



2019

**Management's Discussion and Analysis
of Results of Operations and Financial
Condition**

February 18, 2020

TABLE OF CONTENTS

1. Highlights	1
2. Introduction and Key Assumptions	3
3. About Air Canada	5
4. Strategy	6
5. Sustainability and Social Impact	14
6. Overview	17
7. Results of Operations – Full Year 2019 versus Full Year 2018	19
8. Results of Operations – Fourth Quarter 2019 versus Fourth Quarter 2018	28
9. Fleet	38
10. Financial and Capital Management	42
10.1. Liquidity	42
10.2. Financial Position	43
10.3. Net Debt	45
10.4. Working Capital	46
10.5. Consolidated Cash Flow Movements	47
10.6. Capital Expenditures	49
10.7. Pension Funding Obligations	50
10.8. Contractual Obligations	51
10.9. Share Information	52
11. Quarterly Financial Data	53
12. Selected Annual Information	55
13. Financial Instruments and Risk Management	56
14. Accounting Policies	59
15. Critical Accounting Estimates and Judgments	60
16. Off-Balance Sheet Arrangements	64
17. Related Party Transactions	64
18. Sensitivity of Results	65
19. Enterprise Risk Management and Governance	66
20. Risk Factors	68
21. Controls and Procedures	78
22. Non-GAAP Financial Measures	79
23. Glossary	84

1. HIGHLIGHTS

The financial and operating highlights for Air Canada for the periods indicated are as follows:

(Canadian dollars in millions, except where indicated)	Fourth Quarter			Full Year		
	2019 ⁽¹⁾	2018	\$ Change	2019 ⁽¹⁾	2018	\$ Change
Financial Performance Metrics						
Operating revenues	4,429	4,227	202	19,131	18,003	1,128
Operating income	145	179	(34)	1,650	1,496	154
Income (loss) before income taxes	172	(391)	563	1,775	228	1,547
Net income (loss)	152	(360)	512	1,476	37	1,439
Adjusted pre-tax income ⁽²⁾	66	68	(2)	1,273	1,036	237
Adjusted net income ⁽²⁾	47	55	(8)	917	738	179
Operating margin %	3.3%	4.2%	(0.9) pp	8.6%	8.3%	0.3 pp
EBITDA ⁽²⁾	665	619	46	3,636	3,213	423
EBITDA margin % ⁽²⁾	15.0%	14.6%	0.4 pp	19.0%	17.8%	1.2 pp
Unrestricted liquidity ⁽³⁾	7,380	5,725	1,655	7,380	5,725	1,655
Net cash flows from operating activities	677	548	129	5,712	3,470	2,242
Free cash flow ⁽²⁾	426	288	138	2,075	1,327	748
Net debt ⁽²⁾	2,841	5,214	(2,373)	2,841	5,214	(2,373)
Return on invested capital ("ROIC") % ⁽²⁾	15.5%	13.5%	2.0 pp	15.5%	13.5%	2.0 pp
Leverage ratio ⁽²⁾	0.8	1.6	(0.8)	0.8	1.6	(0.8)
Diluted earnings (loss) per share	\$ 0.56	\$ (1.33)	\$ 1.89	\$ 5.44	\$ 0.13	\$ 5.31
Adjusted earnings per share – diluted ⁽²⁾	\$ 0.17	\$ 0.20	\$ (0.03)	\$ 3.37	\$ 2.67	\$ 0.70
Operating Statistics ⁽⁴⁾			% Change			% Change
Revenue passenger miles ("RPM") (millions)	21,403	20,801	2.9	94,113	92,360	1.9
Available seat miles ("ASM") (millions)	26,431	25,597	3.3	112,814	110,866	1.8
Passenger load factor %	81.0%	81.3%	(0.3) pp	83.4%	83.3%	0.1 pp
Passenger revenue per RPM ("Yield") (cents)	18.6	18.2	2.3	18.3	17.5	4.6
Passenger revenue per ASM ("PRASM") (cents)	15.0	14.7	2.0	15.3	14.6	4.8
Operating revenue per ASM (cents)	16.8	16.5	1.5	17.0	16.2	4.4
Operating expense per ASM ("CASM") (cents)	16.2	15.8	2.5	15.5	14.9	4.1
Adjusted CASM (cents) ⁽²⁾	11.7	11.1	5.5	10.9	10.3	6.1
Average number of full-time equivalent ("FTE") employees (thousands) ⁽⁵⁾	33.3	30.5	9.2	32.9	29.9	10.1
Aircraft in operating fleet at period-end ⁽⁶⁾	403	400	0.8	403	400	0.8
Average fleet utilization (hours per day)	10.1	9.7	3.8	10.6	10.4	2.1
Seats dispatched (thousands)	15,506	15,184	2.1	64,653	63,800	1.3
Aircraft frequencies (thousands)	130.3	137.7	(5.4)	548.5	578.9	(5.3)
Average stage length (miles) ⁽⁷⁾	1,705	1,686	1.1	1,745	1,738	0.4
Fuel cost per litre (cents)	75.0	84.3	(11.0)	76.1	80.4	(5.4)
Fuel litres (thousands)	1,349,573	1,293,063	4.4	5,713,924	5,597,232	2.1
Revenue passengers carried (thousands) ⁽⁸⁾	12,048	11,909	1.2	51,543	50,904	1.3

- (1) Air Canada began consolidating Aeroplan Inc.'s (formerly, Aimia Canada Inc, "Aeroplan") financial results on January 10, 2019, the date of its acquisition of Aeroplan. Refer to section 14 "Accounting Policies" and section 15 "Critical Accounting Estimates and Judgements" of this MD&A for additional information.
- (2) Adjusted pre-tax income (loss), adjusted net income (loss), EBITDA (earnings before interest, taxes, depreciation and amortization), EBITDA margin, free cash flow, ROIC, leverage ratio, adjusted earnings (loss) per share - diluted and adjusted CASM are each non-GAAP financial measures and net debt is an additional GAAP measure. Refer to section 22 of this MD&A for descriptions of Air Canada's non-GAAP financial measures and additional GAAP measures.
- (3) Unrestricted liquidity refers to the sum of cash, cash equivalents and short and long-term investments, and the amount of available credit under Air Canada's revolving credit facilities. At December 31, 2019, unrestricted liquidity was comprised of cash, cash equivalents and short-term investments of \$5,889 million, long-term investments of \$512 million and undrawn lines of credit of \$979 million. At December 31, 2018, unrestricted liquidity was comprised of cash, cash equivalents and short-term investments of \$4,707 million and undrawn lines of credit of \$1,018 million.
- (4) Except for the reference to average number of FTE employees, operating statistics in this table include third party carriers operating under capacity purchase agreements with Air Canada.
- (5) Reflects FTE employees at Air Canada and its subsidiaries. Excludes FTE employees at third party carriers operating under capacity purchase agreements with Air Canada.
- (6) At December 31, 2019, the number of aircraft in Air Canada's operating fleet included 24 Boeing 737 MAX aircraft which are grounded and excluded aircraft under wet lease arrangements. Refer to section 9 "Fleet" of this MD&A for additional information.
- (7) Average stage length is calculated by dividing the total number of available seat miles by the total number of seats dispatched.
- (8) Revenue passengers are counted on a flight number basis (rather than by journey/itinerary or by leg) which is consistent with the IATA definition of revenue passengers carried.

2. INTRODUCTION AND KEY ASSUMPTIONS

In this Management's Discussion and Analysis of Results of Operations and Financial Condition ("MD&A"), the "Corporation" refers, as the context may require, to Air Canada and/or one or more of Air Canada's subsidiaries, including its wholly-owned operating subsidiaries, Touram Limited Partnership, doing business under the brand name Air Canada Vacations® ("Air Canada Vacations"), Air Canada Rouge LP, doing business under the brand name Air Canada Rouge® ("Air Canada Rouge") and, effective January 10, 2019, Aeroplan Inc. ("Aeroplan"). This MD&A provides the reader with a review and analysis, from the perspective of management, of Air Canada's financial results for the fourth quarter and full year of 2019. This MD&A should be read in conjunction with Air Canada's audited consolidated financial statements and notes for 2019. All financial information has been prepared in accordance with generally accepted accounting principles in Canada ("GAAP"), as set out in the CPA Canada Handbook – Accounting ("CPA Handbook"), which incorporates International Financial Reporting Standards ("IFRS"), as issued by the International Accounting Standards Board ("IASB"), except for any non-GAAP measures and any financial information specifically denoted otherwise.

In September 2019, the IFRS Interpretations Committee finalized its decision that an entity should account for its obligations to compensate passengers for delayed and cancelled flights as variable consideration under IFRS 15 – Revenue from Contracts with Customers. Air Canada adopted this accounting treatment in the fourth quarter on a retrospective basis, with 2018 restated. Previously, Air Canada recognized passenger compensation costs by applying IAS 37 Provisions, Contingent Liabilities and Contingent Assets. While there is no impact to the amount of passenger compensation recognized, presentation within Air Canada's consolidated statement of operations is impacted as the compensation is reclassified against passenger revenue. Refer to section 14 "Accounting Policies" of this MD&A for additional information.

Except as otherwise noted, monetary amounts are stated in Canadian dollars. For an explanation of certain terms used in this MD&A, refer to section 23 "Glossary" of this MD&A. Except as otherwise noted or where the context may otherwise require, this MD&A is current as of February 17, 2020.

Forward-looking statements are included in this MD&A. See "Caution Regarding Forward-Looking Information" below for a discussion of risks, uncertainties and assumptions relating to these statements. For a description of risks relating to Air Canada, refer to section 20 "Risk Factors" of this MD&A. Air Canada issued a news release dated February 18, 2020 reporting on its results for the fourth quarter and the full year of 2019. This news release is available on Air Canada's website at aircanada.com and on SEDAR's website at www.sedar.com. For further information on Air Canada's public disclosures, including Air Canada's Annual Information Form, consult SEDAR at www.sedar.com.

CAUTION REGARDING FORWARD-LOOKING INFORMATION

Air Canada's public communications may include forward-looking statements within the meaning of applicable securities laws. Such forward-looking statements are included in this MD&A and may be included in other communications, including filings with regulatory authorities and securities regulators. Forward-looking statements may be based on forecasts of future results and estimates of amounts not yet determinable. These statements may involve, but are not limited to, comments relating to guidance, strategies, expectations, planned operations or future actions. Forward-looking statements are identified using terms and phrases such as "anticipate", "believe", "could", "estimate", "expect", "intend", "may", "plan", "predict", "project", "will", "would", and similar terms and phrases, including references to assumptions.

