MANAGEMENT'S DISCUSSION AND ANALYSIS

ON FORM 51-102F1

YEAR ENDED

AUGUST 31, 2019

October 24, 2019

TABLE OF CONTENTS

INTRODUCTION

This management's discussion and analysis (MD&A) relates to the consolidated financial position, results of operations, comprehensive income and cash flows for the year ended August 31, 2019 (fiscal 2019) of NAV CANADA (also referred to in this MD&A as we, our, us or the Company). It should be read in conjunction with our audited consolidated financial statements and the accompanying notes for the year ended August 31, 2019 (fiscal 2019 financial statements) as well as our 2019 Annual Information Form dated October 24, 2019 (fiscal 2019 AIF). Additional information about NAV CANADA, including our financial statements for fiscal 2019 and the year ended August 31, 2018 (fiscal 2018) and our fiscal 2019 AIF are filed on the System for Electronic Document Analysis and Retrieval (SEDAR) at www.sedar.com.

Our financial statements are prepared in Canadian dollars (CDN) and in accordance with International Financial Reporting Standards (IFRS). Our Audit & Finance Committee reviewed this MD&A and our Board of Directors (the Board) approved it before it was filed.

Caution Concerning Forward-Looking Information

This MD&A and, in particular, but without limitation, sections "INTRODUCTION – Significant Financial Matters: Air Traffic and Customer Service Charges", "RESULTS OF OPERATIONS – Revenue: Customer Service Charges", "RESULTS OF OPERATIONS – Financial Outlook", "LIQUIDITY AND CAPITAL RESOURCES – Cash Requirements: Pension Plans" and "LIQUIDITY AND CAPITAL RESOURCES – Cash Requirements: Capital Expenditures and Other Investments" of this MD&A, contain certain statements about NAV CANADA's future expectations. These statements are generally identified by words like "anticipate", "plan", "believe", "intend", "expect", "estimate", "approximate" and the like, as well as future or conditional verbs such as "will", "should", "would" and "could", or negative versions thereof. Because forward-looking statements involve future risks and uncertainties, actual results may be quite different from those expressed or implied in these statements. Examples include geopolitical unrest, terrorist attacks and the threat of terrorist attacks, war, epidemics or pandemics, natural disasters, weather patterns, environmental concerns, cyber security attacks, labour negotiations, arbitrations, workforce recruitment, training and retention, general aviation industry conditions, air traffic levels, the use of telecommunications and ground transportation as alternatives to air travel, capital market and economic conditions, the ability to collect customer service charges and reduce operating costs, the success of our investment in space-based aircraft surveillance through Aireon LLC (Aireon), changes in interest rates, changes in laws, tax changes, adverse regulatory developments or proceedings and lawsuits. Some of these risks and uncertainties are explained under "Risk Factors" in our fiscal 2019 AIF. The forward-looking statements contained in this MD&A represent our expectations as of October 24, 2019 and are subject to change after this date. Readers of this MD&A are cautioned not to place undue reliance on any forward-looking statements. We disclaim any intention or obligation to update or revise any forward-looking statements included in this document whether as a result of new information, future events or for any other reason, except as required by applicable securities legislation.

Our Business

NAV CANADA is the private sector, non-share capital company that operates Canada's civil air navigation system (ANS). With operations across Canada, we provide air navigation services to aircraft owners and operators within Canadian–controlled airspace. These services include air traffic control, flight information, weather briefings, airport advisories, aeronautical information and electronic navigation aids.

The core business of the Company is to manage and operate the ANS and related services in a safe, efficient and cost effective manner. Our mandate covers both Canadian airspace and airspace delegated to Canada under international agreements.

Financial Strategy and Rate Regulation

In establishing new customer service charges or revising existing charges, we must follow the charging principles set out in our governing legislation, the *Civil Air Navigation Services Commercialization Act* (ANS Act), which prevents us from setting customer service charges higher than what is needed to meet our financial requirements for the provision of air navigation services. Pursuant to these principles, the Board approves the amount and timing of changes to customer service charges. The Board also approves the Company's annual budget where the amounts to be recovered through customer service charges for the ensuing year are determined. Our aim is essentially to achieve breakeven financial results on the consolidated statement of operations on an annual basis. Due to seasonal and other fluctuations in air traffic and given that our costs are predominantly fixed in nature, our quarterly financial results may not achieve a breakeven position, after recording adjustments to the rate stabilization account. This is illustrated in the table under the heading "SUMMARY OF QUARTERLY RESULTS – Quarterly Financial Information (unaudited)".

As noted above, customer service charges are set based on the Company's financial requirements, which take into account estimated air traffic volumes and planned expenses. Since actual revenue and expenses will differ from these estimates, methods to accumulate the variances are required so that they may be taken into account when setting future customer service charges. There is also a need to absorb the immediate effect of unpredictable factors – mainly fluctuations in air traffic volumes resulting from unforeseen events. We meet these objectives through the use of a "rate stabilization" mechanism.

In preparing our consolidated financial statements we reflect the impact of rate regulation. As such, the timing of recognition of certain revenue and expenses differs from what would otherwise be expected for companies that are not subject to regulatory statutes governing the level of charges. For example, we adjust our net income (loss) through transfers to or from the rate stabilization account, based on variations from the amounts that were used when establishing customer service charges. If our actual revenue exceeds actual expenses, the excess is reflected as a credit to the rate stabilization account and is returnable to customers through future customer service charges. Similarly, if actual revenue is less than actual expenses, the revenue shortfall is reflected as a debit to the rate stabilization account and is recoverable from customers through future customer service charges (see "RESULTS OF OPERATIONS – Movements in Rate Stabilization Account").

In addition, for certain transactions where the timing of the cash flows differs significantly from the accounting recognition, the Company recognizes regulatory deferral account debits and credits in order to adjust the accounting recognition to the period in which they will be considered for rate setting. These transactions are generally considered for rate setting when the amounts are expected to be realized in cash.

When determining the level of customer service charges, we consider the Company's current and future financial requirements (see "RESULTS OF OPERATIONS – Net Movement in Regulatory Deferral Accounts Related to Net Income (Loss)" and "RESULTS OF OPERATIONS – Amounts Considered for Rate Setting Purposes").

Our financial strategy is to fulfil our essential services mandate based on a sound financial foundation, reflected in part through high credit ratings in the financial markets. Maintaining this strong foundation requires a prudent approach that balances the interests of our key stakeholders while complying with our statutory and contractual obligations.

(in millions of dollars)

Selected Annual Financial Information

The following table shows selected consolidated financial information of the Company for fiscal 2019, fiscal 2018 and the fiscal year ended August 31, 2017 (fiscal 2017). This information has been derived from the Company's consolidated financial statements.

	Years ended August 31		
	2019	2018	2017
Revenue [1]	$ 1,437	$ 1,415	$ 1,291
Net income (loss) after rate stabilization and regulatory deferral account adjustments	$ -	$ -	$ -
Total assets	$ 2,318	$ 2,334	$ 2,441
Total regulatory deferral account debit balances	$ 2,087	$ 954	$ 1,475
Total current liabilities	$ 283	$ 526	$ 671
Total non-current financial liabilities [2]	$ 1,444	$ 1,219	$ 1,232
Total non-current liabilities, including non-current financial liabilities	$ 3,718	$ 2,340	$ 2,875
Total regulatory deferral account credit balances	$ 376	$ 394	$ 342

(1) Revenue in the table above is presented before rate stabilization adjustments and net of the one-time customer service charges refund in fiscal 2017.

(2) Non-current financial liabilities include long-term debt and derivative liabilities. See note 15 to our fiscal 2019 financial statements.

Revenue:

In 2019, the Company implemented revisions to its service charges resulting in a decrease on average of 0.4% to existing base rates. This effectively continued the 0.4% one-year temporary rate reduction that was implemented for fiscal 2018. In fiscal 2019, revenue from customer service charges increased by $25 compared to fiscal 2018 due to an increase in air traffic of 1.9%. Revenue from service and development contracts for the sale of air traffic management technology solutions and other miscellaneous revenue decreased by $4, partially offset by an increase in conference centre sales of $1. See "RESULTS OF OPERATIONS – Revenue" for more details on revenue balances.

During fiscal 2018, the Company experienced an increase in air traffic of 5.1% as compared to fiscal 2017, resulting in increased revenue from customer service charges of $125, including the one-time refund issued to customers of $60 in fiscal 2017.

Net income (loss), after rate stabilization and regulatory deferral account adjustments:

In keeping with the Company's financial strategy and rate stabilization mechanism, breakeven financial results were achieved in fiscal 2019, fiscal 2018 and fiscal 2017. See "RESULTS OF OPERATIONS" for further details on net income (loss) after rate stabilization and regulatory deferral account adjustments.

Total assets:

Total assets as at August 31, 2019 were $2,318 which is a decrease of $16 compared to August 31, 2018 primarily due to:

- a $15 decrease in current assets as a result of an $8 decrease in cash and cash equivalents (see "LIQUIDITY AND CAPITAL RESOURCES – Cash flows for the year ended August 31, 2019"), a $4 decrease in accounts receivable and other as well as a net decrease of $3 in investments and other short-term assets;

- a $26 decrease in intangible assets, mainly due to amortization of the air navigation right;

- a $9 decrease in related party loans receivable, mainly due to the repayment of the bridge financing provided to Aireon in fiscal 2018; and

- a $2 decrease in employee benefits related to the Company's long-term disability (LTD) plans resulting from higher benefit expense than contributions paid;

partially offset by:

- a $21 increase in the investment in preferred interests of Aireon primarily due to an increase in preferred dividends receivable during the year and unrealized foreign exchange gains as a result of fluctuation in the Canadian dollar against the U.S. dollar; and

- a $15 increase in property, plant and equipment.

Total assets as at August 31, 2018 were $2,334 which is a decrease of $107 compared to August 31, 2017 primarily due to:

- a $184 decrease in cash and cash equivalents as a result of cash outflows for investing activities of $178 and cash outflows for financing activities of $91, partially offset by cash inflows from operations of $85;

- a $24 decrease in current investments primarily due to the withdrawal of surplus funds from the debt service reserve fund; and

- a $9 decrease in employee benefits related to the Company's LTD plans resulting from higher benefit expense than contributions paid;

partially offset by:

- a $68 increase in the investment in preferred interests of Aireon primarily due to the increase in fair value arising from the price paid by NATS, the United Kingdom's air navigation service provider (ANSP) for their investment in Aireon as well as a $12 increase in preferred dividends receivable;

- a $32 increase in property, plant and equipment and intangible assets; and

- a $10 increase in other non-current assets due to bridge financing provided to Aireon.

Total regulatory deferral account debit balances:

See "RESULTS OF OPERATIONS – Net Movement in Regulatory Deferral Accounts Related to Net Income (Loss)" and "RESULTS OF OPERATIONS – Other Comprehensive Income (Loss)".

Total regulatory deferral account debit balances as at August 31, 2019 increased by $1,133 compared to August 31, 2018 primarily due to:

- a $1,010 increase in the regulatory deferral account related to pension re-measurement losses;
- a $96 increase in the regulatory deferral account related to employee benefit pension contributions to adjust the total pension benefit expense to the level of going concern pension contributions recovered through rate setting;
- an $11 increase in the regulatory deferral accounts related to other post-employment benefits to defer the re-measurement losses of $17 for fiscal 2019 and recover $6 related to costs deferred in prior years;
- a $9 increase in the regulatory deferral account related to supplemental pension benefits to defer re-measurement losses of $13 for fiscal 2019 and recover $4 related to costs deferred in prior years; and
- a $7 increase in the regulatory deferral related to realized hedging transactions to defer a loss of $9 on a bond forward, partially offset by the recovery of losses deferred in prior years.

Total regulatory deferral account debit balances as at August 31, 2018 decreased by $521 compared to August 31, 2017 primarily due to:

- a $608 decrease in the regulatory deferral account related to the deferral of fiscal 2018 pension re-measurement gains; and
- a $21 decrease in the regulatory deferral accounts relating to other post-employment benefits to defer re-measurement gains for fiscal 2018 of $14 and recover $8 related to costs deferred in prior years;

partially offset by:

- a $98 increase in the regulatory deferral account related to employee benefit pension contributions to adjust the total pension benefit expense to the level of going concern and solvency pension contributions to be recovered through rate setting; and
- a $22 increase in the regulatory deferral account related to supplemental pension benefit re-measurements.

