve, it is important to recognize a significant number, like retirement, are beyond the control of the Plan. However, a significant number of resolutions are impacted by a member's experience while on claim. The Plan is committed to ensuring that a member's experience is positive regardless of the resolution reason.



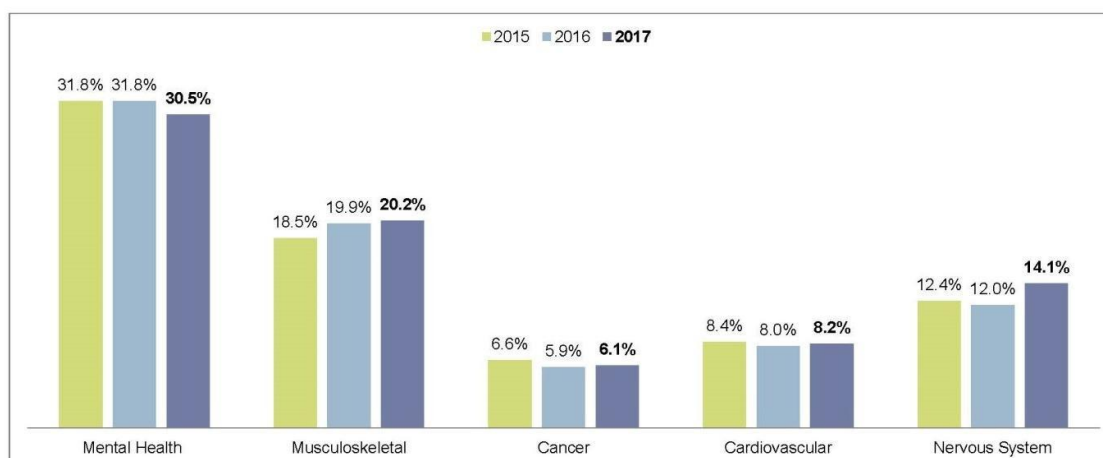
LTD REHABILITATION RESOLUTION PERCENTAGES - DECEMBER 31, 2017

REHABILITATION OUTCOME	2015	2016	2017
RTW – Own Employer	56.0%	75.9%	60.7%
RTW – Other Employer	3.0%	2.3%	3.6%
Job Ready	19.0%	13.8%	20.2%
Assessed, Ill-suited Candidate	22.00%	8.0%	15.5%
	100.00%	100.00%	100.00%

Source: Manulife Financial

Eighty-four percent of Plan members, who participated in rehabilitation, either returned to work or were ready to return to work. Success is achieved when a Plan member and a rehabilitation specialist work together with a common goal. The Plan continues to work collaboratively with our claims administrator and employers to ensure we are not missing opportunities to assist Plan members' with their return to work.

LTD CLAIMS BY THE TOP FIVE DIAGNOSES* - DECEMBER 31, 2017



*The Top Five Diagnoses account for just under 80% of all approved LTD claims

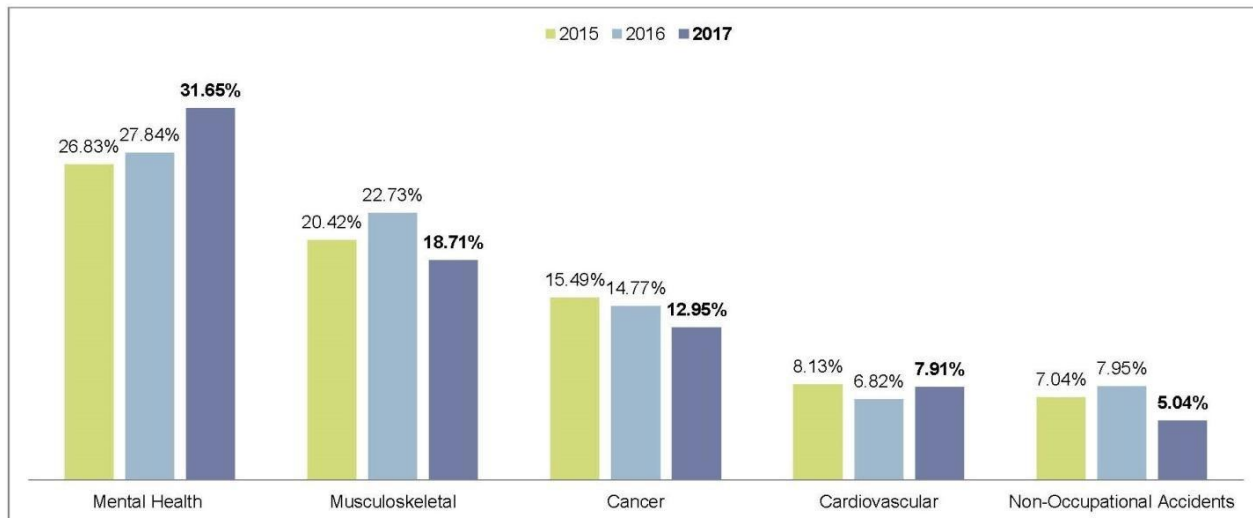
Source: Manulife Financial



Mental health and musculoskeletal continue to dominate over 50% of all claims. As at December 31, 2017, of the 560 LTD claims in pay, 171 had a mental health diagnosis.