Forward-looking statements, by their nature, are based on assumptions, including those described herein and are subject to important risks and uncertainties. Forward-looking statements cannot be relied upon due to, amongst other things, changing external events and general uncertainties of the business. Actual results may differ materially from results indicated in forward-looking statements due to a number of factors, including without limitation, our ability to successfully achieve or sustain positive net profitability, economic and geopolitical conditions, the timing and conditions of the return to service of Boeing 737 MAX aircraft in our fleet (including the introduction of those on order and the management of our fleet and operations until their return to service or introduction), industry and market conditions and the demand environment, competition, energy prices, our dependence on technology, our ability to successfully

implement appropriate strategic and other important initiatives (including our ability to reduce operating costs), cybersecurity risks, war, terrorist acts, epidemic diseases, our dependence on key suppliers, casualty losses, changes in laws, regulatory developments or proceedings, our ability to successfully launch and operate our new loyalty program, climate change and environmental factors (including weather systems and other natural phenomena and factors arising from man-made sources), interruptions of service, our dependence on regional and other carriers, our ability to preserve and grow our brand, employee and labour relations and costs, our dependence on Star Alliance and joint ventures, limitations due to restrictive covenants, our ability to pay our indebtedness and maintain liquidity, pending and future litigation and actions by third parties, currency exchange, pension plans, our ability to attract and retain required personnel, insurance issues and costs, as well as the factors identified in Air Canada's public disclosure file available at www.sedar.com and, in particular, those identified in section 20 "Risk Factors" of this MD&A. Furthermore, the acquisition of Transat A.T. Inc. is subject to regulatory approvals and certain customary conditions, and there are no assurances that the acquisition will be completed as described in this MD&A or at all. The forward-looking statements contained or incorporated by reference in this MD&A represent Air Canada's expectations as of the date of this MD&A (or as of the date they are otherwise stated to be made) and are subject to change after such date. However, Air Canada disclaims any intention or obligation to update or revise any forward-looking statements whether because of new information, future events or otherwise, except as required under applicable securities regulations.

KEY ASSUMPTIONS

Assumptions were made by Air Canada in preparing and making forward-looking statements. As part of its assumptions, Air Canada assumes relatively modest Canadian GDP growth for the first quarter and full year 2020. Air Canada also expects that the Canadian dollar will trade, on average, at C\$1.33 per U.S. dollar in the first quarter and the full year 2020. Air Canada also assumes that the price of jet fuel will average 71 CAD cents per litre in the first quarter and 74 CAD cents per litre for the full year 2020. Air Canada also assumes the return to service of the Boeing 737 MAX aircraft will gradually commence late in the third quarter of 2020. It is premature to assess what the impact of Air Canada's planned acquisition of Transat A.T. Inc. would be, and it is therefore not factored into Air Canada's forward-looking statements.

INTELLECTUAL PROPERTY

Air Canada owns or has rights to trademarks, service marks or trade names used in connection with the operation of its business. In addition, Air Canada's names, logos and website names and addresses are owned or licensed by Air Canada. Air Canada also owns or has the rights to copyrights that also protect the content of its products and/or services. Solely for convenience, the trademarks, service marks, trade names and copyrights referred to in this MD&A may be listed without the ©, ® and TM symbols, but Air Canada reserves all rights to assert, to the fullest extent under applicable law, its rights or the rights of the applicable licensors to these trademarks, service marks, trade names and copyrights.

This MD&A may also include trademarks, service marks or trade names of other parties. Air Canada's use or display of other parties' trademarks, service marks, trade names or products is not intended to, and does not imply a relationship with, or endorsement or sponsorship of Air Canada by, the trademark, service mark or trade name owners or licensees.

3. ABOUT AIR CANADA

Air Canada is the largest provider of scheduled passenger services in the Canadian market, the Canada-U.S. transborder market and in the international market to and from Canada. Its mission is connecting Canada and the World.

In 2019, Air Canada, together with Jazz Aviation LP ("Jazz"), Sky Regional Airlines Inc. ("Sky Regional") and other regional airlines operating flights on behalf of Air Canada under capacity purchase agreements, operated, on average, 1,531 daily scheduled flights to 217 direct destinations on six continents, comprised of 62 Canadian destinations, 56 destinations in the United States and a total of 99 cities in Europe, Africa, the Middle East, Asia, Oceania, the Caribbean, Mexico and South America.

At December 31, 2019, Air Canada mainline had an operating fleet of 188 aircraft, comprised of 94 Boeing and Airbus narrow-body aircraft (including 24 Boeing 737 MAX aircraft which were grounded in March 2019 – refer to section 9 "Fleet" of this MD&A for additional information), 80 Boeing and Airbus wide-body aircraft, and 14 Embraer 190 regional jets, while Air Canada Rouge operated a fleet of 64 aircraft, comprised of 22 Airbus A319 aircraft, 14 Airbus A321 aircraft, three Airbus A320 aircraft and 25 Boeing 767-300ER aircraft.

Air Canada enhances its domestic and transborder network through capacity purchase agreements ("CPAs") with regional airlines operating flights on behalf of Air Canada. These regional carriers form an integral part of the airline's international network strategy, providing valuable traffic feed to Air Canada and Air Canada Rouge routes. At December 31, 2019, the Air Canada Express fleet was comprised of 48 Bombardier regional jets, 73 Bombardier Dash-8 turboprop aircraft and 25 Embraer 175 aircraft for a total of 146 aircraft. At December 31, 2019, a total of five 18-passenger Beech 1900 aircraft were also operated by regional airlines on behalf of Air Canada.

Air Canada is a founding member of the Star Alliance® network. Through the 26-member airline network, Air Canada offers its customers access to 1,294 destinations in 195 countries, as well as reciprocal participation in frequent flyer programs and the use of airport lounges and other common airport facilities.

Air Canada builds customer loyalty through the Aeroplan® loyalty program. Aeroplan members can earn Aeroplan Miles with over 100 partners and redeem them for Flight Rewards with Air Canada and over 30 partner airlines, as well as for a wide range of non-air rewards. Air Canada Altitude offers eligible Aeroplan members a range of premium travel privileges and benefits corresponding to their travel activity, such as priority check-in, complimentary checked baggage and upgrades to Business Class.

Air Canada has a comprehensive strategy to improve profitability and competitiveness in leisure markets. This strategy leverages the strengths of Air Canada, Air Canada Rouge, the airline's lower-cost airline, and Air Canada Vacations. Through Air Canada Rouge, Air Canada is pursuing opportunities in leisure markets made viable by Air Canada Rouge's more competitive cost structure. Air Canada Vacations is a leading Canadian tour operator, developing, marketing and distributing vacation travel packages, operating in the outbound leisure travel market (Caribbean, Mexico, U.S., Europe, Central and South America, South Pacific, Australia and Asia), and the inbound leisure travel market to destinations within Canada, and also offering cruise packages in North America, Europe and the Caribbean.

Air Canada Cargo, Canada's largest provider of air cargo services as measured by cargo capacity, provides direct cargo services to over 150 Canadian, U.S. transborder and international destinations and has sales representation in over 50 countries. Air cargo services are provided across the Air Canada network.

4. STRATEGY

Air Canada's principal objective is to be a sustainably profitable global champion. In pursuing this goal, Air Canada seeks to continually improve customer experience and employee engagement, and create value for shareholders. Air Canada works towards its global champion goal by focusing on the following four core priorities:

- Identifying and implementing cost reduction and revenue enhancing initiatives.
- Pursuing profitable international growth opportunities and leveraging its competitive attributes to expand margins, in large part by increasing connecting traffic through its strategic international gateways in Toronto, Vancouver and Montréal, while continuing to grow and compete effectively in both the business and leisure markets to and from Canada.
- Engaging customers by continually enhancing their travel experience and by consistently achieving customer service excellence.
- Fostering positive culture change which includes making meaningful investments in training and other tools that support delivering exceptional customer experiences and that promote improved collaboration to enable Air Canada and its employees to better work together in a supportive and enriching environment.

Revenue Enhancement and Cost Transformation

Margin improvement through the implementation of sustainable cost savings and revenue-generating initiatives is a key priority at Air Canada. Air Canada continues to seek and implement measures to reduce unit costs and expand margins, including through fleet modernization and greater fleet productivity. Additionally, Air Canada seeks to improve its ability to generate incremental passenger and ancillary revenue, including through its expanded suite of branded fare products and investments in technology.

Key achievements in 2019

- Record operating revenue of \$19,131 million, an increase of \$1,128 million or 6.3% from 2018.
- Record 51.5 million passengers carried, an increase of 1.3% from 2018.
- EBITDA margin of 19.0%, consistent with the 2019 EBITDA margin of approximately 19% forecast in Air Canada's news release dated October 29, 2019 (versus an EBITDA margin of 17.8% in 2018). Operating income of \$1,650 million in 2019 reflected an increase of \$154 million from 2018. EBITDA is a non-GAAP financial measure. Refer to section 22 "Non-GAAP Financial Measures" of this MD&A for additional information.
- ROIC of 15.5%, within the range of the 2019 ROIC of approximately 15.5% to 16.0% forecast in Air Canada's news release dated October 29, 2019 (versus a ROIC of 13.5% in 2018). ROIC is a non-GAAP financial measure. Refer to section 22 "Non-GAAP Financial Measures" of this MD&A for additional information.
- Record unrestricted liquidity of \$7,380 million.
- Successfully completed a two-year \$250 million Cost Transformation Program to December 31, 2019, achieving annual savings in excess of \$250 million.
- Adjusted CASM increased 6.1% from 2018. CASM increased 4.1% from 2018. Air Canada estimated that, had it operated the 36 Boeing MAX aircraft as originally planned during 2019, adjusted CASM would have reflected an increase of approximately 2.5% when compared to 2018. Adjusted CASM is a non-GAAP financial measure. Refer to section 22 "Non-GAAP Financial Measures" of this MD&A for additional information.

Air Canada continues to pursue value creation and profitability through a number of strategies, including those discussed below.

Air Canada Rouge

Air Canada Rouge, Air Canada's low-cost carrier, has been deployed to a growing number of Caribbean destinations and select leisure destinations in the U.S. and Canada, as well as in international leisure markets where demand is highly elastic and responds positively to competitively priced, non-stop capacity. Air Canada Rouge provides Air Canada with the flexibility to shift capacity between markets as well as between seasons. It also provides Air Canada with the ability to compete against lower-cost carriers as well as emerging North American ultra-low-cost carriers.

Improvements to Commercial Agreement with Jazz and Equity Investment in Chorus

In February 2019, Air Canada concluded an agreement to amend and extend its capacity purchase agreement ("CPA") with Jazz, a wholly owned subsidiary of Chorus Aviation Inc. The amendments were designed to provide long term stability for Chorus, reaffirming Jazz as Air Canada's most significant Air Canada Express carrier well into the future. The amendments also bolster the strength and competitiveness of the Air Canada Express brand and its coast-to-coast regional network, and provide significant CPA savings for Air Canada, while optimizing network and fleet flexibility when compared to the current agreement.

Branded Fares

Air Canada updated its suite of branded fare products to allow it to further segment its customer base and offer a variety of fare options and a customized on-board experience. These new re-bundled fares provide a wider range of choices and stimulate sales based on specific attributes, driving incremental revenue. Air Canada continues to optimize its ancillary revenue from its "à la carte" services, such as those related to baggage, ticket changes, seat selection, preferred seating and upgrades, and from its onboard offerings, including food, beverage, duty-free shopping and onboard Wi-Fi Internet. Air Canada is also realizing incremental revenue through investments in web and mobile platforms and, in 2019, saw a significant acceleration in direct channel share.

Investments in Technology

Air Canada has a number of major initiatives already underway as the company moves forward with modernizing its passenger reservation system, transforming its loyalty program, and transforming core operational processes.

In 2017, in partnership with Amadeus, the world's largest provider of passenger services systems, Air Canada concluded an agreement for the full Amadeus Altéa Suite passenger service system including reservations, inventory and departure control solutions. In November 2019, Air Canada completed the first phase of the cutover from the previous reservation system that had been in place for over 25 years, to the new reservation system which will enable Air Canada to make significant progress on all four of its strategic priorities. The final stage of the program will be completed in 2020 which will allow Air Canada to begin to realize the full benefits of the system.