Total current liabilities:

The Company's total current liabilities as at August 31, 2019 decreased by $243 compared to August 31, 2018 primarily due to:

- a $250 decrease in the current portion of long-term debt due to the repayment of the $250 Series MTN 2009-1 General Obligation Notes that matured in April 2019; and
- a $5 decrease in trade and other payables;

partially offset by:

- an $8 increase in bank loans; and
- a $3 increase in deferred revenue.

The Company's total current liabilities as at August 31, 2018 decreased by $145 compared to August 31, 2017 primarily due to:

- a $60 decrease in the accrual of the $60 one-time refund of customer service charges which was issued in fiscal 2018; and
- a $100 decrease in the current portion of long-term debt due to the reclassification of the $250 Series MTN 2009-1 General Obligation notes that matured in April 2019 to current debt as compared to the $350 Series MTN 2013-1 General Obligation Notes that matured in April 2018;

partially offset by:

- a $17 increase in trade and other payables.

Total non-current liabilities (including non-current financial liabilities):

The Company's total non-current liabilities as at August 31, 2019 increased by $1,378 compared to August 31, 2018 primarily due to:

- a $1,156 increase in employee benefit liabilities, including a $1,126 increase in accrued pension obligations and $30 in other defined benefit obligations, largely due to actuarial re-measurement losses as a result of decreases in discount rates; and
- a $224 increase in long-term debt due to the issuance of the $250 Series MTN 2019-1 General Obligation Notes in March 2019, partially offset by the reclassification of the $25 principal payment on the Series 97-2 amortizing revenue bonds (see "LIQUIDITY AND CAPITAL RESOURCES – Liquidity and Financing Strategy").

The Company's total non-current liabilities as at August 31, 2018 decreased by $535 compared to August 31, 2017 primarily due to:

- a $12 decrease in derivative liabilities as a result of unrealized fair value adjustments on bond forward agreements maturing in April 2019;
- a $516 decrease in the employee benefit liability including a $419 decrease in accrued pension obligations of $491 and $51 in other defined benefit obligations, partially offset by a $27 increase in supplemental pension obligations; and
- a $6 decrease in the deferred income tax liability related to the Company's investment in preferred interests of Aireon, mainly as a result of the change in the U.S. federal corporate income tax rate from 35% to 21% partially offset by the increase in the fair value of the investment.

Total regulatory deferral account credit balances:

See "RESULTS OF OPERATIONS – Net Movement in Regulatory Deferral Accounts Related to Net Income (Loss)" and "RESULTS OF OPERATIONS – Other Comprehensive Income (Loss)".

Total regulatory deferral account credit balances as at August 31, 2019 decreased by $18 compared to August 31, 2018 primarily due to:

- a $31 decrease in the rate stabilization account due to the initial Board-approved adjustment of $18 and unfavourable variances from planned results of $13;
- a $4 decrease in regulatory deferrals of LTD contributions; and
- a $2 decrease in the regulatory deferral related to derivatives due to the deferral of changes in fair value of $11, partially offset by the realization of the $9 loss on a bond forward;

partially offset by:

- a $21 increase in the regulatory deferral related to the Company's investment in preferred interests of Aireon primarily due to an increase in dividends earned and unrealized foreign exchange gains.

Total regulatory deferral account credit balances as at August 31, 2018 increased by $52 compared to August 31, 2017 primarily due to:

- a $68 increase in regulatory deferrals related to the Company's investment in Aireon from the deferral of unrealized positive fair value adjustments, dividends earned and the deferral of unrealized foreign exchange losses;

partially offset by:

- a $9 decrease in the regulatory deferral related to employee benefit pension contributions bringing the account into a debit position as described above; and
- a net decrease of $7 in the rate stabilization account due to the initial Board approved adjustment of $10 partially offset by favourable variances from planned results of $3.

(in millions of dollars)

Financial Highlights

Results of operations for the year ended August 31, 2019

	Year ended August 31		
	2019	2018	Change
Revenue	$ 1,437	$ 1,415	$ 22
Operating expenses	1,449	1,396	53
Other (income) and expenses	91	60	31
Income tax recovery	(3)	(8)	5
Net loss, before net movement in regulatory deferral accounts	(100)	(33)	(67)
Net movement in regulatory deferral accounts [(1)]			
Rate stabilization adjustments:			
Unfavourable (favourable) variances from planned	13	(3)	16
Initial approved adjustment [(2)]	18	10	8
	31	7	24
Other regulatory deferral account adjustments:			
Employee benefit pension contributions	96	107	(11)
Other employee benefits	(5)	(9)	4
Investment in preferred interests, before tax	(21)	(68)	47
Investment in equity-accounted investee	-	1	(1)
Income tax	(2)	(6)	4
Realized hedging transactions	1	1	-
	69	26	43
	100	33	67
Net income (loss), after net movement in regulatory deferral accounts	$ -	$ -	$ -

(1) The Company is subject to legislation that regulates the level of its charges (see "INTRODUCTION – Financial Strategy and Rate Regulation"). The timing of the recognition of certain revenue and expenses recovered through charges is recorded through movements in regulatory deferral accounts (see "RESULTS OF OPERATIONS – Net Movement in Regulatory Deferral Accounts Related to Net Income (Loss)").

(2) In order to achieve breakeven results of operations, in fiscal 2019, the Board approved a reduction of the rate stabilization account as a result of a planned shortfall. As a result, $18 was transferred out of the rate stabilization account evenly throughout the fiscal year (fiscal 2018 – $10).

(in millions of dollars)

Cash flows for the year ended August 31, 2019

As shown below, cash and cash equivalents decreased by $8 during fiscal 2019 (fiscal 2018 - $184) and the Company experienced positive free cash flow of $10 (fiscal 2018 - negative free cash flow of $86), which is a non-GAAP (Generally Accepted Accounting Principles) financial measure. Non-GAAP financial measures do not have any standardized meaning prescribed by IFRS and therefore may not be comparable to similar measures presented by other issuers. The Company defines free cash flow as cash generated from operations, less capital expenditures and investments in Aireon and equity related investments. Management places importance on this indicator as it assists in measuring the impact of its investment program on the Company's financial resources.

	Year ended August 31		
	2019	2018	Change
Cash flows from (used in):			
Operations [1]	$ 143	$ 85	$ 58
Investing [1]	(122)	(178)	56
Financing [1]	(29)	(91)	62
Decrease in cash and cash equivalents	(8)	(184)	176
Cash and cash equivalents, beginning of period	38	222	(184)
Cash and cash equivalents, end of period	$ 30	$ 38	$ (8)
Free cash flow (non-GAAP financial measure):			
Cash flows from (used in):			
Operations [2]	$ 143	$ 85	$ 58
Capital expenditures [2]	(133)	(176)	43
Income tax refund on investment in preferred interests [2]	-	5	(5)
Free cash flow	$ 10	$ (86)	$ 96

(1) See "LIQUIDITY AND CAPITAL RESOURCES – Cash flows for the year ended August 31, 2019" for discussion of the changes in cash flows from the prior fiscal year.

(2) See the statement of cash flows in our fiscal 2019 financial statements.

Significant Financial Matters

The following items have significant financial importance to the Company:

1. Rate Stabilization Account

As at August 31, 2019, the rate stabilization account (see "RESULTS OF OPERATIONS – Movements in Rate Stabilization Account") had a credit balance of $93 (see "RESULTS OF OPERATIONS – Amounts Considered for Rate Setting Purposes").

The rate stabilization account decreased by $31 during fiscal 2019 due to $13 of unfavourable variances from planned results and the $18 initially approved adjustment to the rate stabilization account. Rate stabilization adjustments are described under "RESULTS OF OPERATIONS – Movements in Rate Stabilization Account".

2. Air Traffic and Customer Service Charges[1]

Over the course of fiscal 2019, air traffic volumes, as measured by weighted charging units (WCU) (a measure of the number of flights, aircraft size and distance flown), increased by 1.9% year-over-year. The approved budget for fiscal 2019 had assumed growth of 3.6% for the year. The Company's budgeted air traffic growth for the year ending August 31, 2020 (fiscal 2020) is 3.7%.

We continuously monitor our financial requirements and air traffic, and regularly update our financial forecasts to account for changes in the economic environment. On a quarterly basis, we review the most current information available from aviation industry sources as well as forecasts of macro-economic indicators; we then modify our forecast assumptions accordingly and consider the need for a change in rates.

On August 15, 2019, the Company issued an announcement dealing with the implementation of revised service charges. The revised charges will be implemented in two phases, taking effect on September 1, 2019 and January 1, 2020. Effective September 1, 2019, revisions to base rates averaged a 0.8% increase from previous base rates, which recovers the cost of domestic space-based surveillance data services. Effective January 1, 2020, rates will increase on average by 3.6% from base rates in effect on August 31, 2019 to recover the cost of oceanic space-based surveillance data services. These revisions vary by service charge. Accordingly, some customers will pay more while others will pay less than the averages noted above.

The Canadian Transportation Agency received an appeal by the International Air Transportation Association (IATA) dated September 13, 2019 of the revised customer services charges. The appeal alleges that the Company did not comply with notice requirements and with two of the charging principles in the ANS Act. The Company disagrees with IATA's appeal. The Company and IATA held a mediation on October 17, 2019 but were unable to resolve the matter. The Company will vigorously defend the appeal. The outcome of this appeal is indeterminable at this time.

[1] Note: See "INTRODUCTION – Caution Concerning Forward-Looking Information", page 1

3. Collective Agreements

Approximately 88% of our workforce is unionized under eight collective agreements.

As at August 31, 2019, the Company has expired agreements with five unions, comprising 78% of our represented workforce, whose collective agreements expired March 31, 2019, April 30, 2019 and June 30, 2019, respectively. The Company is currently in negotiations with all of these unions.

All of the Company's eight collective agreements include the following significant changes in the pension area, which were achieved either through negotiation or arbitration in the fiscal years ended August 31, 2013, 2014 and 2015:

(a) All new employees represented by the Canadian Air Traffic Control Association (CATCA) Unifor Local 5454, the Air Traffic Specialists Association of Canada (ATSAC) Unifor Local 2245, the Canadian Federal Pilots Association (CFPA), the Canadian Association of Financial Officers (ACFO), the International Brotherhood of Electrical Workers Local 2228 (IBEW) and Unifor Local 1016 as at January 1, 2014, are required to join Part B of the NAV CANADA Pension Plan (NCPP), which has a non-contributory defined benefit design. Previously, new employees represented by these unions had the alternative of joining Part A of the NCPP, which has a contributory defined benefit design and under which pension benefits are automatically indexed to inflation. Effective October 1, 2014, all new employees represented by the Professional Institute of the Public Service of Canada (PIPSC) are required to join Part B of the NCPP. Effective December 1, 2014, all new employees represented by the Public Service Alliance of Canada (PSAC) are required to join Part B of the NCPP. Previously, new employees represented by PIPSC and PSAC were required to join Part A of the NCPP. Part B of the NCPP provides for a lower level of benefits that are not indexed. Part B was introduced effective January 1, 2009 and has been mandatory for new non-unionized employees since that time. The Company expects that its current service pension costs will decline significantly over time, as new employees join Part B of the NCPP.

(b) In the unlikely event of plan termination, the automatic Consumer Price Index (CPI) indexing of pension benefits for active (non-retired) members under Part A of the NCPP will be replaced by fixed rate indexing to the extent that surplus assets would remain. Therefore, automatic CPI indexing for these members will no longer be considered as part of the annual actuarial valuation of the NCPP's solvency liabilities. However, automatic CPI indexing of pensions will continue to be paid to all current retirees and to all plan members who retire under Part A, as long as the NCPP remains in operation. The arbitration decisions and/or settled agreements also require that CATCA, ATSAC, CFPA, ACFO, IBEW, Unifor Local 1016, PIPSC and PSAC would have to agree to the termination of the NCPP, in respect of their members, before such a termination could occur.

    This change would not have had any effect on employees or pensioners; however, it would have significantly improved the solvency position of the NCPP, thereby reducing the Company's required solvency funding requirements, which are currently being met with a combination of cash contributions and letters of credit.

(c) Other pension changes have been introduced that (i) remove, for future service, the automatic CPI indexing of pension benefits between members' pre-retirement departure dates and pension commencement dates; and (ii) restore as pensionable the 1% non-pensionable wage increase that had been agreed to in the 2005 CATCA and 2006 ATSAC rounds of bargaining and certain non-pensionable wages that had been agreed to in the 2011 IBEW round of bargaining.