More than half of the 171 will likely not return to work. Musculoskeletal claims have also remained stable over the years.

TOP FIVE DIAGNOSES* FOR LTD CLAIMS APPROVED IN 2017



*The Top Five Diagnoses account for just under 80% of all approved LTD claims

Source: Manulife Financial

Noting 2017 approvals, mental health claims continue to increase and remain the number one diagnosis.

Musculoskeletal represented 18.71% of approved claims in 2017. As we experience an aging workforce, it is likely Plan members will be more susceptible to physical, age related ailments.

Though 12.95% of all claims approved in 2017 were for a diagnosis of cancer, as of December 2017, only 6.1% of all claims in pay had a cancer diagnosis. This is unfortunately a reflection of the terminal nature of the majority of cancers.



INVESTMENT MANAGER REPORT

SINCE 2013, BEUTEL GOODMAN SERVES THE PLAN AS OUR INVESTMENT MANAGER.

Balanced Portfolio

The Beutel Goodman Balanced Fund achieved a positive return in the one year ending December 31, 2017, and outperformed its blended performance benchmark.

The Canadian equity component of the fund outperformed the return of the S&P/TSX Composite Index for the year. Added value was attributable to positive sector weighting effects, specifically an underweight in the energy sector. Security selection overall detracted from performance, largely driven by selection effects in the energy sector. The telecommunication services sector was the top contributor as a result of both positive security selection and positive allocation effects, while consumer staples was the biggest laggard due to both negative selection and weighting effects. Rogers Communications was the most significant contributor to performance for the year.

The portfolio's U.S. component outperformed primarily due to stock selection. Sector allocation effects were slightly negative, with negative effects from an overweight in telecommunications and underweights in consumer discretionary and information technology outweighed by positive effects from underweight positions in energy, utilities and real estate. The largest contribution to stock selection came from the industrials and financials sectors.



Parker Hannifin in industrials was the largest contributor to performance over the period, with strong sales growth and corresponding margin improvement reflecting its highly efficient business model. Financials holdings contributed significantly, with Ameriprise and American Express as main contributors over the period.

The international equity component outperformed significantly over the period. Sector allocation added value slightly, as positive effects from overweight positions in materials and information technology outweighed negative effects from an overweight in telecommunications. The majority of the added value over the period came from security selection, led by positive stock selection in financials, consumer staples and telecommunications. Positive stock selection in consumer staples was due to strong performance from Kao, Carlsberg and Unilever over the period. In telecommunications, Vodafone and Telefonica Deutschland outperformed following important consolidation in Germany, arguably their most important market, as well as strong operational results.

The fixed income component had a positive return, but underperformed the index for the one year period on a net of fees basis. Decisions that contributed to performance included sector allocation, as both provincials and corporates significantly outperformed federal bonds, and the Fund's short duration positioning. The Fund's foreign pay position, which was closed in the second quarter, also contributed positively to performance for the year. The Fund benefitted from a depreciating currency at the time the position was in place. Corporate security selection and curve positioning detracted over the one year period.

BG BALANCED PORTFOLIO - DECEMBER 31, 2017

Asset Class	Market Value	%
Fixed Income	\$ 16,449,737.25	30.47%
Cdn Large Cap	\$ 16,308,405.28	30.21%
International Equities	\$ 10,131,814.76	18.77%
US Equities	\$ 8,711,055.68	16.14%
Cdn Small Cap	\$ 1,242,701.42	2.30%
Cash & Cash Equivalents	\$ 1,135,152.27	2.10%
TOTAL PORTFOLIO	\$ 53,978,866.66	100.00%

Source: Beutel Goodman



Liability Hedging Portfolio

Yields in Canada and the U.S. increased across the curve in 2017. Global growth was buoyant, global PMIs trended higher, the Canadian and U.S. labor markets were robust, and consumer spending was resilient. The one piece of economic data that continued to disappoint was the lack of wage growth and inflation. While 2016 was all about headline risk (Brexit, Trump election), for the most part markets ignored the headlines in 2017. The concern that the euro zone would lay the seeds of its own destruction dissipated as the numerous European elections failed to deliver victories for the far right, euro skeptic parties. While failing to deliver a new health care bill, the Trump Administration was successful in getting its tax reform passed and threats of government sequestration and breaching the debt ceiling were kicked down the road into 2018.