Altéa, as a shared infrastructure solution, will enable simplification and lower costs in Air Canada's technology environments and improve operational efficiency, including by automating functions. The new system also enables revenue enhancements and growth opportunities. Once fully implemented, Altéa will allow Air Canada to optimize its flight schedule by providing the ability to more easily manage inventory between any given origin and destination and automate re-bookings during flight disruptions, such as those caused by extreme weather. The system also improves Air Canada's ability to personalize its products and services, which can provide tailored offerings to customers and improve ancillary revenues. It also supports Air Canada's international network through more seamless booking and customer handling with Star Alliance and interline partners.

Once fully implemented, Altéa will also support significant customer service improvements. The system enables Air Canada to serve its customers using a single passenger name record (PNR). Data will be available in real time to ensure the customer moves through their journey seamlessly and contains a history and full audit trail of all changes made. Agents at Air Canada's contact centres, airports, travel agents and 130+ airlines using Altéa will have a single view of the customer. Altéa will facilitate the recognition of top tier customers, allowing Air Canada to better deliver on service promises, and supports the goal of building loyalty.

In parallel with the Altéa Suite agreement, Air Canada renewed its multi-year distribution agreement supporting its focus on delivering a consistent brand and customer experience across all channels. Amadeus users worldwide can access Air Canada's industry-leading customizable fare products and availability via the Amadeus Global Distribution System, as well as the carrier's ancillary offerings.

This new system is expected to provide annual incremental benefits of over \$100 million once fully implemented.

Furthermore, leveraging artificial intelligence ("AI") has become a key part of Air Canada's strategy as it moves forward on a series of initiatives that will help shape its future. As a starting point, Air Canada has formed an AI Centre of Expertise, comprised of business leaders, data scientists, and data engineers who collaborate closely with universities and researchers, and has delivered tangible benefits as an outcome of the application of AI in the business.

Fleet Renewal Program

Air Canada is generating fuel and maintenance cost savings with its younger fleet of Boeing 787 aircraft. The Dreamliner continues to drive profitable growth by opening opportunities to serve new international destinations made viable by its lower operating costs, mid-size capacity and longer range.

Air Canada took delivery of its first Airbus A220 aircraft (of a firm order of 45) in December 2019. The Airbus A220 aircraft are replacing the Embraer 190 aircraft in Air Canada's mainline fleet and support Air Canada's hub and network growth. This aircraft, with its longer range and efficiency, offers greater deployment opportunities, enabling Air Canada to serve new markets not as well suited to Air Canada's larger Boeing 737 MAX or Airbus A321 aircraft. Air Canada also estimates that the Airbus A220 aircraft will deliver a 12% lower CASM when compared to the Embraer 190 aircraft, mainly driven by greater maintenance and fuel efficiencies.

Air Canada has taken delivery of 24 Boeing 737 MAX 8 aircraft. Refer to section 9 "Fleet" of this MD&A for additional information. The Boeing 737 MAX aircraft are expected to replace the aging Airbus narrow-body aircraft in Air Canada's mainline fleet. Air Canada estimates that the Boeing 737 MAX aircraft will deliver a 11% lower CASM when compared to the mainline Airbus A320 aircraft, mainly driven by greater maintenance and fuel efficiencies.

Leveraging International Network

Air Canada is focused on leveraging its international network and its competitive attributes to appropriately expand margins.

Air Canada has competitive strengths which allow it to profitably pursue international route opportunities. It has the ability to appreciably increase international-to-international traffic through its strategic international gateways in Toronto, Vancouver and Montréal, and is broadening its network appeal through its membership in Star Alliance, its revenue-sharing joint venture with Air China on routes between Canada and China, and its A++ trans-Atlantic revenue-sharing joint venture with United Airlines and Deutsche Lufthansa AG, which the parties are focused on enhancing to increase competitiveness, create operating efficiencies and improve customer experience. Air Canada's network is also enhanced through numerous codeshare and interline agreements. Furthermore, Air Canada has access to Canada's wide portfolio of international route rights, and Canada's multi-ethnic demographic profile provides the airline with further opportunities to profitably capture demand for international travel.

Air Canada Express provides a network of local traffic, as well as high volumes of feeder traffic that flow into Air Canada's long-haul network and support its strategy to grow international transit traffic to and from the U.S.

Lester B. Pearson International Airport ("Toronto Pearson") provides a strategic advantage due to its proximity to densely populated major U.S. markets and serves a large number of business and leisure travelers flying to and from Toronto, Canada's largest city. Air Canada and most of its Star Alliance partners' operations are consolidated in Terminal One at Toronto Pearson, which also has efficient in-transit facilities that allow passengers and their bags to move seamlessly between Canadian and U.S. Customs and Immigration. For several years, Air Canada has worked closely with the Greater Toronto Airports Authority ("GTAA") to transform Toronto Pearson into the leading North American airport and gain a greater share of the global sixth freedom market. In addition, Air Canada, in conjunction with the Canadian Border Services Agency, the GTAA, Vancouver International Airport Authority and the Montréal Airport Authority have introduced a seamless connection process for those passengers that are arriving from an international origin and are transferring to another outbound international departure (other than the U.S.).

Air Canada has also been growing its Vancouver hub into a premier gateway to Asia-Pacific markets and developing Montréal into a trans-Atlantic hub. With convenient connections between Vancouver and cities across North America, Air Canada offers some of the shortest elapsed travel time between continental North America and Asia-Pacific, providing a better travel experience. The airline's Montréal hub not only links North America with key markets in France, but also positions Montréal as a premier gateway to the Atlantic. Given the improvements that are being made at the Toronto, Vancouver and Montréal airports, the airline is able to build its network from the U.S. to provide increased connection flows to its international flights.

Key developments in 2019

- Successfully implemented a contingency plan following the grounding of 24 Boeing 737 MAX aircraft and the suspension of 12 Boeing 737 MAX aircraft deliveries scheduled for 2019, which resulted in Air Canada covering 97% of its scheduled 2019 ASM capacity despite the grounding.
- Meaningfully mitigated geopolitical headwinds, particularly in China and Hong Kong, by strategically redeploying capacity within the network.
- Introduced non-stop mainline service from Toronto to Vienna through a route-swap agreement with Austrian Airlines.
- Launched new non-stop winter seasonal services from Montréal to São Paulo, Vancouver to Auckland (mainline), and Toronto to Quito (Air Canada Rouge) as part of a broader strategy to optimize seasonality and reduce dependency on the third quarter.
- Announced two new daily summer services from Montréal to Nashville and from Calgary to Boston (mainline), both beginning in June 2020.
- Converted Air Canada Rouge service between Vancouver and Osaka/Kansai to mainline service using a Boeing 787-8 aircraft.
- Grew the feeder network with the introduction of non-stop Air Canada Express services such as Montréal to Raleigh/Durham and Sydney (Nova Scotia).
- Optimized and enhanced codeshare offerings with the Lufthansa Group and SAS through codeshare agreement updates.
- Added United Airlines and Lufthansa Group code on new Montréal-Bordeaux and Toronto-Vienna services.
- Expanded the codeshare agreement with Air New Zealand over the Tasman to further support Air Canada's international expansion strategy.
- Implemented the main components of the Air Canada–Air China revenue-sharing joint venture.

- Added six cities to codeshare points with Air China to maximize Canada–China flying, with a plan to further expand beyond Shanghai in 2020.
- Secured commitments to expand codeshare partnerships with GOL and Avianca to support Air Canada's new Montréal-São Paulo/Bogotá and Toronto-Quito services.

In 2020, Air Canada plans to continue to selectively and profitably expand its international services by leveraging the following competitive advantages:

- A widely recognized brand and a strong position in the market for trans-Atlantic and trans-Pacific travel to and from Canada and to and from North and South America via Canada.
- An extensive and expanding global network, enhanced by the airline's membership in Star Alliance and by numerous commercial arrangements.
- A flexible fleet mix, enabling the airline to redeploy or otherwise manage capacity to match changes in demand.
- Competitive products and services, including lie-flat seats in the Signature Class cabin, concierge services, Maple Leaf Lounges™ and, at its Toronto global hub, an exclusive Air Canada Signature Suite™ offering eligible Signature Class customers exclusive amenities, including a restaurant-style "à la carte" meal service, and the Air Canada Café, providing eligible customers with a premium coffee shop experience, a first in North America.
- Geographically well-positioned hubs (Toronto, Montréal and Vancouver) with efficient in-transit facilities, accentuating the advantages of flying Air Canada for customers travelling between the U.S., Asia, Europe and South America.
- Favourable slot times at busy airports, including Beijing, Shanghai, Hong Kong, Tokyo-Narita, Tokyo-Haneda, Paris-Charles de Gaulle, Frankfurt, London-Heathrow, New York-LaGuardia, and Washington-Ronald Reagan National Airport.

In 2020, Air Canada also plans to:

- Gradually re-introduce the Boeing 737 MAX aircraft into service, starting in the third quarter of 2020. Final decisions on returning the Boeing 737 MAX aircraft to service will be based on Air Canada's safety assessment following the lifting of government safety notices and approval by international regulatory authorities. Refer to section 9 "Fleet" of this MD&A for additional information.
- Introduce the Airbus A220 into the mainline narrow-body fleet and leverage its meaningfully improved economics to launch new services and expand the North America feeder network. The first two new routes to be operated with this new aircraft type include non-stop service between Montréal and Seattle and between Toronto and San Jose, California, both beginning in spring 2020.
- Continue to strengthen the A++ and Air China revenue-sharing joint ventures and further expand cooperation across all functional areas to enhance the overall customer experience.
- Continue to assess new strategic partnerships in support of its business plan and international growth strategy.

Definitive Arrangement Agreement for the Acquisition of Transat A.T. Inc.

On August 23, 2019, Air Canada and Transat A.T. Inc. announced that nearly 95% of Transat shareholders had approved the Arrangement Agreement for Air Canada's acquisition of all issued and outstanding shares of Transat for \$18 per share. The value of the all-cash transaction is approximately \$720 million. The acquisition of Transat remains subject to regulatory approvals and other closing conditions usual in this type of transaction. If such approvals are obtained and conditions are met, the transaction is expected to be completed in mid-2020.

Customer Engagement

Providing a consistently high level of customer service and growing the airline's premium customer base are important aspects of Air Canada's business strategy. Air Canada continually strives to improve customer loyalty and generate positive referrals to attract new customers.

Acquisition of Aeroplan

On January 10, 2019, Air Canada completed its purchase from Aimia Inc. ("Aimia") of Aeroplan, owner and operator of the Aeroplan loyalty business. The aggregate purchase price for the acquisition consisted of \$450 million in cash plus \$67 million in cash for closing adjustments (total purchase consideration of \$517 million). The acquisition also included the assumption of the Aeroplan Miles liability.

Concurrently with the conclusion of the Aeroplan purchase, Air Canada, Aeroplan, The Toronto-Dominion Bank ("TD Bank"), Canadian Imperial Bank of Commerce ("CIBC") and Visa Canada Corporation ("Visa") finalized various commercial agreements relating to and in support of the acquisition, including credit card loyalty program and network agreements for future participation in the Aeroplan program. Similarly, in the first quarter of 2019, Air Canada, Aeroplan and Amex Bank of Canada ("AMEX") concluded agreements enabling AMEX's continued participation in the Aeroplan program. Air Canada received payments from TD Bank, CIBC, Visa and AMEX in the aggregate amount of \$1,212 million.

In addition, TD Bank and CIBC made payments to Air Canada in the aggregate amount of \$400 million as prepayments to be applied towards future monthly payments in respect of Aeroplan Miles.

Air Canada began consolidating Aeroplan's financial results on January 10, 2019, the date of its acquisition of Aeroplan. Refer to section 14 "Accounting Policies" and section 15 "Critical Accounting Estimates and Judgements" of this MD&A for additional information.