The Company has communicated with OSFI, and OSFI has indicated that they agree with (a) and (c) above.

(in millions of dollars)

With respect to (b), on June 21, 2019, Bill C-97 received Royal Assent. Amendments proposed in this Bill clarify that if a pension plan is terminated, it must still provide the same pension benefits as when it was ongoing. With this change, (b), NAV CANADA's termination amendment, is now offside with the federal *Pension Benefits Standards Act, 1985* (PBSA). We are continuing to participate jointly with our bargaining agents in consultations with the Government in early 2020 on this topic. Valuation reports will be filed in compliance with the PBSA.

Should a regulatory change result in changes to solvency funding with the same effect of (b) (which formed part of the arbitration panels' decisions as well as the negotiated settlements referred to), each collective agreement shall then be subject to a re-opening of negotiations on wages. That is, the parties would return to the bargaining table and discuss whether or not additional compensation is appropriate. In most instances, an arbitration panel would retain jurisdiction over the matter should the parties be unable to agree on an appropriate outcome.

4. Financing Activities

On March 29, 2019, the Company issued $250 Series MTN 2019-1 General Obligation Notes due on September 29, 2050. The notes have an annual interest rate of 3.209%. The proceeds from these notes were used to repay the Company's $250 Series MTN 2009-1 General Obligation Notes that matured on April 17, 2019. The Company also closed the related bond forward agreement that had been entered into in June 2018 to hedge the interest rate risk related to the refinancing at a loss of $9.

RESULTS OF OPERATIONS

Revenue

The following table provides a breakdown of our revenue by category. Our fiscal 2019 AIF and the notes to our fiscal 2019 financial statements provide more information about the different categories of our customer service charges.

	Year ended August 31			
	2019	2018	Change	%
Enroute	$ 706	$ 704	$ 2	- %
Terminal	537	517	20	4%
Daily / annual / quarterly	93	93	-	- %
North Atlantic and international communication	48	45	3	7%
Total customer service charges	1,384	1,359	25	2%
Other [(1)]	53	56	(3)	(5%)
	$ 1,437	$ 1,415	$ 22	2%

(1) Other revenue consists of service and development contracts, conference centre sales at our facility in Cornwall (Ontario), the sale of civil aeronautical publications and other miscellaneous revenue.

Revenue for fiscal 2019 was $1,437 compared to $1,415 for fiscal 2018. The $22 increase is primarily due to:

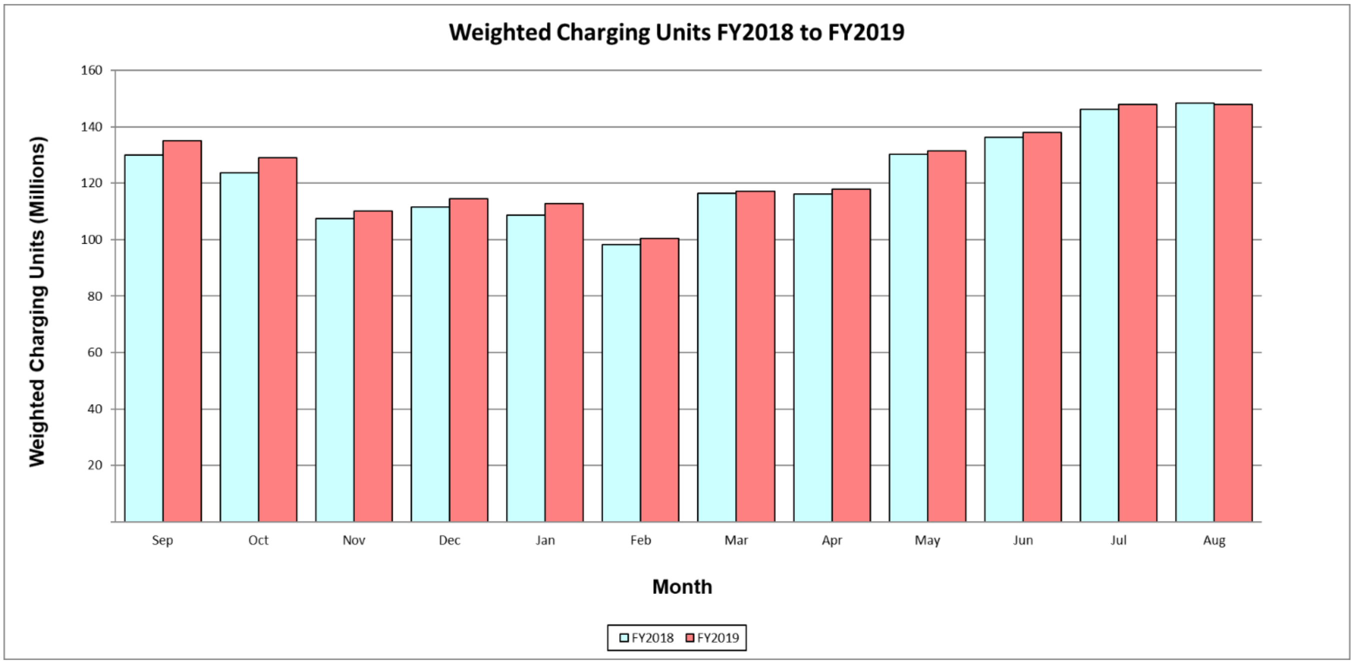
- a $25 increase in customer service charges revenue arising from an increase of 1.9% in air traffic volumes during fiscal 2019;

Partially offset by:

- a $3 decrease in other revenue due to a decrease in revenue from service and development contracts and other miscellaneous revenue, partially offset by an increase in conference centre sales revenue.

Air Traffic

Air traffic growth for fiscal 2019 increased by 1.9% when compared to fiscal 2018. The chart below shows traffic in WCUs.



Future air traffic volumes may be influenced by numerous factors, including the rate of economic growth or decline, changing air passenger demand, aircraft capacity utilization levels, fuel costs, changes in air carrier operations and behaviours, general aviation industry conditions, air carrier competition, airline restructurings and insolvencies, terrorist activities, epidemics or pandemics, weather patterns, natural disasters, environmental concerns, demographic patterns and other factors.

Customer Service Charges[2]

The level of our customer service charges are a function of our costs, the required level of service, air traffic volumes and revenue from non-aeronautical sources (see "RESULTS OF OPERATIONS – Amounts Considered for Rate Setting Purposes").

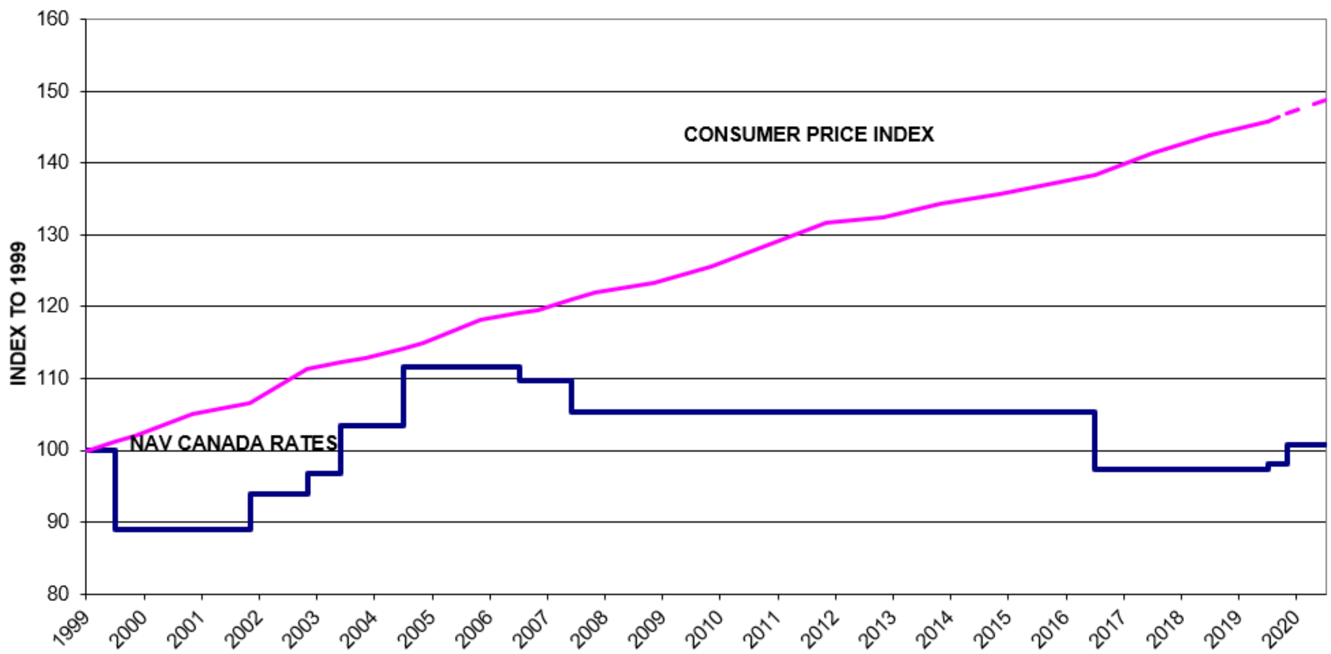
Our business operates 24 hours a day, 365 days a year, providing an essential, national and international safety infrastructure. Given that the majority of our costs are predominantly fixed in nature and are directly related to service delivery, we have relatively few opportunities to significantly reduce these costs further without reducing service, which is not acceptable in most cases. We continue to focus on cost management, productivity improvements and opportunities for new revenue sources from licensing or sales of technology and other sources. This assists in keeping customer service charges as low as possible, while continuing to meet our safety and service obligations.

[2] Note: See "INTRODUCTION – Caution Concerning Forward-Looking Information", page 1

We continuously monitor our financial requirements and air traffic, and regularly update our financial forecasts to account for changes in the economic environment. On a quarterly basis, we consider the need for a change in rates.

The following chart illustrates the evolution of our levels of customer service charges over time.

HISTORY OF NAV CANADA RATE CHANGES[1]
VERSUS CONSUMER PRICE INDEX[2]



1. Average changes since charges were fully implemented on March 1, 1999
2. Consumer Price Index - Growth assumed to be 2.0 per cent for 2019 and beyond

As can be seen in the chart above, the Company had not had an overall rate increase since fiscal 2005, and had implemented four rate decreases since the rates were implemented in 1999. The chart also depicts the revised service charges that came into effect on September 1, 2019 (discussed below).

On August 15, 2019, the Company issued an announcement dealing with the implementation of revised service charges. The revised charges will be implemented in two phases, taking effect on September 1, 2019 and January 1, 2020. Effective September 1, 2019, revisions to base rates averaged a 0.8% increase from previous base rates, which recovers the cost of domestic space-based surveillance data services. Effective January 1, 2020, rates will increase on average by 3.6% from base rates in effect on August 31, 2019 to recover the cost of oceanic space-based surveillance data services. These revisions vary by service charge. Accordingly, some customers will pay more while others will pay less than the averages noted above.

(in millions of dollars)

These revisions will bring service charges on January 1, 2020 to less than 1% higher than they were when they were fully implemented in 1999. As a result of cost controls and increases in air traffic levels over that period, the change in customer service charges is below the change in Consumer Price Index by approximately 46 percentage points.