The U.S. Federal Reserve followed through on hiking the federal funds rate three times, in line with their projections, and commencing the unwind of their balance sheet.

After hiking the overnight rate twice during the third quarter, effectively removing the 50 basis points of emergency monetary policy stimulus, the Bank of Canada remained on hold during the fourth quarter. The Bank became cautious about the effect of the tightening on consumer debt and spending, uncertainty regarding NAFTA, and the appreciation of the Canadian dollar. The Bank maintains that the global outlook remains subject to considerable uncertainty, notably about geopolitical developments and trade policies.

For the year ended 2017, the liability hedging portfolio outperformed its benchmark, the FTSE TMX Canada Bond Universe Index. Sector allocation added value, as both provincials and corporates significantly outperformed federal bonds. The portfolio's short duration positioning also contributed. The portfolio's foreign pay position, which was closed in the second quarter, contributed positively to performance for the year, as the portfolio benefitted from a depreciating currency at the time the position was in place. Corporate security selection and curve positioning detracted over the one year period.

BG LIABILITY HEDGING PORTFOLIO - DECEMBER 31, 2017

Asset Class	Market Value	%
Fixed Income	\$ 104,218,045.31	99.39%
Cash and Cash Equivalents	\$ 639,957.94	0.61%
TOTAL PORTFOLIO	\$ 104,858,003.25	100.00%

Source: Beutel Goodman



PERFORMANCE ANALYTICS & CUSTODIAL REPORT

BNY MELLON ASSET SERVICING PROVIDES PERFORMANCE MEASUREMENT SERVICES; AND CIBC MELLON GLOBAL SECURITY SERVICES PROVIDES CUSTODIAL AND ACCOUNTING SERVICES.

In 2017 the U.S. economy is expected to expand at a robust pace due to recently legislated tax reforms and these tax reforms are expected to boost the level of gross domestic product (GDP) by 0.5% in 2019.

The Canadian dollar closed at 79 U.S. cents at the end of the fourth quarter of 2017.

Over the year, the FTSE TMX Canada High Yield Bond Index returned a healthy 9.94% in 2017. The FTSE TMX Canada Bond Universe returned 2.02% in the fourth quarter and 2.52% for the year 2017, after producing negative performance in the prior quarter.

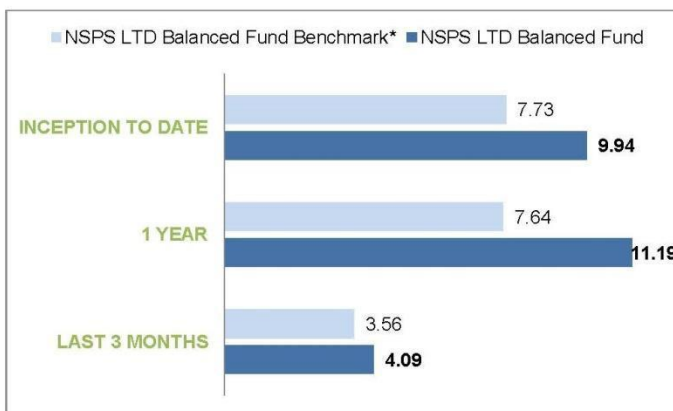
The S&P/TSX Composite Index posted a return of 4.45% in the fourth quarter of 2017 and 9.10% for the year.

The S&P 500 Index returned 6.84% in the fourth quarter of 2017 and 13.83% for the year 2017.



Growth stocks outperformed value stocks in the fourth quarter of 2017 in the EAFE region. The MSCI EAFE Growth Index returned 5.47% while the MSCI EAFE Value Index returned 3.47% for the quarter.

BALANCED FUND RETURNS - DECEMBER 31, 2017



*NSPS Balanced Fund Benchmark consists of: 5% FTSE TMX 91 day T-Bill Index, 40% FTSE TMX Bond Universe Index, 30% S&P/TSX Capped Composite Index, 12% S&P 500 Total Return Index, 13% MSCI EAFE Index

Source: BNY Mellon

LIABILITY HEDGING FUND RETURNS - DECEMBER 31, 2017



* NSPS Liability Hedging Benchmark consists of: 90% FTSE TMX Bond Universe Index, 10% FTSE TMX 91 day T-Bill Index

Source: BNY Mellon



In 2017 the plan investments posted a positive one year return of 5.44%. Compared to other Canadian institutional investment plans, in 2017 the Nova Scotia Public Service Long Term Disability Plan ranked in the fourth quartile of the BNY Mellon Canadian Master Trust Universe.

We trust you will find this information valuable.

*THANK YOU FOR
REVIEWING OUR 2017
ANNUAL REPORT*

*YOUR COMMENTS ARE
WELCOME:
902-461-0421*