Consistent with its commitment of continued investments in its loyalty program, Air Canada plans to launch an enhanced Aeroplan Program in the third quarter of 2020. Air Canada believes that the new program will enable the airline to further strengthen customer relationships, to offer members more flexible rewards with better value, and to deliver a more consistent end-to-end customer experience. The new program will offer a wide range of earning and redemption opportunities, more personalized service and a better digital experience for Aeroplan members.

Products and Services

Investing in products and services remains pivotal to Air Canada's commitment to customer engagement. Air Canada continues to partner with leading brands and invests in premium products that enhance the customer's journey.

Starting with the Boeing 787 Dreamliner, and then followed by the Boeing 777, Air Canada has been progressively upgrading its wide-body aircraft with enhanced cabin and in-flight entertainment products. They have been enthusiastically received by customers and, in 2019, Air Canada began extending these improvements to its fleet of Airbus A330 aircraft. In late 2019, Air Canada also took delivery of its first new Airbus A220 aircraft. These aircraft, and when reintroduced, Air Canada's Boeing 737 MAX aircraft, bring market-leading cabins and entertainment products to Air Canada's narrow-body fleet and come equipped with satellite-based Wi-Fi.

In December 2019, Air Canada announced completion of installation of Wi-Fi high-speed satellite connectivity across the entire Air Canada Rouge fleet. In addition to increasing services available to customers, this initiative allows Air Canada to provide a more consistent customer experience across its entire fleet. In addition to the full Air Canada Rouge fleet, satellite-based Wi-Fi is available on all Air Canada Boeing 777 aircraft, and most Boeing 787 and Airbus A330 aircraft, with the remainder to be completed in early 2020. Air Canada Wi-Fi connectivity is also available across the carrier's entire mainline narrow body fleet and the Air Canada Express Embraer 175 and Bombardier CRJ-900 fleets.

Air Canada Signature Class, the lie-flat product offered on most international and transcontinental wide-body flights, was further enhanced in 2019 with the introduction of David Hawksworth inspired breakfast dishes. In the summer of 2019, Air Canada announced that popular Montréal-based Chef Antonio Park had joined its

culinary team and, since that time, his dishes have been launched in Air Canada Signature Class, Premium Economy and Economy Class on flights to Japan from Montréal, Toronto, and Vancouver. Most recently, a meal tailored to the route was also launched in Air Canada Signature Class on flights to São Paulo from both Montréal and Toronto. Air Canada looks forward to expanding the Chef Park-inspired menu on other mainline routes to Asia and South America in 2020. Air Canada will also be introducing enhancements in 2020, to the International Economy Class cabin across both mainline and Air Canada Rouge, which will include new meal concepts and other enhancements. Air Canada culinary guidance for on-board meals is complemented by world-renowned sommelier, Veronique Rivest, who continues to provide guidance on the wine program offered in Signature Class and Business Class.

Air Canada provides concierge assistance at 49 airports globally. During 2019, the service was expanded to include Dubai and Vienna, and is now available for eligible customers at all airports where Signature Class is offered, except for Casablanca. A new concierge office was also opened at Calgary International Airport, providing personalized assistance in an upscale environment. In 2020, the airline plans to expand concierge service to include Toulouse, once the route has started, as well as open new concierge offices at New York-La Guardia and Ottawa.

Throughout 2019, Air Canada also expanded the BMW Chauffeur Service at Toronto Pearson. Select customers connecting from a domestic to an international Air Canada Signature Class flight are now provided with a personalized airside drive between the gate areas. Air Canada is the first airline in North America to provide this type of service to Business Class customers.

In September 2019, Air Canada opened its first Air Canada Café at Toronto Pearson. Located inside the domestic gate area, in close proximity to the departure gates usually used for flights departing to Montréal-Trudeau and Ottawa, this 5,400 square foot, 109-seat facility is the first of its kind in North America, and provides eligible customers with a complimentary premium coffee shop experience.

The Maple Leaf Lounge portfolio has expanded to include an additional facility at Toronto Pearson with the opening of Air Canada's 24th lounge worldwide, the Maple Leaf Lounge Express. The 1,300 square foot lounge provides seating for 50, and is located at the commuter gate area, serving select markets in the U.S. The Maple Leaf Lounge Express solidifies Air Canada's commitment to provide a seamless connection experience for customers transiting to the United States at Toronto-Pearson. In 2020, Air Canada will continue a comprehensive refurbishment program of existing facilities at key hubs, a project which started in 2019 with a focus on the domestic Maple Leaf Lounge at Montréal-Trudeau.

The Air Canada Signature Suite, a premium "à la carte" dining facility available at Toronto Pearson open for select customers departing in Air Canada Signature Class, has won "World's Best Business Class Lounge Dining" at the 2019 Skytrax World Airline Awards at the Paris Airshow. Air Canada is expanding on this initiative, bringing it to the Vancouver International Airport in early 2020.

Air Canada received a number of additional awards recognizing its industry-leading products and services in 2019, including being named *Best Airline in North America* at the 2019 Skytrax World Airline Awards, as well as *Best Business Class in North America*, *Best Airline Staff in Canada* and *Best Airline Cabin Cleanliness in North America*. Air Canada also remains North America's only Skytrax four-star International network carrier. In addition, Air Canada has been recognized as *2019 Airline of the Year* at the 2019 Global Traveler Awards, as recognized by the leading magazine for luxury business and leisure travellers. In addition, the airline was recognized as offering the *Best Premium Economy Class* and *Best Onboard Entertainment* at the Global Traveler 2019 Leisure Lifestyle Awards which took place in the spring of 2019.

In late 2019, the Ipsos Reid 2019 Canadian Business Traveller Survey confirmed Air Canada as the preferred airline for domestic travel for 90% of frequent business travellers. The national study determined that Air Canada remains by far the preferred choice for business travel with high overall satisfaction and intend-to-travel scores.

Culture Change

Air Canada's positive corporate culture plays a key role in its organizational success, which was evidenced in 2019 by the company receiving the following recognitions:

- One of Canada's Top 100 Employers, One of Canada's Best Diversity Employers and One of Montréal's Top Employers – Mediacorp
- One of 50 Most Engaged Workplaces™ in North America –Achievers
- One of North America's Candidate (hiring) Experience Award winners – Talent Board
- Women's Executive Network Top 100 most powerful women – KPMG, HSBC
- 4-Star ranking - Skytrax
- CEO / Strategist of the Year – Globe and Mail

The year 2019 proved to be extraordinary for Air Canada as the company embraced change and rallied together to see material evidence of how it succeeds and flourishes in times of unprecedented complexity. During 2019, examples of major challenges included a complete transformation of the company's passenger reservation system, after approximately 700,000 hours of development and completing 400,000 hours in training 10,000 employees, and the sudden grounding of the entire fleet of Boeing 737 MAX aircraft and suspension of further deliveries, which resulted in serious disruptions to operations. In addition, with the purchase of Aeroplan, the airline successfully integrated nearly 700 employees and then moved into the mode of building a new data-driven loyalty platform.

The implementation of Altéa was one of the largest cultural transformations and change management initiatives for HR and Air Canada as a company. The new system, which manages reservation ticketing, inventory and customer management, required several partnerships and successful change management coordination between many internal and external teams.

The *Air Passenger Protection Regulations*, the first phase of which took effect on July 15, 2019 and the second phase on December 15, 2019, required a significant investment in planning and effort to make required changes to the company's policies, processes and procedures. Teams across the organization worked together to ensure that Air Canada remained aligned with IATA delay coding standards while adapting its communications and website to properly align with the new regulations.

Air Canada exceeded expectations with its 2019 employee engagement survey results, both in participation levels and overall employee net promoter score.

Air Canada regularly validates the organizational pulse through many vehicles and channels, including focus groups and Yammer, its internal social media platform. The airline also connects with employees through weekly executive messages and multiple communications channels, including a daily and monthly newsletter. Over 5,000 employees participated in town halls held in hangars across the system which allowed for open Q&A sessions between employees and executives.

5. SUSTAINABILITY AND SOCIAL IMPACT

Being a global champion involves doing what is right for the longer-term interest of its shareholders, employees, customers, communities and other stakeholders; it includes supporting research and development of innovative ways to reduce its environmental footprint and governing its business responsibly, safely, and ethically. Air Canada's social and environmental achievements are reported through its Corporate Sustainability Report "Citizens of the World" (using the Global Reporting Initiative standards) and the Carbon Disclosure Project ("CDP") report. Certain indicators, including Scope 1 and 2 emissions, are verified by an external party, following internationally recognized standards. In 2019, Air Canada was proud to have been the first Canadian airline to confirm its commitment to achieving the Sustainable Development Goals and join the UN Global Compact that encourages all businesses to adopt sustainable, socially responsible practices.

Below is a brief discussion of Air Canada's approach to certain environmental, social and governance matters.

Safety

Air Canada has an extensive health and safety program to prevent accidents and injury occurring during the course of employment. A critical element of the health and safety program is the Hazard Prevention Program, which allows health and safety committees to identify and assess workplace hazards, and to determine appropriate controls to mitigate risks. These committees cover all employee groups at Air Canada. The Corporate Safety branch, through its Corporate Safety and Emergency Management department is responsible to ensure employee safety programs are documented, implemented, effective and continuously improving. Among other things, it monitors compliance with applicable laws and regulations while tracking employee safety-related incidents.

Investing in employees' health not only helps ensure compliance with regulations but also demonstrates that employees are valuable and vital members of the team. Bi-annual, voluntary confidential safety culture surveys are conducted as an opportunity to get a sense of Air Canada employees' safety voice. In 2018, 81% of the respondents responded positively, up 3 percentage points from the previous survey held in 2016.

With respect to mental health, employee groups benefit from the Employee and Family Assistance Program (or other similar programs). Upgrade to a Better You, a wellbeing platform and unique program that equips employees with tools, resources and advice to help manage health, finances and overall wellbeing is also available to employees.

Air Canada continues to maintain exemplary IATA Operational Safety Audit results.

In 2019, Air Canada continued to implement its cyber security and privacy action plan focused on progressing its privacy maturity and managing risk through various means, including improvements to infrastructure, compliance programs and governance. As part of its efforts, Air Canada implemented Multi-Factor Authentication programs for employee and customer-facing applications.

Environment

Increasingly, today's society is championing the importance of environmental issues, and the aviation industry has a role in addressing them. Air Canada is proud of its accomplishments to date, such as being named Eco Airline of the Year in 2018, partnering in Canada's Biojet Supply Chain Initiative to demonstrate the feasibility of a Canadian biofuel supply chain, and improving its fuel efficiency significantly over the last 30 years and more recently, since 2009, by 19%.

Air Canada monitors its greenhouse gas ("GHG") emissions closely and is committed to mitigating its environmental footprint. As 99% of the airline's CO₂ emissions are generated from aircraft engine combustion, there is a strong positive correlation between meeting its environmental targets and reducing fuel burn, emissions and operating costs. Air Canada's fleet modernization program offers substantive fuel efficiency improvements and meaningfully contributes to its environmental impact and emissions reduction efforts. The introduction of the Airbus A220 will reduce CO₂ emissions by up to 20% per seat compared to other narrow-body aircraft in its category. In addition, this aircraft reduces nitrogen oxides ("NO_x") emissions

to 50% below CAEP/6 standards, significantly mitigating the impact on air quality in the vicinity of airports where it will be operated. The Airbus A220 aircraft is one part of Air Canada's multi-billion-dollar wide-body and narrow-body fleet renewal program which includes the very efficient Boeing 787 Dreamliner, which is 20% more energy efficient than the planes they replaced.