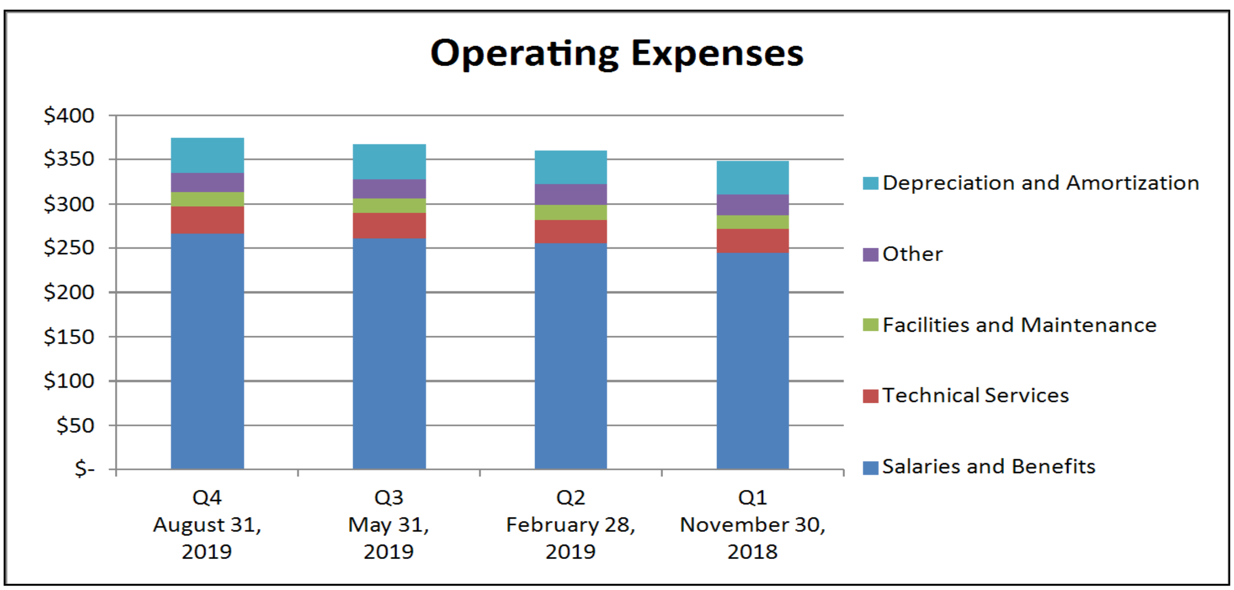
Operating Expenses

	Year ended August 31			
	2019	2018	Change	%
Salaries and benefits	$ 1,027	$ 985	$ 42	4%
Technical services	114	109	5	5%
Facilities and maintenance	64	62	2	3%
Depreciation and amortization	154	152	2	1%
Other	90	88	2	2%
	$ 1,449	$ 1,396	$ 53	4%

Salaries and benefits expense for fiscal 2019 increased by $42, compared to fiscal 2018 primarily due to increased compensation levels and overtime costs arising from negotiated increases in collective agreements, increased staffing requirements to meet air traffic growth and activities related to supporting projects and maintaining optimum staffing levels across the country.

Technical services cost for fiscal 2019 increased by $5, compared to fiscal 2018 primarily due to the cost of domestic space-based surveillance data. The Company began paying for domestic space-based surveillance data services in the third quarter of fiscal 2019.

As illustrated in the table below, the majority of our operating expenses are incurred evenly throughout the year.



(in millions of dollars)

Other (Income) and Expenses (Including Income Tax (Recovery) Expense)

	Year ended August 31		
	2019	2018	Change
Finance income			
Interest income	$ (3)	$ (4)	$ (1)
Net change in fair value of financial assets at FVTPL			
Investment in preferred interests	(12)	(52)	(40)
Other investments	1	(2)	(3)
	(11)	(54)	(43)
Total finance income	(14)	(58)	(44)
Net interest expense relating to employee benefits	38	54	16
Other finance costs			
Interest expense	74	77	3
Other gains, net of losses			
Foreign exchange gains	(7)	(14)	(7)
Share of net loss of equity-accounted investee	-	1	1
	(7)	(13)	(6)
	$ 91	$ 60	$ (31)
Income tax recovery	$ (3)	$ (8)	$ (5)

The decrease in net change in fair value of the investment in preferred interests is due to positive fair value adjustments of $40 recorded in fiscal 2018, based on the price paid by NATS for an investment in preferred interests of Aireon.

Net interest expense relating to employee benefits decreased by $16 in fiscal 2019 compared to fiscal 2018 primarily due to higher interest income, partially offset by an increase in finance costs.

The Company recorded an income tax recovery of $3 in fiscal 2019 compared to $8 in fiscal 2018. The recovery in fiscal 2019 is primarily due to a decrease in the state tax allocation from 25.72% to 24.44%. The recovery in fiscal 2018 is a result of the decrease in net deferred tax liabilities due to the change in the U.S. federal corporate income tax rate from 35% to 21%, partially offset by the increase in fair value of the investment recorded in fiscal 2018.

(in millions of dollars)

Net Movement in Regulatory Deferral Accounts Related to Net Income (Loss)

The net movement in regulatory deferral accounts related to net income (loss) represents the regulatory accounting adjustments, including the rate stabilization mechanism, to adjust the accounting recognition of certain transactions to the periods in which they will be considered for rate setting.

	Year ended August 31		
	2019	2018	Change
Rate stabilization account (1)	$ 31	$ 7	$ 24
Other regulatory deferral accounts			
Employee benefit pension contributions	96	107	(11)
Other employee benefits	(5)	(9)	4
Investment in preferred interests, before tax	(21)	(68)	47
Investment in equity-accounted investee	-	1	(1)
Income tax	(2)	(6)	4
Realized hedging transactions	1	1	-
	$ 100	$ 33	$ 67

(1) See "RESULTS OF OPERATIONS - Movements in Rate Stabilization Account".

To adjust the total pension benefit expense to reflect the cash amount of contributions to be recovered through rate setting, the net movement in the employee benefit pension contributions regulatory deferral account for fiscal 2019 was $96 compared to $107 in fiscal 2018.

The $47 net movement in regulatory deferral of the Company's investment in preferred interests before tax is primarily due to the regulatory deferral of the $40 increase in the fair value of the investment in preferred interests of Aireon in fiscal 2018, with no similar regulatory deferral in fiscal 2019. The remaining net movement in regulatory deferral relates to the regulatory offset of dividend income earned and foreign exchange gains.

The net movement in the income tax regulatory deferral account primarily relates to the deferral of future income tax liabilities on the Company's investment in preferred interests of Aireon. The net movement of $2 is primarily due to a decrease in the state tax allocation from 25.72% to 24.44%. The net movement of $6 in fiscal 2018 is a result of the decrease in net deferred tax liabilities due to the change in the U.S. federal corporate income tax rate from 35% to 21%, partially offset by the increase in fair value of the investment recorded in fiscal 2018.

(in millions of dollars)

Movements in Rate Stabilization Account

Our rate stabilization mechanism and accounting are described at the beginning of this MD&A and in notes 1 and 7 of our fiscal 2019 financial statements. The table below shows the movements in the rate stabilization account.

	Year ended August 31		
	2019	2018	Change
Credit balance on the statement of financial position, beginning of period	$ 124	$ 131	$ (7)
Variances from planned results:			
Revenue higher (lower) than planned	(10)	24	(34)
Operating expenses higher than planned	(3)	(13)	10
Other (income) and expenses lower than planned	27	62	(35)
Net movement in other regulatory deferral accounts	(27)	(70)	43
Total variances from planned results	(13)	3	(16)
Initial approved adjustment	(18)	(10)	(8)
Net movement in rate stabilization account recorded in net income (loss)	(31)	(7)	(24)
Credit balance on the statement of financial position, end of period	$ 93	$ 124	$ (31)

The $31 decrease in the rate stabilization account during fiscal 2019 is primarily due to:

- net movement of $27 in regulatory deferral accounts that was lower than planned primarily due to:
  - a regulatory expense for pensions and other employee benefits that was $21 lower than planned primarily due to lower pension current service costs, partially offset by lower pension cash contributions;
  - a net regulatory income $9 higher than planned related to the Company's investment in preferred interests of Aireon, to defer the unrealized foreign exchange gains due to the fluctuation of the Canadian dollar against the U.S. dollar; and
  - a net regulatory expense of $4 higher than planned related to deferred tax liabilities primarily on the Company's investment in preferred interests of Aireon;

  partially offset by:

  - a regulatory adjustment of $6 to related to other employee benefits, largely due to the true up of the LTD plan deficit and the deferral of re-measurement losses on the Company's vested sick leave plan;
- revenue that was $10 lower than planned primarily due to lower air traffic growth than planned;
- operating expenses that were $3 higher than planned, primarily due to higher compensation costs; and

(in millions of dollars)

- the planned adjustment of $18, representing the anticipated annual net loss at the time the fiscal 2019 budget was approved;

partially offset by:

- other (income) and expenses that were $27 lower than planned primarily due to lower net finance costs relating to employee benefits, higher foreign exchange gains on our investment in preferred interests of Aireon and a reduction in deferred income tax.

Other Comprehensive Income (Loss)

The accounting recognition of other comprehensive income (loss) amounts are offset by regulatory deferrals in order to defer the accounting recognition to the periods in which they will be considered for rate setting. These transactions are generally considered for rate setting when the amounts are expected to be realized in cash, with the exception of the cash flows related to hedging instruments, which are considered for rate setting in the same period as the underlying hedged transaction, and re-measurements of unfunded defined employee benefit plans, which are considered for rate setting over the employees' average expected remaining service period. Note 7 of the fiscal 2019 financial statements provides further details of when regulatory deferrals are considered for rate setting purposes.

	Year ended August 31		
	2019	2018	Change
Items that will not be reclassified to income or (loss):			
Re-measurements of employee defined benefit plans	$ (1,040)	$ 600	$ (1,640)
Net movement in regulatory deferral accounts	1,040	(600)	1,640
	-	-	-
Items that will be reclassified to income or (loss):			
Amortization of loss on cash flow hedge	1	1	-
Changes in fair value of cash flow hedges	(11)	5	(16)
Net movement in regulatory deferral accounts	10	(6)	16
	-	-	-
Total other comprehensive income (loss)	$ -	$ -	$ -

Net re-measurement losses on employee defined benefit plans of $1,040 were recorded during fiscal 2019. This was primarily due to actuarial losses of $1,293 due to a 90 basis point decrease in the discount rate to 2.90% and net negative impacts from demographics and experience adjustments of $16, partially offset by a return on plan assets $269 greater than expected based on the discount rate of 3.80% at August 31, 2018. For fiscal 2018, the net re-measurement gains of $600 were primarily due to a return on plan assets $306 greater than the expected return based on the discount rate of 3.60% at August 31, 2017, actuarial gains of $264 due to a 20 basis point increase in the discount rate to 3.80% and $35 due to net positive impacts from demographics partially offset by $5 net negative experience on the defined benefit obligations.

(in millions of dollars)

In fiscal 2019, negative fair value adjustments of $11 were recorded primarily on the Company's interest rate hedges related to the re-financing of debt instruments that matured during fiscal 2019. In fiscal 2018, positive fair value adjustments of $5 were recorded on the Company's interest rate hedges related to the financing of the same debt instruments.

Amounts Considered for Rate Setting Purposes

As discussed under "INTRODUCTION – Financial Strategy and Rate Regulation", when establishing customer service charges, the Company monitors quarterly and considers, among other things:

(a) air traffic results and forecasts;

(b) our financial and operating requirements, including our current and anticipated balance in the rate stabilization account and the extent to which our operating costs are variable and can be contained;

(c) the recovery of pension costs on a cash basis; and

(d) updates to our financial forecasts and the resulting financial coverage ratios.

The table below shows the balance of the rate stabilization account and the amount of regulatory pension cash contribution to be recovered at a later date:

	August 31 2019	August 31 2018	Change
Rate stabilization account credit balance	$ 93	$ 124	$ (31)
Regulatory pension cash contribution to be recovered at a later date	$ (34)	$ (34)	$ -

(in millions of dollars)

Financial Outlook[3]

The Company's status as a privatized, non-share capital corporation where key stakeholders are involved but none have control, is a key strength of our model. Our financial results demonstrate the success of this model and our determined efforts to continue as a global industry leader.

Our success is evident in our safety and service levels, in our initiatives to control costs while improving productivity and in our successful and continuing modernization of the ANS. We manage our business in a sound and cost-effective manner aimed at maintaining air navigation service charges among the lowest of major ANSPs worldwide and ensuring over the long term that the growth in our operating costs does not exceed the growth in traffic.

Global political and economic conditions can quickly change. While we remain optimistic about long-term outlooks for aviation and air traffic growth, we strive to be prepared for changing conditions and will continue to monitor our financial requirements on an ongoing basis.

Presented below are the Company's current projected annual consolidated results before rate stabilization for fiscal 2020 compared to fiscal 2019 actual results.

	Fiscal 2020	Fiscal 2019	Change	%
Before rate stabilization				
Revenue	$ 1,477	$ 1,437	$ 40	3%
Operating expenses and other (income) and expenses, including other regulatory adjustments	1,559	1,468	91	6%
Net income (loss) before rate stabilization adjustments	$ (82)	$ (31)	$ (51)	

Revenue

Revenue in fiscal 2020 is expected to increase by approximately 3% or $40 from $1,437 in fiscal 2019 primarily due to forecasted air traffic growth of 1.1% and an increase in customer service charge base rates, partially offset by a decrease in other revenue. As discussed in "RESULTS OF OPERATIONS – Revenue", the revised service charges, effective in two phases, increase base rates on average 0.8%, effective September 1, 2019 and increase the North Atlantic Enroute service charge to $155.03, effective January 1, 2020.

In our Q3 fiscal 2019 MD&A, we had disclosed anticipated revenue of $1,443 for fiscal 2019 and forecasted air traffic growth of 2.3%. The decrease in revenue is largely due to the decrease in air traffic growth to 1.9% at Q4 fiscal 2019.

[3] Note: See "INTRODUCTION – Caution Concerning Forward-Looking Information", page 1

Operating Expenses and Other (Income) and Expenses

Operating expenses and other (income) and expenses before rate stabilization for fiscal 2020 are expected to be $1,559. This is an increase of 6% or $91 compared to fiscal 2019 primarily due to:

- increased compensation levels and overtime costs arising from inflationary increases in collective agreements, increased staffing requirements to meet air traffic growth and to support projects, and the maintenance of optimum staffing levels across the country;
- higher pension current service costs due to decreases in discount rates;
- a full year of domestic satellite surveillance charges and the first partial year of oceanic satellite surveillance charges commencing in January 2020;
- increased operational requirements impacting facilities and maintenance and technical services; and
- the effects of inflation.

Across the Company, we remain focused on cost saving measures that are consistent with safety, which is our top priority. Our efforts are aimed at managing staffing levels and discretionary expenses, as well as continuing to implement process improvement initiatives and efficiencies.

In our Q3 fiscal 2019 MD&A, we had disclosed anticipated operating expenses and other (income) and expenses, before rate stabilization of $1,463 for fiscal 2019. The increase of $5 is primarily related to increased overtime costs and lower regulatory deferral of LTD expenses as a result of negative experience, partially offset by lower operational requirements.

Cash Flows

Given the expected net cash flows from operations and cash flows from investing and financing activities in fiscal 2020, the Company's cash position is currently expected to remain consistent at $30 as at August 31, 2020 (August 31, 2019 - $30). This cash outlook is based on anticipated annual cash inflows from operating activities of $90 and financing activities of $74, partially offset by cash outflows from investing activities of $164. Cash inflows from financing activities are largely due to net proceeds from bank loans and cash outflows from investing activities are for capital expenditures. As discussed below, the Company has adequate existing sources of financing to cover all of its anticipated cash flow requirements.

In our Q3 fiscal 2019 MD&A, we had disclosed an anticipated cash position of $31 by the end of fiscal 2019.

Rate Stabilization Account

The Company currently anticipates that the rate stabilization account will have a credit balance of $11 at the end of fiscal 2020, resulting from estimated revenue of $1,477 and total operating expenses and other (income) and expense (including other regulatory adjustments) of $1,559 (before rate stabilization). The current and anticipated balance in the rate stabilization account (see "RESULTS OF OPERATIONS – Amounts considered for Rate Setting Purposes"), will be a consideration in the setting of rates as well as future cost containment measures to be taken.

In our Q3 fiscal 2019 MD&A, we had forecast a rate stabilization account credit balance of $104 at the end of fiscal 2019. The decrease of $11 is due to higher unfavourable variances from planned results than expected.

Earnings and Cash Flow Coverage

During a fiscal year, quarterly revenue will reflect seasonal or other fluctuations in the airline industry and therefore our net results vary from quarter to quarter. Our mandate to operate on essentially a financial breakeven basis results in a planned earnings coverage ratio – calculated on the basis of earnings before interest divided by interest expense – that is close to one-to-one. However, the seasonal nature of our revenue may result in an earnings coverage ratio of less than one-to-one for any interim period.

For the twelve months ended August 31, 2019, the Company had breakeven results. Our interest costs were $74. Consolidated earnings (after rate stabilization) before interest costs were $74, which equals our requirement for the fiscal year and meets our one-to-one earnings coverage ratio target. Depreciation and amortization expense for this period was $154. Our cash flow coverage was 3.08 times our interest requirement for this period.

Earnings coverage ratio and cash flow coverage are non-GAAP financial measures and do not have any standardized meaning prescribed by IFRS. The earnings coverage ratio and cash flow coverage are provided pursuant to and in compliance with National Instrument 44-102 *Shelf Distributions* of the Canadian Securities Administrators. The Company calculates the earnings coverage ratio on the basis of earnings before interest expense on financial liabilities at amortized cost (interest expense) divided by interest expense. Cash flow coverage is calculated on the basis of earnings (after rate stabilization) before interest expense, depreciation and amortization divided by interest expense. Under the *Income Tax Act* (Canada), NAV CANADA, excluding its subsidiaries, is not subject to income taxes and accordingly, no deduction for income taxes has been made. After the application of rate regulated accounting, the provision for income taxes related to our taxable subsidiaries is not significant.

We maintain a debt service reserve fund and an operations and maintenance reserve under our Master Trust Indenture and we are subject to liquidity covenants under our General Obligation Indenture, designed to cover 12 months interest on borrowings and 25% of our annual operating and maintenance expenses. As at August 31, 2019, we were in full compliance with our debt indentures, including the Master Trust Indenture's requirements regarding the reserve funds, the flow of funds and with the rate covenants, as well as the liquidity and other provisions of the General Obligation Indenture.

Related Party Transactions

The Company's related parties include its key management personnel, subsidiaries, joint ventures, entities in which it has a significant influence and registered pension plans for its employees. During fiscal 2019, total amounts paid by us to these related parties, directly or indirectly, were $113 (fiscal 2018 - $121), including contributions to the Company's registered pension plans of $91 (fiscal 2018 - $97) and payment for data services to Aireon of $5 (fiscal 2018 - $nil). Total amounts received from these related parties during fiscal 2019 were $12 (fiscal 2018 - $15) primarily related to reimbursement for certain costs from the Company's pension plans. In addition, accrued dividend income on the investment in preferred interests of Aireon of $12 was recorded in fiscal 2019 (fiscal 2018 - $12).

As at August 31, 2019, the Company has an accrued dividend receivable of $63 (August 31, 2018 - $46) from Aireon and a long-term loan receivable of $3 (August 31, 2018 - $2) outstanding from Searidge.

The Company has a 12-year commitment with Aireon to purchase data services, which commenced in March 2019. The estimated total remaining commitment is $663 ($510 U.S.).

Additional details of these transactions are disclosed in note 19 of our fiscal 2019 financial statements.

(in millions of dollars)

SUMMARY OF QUARTERLY RESULTS

Quarterly Financial Information (unaudited)

	Three months ended			
	Q4 August 31 2019	Q3 May 31 2019	Q2 February 28 2019	Q1 November 30 2018
Revenue	$ 412	$ 351	$ 317	$ 357
Operating expenses	374	367	360	348
Other (income) and expenses	32	15	27	17
	6	(31)	(70)	(8)
Income tax recovery	(3)	-	-	-
Net income (loss) before net movement in regulatory deferral accounts	9	(31)	(70)	(8)
Net movement in regulatory deferral accounts related to net income (loss), net of tax				
Rate stabilization adjustments	21	11	3	(4)
Other regulatory deferral account adjustments	30	6	23	10
	51	17	26	6
Net income (loss) after net movement in regulatory deferral accounts	$ 60	$ (14)	$ (44)	$ (2)

	Three months ended			
	Q4 August 31 2018	Q3 May 31 2018	Q2 February 28 2018	Q1 November 30 2017
Revenue	$ 414	$ 349	$ 305	$ 347
Operating expenses	355	361	340	340
Other (income) and expenses	26	(14)	30	18
	33	2	(65)	(11)
Income tax (recovery) expense	1	10	(19)	-
Net income (loss) before net movement in regulatory deferral accounts	32	(8)	(46)	(11)
Net movement in regulatory deferral accounts related to net income (loss), net of tax				
Rate stabilization adjustments	(2)	13	(7)	3
Other regulatory deferral account adjustments	20	(13)	8	11
	18	-	1	14
Net income (loss) after net movement in regulatory deferral accounts	$ 50	$ (8)	$ (45)	$ 3

Discussion of Quarterly Results

The quarterly variations in revenue mainly reflect seasonal fluctuations. Typically, revenue is highest in our fourth quarter (June to August) as a result of increased air traffic in the summer months, and the second quarter (December to February) has the lowest air traffic volumes. Air traffic for Q4 fiscal 2019 was 0.7% higher on average than in Q4 fiscal 2018. In fiscal 2020, the Company implemented revised service charges to recover the cost of space-based surveillance data services (see "SIGNIFICANT FINANCIAL MATTERS – Air Traffic and Customer Service Charges").

The majority of our operating expenses are incurred evenly throughout the year.

Other (income) and expenses fluctuate primarily due to:

- fair value adjustments on investments, including the investment in preferred interests of Aireon, which change based on market factors and changes in expectations of credit losses;
- changes in net interest expense relating to employee benefits as a result of changes in annual discount rates; and
- changes in foreign exchange (gains) or losses as a result of the strengthening or weakening of the Canadian dollar compared to foreign currencies in which the Company transacts, mainly the U.S. dollar.

Net movement in regulatory deferral accounts related to net income (loss) fluctuates due to:

- changes in the rate stabilization account based on variances from planned results and the initial approved adjustment;
- the recovery of pension solvency deficiency contributions made;
- changes in employee benefit pension contributions and expense;
- changes in other employee benefits, including positive or negative LTD experience and funding requirements;
- changes in the investment in preferred interests of Aireon, before tax;
- changes in the investment in equity-accounted investee;
- changes in income taxes; and
- changes in unrealized hedging transactions.

LIQUIDITY AND CAPITAL RESOURCES

The following sections explain how we manage our cash and capital resources.

Our non-cash current assets are less than our current liabilities. This results from accounts receivable collections that are more rapid than the settlement of accounts payable and accrued liabilities. Should our working capital requirements increase, the Company has adequate credit facilities and cash as noted below.

(in millions of dollars)

The inclusion of non-cash depreciation and amortization expenses in the calculation of service charge rates typically leads to positive cash flows from operations. Our strategy is to use these positive cash flows to fund capital expenditures and to replenish our working capital, if required. In addition, our strategy is to maintain a financial structure and credit ratings that will allow the Company to access the capital markets to meet debt maturities as they come due. Should we believe that conditions are not appropriate to undertake a refinancing at a particular time or should we experience a temporary downturn in revenue from seasonal or other factors, the Company has sufficient cash and committed credit facilities at its disposal.

As at August 31, 2019, we had $30 of cash and cash equivalents and committed credit facilities of $1,215, of which $374 was available for unrestricted use (see "LIQUIDITY AND CAPITAL RESOURCES – Liquidity and Financing Strategy").

Cash flows for the year ended August 31, 2019

	Year ended August 31		
	2019	2018	Change
Cash flows from (used in):			
Operations	$ 143	$ 85	$ 58
Investing	(122)	(178)	56
Financing	(29)	(91)	62
Decrease in cash and cash equivalents	(8)	(184)	176
Cash and cash equivalents, beginning of period	38	222	(184)
Cash and cash equivalents, end of period	$ 30	$ 38	$ (8)
Free cash flow (non-GAAP financial measure):			
Cash flows from (used in):			
Operations	$ 143	$ 85	$ 58
Capital expenditures (1)	(133)	(176)	43
Income tax refund on investment in preferred interests (1)	-	5	(5)
Free cash flow	$ 10	$ (86)	$ 96

(1) See the statements of cash flows in our fiscal 2019 financial statements.

As shown above, cash and cash equivalents decreased by $8 in fiscal 2019 and the Company experienced positive free cash flow of $10, which is a non-GAAP financial measure as discussed in "INTRODUCTION – Financial Highlights: Cash flows for the year ended August 31, 2019".

Cash flows from operations in fiscal 2019 increased by $58 from fiscal 2018, primarily due to higher receipts from customer service charges of $48 and higher other receipts of $15; a cash refund of customer service charges of $33 and payment to settle curtailed severance benefits of $42 were both made in fiscal 2018 with no such payments in fiscal 2019; partially offset by higher payments to employees and suppliers of $80.

Cash outflows from investing activities decreased by $56 in fiscal 2019. During fiscal 2019, the Company invested $133 (excluding capitalized interest) in capital projects, compared to $176 during fiscal 2018. In addition, $11 was received from Aireon as repayment of the bridge loan financing of $10 provided in fiscal 2018. In fiscal 2018, the Company's investing cash outflows were offset by the receipt of an income tax refund of $5 on the Company's investment in preferred interests of Aireon.