Air Canada was one of the first airlines in North America to adopt an Environmental Management System (EMS) based on ISO 14001. In 2017, it chose to pursue a certified Environmental Management System through the IATA IEnvA system. The IEnvA system is specific for airlines and demonstrates equivalency to the new ISO 14001: 2015 EMS standard. In 2018, Air Canada achieved Stage 1 certification and is currently in the process of preparing for Stage 2 certification.

Air Canada has endorsed the aviation industry's climate action targets and recognizes the on-going work to be done in collaboration with the industry to cap the emissions growth of international aviation at 2020 levels. The Government of Canada has adopted the voluntary phase of ICAO's Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA), applicable to certain Air Canada international flights. CORSIA is designed to complement the basket of mitigation measures that the air transport industry is already pursuing to reduce its CO₂ emissions and will be the first global sector carbon offset scheme for a single industry. Emissions monitoring throughout 2019-2020 will form the 2020 baseline, with CORSIA offsets to begin January 1, 2021.

Air Canada is also a signatory, through the National Airlines Council of Canada ("NACC"), to the *Canadian Action Plan to Reduce Greenhouse Gas Emissions from Aviation* which is a multiparty action plan between aviation industry stakeholders and the federal government outlining how the parties intend to reduce greenhouse gas emissions from aviation activities. Action plan targets include average annual improvements in fuel efficiency of at least 2% per year until the end of 2020, from a 2005 baseline.

Air Canada has been engaged in the advocacy and development of sustainable aviation fuel for the past seven years, engaging fully with the government on policy mechanisms needed to support a Canadian biofuel supply chain. In addition to specific initiatives, such as participation in the Natural Resources Canada ("NRCan") "Sky's the Limit Challenge" and the "Civil Aviation Alternate Fuel Contrail and Emissions Research" project, Air Canada has operated eight biofuel flights since 2012. Air Canada is also working to lower its emissions within its ground operations and, to date, has moved to electrification of over 33% of its ground support equipment.

Air Canada also looks to reduce its waste. Among other initiatives (such as recycling and waste reduction programs), in 2018, Air Canada began a multi-year program to reduce and/or minimize its use of single-use plastics, with the first action being the removal of 35 million plastic items from service. Demonstrating its desire to engage employees and communities it operates in, Air Canada worked with an ocean clean-up organization, 4ocean, to host two public shoreline clean-ups in Clearwater, Florida, and Vancouver, B.C.

Talent Acquisition, Development and Diversity

Air Canada's employer brand continues to remain very strong as the airline receives, on average, over 160 applications for every job posting. The company focuses on hiring exceptional talent and growing the professional development of employees by assisting them to determine career path options with multiple opportunities to stay and grow within the organization.

Air Canada recognizes that employee professional development and competencies are not acquired through training alone and continues to look for ways in which experiential learning will help employees drive performance, innovation and organizational success. Emerging Leaders programs such as Managing the AC WAY, Leading the AC WAY, mentoring, coaching, and others like HR fundamentals, and the new directors in development series all offer experiential learning opportunities.

Air Canada continues to emphasize the importance of organizational diversity as proven by the company's engagement survey scores for diversity ranking among the top benchmarked scores. In August 2014, its Board established as its target that women represent at least 25% of the directors of Air Canada by 2017. This target was achieved in 2016, following the election of directors at the annual meeting of shareholders held on May 10, 2016. In October 2017, the Board established a new target that women represent at least

30% of the directors by 2020. Furthermore, as part of its continuing commitment to diversity, Air Canada is a member of the 30% Club and a signatory to the Catalyst Accord 2022, whose objective is to increase the average percentage of women on boards and in executive positions in corporate Canada to 30% or greater by 2022. Currently, three out of the 11 directors (28%) are women.

Air Canada pursues a comprehensive diversity management strategy with the goal of ensuring an inclusive and diverse workplace based on respect where all employees can utilize their talents.

Air Canada established a target of women representing at least 30% of senior management by 2020 and has exceeded it. In addition, one-third of Air Canada's Executive Committee is comprised of women.

Labour

Starting in 2014, Air Canada entered into multiple long-term labour agreements with unions representing its unionized workforce. These agreements provide additional stability and flexibility, as well as demonstrate a collaborative partnership supporting its transformation into a global champion. These agreements include the following:

- ACPA (Pilots) – In 2014, Air Canada and ACPA, representing pilots, ratified a new contract providing collective agreement terms for 10 years, ending September 29, 2024, subject to certain renegotiation provisions and benchmarks over this period. In 2017, Air Canada ratified amendments to its existing long-term labour agreement with ACPA. The amendments to the 10-year agreement provide additional commercial opportunities as well as increased operational flexibility.
- IAMAW (Maintenance, Operations and Baggage) – In 2016, Air Canada and the IAMAW, representing technical maintenance, operational support and airport baggage handlers, concluded a new contract providing collective agreement terms for 10 years, ending March 31, 2026, subject to certain renegotiation provisions over this period.
- CALDA (Dispatchers) – In 2016, Air Canada and CALDA, representing flight dispatchers, concluded a new contract providing collective agreement terms for 12 years, ending February 29, 2028, subject to certain renegotiation provisions over this period.
- CUPE (Flight Attendants) – In 2015, Air Canada and CUPE, representing flight attendants, concluded a new contract providing collective agreement terms for 10 years, ending March 31, 2025, subject to certain renegotiation provisions over this period.
- Unifor (Customer Service and Sales Agents) – In early 2020, Air Canada and Unifor, representing the airline's customer service and sales agents, concluded a tentative agreement for collective agreement terms for six years, ending February 26, 2026. This tentative agreement remains subject to ratification. In 2019, Air Canada concluded an agreement with Unifor representing agents working in the Aeroplan customer service function.

The Air Canada Foundation

Air Canada believes that an airline truly thrives when it fully participates in the communities it serves. In 2019, the Air Canada Foundation achieved its target to raise more than \$2 million, a record-breaking number, to be distributed, along with other in-kind donations, to charitable organizations dedicated to the health and wellbeing of children and youth in Canada. The Aeroplan Mile Matching week for the Air Canada Foundation also brought in over 6.8 million Aeroplan Miles for the Hospital Transportation Program, which connects sick children to the medical care they need away from home. In 2019, over 200 children in need benefited from this program.

6. OVERVIEW

Full year 2019 Financial Summary

The following is an overview of Air Canada's results of operations and financial position for the full year 2019 compared to the full year 2018.

- Record operating revenues of \$19,131 million in 2019 compared to operating revenues of \$18,003 million in 2018, an increase of \$1,128 million or 6% on a yield improvement of 4.6% and traffic increase of 1.9%. The yield improvement year-over-year included additional revenue from Aeroplan flight redemptions and other revenues subsequent to the Aeroplan acquisition on January 10, 2019.
- Operating expenses of \$17,481 million in 2019 versus operating expenses of \$16,507 million 2018, an increase of \$974 million or 6%. CASM and adjusted CASM increased 4.1% and 6.1%, respectively, from 2018. These increases reflected, in large part, the impact of the Boeing 737 MAX aircraft grounding. Given that the Aeroplan loyalty business was not consolidated in Air Canada's financial results in 2018, for a more meaningful comparison of the cost performance of the on-going airline business, Air Canada's adjusted CASM for 2019 excludes the operating expenses of Aeroplan. Adjusted CASM is a non-GAAP financial measure. Refer to section 22 "Non-GAAP Financial Measures" of this MD&A for additional information.
- Operating income of \$1,650 million in 2019 compared to operating income of \$1,496 million in 2018, an increase of \$154 million.
- EBITDA of \$3,636 million in 2019 compared to EBITDA of \$3,213 million in 2018, an increase of \$423 million or 13%. The airline reported a 2019 EBITDA margin (EBITDA as a percentage of operating revenue) of 19.0%, in line with the 2019 EBITDA margin of approximately 19% projected in Air Canada's news release dated October 29, 2019. This compared to an EBITDA margin of 17.8% in 2018. EBITDA is a non-GAAP financial measure. Refer to section 22 "Non-GAAP Financial Measures" of this MD&A for additional information.
- Record income before income taxes of \$1,775 million in 2019 versus income before income taxes of \$228 million in 2018.
- Record adjusted pre-tax income of \$1,273 million in 2019 versus adjusted pre-tax income of \$1,036 million in 2018. Adjusted pre-tax income is a non-GAAP financial measure. Refer to section 22 "Non-GAAP Financial Measures" of this MD&A for additional information.
- Net income of \$1,476 million or \$5.44 per diluted share in 2019 versus net income of \$37 million or \$0.13 per diluted share in 2018.
- Adjusted net income of \$917 million or \$3.37 per diluted share in 2019 versus adjusted net income of \$738 million or \$2.67 per diluted share in 2018. Adjusted net income is a non-GAAP financial measure. Refer to section 22 "Non-GAAP Financial Measures" of this MD&A for additional information.
- Net debt of \$2,841 million at December 31, 2019 versus net debt of \$5,214 million at December 31, 2018, a decrease of \$2,373 million, reflecting an increase in cash, cash equivalents and short and long-term investment balances of \$1,694 million and a decrease in long-term debt and lease liabilities (including current portion) of \$679 million. Net debt is an additional GAAP measure. Refer to section 10.3 "Net Debt" of this MD&A for additional information. Air Canada's leverage ratio (net debt to trailing 12-month EBITDA) was 0.8 at December 31, 2019, in line with a leverage ratio not exceeding 1.0 projected in Air Canada's news release dated October 29, 2019. This compared to a leverage ratio of 1.6 at December 31, 2018. Leverage ratio is a non-GAAP financial measure. Refer to sections 10.3 "Net Debt" and 22 "Non-GAAP Financial Measures" of this MD&A for additional information.

- Net cash flows from operating activities of \$5,712 million in 2019 versus net cash flows from operating activities of \$3,470 million in 2018. In 2019, free cash flow of \$2,075 million increased \$748 million from 2018 and was higher than the free cash flow of between \$1.3 billion and \$1.5 billion projected in Air Canada's news release dated October 29, 2019. The higher than expected free cash flow was due to a combination of factors, including higher cash from operations, a lower than projected level of capital expenditures due to certain projects being deferred to 2020, and to an initial settlement payment from Boeing. Free cash flow is a non-GAAP financial measure. Refer to section 10.5 "Consolidated Cash Flow Movements" of this MD&A for additional information. Excess cash amounted to \$2,732 million at December 31, 2019. Refer to section 10.1 "Liquidity" for additional information on excess cash.
- ROIC of 15.5% for the 12 months ended December 31, 2019, in line with a ROIC of between 15.5% and 16.0% projected in Air Canada's news release dated October 29, 2019. This compared to a ROIC of 13.5% at December 31, 2018. ROIC is a non-GAAP financial measure. Refer to section 22 "Non-GAAP Financial Measures" of this MD&A for additional information.

Fourth Quarter 2019 Financial Summary

The following is an overview of Air Canada's results of operations and financial position for the fourth quarter 2019 compared to the fourth quarter 2018.