Cash outflows from financing activities in fiscal 2019 were $29 compared to $91 in fiscal 2018. The outflows were a result of the payment of $250 upon the maturity of the Series MTN 2009-1 General Obligation Notes, the annual $25 principal repayment of the Series 97-2 amortizing revenue bonds and the disbursement of $9 to settle derivative liabilities related to an interest rate hedge, partially offset by $248 proceeds from the issue of the Series MTN 2019-1 General Obligation Notes and net proceeds from bank loans of $8.

Liquidity and Financing Strategy

As a corporation without share capital, the Company finances its operations with borrowed money. When the Company was created, we developed a financing plan called the Capital Markets Platform. All borrowings were incurred and secured under a master trust indenture (the Master Trust Indenture), which initially provided a total drawn and undrawn borrowing capacity of $3,000. The Master Trust Indenture provides for a gradually escalating reduction of the initial borrowing capacity over 33 years.

In February 2006, we entered into a separate trust indenture (the General Obligation Indenture), which established a borrowing program that qualifies as subordinated debt under the Master Trust Indenture. As subordinated debt, General Obligation Notes are not subject to the mandatory annual debt reduction provisions of the Master Trust Indenture. Provided we meet an additional indebtedness test, we are not limited in the amount of debt we can issue under the General Obligation Indenture. Under the terms of the General Obligation Indenture, no new indebtedness may be incurred under the Master Trust Indenture. Therefore, as bonds mature or are redeemed under the Master Trust Indenture, they will be replaced with General Obligation Notes or borrowings under our credit facility described below.

Borrowings under the Master Trust Indenture are secured by an assignment of revenue and a security interest over the debt service reserve fund and revenue account maintained under the Master Trust Indenture. The General Obligation Indenture is unsecured but contains positive and negative covenants similar to the Master Trust Indenture.

We are exposed to re-financing risk with respect to our bond and note maturities, including the $25 annual amortizing payment due on the Series 97-2 amortizing revenue bonds. We mitigate this risk by maintaining committed credit facilities in an amount sufficient to meet our refinancing needs in the event of temporary capital market disruptions or lack of access to the market for any reason. The Company has put in place a Base Shelf Prospectus that is valid until December 9, 2019.

(in millions of dollars)

The Company has a revolving credit facility with a syndicate of Canadian financial institutions and separate letter of credit facilities for pension funding purposes. As at August 31, 2019, the credit facilities are utilized as follows:

Credit facilities:		
Credit facility with a syndicate of Canadian financial institutions (1) (2)	$	675
Letter of credit facilities for pension funding purposes (3)		540
Total available credit facilities		1,215
Less: Outstanding letters of credit for pension funding purposes (3)		514
Less: Outstanding letters of credit for other purposes (2)		9
Less: Bank loan		8
Undrawn committed borrowing capacity		684
Less: Operations and maintenance reserve fund allocation (4)		310
Credit facilities available for unrestricted use	$	374

(1) The Company's credit facility with a syndicate of Canadian financial institutions in the amount of $675 is comprised of two equal tranches maturing on September 12, 2021 and September 12, 2023. Subsequent to August 31, 2019, the facility was increased to $850 and these maturity dates were extended to September 12, 2022 and September 12, 2024, respectively. The credit facility agreement provides for loans at varying rates of interest based on certain benchmark interest rates, specifically the Canadian prime rate and the Canadian bankers' acceptance rate, and on the Company's credit rating at the time of drawdown. The Company is required to pay commitment fees, which are dependent on the Company's credit rating. The Company is in compliance with the credit facility covenants as at August 31, 2019.

(2) At August 31, 2019, $9 was drawn from an uncommitted revolving credit facility. In connection with this facility, an allocation of $25 with a Canadian financial institution has been made under its $675 committed credit facility.

(3) The letter of credit facilities for pension funding purposes are comprised of four facilities with Canadian financial institutions totalling $540, which will mature on December 31, 2019, unless extended. During fiscal 2019, the Company increased these facilities by $25. At August 31, 2019, $514 was drawn for pension solvency funding purposes.

(4) The operations and maintenance reserve fund may be used to pay operating and maintenance expenses, if required (see also "LIQUIDITY AND CAPITAL RESOURCES – Financial Instruments and Risk Management: Reserve Funds and Financial Instruments").

(in millions of dollars)

The table below shows our long-term debt, liquidity and investments profile.

	August 31 2019	August 31 2018
LONG-TERM DEBT:		
Bonds and notes payable		
Under the Master Trust Indenture	$ 450	$ 475
Under the General Obligation Indenture	1,025	1,025
	1,475	1,500
Adjusted for deferred financing costs and discounts	(7)	(6)
Total bonds and notes payable	1,468	1,494
Less: current portion of long-term debt	(25)	(275)
Total long-term debt	$ 1,443	$ 1,219
LIQUIDITY:		
Cash and cash equivalents	$ 30	$ 38
Debt service reserve fund	72	71
	$ 102	$ 109
Undrawn committed borrowing capacity (1)	$ 684	$ 683

(1) $374 of this borrowing capacity is available as described in the previous table (August 31, 2018 - $388).

Credit Ratings

In July 2019, following a request of the Company, DBRS announced that it was discontinuing and withdrawing all of its ratings of the Company. This change was unrelated to our credit profile and was made in order to reduce costs and streamline our credit rating process, bringing the number of ratings for the Company from three to two, which is in line with market practice.

The Company's debt obligations have been assigned the following credit ratings and outlooks:

Rating Agency	Senior Debt	General Obligation Notes	Outlook
Moody's Investors Service (Moody's)	Aa2	Aa2	Stable
Standard & Poor's (S&P)	AA	AA-	Stable

On March 8, 2019, S&P issued a press release affirming the Company's ratings and stable outlook. The press release noted the Company's credit strengths as holding a monopoly over an essential transportation service, legislated ability to levy user charges on airlines to meet financial requirements and strong financial performance. They noted that the Company's debt metrics continue to improve thanks to a declining debt level.

S&P stated that NAV CANADA has "adequate liquidity and financial flexibility, thanks to a stable level of unrestricted reserves and available lines of credit, and very strong debt capacity." S&P noted the Company's legislated perpetual monopoly over civil air navigation services in Canadian-controlled airspace and the fact that its air traffic volumes depend not on any one region, but the entire country and international airspace assigned to Canada by treaty. S&P therefore considers the Company's service area to be more diversified than that of airport operators.

On February 28, 2019, Moody's issued a credit opinion affirming NAV CANADA's base line credit assessment at Aa2 and its senior and subordinated ratings at Aa2. Moody's noted the Company's following credit strengths:

- Essential infrastructure asset for the Canadian air transportation system;
- Monopoly provider of civil air navigation services over a very large airspace;
- Legislated right to establish and levy rates and charges as needed to meet financial requirements resulting in good degree of cash flow predictability;
- Continued solid traffic growth;
- Manageable capital expenditure program.

They also noted the following credit challenges:

- Defined benefit pension plan creates recurring calls on cash;
- Periods of weak debt service coverage ratio when the Company depletes its rate stabilization account.

Moody's stated that "the rating outlook is stable, reflecting our expectation that NAV CANADA will be prudent and take into account its overall financial position and upcoming obligations when contemplating a rate decrease and, vice versa, that it will implement the necessary rate increases if traffic growth slows down and/or expenses increase."

A credit rating is not a recommendation to buy, sell, or hold securities and may be subject to revision or withdrawal at any time by the rating organization. Our fiscal 2019 AIF contains more detailed information about the credit ratings, including each rating agency's rationale for assigning the given rating.

We are also exposed to risks related to the level of our credit ratings. Specifically, our credit facility agreement contains a pricing scale that is based on our credit ratings. If our senior debt ratings were to fall below AA (or equivalent) and/or our General Obligation Indenture debt ratings were to fall below AA- (or equivalent) our cost of borrowing under the facility would increase, as would the commitment fees payable under the facility.

Cash Requirements

The following information about our contractual obligations and other commitments summarizes certain of our liquidity and capital resource requirements.

Pension Plans[4]

Required pension contributions to the Company's pension plans are determined by annual actuarial valuations for funding purposes performed as at January 1 (see below under "Pension Contributions (Going Concern and Solvency)"). Our latest actuarial valuations (for funding purposes) as at January 1, 2019 were completed and filed with OSFI in June 2019.

Pension Plans' Accounting Deficit: The Company's pension plans had an accounting deficit of $1,957 as at the annual measurement date of August 31, 2019 and an accounting deficit of $831 as at August 31, 2018. The $1,126 increase in the deficit position during fiscal 2019 is primarily due to actuarial losses of $1,023 and actuarial accounting expense exceeding Company contributions by $103. The $1,023 of actuarial losses are primarily due to actuarial losses of $1,267 due to a 90 basis point decrease in the discount rate to 2.90% and net negative impacts from demographics and experience adjustments of $25, partially offset by a return on plan assets $269 greater than expected based on the discount rate of 3.80% at August 31, 2018.

The accounting deficit of $831 at August 31, 2018 decreased from a deficit of $1,295 at August 31, 2017, mainly due to net actuarial gains of $586 partially offset by actuarial accounting expense exceeding Company contributions by $122. The $586 of actuarial gains are primarily due to actuarial gains of $255 due to a 20 basis point increase in the discount rate to 3.80%, $36 due to net positive impacts from demographics, partially offset by $11 net negative experience on the defined benefit obligations and a return on plan assets $306 greater than the expected return based on the discount rate at August 31, 2017.

The market-based discount rate used to determine pension obligations is based on the yield on long-term high quality corporate bonds, with maturities matching the estimated cash flows of the plan. A 0.25% decrease in the discount rate would increase the accounting deficit by approximately $421. Conversely, a 0.25% increase in the discount rate would decrease the deficit by approximately $392.

Pension Expenses: Annual pension benefit costs can increase by approximately $24 from a 0.25% decrease in the discount rate used in actuarial calculations or decrease by approximately $24 from a 0.25% increase in the discount rate.

Regulatory Recovery of Pension Costs: The Company uses a regulatory approach for pension costs to determine the net impact charged to net income (loss). The objective of this approach is to expense the cost of the Company's going concern cash contributions to the funded pension plans. In fiscal 2017, the Company made solvency deficiency contributions of $44 which were deferred. During fiscal 2018, $10 was recorded as a regulatory expense to recover the cost. The remaining balance of $34 is expected to be recovered through future customer service charges.

[4] Note: See "INTRODUCTION – Caution Concerning Forward-Looking Information", page 1

(in millions of dollars)

The funding of employee benefits as compared to the expense, net of regulatory adjustments, recorded in the consolidated statement of operations for the Company's funded pension plans is as follows:

	Years ended August 31 2019	Years ended August 31 2018
Consolidated statement of operations		
Pension current service expense [(1)]	$ 164	$ 173
Net interest expense [(1)]	24	41
Less: Regulatory deferrals	(96)	(107)
	92	107
Company cash pension contributions		
Going concern current service	92	97
Regulatory recovery of fiscal 2017 solvency contributions	$ -	$ 10

(1) Pension current service expense does not include $5 related to the Company's unfunded pension plan (fiscal 2018 - $4) and net interest expense does not include $5 related to the Company's unfunded pension plan (fiscal 2018 - $3).

Pension Contributions (Going Concern and Solvency): The actuarial valuations for funding purposes of the pension plans performed as at January 1, 2019 reported a going concern surplus of $738 (January 1, 2018 – $503).

The regulations governing the funding of federally regulated pension plans include a solvency test, which assumes the plans are terminated as at the valuation date. The actuarial valuations performed as at January 1, 2019 reported a statutory solvency surplus of $500 (January 1, 2018 - $561) based on the assumption that the September 1, 2016 plan text restatement, which included the plan termination amendment, was in effect on the valuation date. Had the amendment not been included, there would have been a statutory solvency deficiency of $164 as of January 1, 2019 (January 1, 2018 - $89).

The Company has the option of meeting its pension solvency funding requirements with letters of credit or cash contributions. Pension funding regulations came into effect in April 2011 permitting solvency special payments to be replaced by letters of credit provided the total value of the letters of credit does not exceed 15% of the pension plan's assets. These regulations were amended in June 2017 permitting the letters of credit maximum to be based on 15% of solvency liabilities instead of assets. As at August 31, 2019, the Company has put in place letters of credit totaling $514 to meet its cumulative pension solvency funding requirements on a pre-amendment basis. Outstanding letters of credit represent 9% of solvency liabilities on a post-amendment basis and 8% on a pre-amendment basis.