- Record fourth quarter operating revenues of \$4,429 million compared to record fourth quarter operating revenues of \$4,227 million in 2018, an increase of \$202 million or 5%. On a capacity increase of 3.3%, record fourth quarter passenger revenues of \$3,975 million increased \$199 million or 5.3% from the fourth quarter of 2018 on a yield improvement of 2.3% and traffic increase of 2.9%. The yield improvement year-over-year resulted in part from additional revenue from Aeroplan flight redemptions and other revenues subsequent to the Aeroplan acquisition on January 10, 2019.
- Operating expenses of \$4,284 million in the fourth quarter of 2019 versus operating expenses of \$4,048 million in the fourth quarter of 2018, an increase of \$236 million or 6%. CASM and adjusted CASM increased 2.5% and 5.5%, respectively, from the fourth quarter of 2018. These increases reflected, in large part, the impact of the Boeing 737 MAX aircraft grounding.
- Operating income of \$145 million in the fourth quarter of 2019 compared to operating income of \$179 million in the fourth quarter of 2018, a decrease of \$34 million.
- EBITDA of \$665 million in the fourth quarter of 2019 compared to EBITDA of \$619 million in the fourth quarter of 2018, an increase of \$46 million or 7%. The airline reported a fourth quarter 2019 EBITDA margin (EBITDA as a percentage of operating revenue) of 15.0% compared to an EBITDA margin of 14.6% in the fourth quarter of 2018.
- Record income before income taxes of \$172 million in the fourth quarter of 2019 versus a loss before income taxes of \$391 million in the fourth quarter of 2018.
- Adjusted pre-tax income of \$66 million in the fourth quarter of 2019 versus adjusted pre-tax income of \$68 million in the fourth quarter of 2018.
- Record net income of \$152 million or \$0.56 per diluted share in the fourth quarter of 2019 versus a net loss of \$360 million or \$1.33 per diluted share in the fourth quarter of 2018.
- Adjusted net income of \$47 million or \$0.17 per diluted share in the fourth quarter of 2019 versus adjusted net income of \$55 million or \$0.20 per diluted share in the fourth quarter of 2018.
- Net cash flows from operating activities of \$677 million in the fourth quarter of 2019 versus net cash flows from operating activities of \$548 million in the fourth quarter of 2018. In the fourth quarter of 2019, free cash flow of \$426 million increased \$138 million from the fourth quarter of 2018.

7. RESULTS OF OPERATIONS – FULL YEAR 2019 VERSUS FULL YEAR 2018

The following table and discussion provide and compare results of Air Canada for 2019 and 2018:

(Canadian dollars in millions, except per share figures)	Full Year			
	2019	2018	Change	
			\$	%
Operating revenues				
Passenger	\$ 17,232	\$ 16,161	\$ 1,071	7
Cargo	717	803	(86)	(11)
Other	1,182	1,039	143	14
Total revenues	19,131	18,003	1,128	6
Operating expenses				
Aircraft fuel	3,862	3,969	(107)	(3)
Wages, salaries and benefits	3,184	2,873	311	11
Regional airlines expense				
Aircraft fuel	485	531	(46)	(9)
Other	1,956	1,977	(21)	(1)
Depreciation and amortization	1,986	1,717	269	16
Aircraft maintenance	1,004	903	101	11
Airport and navigation fees	990	964	26	3
Sales and distribution costs	874	807	67	8
Ground package costs	627	602	25	4
Catering and onboard services	445	433	12	3
Communications and information technology	397	294	103	35
Other	1,671	1,437	234	16
Total operating expenses	17,481	16,507	974	6
Operating income	1,650	1,496	154	
Non-operating income (expense)				
Foreign exchange gain (loss)	499	(578)	1,077	
Interest income	164	108	56	
Interest expense	(515)	(567)	52	
Interest capitalized	35	35	-	
Net financing expense relating to employee benefits	(39)	(50)	11	
Gain (loss) on financial instruments recorded at fair value	23	(1)	24	
Gain on debt settlements and modifications	6	9	(3)	
Gain (loss) on disposal of assets	13	(188)	201	
Other	(61)	(36)	(25)	
Total non-operating income (expense)	125	(1,268)	1,393	
Income before income taxes	1,775	228	1,547	
Income tax expense	(299)	(191)	(108)	
Net income	\$ 1,476	\$ 37	\$ 1,439	
Diluted earnings per share	\$ 5.44	\$ 0.13	\$ 5.31	
EBITDA ⁽¹⁾	\$ 3,636	\$ 3,213	\$ 423	
Adjusted pre-tax income ⁽¹⁾	\$ 1,273	\$ 1,036	\$ 237	
Adjusted net income ⁽¹⁾	\$ 917	\$ 738	\$ 179	
Adjusted earnings per share – diluted ⁽¹⁾	\$ 3.37	\$ 2.67	\$ 0.70	

(1) EBITDA, adjusted pre-tax income (loss), adjusted net income (loss) and adjusted earnings (loss) per share – diluted are non-GAAP financial measures. Refer to section 22 "Non-GAAP Financial Measures" of this MD&A for additional information.

System Passenger Revenues

In the fourth quarter of 2019, Air Canada adopted a new accounting treatment for compensation to passengers for delayed and cancelled flights. All prior periods in 2018 and 2019 were restated to reflect this accounting change. Refer to section 14 "Accounting Policies" for additional information.

In 2019, passenger revenues of \$17,232 million increased \$1,071 million or 6.6% from 2018 on a yield improvement of 4.6% and traffic growth of 1.9%. As a result of the impact of the Boeing 737 MAX aircraft grounding, system ASMs increased 1.8% in 2019 versus planned system ASM growth of approximately 4.8%. In 2019, the yield improvement, particularly in North America, was due to the constrained capacity resulting from the grounding of the Boeing 737 MAX aircraft in mid-March, as well as a generally improved pricing environment. The yield increases also reflected additional revenue from Aeroplan flight redemptions and other revenues subsequent to the Aeroplan acquisition on January 10, 2019.

In 2019, business cabin revenues, on a system basis, increased \$237 million or 7.4% from 2018 on yield growth of 4.2% and a traffic increase of 3.0%.

The table below provides passenger revenue by geographic region for the full year 2019 and the full year 2018.

Passenger Revenue (Canadian dollars in millions)	Full Year		Change	
	2019	2018	\$	%
Canada	\$ 5,233	\$ 4,880	\$ 353	7.2
U.S. transborder	3,795	3,492	303	8.7
Atlantic	4,468	4,207	261	6.2
Pacific	2,449	2,427	22	0.9
Other	1,287	1,155	132	11.4
System	\$ 17,232	\$ 16,161	\$ 1,071	6.6

The table below provides year-over-year percentage changes in passenger revenues and operating statistics for the full year 2019 versus the full year 2018.

Full Year 2019 versus Full Year 2018	Passenger Revenue % Change	Capacity (ASMs) % Change	Traffic (RPMs) % Change	Passenger Load Factor pp Change	Yield % Change	PRASM % Change
Canada	7.2	0.9	0.4	(0.4)	6.8	6.3
U.S. transborder	8.7	1.3	0.4	(0.8)	8.3	7.3
Atlantic	6.2	3.2	4.2	0.8	2.0	2.9
Pacific	0.9	(1.2)	(1.2)	0.1	2.1	2.2
Other	11.4	6.8	7.9	0.8	3.3	4.3
System	6.6	1.8	1.9	0.1	4.6	4.8

Components of the year-over-year change in full year system passenger revenues included:

- The 4.6% system yield growth which reflected yield increases in all markets. The yield growth reflected increases in fares and an improvement in the overall fare mix. An increase in carrier surcharges, additional yield earned on Aeroplan redemption revenues and growth in higher-yielding local traffic were also contributing factors to the yield growth year-over-year. A favourable currency impact of \$66 million was also a contributing factor to the yield growth year-over-year.
- The 1.9% traffic increase which reflected traffic growth in all markets with the exception of the Pacific market where capacity was reduced year-over-year.

Compared to 2018, PRASM increased 4.8% in 2019, mainly on the higher yield.

Domestic Passenger Revenues

In 2019, on capacity growth of 0.9%, domestic passenger revenues of \$5,233 million increased \$353 million or 7.2% from 2018.

Components of the year-over-year change in full year domestic passenger revenues included:

- The 6.8% domestic yield increase which reflected yield growth on all major domestic services. The yield increase reflected the impact of fare increases, an improved traffic mix from capacity constraints as a result of the grounding of Boeing 737 MAX aircraft and from the optimization of fare categories, growth in higher-yielding local traffic, and additional yield earned on Aeroplan redemptions.
- The 0.4% traffic increase which reflected traffic growth on most major domestic services. This increase was largely offset by the impact of fewer connecting passengers as a result of the capacity reduction due to the grounding of Boeing 737 MAX aircraft.

Compared to 2018, domestic PRASM increased 6.3% in 2019, mainly on the higher yield.

U.S. Transborder Passenger Revenues

In 2019, on capacity growth of 1.3%, U.S. transborder passenger revenues of \$3,795 million increased \$303 million or 8.7% from 2018.

Components of the year-over-year change in full year U.S. transborder passenger revenues included:

- The 8.3% yield increase which reflected yield growth on all major U.S. transborder services. The overall yield improvement included the impact of an improved traffic mix in part due to capacity constraints as a result of the grounding of Boeing 737 MAX aircraft, additional yield earned on Aeroplan redemption revenues, growth in higher-yielding local traffic, and gains in the business cabin. A favourable currency impact of \$33 million was also a contributing factor to the yield growth year-over-year.
- The 0.4% traffic increase which reflected, in large part, growth on services from western Canada to the U.S. west coast, mostly offset by the impact of reduced capacity on U.S. leisure routes, such as Hawaii and Las Vegas, and on certain long-haul services, such as Eastern Canada to California, primarily due to the grounding of the Boeing 737 MAX aircraft.

Compared to 2018, U.S. transborder PRASM increased 7.3% in 2019, mainly on the higher yield.

Atlantic Passenger Revenues

In 2019, on capacity growth of 3.2%, Atlantic passenger revenues of \$4,468 million increased \$261 million or 6.2% from 2018. In 2019, to help offset the impact of the Canada-China geopolitical situation, Air Canada reallocated capacity from the Pacific to the Atlantic market.

Components of the year-over-year change in full year Atlantic passenger revenues included:

- The 4.2% traffic increase which reflected traffic growth on all major Atlantic services with the exception of services from Halifax and St. John's to London Heathrow, which were suspended as a result of the grounding of Boeing 737 MAX aircraft in mid-March 2019, and the suspension of services from Toronto to Delhi, in June 2019, due to the closure of Pakistani airspace. The airspace was re-opened on July 18, 2019, and Air Canada resumed operations in October 2019.

- The 2.0% yield increase which included additional yield earned on Aeroplan redemption revenues, increase in carrier surcharges year-over-year, the launch of new fare categories on Atlantic services, resulting in growth in ancillary revenue and an improved fare mix, gains in the business cabin, and a favourable currency impact of \$10 million. The impact of aggressive pricing activities resulting from increased industry capacity was a partly offsetting factor.

Compared to 2018, Atlantic PRASM increased 2.9% in 2019 on the higher yield and a 0.8 percentage point improvement in passenger load factor.

Pacific Passenger Revenues

In 2019, on a capacity decrease of 0.2%, Pacific passenger revenues of \$2,449 million increased \$22 million or 0.9% from 2018.

Components of the year-over-year change in full year Pacific passenger revenues included:

- The 2.1% yield increase which reflected yield growth on services to Hong Kong, Japan and Taiwan, partly offset by yield declines on services to Australia and Korea.
- The 1.2% traffic decrease which reflected traffic declines on services to China, Hong Kong and Taiwan, partly offset by traffic growth on services to Japan, Australia and Korea. The geopolitical situation between Canada and China continued to negatively impact travel demand in 2019, particularly business-related traffic between Canada-China/Hong Kong.

Compared to 2018, Pacific PRASM increased 2.2% in 2019, mainly on the higher yield.

Other Passenger Revenues

In 2019, on capacity growth of 6.8%, other passenger revenues (from routes to and from the Caribbean, Mexico and Central and South America) of \$1,287 million increased \$132 million or 11.4% from 2018.

Components of the year-over-year change in full year Other passenger revenues included:

- The 7.9% traffic increase which reflected traffic growth on routes to traditional sun destinations and on services to South America.
- The 3.3% yield increase which reflected yield growth on routes to traditional sun destinations and on services to South America. The favourable impact of Air Canada having reverted back to one-stop service to Buenos Aires with a connection in Santiago on April 1, 2019 was also a contributing factor to the yield improvement year-over-year.

Compared to 2018, PRASM in the Other markets increased 4.3% in 2019 on the higher yield and a 0.8 percentage point improvement in passenger load factor.

Cargo Revenues

In 2019, cargo revenues of \$717 million decreased \$86 million or 10.7% from 2018 on cargo yield and traffic declines of 6.2% and 4.8%, respectively. Demand for air cargo decreased industry-wide, particularly in the Atlantic and Pacific markets, causing reductions in volumes and putting downward pressure on yields, reflecting the impact of external factors, such as on-going international trade challenges and reduced economic activities.

The table below provides cargo revenue by geographic region for the full year 2019 and the full year 2018.

Cargo Revenue (Canadian dollars in millions)	Full Year		Change	
	2019	2018	\$	%
Canada	\$ 113	\$ 95	\$ 18	18.5
U.S. transborder	48	43	5	11.0
Atlantic	242	278	(36)	(13.1)
Pacific	257	325	(68)	(21.0)
Other	57	62	(5)	(6.2)
System	\$ 717	\$ 803	\$ (86)	(10.7)

Other Revenues

In 2019, other revenues of \$1,182 million increased \$143 million or 14% when compared to 2018, mainly due to the net margin recorded on the redemption and delivery of non-air goods and services related to the Aeroplan program since its acquisition in January 2019. An increase in ground package revenue at Air Canada Vacations was also a contributing factor to the growth in other revenues. The increase in ground package revenue at Air Canada Vacations was driven by a higher price of ground packages and higher passenger volumes year-over-year.

CASM and Adjusted CASM

In the fourth quarter of 2019, Air Canada adopted a new accounting treatment for compensation to passengers for delayed and cancelled flights. All prior periods in 2018 and 2019 were restated to reflect this accounting change. Refer to section 14 "Accounting Policies" for additional information.

In 2019, CASM increased 4.1% and adjusted CASM increased 6.1% compared to 2018. This increase reflected, in large part, the impact of the Boeing 737 MAX aircraft grounding, which resulted in a system ASM increase of 1.8% in 2019 rather than the planned system ASM growth of approximately 4.8%, in addition to significant higher costs associated with replacement aircraft, and higher on-going operating expenses, including as a result of depreciation, aircraft maintenance and pilot wages that continued to be incurred in relation to the Boeing 737 MAX aircraft despite their grounding.

The table below compares Air Canada's CASM and adjusted CASM for 2019 to 2018. Given that the Aeroplan loyalty business was not consolidated in Air Canada's financial results in 2018, for a more meaningful comparison of the cost performance of the on-going airline business, Air Canada's adjusted CASM for the full year excludes the operating expenses of Aeroplan.

(cents per ASM)	Full Year		Change	
	2019 ⁽¹⁾	2018	cents	%
CASM	¢ 15.50	¢ 14.89	¢ 0.61	4.1
Remove:				
Aircraft fuel expense ⁽¹⁾ , ground package costs at Air Canada Vacations, and the operating expenses of Aeroplan	(4.59)	(4.60)	0.01	-
Adjusted CASM ⁽²⁾	¢ 10.91	¢ 10.29	¢ 0.62	6.1

(1) Includes aircraft fuel expense related to regional airline operations.

(2) Adjusted CASM is a non-GAAP financial measure. Refer to section 22 "Non-GAAP Financial Measures" of this MD&A for additional information.

Operating Expenses

In 2019, on a capacity increase of 1.8%, operating expenses of \$17,481 million increased \$974 million or 6% from 2018. In 2019, the unfavourable impact of a weaker Canadian dollar on foreign currency denominated operating expenses (mainly U.S. dollars), compared to 2018, increased operating expenses by \$144 million (comprised of \$85 million related to aircraft fuel expense and \$59 million related to non-fuel operating expenses).

Aeroplan-related operating expenses amounted to \$200 million in 2019. These expenses mainly impact wages, salaries and benefits, depreciation and amortization, communications and information technology and other expenses.

The more notable components of the year-over-year change in operating expenses are described below.

Aircraft Fuel Expense

In 2019, aircraft fuel expense (including fuel expense related to regional airline operations) amounted to \$4,347 million, a decrease of \$153 million or 3% from 2018. This decrease reflected the impact of lower jet fuel prices (before the impact of foreign exchange), accounting for a decrease of \$306 million, and other factors, including lower fuel hedging expenses, accounting for a decrease of \$22 million. These decreases were partly offset by a higher volume of fuel litres consumed, accounting for an increase of \$90 million, and an unfavourable currency impact of \$85 million. In 2019, Air Canada's fuel consumption was adversely impacted by the grounding of the Boeing 737 MAX fleet which required the use of less fuel-efficient replacement aircraft.

Wages, Salaries and Benefits Expense

In 2019, wages and salaries expense of \$2,464 million increased \$290 million or 13% from 2018, largely due to a 10.1% increase in the number of full-time equivalent employees ("FTEs"), which included the impact of the acquisition of Aeroplan on January 10, 2019 and incremental personnel to support Air Canada's technology projects, including the insourcing of certain functions previously outsourced to third parties. The increase also reflected an increase in expenses related to employee profit sharing programs and higher stock-based compensation expense, which was due to the increase in Air Canada's share price during the period. Although Air Canada's Boeing 737 MAX fleet was grounded in early 2019, pilot wages related to these aircraft continue to be incurred as Air Canada awaits their return to service. Refer to section 9 "Fleet" for additional information.

In 2019, employee benefits expense of \$720 million increased \$21 million or 3% from 2018 mainly due to the higher level of FTE employees. This increase was partly offset by the favourable impact of higher discount rates related to pension and post-employment benefits.

Regional Airlines Expense

In 2019, regional airlines expense of \$2,441 million decreased \$67 million or 3% compared to 2018 on lower aircraft fuel expense, the impact of Air Canada's extended and amended capacity purchase agreement with Jazz, which became effective on January 1, 2019, and less flying by regional carriers when compared to 2018.

The table below provides a breakdown of regional airlines expense for the fourth quarter of 2019 and the fourth quarter of 2018.

(Canadian dollars in millions)	Full Year		Change	
	2019	2018	\$	%
Capacity purchase fees ⁽¹⁾	\$ 1,042	\$ 1,067	\$ (25)	(2)
Aircraft fuel	485	531	(46)	(9)
Airport and navigation	292	296	(4)	(1)
Sales and distribution costs	158	153	5	3
Other operating expenses	464	461	3	3
Total regional airlines expense	\$ 2,441	\$ 2,508	\$ (67)	(3)

(1) Capacity purchase fees exclude the component of fees related to aircraft costs which are accounted for as lease liabilities in accordance with IFRS 16 – Leases.

Depreciation and Amortization Expense

In 2019, depreciation and amortization expense of \$1,986 million increased \$269 million or 16% from 2018. This increase was largely due to a higher volume of engine maintenance events on leased aircraft, the addition of Boeing 737 MAX and Boeing 787 aircraft into the mainline fleet, and the amortization of intangible assets recorded on the acquisition of Aeroplan on January 10, 2019.

Aircraft Maintenance Expense

In 2019, aircraft maintenance expense of \$1,004 million increased \$101 million or 11% from 2018, reflecting, in large part, a higher volume of maintenance activity compared to 2018 and an unfavourable currency impact. In order to mitigate the impact of the Boeing 737 MAX grounding, Air Canada extended leases for Airbus A320 and Embraer 190 aircraft which resulted in a higher volume of maintenance activity than originally planned.

The table below provides a breakdown of the more significant items included in maintenance expense for the full year 2019 and the full year 2018.

(Canadian dollars in millions)	Full Year		Change	
	2019	2018	\$	%
Technical maintenance	\$ 875	\$ 769	\$ 106	14
Maintenance provisions ⁽¹⁾	102	127	(25)	(20)
Other	27	7	20	286
Total aircraft maintenance expense	\$ 1,004	\$ 903	\$ 101	11

(1) Maintenance provisions relate to return conditions on aircraft leases which are recorded over the term of the lease.

Airport and Navigation Fees

In 2019, airport and navigation fees of \$990 million increased \$26 million or 3% from 2018, reflecting the use of larger aircraft due to the grounding of the Boeing 737 MAX aircraft and Air Canada's international expansion strategy. The favourable impact of Air Canada's agreement with the Greater Toronto Airports Authority, which is allowing the airline to increase international connecting traffic at Toronto Pearson International Airport on a more cost-effective basis, was a partly offsetting factor.

Sales and Distribution Costs

In 2019, sales and distribution costs of \$874 million increased \$67 million or 8% from 2018, reflecting, in large part, the increase in passenger revenues. Growth in direct bookings partly offset increases in transaction fees paid to global distribution service providers.

Ground Package Costs

In 2019, the cost of ground packages at Air Canada Vacations of \$627 million increased \$25 million or 4% from 2018 due to higher passenger volumes year-over-year and an unfavourable currency impact, partly offset by a lower cost of ground packages due to changes in product mix.

Communication and Information Technology Expense

In 2019, communication and information technology expense of \$397 million increased \$103 million or 35% from 2018. This increase reflected additional information technology projects year-over-year, including those related to security, data platforms and systems resiliency and modernization. This increase also includes the impact of the acquisition of Aeroplan on January 10, 2019, as well as transitional costs associated with the insourcing of certain functions previously outsourced to third parties.

Other Expenses

In 2019, other expenses of \$1,671 million increased \$234 million or 16% from 2018. This increase reflected the cost of short-term aircraft leases, including for additional capacity related to the grounding of the Boeing 737 MAX aircraft, and higher project fees, including those related to the acquisition of Transat. This increase also includes the impact of the acquisition of Aeroplan on January 10, 2019.

The table below provides a breakdown of the more significant items included in other expenses for the full year 2019 and the full year 2018.

(Canadian dollars in millions)	Full Year		Change	
	2019	2018	\$	%
Terminal handling	\$ 351	\$ 327	\$ 24	7
Crew cycle	228	212	16	8
Building rent and maintenance	178	149	29	19
Miscellaneous fees and services	213	173	40	23
Remaining other expenses	701	576	125	22
Total other expense	\$ 1,671	\$ 1,437	\$ 234	16

Non-operating Income (Expense)

In 2019, non-operating income amounted to \$125 million versus non-operating expenses of \$1,268 million in 2018.

Components of the year-over-year change in non-operating income included:

- In 2019, gains on foreign exchange amounted to \$499 million compared to losses on foreign exchange of \$578 million in 2018. The December 31, 2019 closing exchange rate was US\$1=C\$1.299 while the December 31, 2018 closing exchange rate was US\$1=C\$1.3637. The gains on foreign exchange in 2019 included gains on long-term debt and lease liabilities of \$417 million and gains on foreign currency derivatives of \$92 million.
- In 2018, Air Canada recorded a gain on debt settlements and modifications of \$9 million, comprised of a gain of \$11 million related to the repricing of its US\$1.1 billion senior secured credit facility and a loss of \$2 million related to the prepayment of fixed rate debt.