Going concern pension contributions for fiscal 2019 were $92, with no requirement for cash special payments. Once the valuations are filed, going concern pension contributions are based on the January 1, 2019 actuarial valuations. On a preliminary basis, going concern pension contributions for fiscal 2020 are expected to be $102 with no requirement for cash special payments.

The amount of required Company contributions and additional letters of credit for future years will be dependent on the investment experience of plan assets, the discount rates and other assumptions that will be used in future actuarial valuations to determine plan liabilities, as well as any changes in pension plan design or funding requirements that may be enacted.

(in millions of dollars)

Risks Associated with the Defined Benefit Plans: The nature of these benefit obligations exposes the Company to a number of risks, the most significant of which is funding risk. Funding risk can be expressed as the probability of an unusually high level of required pension contributions or significant fluctuation in required pension contributions.

Adverse changes in the value of plan assets of funded plans, long-term return and inflation expectations, interest rates and life expectancy could have a significant impact on pension funding requirements. The funded plan invests in assets that expose it to a range of investment risks. It has strategies, policies and processes in place to manage these risks.

More specifically, funding risk is managed as follows:

(i) interest rate and inflation risk are managed via implementation of a liability driven investment strategy that focuses on reducing the interest rate and inflation risk mismatch between the plan assets and its pension benefit obligations; and

(ii) market risk, credit risk and liquidity risk related to the plan assets are managed through diversification amongst different asset classes, securities, risk factors and geographies while adhering to established investment policies, guidelines and collateral requirements.

Contractual Obligations

A breakdown of contractual obligations as at August 31, 2019 for the next five fiscal years and thereafter is presented in the following table.

	Remaining payments – for years ending August 31						
	Total	2020	2021	2022	2023	2024	Thereafter
Bank loan	$ 8	$ 8	$ -	$ -	$ -	$ -	$ -
Derivative liabilities	1	1	-	-	-	-	-
Long-term debt (including current portion) (1), (2)	1,475	25	275	25	25	25	1,100
Interest payments (2)	982	70	63	56	54	52	687
Capital commitments	77	36	6	4	13	3	15
Operating lease commitments	84	7	6	5	6	4	56
Total contractual obligations	$ 2,627	$ 147	$ 350	$ 90	$ 98	$ 84	$ 1,858

Total contractual obligations exclude commitments for goods and services in the ordinary course of business. Also excluded are other long-term liabilities mainly due to reasons of uncertainty of timing of cash flows and items that are non-cash in-nature.

(1) Payments represent principal of $1,475. The Company intends to refinance principal maturities at their maturity dates. The Company may choose to repay a portion of these maturities with available cash, and/or may increase the size of a re-financing to generate additional liquidity or for other purposes, and/or may choose to redeem, in whole or in part, an issue in advance of its scheduled maturity date.

(2) Further details on interest rates and maturity dates on long-term debt are provided in note 14 to our fiscal 2019 financial statements.

(in millions of dollars)

The Company's letters of credit are discussed under the heading "LIQUIDITY AND CAPITAL RESOURCES – Liquidity and Financing Strategy".

The Company's contributions to its pension plans are discussed under the heading "LIQUIDITY AND CAPITAL RESOURCES – Cash Requirements: Pension Plans".

Capital Expenditures and Other Investments[5]

Planning capital expenditures in respect of systems, technology, buildings and equipment forms part of our annual budgeting process. As part of this planning, we review proposed capital expenditures against safety, financial and business needs justification criteria, considering the Company's unique status as a provider of essential safety-critical infrastructure.

During fiscal 2019 we invested $145 in capital assets (cash outflows of $133, excluding capitalized interest of $5) compared to $185 in fiscal 2018 (cash outflows of $176, excluding capitalized interest of $5). Investments were made in systems enhancements, functional upgrades, equipment upgrades or replacements, facility replacements or refurbishment and other projects to meet safety and other operational requirements.

We anticipate spending approximately $170 on capital assets in fiscal 2020.

Capital Management

The Company views capital as the sum of its issued long-term debt, retained earnings and accumulated other comprehensive income, regulatory deferral accounts and balances under certain employee benefit plans, as depicted in the following table. This definition of capital is used by management and may not be comparable to measures presented by other companies.

	August 31 2019	August 31 2018
Bonds and notes payable	$ 1,468	$ 1,494
Equity:		
Retained earnings	28	28
Regulatory deferral accounts:		
Debit balances	(2,087)	(954)
Credit balances	376	394
Employee benefits:		
LTD liability (asset)	3	(2)
Liability for funded pension benefits	1,813	707
Liability for accumulating sick leave	17	18
Total capital	$ 1,618	$ 1,685

In addition to tracking its capital as defined above for purposes of managing capital adequacy, the Company also takes into consideration known contingent exposures and obligations such as rate setting decisions made by the Board.

[5] Note: See "INTRODUCTION – Caution Concerning Forward-Looking Information", page 1

The Company's main objectives when managing capital are:

(i) to safeguard the Company's ability to continue as a going concern;

(ii) to provide funds for the ongoing acquisition of systems and equipment necessary to implement and maintain a modern, cost-efficient ANS technology platform;

(iii) to ensure the funding of reserve funds as well as working capital and liquidity requirements;

(iv) to ensure the funding of regulatory requirements such as funding defined benefit pension plan contributions;

(v) to maintain the Company's credit ratings to facilitate access to capital markets at competitive interest rates; and

(vi) to minimize interest costs incurred by the Company subject to appropriate risk mitigation actions.

Given that the Company has no share capital, these objectives are achieved through a process that determines an appropriate period and level of cost recoveries through customer service charge rate setting, as well as the appropriate amount of debt and committed credit facilities. This process includes the Company's operational and capital budgeting process and considers the overall economic and capital market environments. The level of debt and committed credit facilities are approved by the Board. The Company is not subject to any externally imposed capital requirements.

Management's responses to managing capital during the current economic period, including variable air traffic and pension funding requirements, are addressed in other sections of this MD&A.

There were no changes in the Company's approach to capital management during the year ended August 31, 2019.

Financial Instruments and Risk Management

Reserve Funds and Financial Instruments

Financial instruments are also disclosed in note 15 to the fiscal 2019 financial statements. Under the Master Trust Indenture, we maintain a debt service reserve fund and an operations and maintenance reserve fund. We are also required to meet certain minimum liquidity levels under the General Obligation Indenture.

The debt service reserve fund is maintained in cash and qualified investments deposited with our Trustee. An amount equal to or greater than one year's debt service (excluding General Obligation Indenture debt) is required to be maintained. The debt service reserve fund also counts toward our minimum cash liquidity level under the General Obligation Indenture, which is one year's interest on all debt.

The operations and maintenance reserve fund requirements are met with an allocation of $310 in undrawn availability under our committed credit facility. At a fiscal year end the fund must cover at least one quarter of our annual operating and maintenance expenses. This fund also serves to meet the minimum liquidity level under the General Obligation Indenture, which consists of the minimum liquidity level mentioned above plus one quarter of the previous year's operating and maintenance expenses.

As at August 31, 2019 we were in full compliance with our debt indentures, including the Master Trust Indenture's requirements regarding the reserve funds, the flow of funds and rate covenants, as well as the liquidity and other provisions of the General Obligation Indenture.

Financial Risk Management

Interest Rate Risk: We are exposed to the risk that net interest expense will increase as a result of changes in market interest rates. One aspect of this risk relates to the possibility that maturing bonds may need to be re-financed at higher interest rates. We mitigate this source of interest rate risk in the following ways:

- maturities of borrowings are currently spread over periods up to and including 2050 so that only a portion of outstanding debt will mature in any given fiscal year; and

- the Company periodically enters into hedging arrangements as required to mitigate the impact of rising interest rates on the cost of refinancing debt.

A second source of interest rate risk is that the Company has $102 invested in financial assets that bear interest at floating rates. Earnings on the financial assets will fall when interest rates decline. In the current low interest rate environment, the Company has positioned itself to benefit from increased earnings on floating rate assets as a result of rising interest rates without an offsetting increase in interest expense.

Interest rate risk relating to our pension plans is discussed above under "LIQUIDITY AND CAPITAL RESOURCES – Cash Requirements: Pension Plans".

Foreign Exchange Risk: The Company is exposed to foreign exchange risk on sales and purchases that are denominated in currencies other than the functional currency of the Company. However, the Company invoices and receives the vast majority of its revenue in Canadian dollars and also incurs operating expenses and capital expenditures primarily in Canadian dollars. The majority of the Company's exposure to foreign exchange risk relates to the U.S. dollar (U.S.). The Company does not have a significant exposure arising from other currencies. The Company has $445 ($335 U.S.) of net exposure to U.S. dollar foreign exchange risk that is primarily related to the Company's investment in preferred interests of Aireon.

The Company designates certain of its forward contracts as cash flow hedging instruments to hedge the Company's exposure to the impact of exchange rate fluctuations. As at August 31, 2019, the Company has designated $1 (fair value) of its forward contracts as cash flow hedging instruments.

The foreign exchange rate sensitivity is the net amount of foreign exchange rate exposure of the items at the reporting date, less foreign currency hedges. As at August 31, 2019, if the Canadian dollar strengthened or weakened by 10% against the U.S. dollar, all other variables remaining constant, net income (loss) before net movement in regulatory deferral accounts would have been impacted by $40.

Other Price Risk: Other price risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market prices (other than those arising from interest rate risk or foreign exchange risk), whether those changes are caused by factors specific to the individual financial instrument or its issuer, or factors affecting all similar financial instruments traded in the market.

In order to mitigate the risk of losses arising from investment activities, the Company only invests in highly-rated (see credit risk discussion below) and short-term instruments, excluding Aireon and Searidge.

The investment in preferred interests of Aireon is subject to price risk. The fair value may fluctuate over time due to, among other things, economic conditions and the expected cash flows of Aireon. Aireon is a start-up company and any such changes in the fair value could be material. A change of 5% in the fair value of the investment in preferred interests would impact finance income (other finance costs) by approximately $14 U.S. ($19 CDN) as at August 31, 2019.

The estimated fair value of the Company's investments may change in subsequent periods. Any such changes could be material and would be reflected in the statement of comprehensive income as they occur.

Credit Risk on Investments: Other than the Company's investments in Aireon and Searidge, in order to mitigate the risk of losses arising from investment activities, we invest only in highly-rated and short-term obligations. The Company limits investments to obligations of the federal government, certain provincial governments, entities guaranteed by a federal or provincial government or other obligations of entities rated by at least two rating agencies in the top two categories for long-term debt or the highest category for short-term debt. Asset backed securities must be sponsored by a Schedule I bank and may not contain synthetic assets. Our portfolio is diversified, with dollar and percentage limits on investment counterparties. None of the Company's holdings in current investments as at August 31, 2019 are past due or impaired, and all have long-term ratings in either the AAA or AA category or short-term ratings in the highest category.

Collection of Accounts Receivable: We have strong credit policies. We have established a maximum credit limit of $4 for our largest air navigation services customers and we have other credit control measures that reduce our credit exposure. Our general payment terms provide for payment periods of 30 days for air navigation services and for payment periods of up to 45 days for some other types of services, but shorter payment terms are imposed where customer circumstances warrant. Our credit policies also require payments in advance or satisfactory security to be posted under certain circumstances.

Liquidity Risk: We are also exposed to liquidity risk. We mitigate this risk by monitoring current and expected liquidity requirements, taking into account trends in air traffic and expected contributions to our pension plans, to ensure that we maintain sufficient reserves of cash, cash equivalents, investments and/or available undrawn credit facilities to meet our liquidity requirements in the short and longer term. Under the Master Trust Indenture and General Obligation Indenture, the Company is required to maintain certain reserve funds and liquidity levels, as described in note 14 to our fiscal 2019 financial statements.

As at August 31, 2019, the Company had $684 of undrawn availability under its committed credit facilities and had allocated $310 of this facility to meet its operations and maintenance reserve fund requirement under the Master Trust Indenture. The Company has investments in highly rated short-term obligations in its debt service reserve fund. The Company believes that it has sufficient available liquidity to meet its operating needs.

Cash Flow Variances arising from Air Traffic levels: We are exposed to unpredictable changes in air traffic volumes that directly affect the Company's cash flows, such as recessions (2009), terrorist attacks (2001), epidemics (SARS - 2004), air carrier financial difficulties, changes in air carrier operations (Boeing 737 Max grounding – 2019) and changing weather patterns that may cause flights to move into or out of Canadian air space. Future traffic volumes could be influenced by a number of factors, including:

- Economic climate – Air traffic generally is influenced by economic growth, decline or uncertainty. For example, during an economic downturn, growth rates in air traffic generally decline. Since a substantial portion of air traffic is international, traffic volumes are influenced by both Canadian and global economic circumstances. On an annual basis, a 1.0% change in air traffic volumes flown in Canadian airspace corresponds to approximately a $14 change in our revenue before rate stabilization.

- Aviation fuel prices – As fuel represents a major portion of airline operating costs, a change in the price of fuel can affect air traffic demand to the extent that the change is passed on to consumers.

- Terrorist activities, epidemics, pandemics, natural disasters, environmental concerns or weather patterns may all affect air traffic volumes within the airspace for which the Company provides air navigation services.

Our strategy is to mitigate the immediate impact of a sudden decline in air traffic with the least disruption possible to our customer base. We do this with our rate stabilization mechanism, which reduces short-term volatility in customer service charges. Our rate stabilization account tracks and accumulates revenue and expense variances from planned levels (whether positive or negative), so that they may be factored into the setting of future customer service charges. We also mitigate the impact of sudden declines in air traffic by maintaining substantial liquidity in the form of our reserve funds and unrestricted available credit facilities (see discussion under "Liquidity Risk" above).

Insurance: Our aviation liability insurance program was last renewed on November 15, 2018 and we intend to renew it on November 15, 2019. This insurance covers all our ANS liabilities to third parties. The Company also carries other lines of insurance at levels deemed appropriate by management for the nature of our business. The cost of this insurance is not significant to the Company.

The Company is contractually obligated to indemnify the Government of Canada for any loss suffered by or claimed against it which is covered by the Company's aviation operations liability insurance.

Legal Proceedings: The Company is party to certain legal proceedings in the ordinary course of its business. Management does not expect the outcome of any of these proceedings to have a material adverse effect on the consolidated financial position or results of operations of the Company.

CHANGES IN ACCOUNTING POLICIES

A summary of the Company's significant accounting policies are described in note 3 to the fiscal 2019 financial statements.

The following standard and interpretation were adopted by the Company effective September 1, 2018:

IFRS 15 – Revenue from Contracts with Customers (IFRS 15)

IFRS 15 introduces a new revenue recognition model for contracts with customers to depict the transfer of goods and/or services to customers in amounts that reflect the consideration to which the Company expects to be entitled in exchange for those goods or services. The model contains two approaches for recognizing revenue, at a point in time or over time, and features a contract-based five-step analysis of transactions to determine whether, how much and when revenue is recognized.

In accordance with the transition provisions in IFRS 15, the new standard has been adopted retrospectively. The effect on net earnings of the application of IFRS 15 to revenue contracts in progress at September 1, 2017 is $nil. The Company reviewed its revenue streams and major contracts with customers using the IFRS 15 five-step model and there were no changes to net earnings or the timing of revenue recognized.

Under IFRS 15, the Company has applied the following practical expedient:

- Completed contracts that begin and end within the same annual reporting period and those completed before September 1, 2017 were not restated.

The Company's significant accounting policies for its revenue streams are described further in note 3 (k) of the fiscal 2019 financial statements.

IFRIC 22 – Foreign Currency Transactions and Advance Consideration (IFRIC 22)

IFRIC 22 clarifies that the date of the transaction for the purpose of determining the foreign currency exchange rate to use on initial recognition of the related asset, expense or income (or part of it) is the date on which an entity initially recognizes the non-monetary asset or non-monetary liability arising from the payment or receipt of advance consideration. The Company has adopted IFRIC 22 effective September 1, 2018, with no resulting impact on the consolidated financial statements.

Future Accounting Pronouncements

The International Accounting Standards Board (IASB) has issued a number of standards and amendments that are not yet effective. The Company continues to analyze these standards and amendments thereto to determine the extent of their impact on its consolidated financial statements. At this time, the Company does not expect to adopt any of these standards or amendments before their effective dates.

IFRS 16 – Leases (IFRS 16)

In January 2016, the IASB issued IFRS 16, completing its project to improve the financial reporting of leases. The new standard will replace IAS 17 – Leases (IAS 17), and sets out the principles for the recognition, measurement, presentation and disclosure of leases for both parties to a contract. For lessees, IFRS 16 eliminates the classification of leases as either operating or finance leases that exist under IAS 17, and requires recognition of assets and liabilities for all leases with a term of more than 12 months, unless the underlying asset is of low value. IFRS 16 substantially carries forward the lessor accounting requirements under IAS 17, maintaining the classification of leases as operating or finance leases, and accounting for the lease according to its classification. IFRS 16 is to be applied retrospectively, using either a full retrospective approach or a modified retrospective approach, for annual periods beginning on or after January 1, 2019. Earlier application is permitted.

The Company has completed a detailed review of those contracts in the scope of IFRS 16 and has determined the accounting impacts to be minimal. The Company anticipates using the modified retrospective approach on transition to IFRS 16. For any lease that meets the definition of a lease in accordance with IFRS 16 and was previously classified as an operating lease, the Company anticipates measuring its right of use asset at an amount equal to the lease liability upon adoption of IFRS 16 on September 1, 2019.

Conceptual Framework for Financial Reporting (the Framework)

On March 29, 2018, the IASB issued a revised version of the Framework on which it develops new accounting standards. The Framework is not an accounting standard and does not override the requirements that exist in other IFRS. The revised Framework describes that financial information must be relevant and faithfully represented to be useful, provides revised definitions and recognition criteria for assets and liabilities, and confirms that different measurement bases are useful and permitted.

The IASB also issued *Amendments to References to the Conceptual Framework in IFRS Standards (the Amendments)* to update reference in IFRS to previous versions of the Framework. Both the revised Framework and Amendments are effective January 1, 2020 with earlier application permitted. The extent of the impact of the change has not yet been determined.

IAS 1 – Presentation of Financial Statements (IAS 1) and IAS 8 – Accounting Policies, Changes in Accounting Estimates and Errors (IAS 8)

On October 31, 2018, the IASB issued amendments to IAS 1 and IAS 8 to clarify its definition of material and how it should be applied. The objective of these amendments is to help entities decide whether information should be included in their financial statements.

The amendments are applicable for reporting periods beginning on or after January 1, 2020. The extent of the impact of these amendments on the Company has not yet been determined.

CRITICAL ACCOUNTING ESTIMATES AND JUDGMENTS

The preparation of financial statements in conformity with IFRS requires management to make estimates and judgments that affect the reported amounts of revenue and expenses during the period, the reported amounts of assets and liabilities, and the disclosure of commitments and contingencies at the date of the financial statements. These estimates and judgments are based on historical experience, current conditions and various other assumptions made by management that are believed to be reasonable under the circumstances. By their nature, these estimates and judgments are subject to uncertainty and the amounts currently reported in the Company's consolidated financial statements could, in future, prove to be inaccurate.

The following accounting estimates and judgments are based on management's assumptions and are considered to be critical as they involve matters that are highly uncertain. Any changes from those estimates and judgments could have a material impact on our consolidated financial statements. The estimates and judgments are reviewed on an ongoing basis.

Key Sources of Estimates and Assumption Uncertainties

Employee Benefits

We account for pension, other post-employment benefits and other long-term benefits as required by IAS 19 *Employee Benefits*.

Under IFRS, the amounts reported in our consolidated financial statements are determined using actuarial assumptions regarding the estimation of future benefit obligations and investment performance of plan assets. These assumptions include, but are not limited to, the discount rate used to estimate the future benefit obligation, the rate of compensation increase, inflation, health-care cost trends and expected average remaining years of service of employees. The amounts impacted are the employee benefits asset and liability on the statement of financial position, salaries and benefits and net finance costs relating to employee benefits on the statement of operations, and re-measurements of employee defined benefit plans on the statement of comprehensive income.

While these assumptions reflect management's best estimates, differences in actual results or changes in assumptions could materially affect employee benefit obligations and future net benefit plan costs.

The most significant assumptions used to calculate the net costs of our employee benefit plans are the discount rate used to determine employee benefit obligations including pensions and pensioner mortality assumptions.

The discount rate is the interest rate used to determine the present value of the future expected cash flows that will be needed to meet employee benefit obligations. It is based on the yield on long-term high quality corporate bonds, with maturities matching the estimated cash flows of the plan.

Funding of the pension plans' deficits (as determined in funding valuations in accordance with OSFI regulations) in prior years resulted in pension contributions significantly higher than pension benefit expenses charged to the statement of operations. Our estimates for future pension contributions are discussed above under the heading "LIQUIDITY AND CAPITAL RESOURCES – Cash Requirements: Pension Plans".

Refer to note 2 of our fiscal 2019 financial statements for more detailed information on key sources of estimation and uncertainty related to employee benefits.

Investment in Preferred Interests of Aireon

The Company's investment in Aireon is in preferred interests, which are redeemable and convertible to common equity interests. Until the Company exercises its right to convert its preferred interests to common interests, it does not have access to Aireon's residual net assets and accordingly this investment is accounted for as a financial instrument classified and measured at FVTPL. In May 2018, NATS made an investment in Aireon. As there is no active market for Aireon's equity instruments and the interests acquired by NATS have substantially the same characteristics as those acquired by the Company, the Company used the price paid by NATS as a basis to estimate the fair value of Aireon and its investment in the entity through preferred interests. In August 2019, an independent assessment of the valuation of Aireon was received, confirming the value of the Company's investment in preferred interests determined based on the price paid by NATS. The measurement is subject to estimation uncertainty and is dependent on the successful achievement of operational, technical and financial objectives by Aireon.

The Company continues to monitor the status of Aireon in order to determine whether there are any indicators that would impact Aireon's fair value. Changes in the valuation of Aireon as a whole could materially affect the valuation of the investment in preferred interests, with changes reflected in the statement of operations as required. The investment in preferred interests of Aireon is subject to price risk. The fair value may fluctuate over time due to, among other things, economic conditions, the possibility of additional investors and the cash flows of Aireon.

DISCLOSURE CONTROLS AND PROCEDURES AND INTERNAL CONTROL OVER FINANCIAL REPORTING

In accordance with National Instrument 52-109 *Certification of Disclosure in Issuers' Annual and Interim Filings*, the Company has filed certificates signed by the Chief Executive Officer and the Chief Financial Officer that, among other things, report on the design and effectiveness of disclosure controls and procedures (DC&P) and the design and effectiveness of internal control over financial reporting (ICFR).

Disclosure Controls and Procedures

The Company has designed DC&P to provide reasonable assurance that material information relating to the Company is made known to the Chief Executive Officer and the Chief Financial Officer, particularly during the period in which the annual filings are being prepared, and that information required to be disclosed to satisfy the Company's continuous disclosure obligations is recorded, processed, summarized and reported within the time periods specified by applicable Canadian securities legislation.

Management, under the supervision of the certifying officers, has evaluated the effectiveness of the DC&P and based on that evaluation, the certifying officers have concluded that the DC&P were effective as at August 31, 2019.

Internal Control over Financial Reporting

The Company has designed ICFR using the framework established in "Internal Control – Integrated Framework" issued in 2013 by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with IFRS. In designing and evaluating internal controls, it should be recognized that due to inherent limitations, any controls, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives and may not prevent or detect misstatements.

Management, under the supervision of the certifying officers, has evaluated the effectiveness of ICFR and based on that evaluation, the certifying officers have concluded that the Company's ICFR was effective as at August 31, 2019.

Changes to ICFR

A material change in ICFR is a change that has or is reasonably likely to materially affect the issuer's ICFR. A material change in ICFR occurred during Q1 fiscal 2019 with the implementation of Workday, a cloud-based Enterprise Resource Planning system (ERP). The Workday solution enhanced NAV CANADA's Human Capital Management and introduced new functionalities and capabilities for the Finance and Procurement departments to streamline processes. Given the materiality of the transactions processed by the ERP, we consider the change to be a material change in ICFR. We have determined that ICFR under the new Workday system has been appropriately designed.

There have been no other changes to the Company's ICFR during the year ended August 31, 2019 that have materially affected or are reasonably likely to materially affect the Company's ICFR.