- In 2019, Air Canada recorded a gain of \$13 million on the sale of aircraft, spare engines and a flight simulator while no such gain was recorded in 2018.
- In 2018, Air Canada recorded a loss of \$188 million on the sale of 25 Embraer 190 aircraft in 2018 while no such loss was recorded in 2019.

Income Taxes

In 2019, Air Canada recorded income tax expense of \$299 million (\$191 million in 2018). The table below provides a breakdown of what is included in income tax expense for the full year 2019 and the full year 2018.

(Canadian dollars in millions)	2019	2018
Current income tax	\$ (72)	\$ (6)
Deferred income tax	(227)	(185)
Income tax expense	\$ (299)	\$ (191)

8. RESULTS OF OPERATIONS – FOURTH QUARTER 2019 VERSUS FOURTH QUARTER 2018

The following table and discussion provide and compare results of Air Canada for the fourth quarter of 2019 and the fourth quarter of 2018:

(Canadian dollars in millions, except per share figures)	Fourth Quarter			
	2019	2018	Change	
			\$	%
Operating revenues				
Passenger	\$ 3,975	\$ 3,776	\$ 199	5
Cargo	186	217	(31)	(14)
Other	268	234	34	15
Total revenues	4,429	4,227	202	5
Operating expenses				
Aircraft fuel	897	958	(61)	(6)
Wages, salaries and benefits	816	719	97	13
Regional airlines expense				
Aircraft fuel	116	133	(17)	(13)
Other	505	487	18	4
Depreciation and amortization	520	440	80	18
Aircraft maintenance	250	245	5	2
Airport and navigation fees	230	225	5	2
Sales and distribution costs	194	182	12	7
Ground package costs	131	126	5	4
Catering and onboard services	105	104	1	1
Communications and information technology	109	69	40	58
Other	411	360	51	14
Total operating expenses	4,284	4,048	236	6
Operating income	145	179	(34)	
Non-operating income (expense)				
Foreign exchange gain (loss)	92	(444)	536	
Interest income	41	32	9	
Interest expense	(122)	(142)	20	
Interest capitalized	9	8	1	
Net financing expense relating to employee benefits	(10)	(12)	2	
Gain (loss) on financial instruments recorded at fair value	5	(3)	8	
Gain on debt settlements and modifications	6	-	6	
Gain on disposal of assets	13	-	13	
Other	(7)	(9)	2	
Total non-operating income (expense)	27	(570)	597	
Income (loss) before income taxes	172	(391)	563	
Income tax (expense) recovery	(20)	31	(51)	
Net income (loss)	\$ 152	\$ (360)	\$ 512	
Diluted earnings (loss) per share	\$ 0.56	\$ (1.33)	\$ 1.89	
EBITDA ⁽¹⁾	\$ 665	\$ 619	\$ 46	
Adjusted pre-tax income ⁽¹⁾	\$ 66	\$ 68	\$ (2)	
Adjusted net income ⁽¹⁾	\$ 47	\$ 55	\$ (8)	
Adjusted earnings per share – diluted ⁽¹⁾	\$ 0.17	\$ 0.20	\$ (0.03)	

(1) EBITDA, adjusted pre-tax income (loss), adjusted net income (loss) and adjusted earnings (loss) per share – diluted are non-GAAP financial measures. Refer to section 22 "Non-GAAP Financial Measures" of this MD&A for additional information.

System Passenger Revenues

In the fourth quarter of 2019, passenger revenues of \$3,975 million increased \$199 million or 5.3% from the fourth quarter of 2018 on traffic growth of 2.9% and a yield improvement of 2.3%. The impact of the Boeing 737 MAX aircraft grounding resulted in system ASM growth of 3.3% in the fourth quarter of 2019 versus planned system ASM growth of approximately 4.6%. In the fourth quarter of 2019, the yield improvement, particularly in North America, was due to the constrained capacity resulting from the grounding of the Boeing 737 MAX aircraft. The yield increases also reflected additional revenue from Aeroplan flight redemptions and other revenues subsequent to the Aeroplan acquisition on January 10, 2019.

In the fourth quarter of 2019, business cabin revenues, on a system-basis, increased \$31 million or 3.7% from the fourth quarter of 2018 on yield growth of 4.1%.

The table below provides passenger revenues by geographic region for the fourth quarter of 2019 and the fourth quarter of 2018.

Passenger Revenue (Canadian dollars in millions)	Fourth Quarter 2019	Fourth Quarter 2018	\$ Change	% Change
Canada	\$ 1,258	\$ 1,212	\$ 46	3.8
U.S. transborder	903	842	61	7.2
Atlantic	942	890	52	5.9
Pacific	555	549	6	1.2
Other	317	283	34	12.1
System	\$ 3,975	\$ 3,776	\$ 199	5.3

The table below provides year-over-year percentage changes in passenger revenues and operating statistics by geographic region for the fourth quarter of 2019 versus the fourth quarter of 2018.

Fourth Quarter 2019 versus Fourth Quarter 2018	Passenger Revenue % Change	Capacity (ASMs) % Change	Traffic (RPMs) % Change	Passenger Load Factor pp Change	Yield % Change	PRASM % Change
Canada	3.8	3.4	(0.1)	(2.8)	3.8	0.3
U.S. transborder	7.2	0.8	(1.0)	(1.5)	8.3	6.3
Atlantic	5.9	7.0	7.8	0.6	(1.8)	(1.0)
Pacific	1.2	(1.5)	(0.2)	1.1	1.4	2.8
Other	12.1	7.3	9.8	1.9	2.2	4.5
System	5.3	3.3	2.9	(0.3)	2.3	2.0

The table below provides year-over-year percentage changes in system passenger revenues and operating statistics for the fourth quarter of 2019 and each of the previous four quarters.

System	Year-over-Year by Quarter (% Change)				
	Q4'18	Q1'19	Q2'19	Q3'19	Q4'19
Passenger revenues	11.3	9.3	10.4	2.8	5.3
Capacity (ASMs)	5.8	4.6	2.3	(2.1)	3.3
Traffic (RPMs)	7.2	4.2	3.6	(1.8)	2.9
Passenger load factor (pp change)	1.1	(0.4)	1.0	0.2	(0.3)
Yield	3.8	4.9	6.6	4.7	2.3
PRASM	5.2	4.4	7.9	5.0	2.0

Components of the year-over-year change in fourth quarter system passenger revenues included:

- The 2.3% system yield growth which reflected yield increases in all markets with the exception of the Atlantic. The yield growth reflected increases in fares and an improvement in the overall fare mix. Additional yield earned on Aeroplan redemption revenues and growth in higher-yielding local traffic were also contributing factors to the yield growth year-over-year. These increases were partly offset by the impact of a longer average stage length year-over-year.
- The 2.9% traffic increase which reflected traffic growth in the Atlantic and Other markets. Traffic in the fourth quarter of 2019 was impacted by a slightly weaker western Canada market, a transitional impact arising from Air Canada's move to a new reservation system in mid-November, as well as fewer connecting passengers as a result of the grounding of the Boeing 737 MAX aircraft.

Compared to the fourth quarter of 2018, in the fourth quarter of 2019, PRASM increased 2.0% on the higher yield.

Domestic Passenger Revenues

In the fourth quarter of 2019, on capacity growth of 3.4%, domestic passenger revenues of \$1,258 million increased \$46 million or 3.8% from the fourth quarter of 2018.

The table below provides year-over-year percentage changes in domestic passenger revenues and operating statistics for the fourth quarter of 2019 and each of the previous four quarters.

Canada	Year-over-Year by Quarter (% Change)				
	Q4'18	Q1'19	Q2'19	Q3'19	Q4'19
Passenger revenues	5.6	5.8	10.4	8.5	3.8
Capacity (ASMs)	1.5	(0.1)	0.7	(0.1)	3.4
Traffic (RPMs)	1.7	0.6	1.9	(0.6)	(0.1)
Passenger load factor (pp change)	0.2	0.6	1.0	(0.4)	(2.8)
Yield	3.9	5.2	8.4	9.2	3.8
PRASM	4.1	6.0	9.6	8.6	0.3

Components of the year-over-year change in fourth quarter domestic passenger revenues included:

- The 3.8% yield increase which reflected yield growth on all major domestic services. The yield increase reflected the impact of fare increases, an improved traffic mix from capacity constraints as a result of the grounding of Boeing 737 MAX aircraft and from the optimization of fare categories, growth in higher-yielding local traffic, and additional yield earned on Aeroplan redemptions.
- The 0.1% traffic decrease which reflected a slightly weaker western Canada market, a transitional impact arising from Air Canada's move to a new reservation system in mid-November, as well as fewer connecting passengers as a result of the capacity reduction due to the Boeing 737 MAX grounding.

Compared to the fourth quarter of 2018, domestic PRASM increased 0.3% in the fourth quarter of 2019 on the higher yield.

U.S. Transborder Passenger Revenues

In the fourth quarter of 2019, on capacity growth of 0.8%, U.S. transborder passenger revenues of \$903 million increased \$61 million or 7.2% from the fourth quarter of 2018.

The table below provides year-over-year percentage changes in U.S. transborder passenger revenues and operating statistics for the fourth quarter of 2019 and each of the previous four quarters.

U.S. transborder	Year-over-Year by Quarter (% Change)				
	Q4'18	Q1'19	Q2'19	Q3'19	Q4'19
Passenger revenues	13.4	11.5	10.8	5.5	7.2
Capacity (ASMs)	9.7	8.0	0.3	(4.0)	0.8
Traffic (RPMs)	9.6	6.4	(0.1)	(3.9)	(1.0)
Passenger load factor (pp change)	(0.1)	(1.2)	(0.3)	0.1	(1.5)
Yield	3.5	4.7	10.9	9.8	8.3
PRASM	3.4	3.2	10.5	9.9	6.3

Components of the year-over-year change in fourth quarter U.S. transborder passenger revenues included:

- The 8.3% yield increase which reflected yield growth on all major U.S. transborder services. The overall yield improvement included the impact of an improved traffic mix due to capacity constraints as a result of the grounding of Boeing 737 MAX aircraft, gains in the business cabin and additional yield earned on Aeroplan redemption revenues.
- The 1.0% traffic decrease which reflected, in large part, reduced capacity on services to Hawaii and on certain long-haul services, such as Eastern Canada to California, and fewer connecting passengers as a result of the grounding of the Boeing 737 MAX aircraft.

Compared to the fourth quarter of 2018, U.S. transborder PRASM increased 6.3% in the fourth quarter of 2019 on the higher yield.

Atlantic Passenger Revenues

In the fourth quarter of 2019, on capacity growth of 7.0%, Atlantic passenger revenues of \$942 million increased \$52 million or 5.9% from the fourth quarter of 2018.

The table below provides year-over-year percentage changes in Atlantic passenger revenues and operating statistics for the fourth quarter of 2019 and each of the previous four quarters.

Atlantic	Year-over-Year by Quarter (% Change)				
	Q4'18	Q1'19	Q2'19	Q3'19	Q4'19
Passenger revenues	18.0	11.9	11.7	0.4	5.9
Capacity (ASMs)	9.5	7.4	3.6	(1.3)	7.0
Traffic (RPMs)	14.5	8.1	5.8	(0.6)	7.8
Passenger load factor (pp change)	3.5	0.5	1.7	0.7	0.6
Yield	3.0	3.6	5.5	1.0	(1.8)
PRASM	7.7	4.2	7.8	1.8	(1.0)

Components of the year-over-year change in fourth quarter Atlantic passenger revenues included:

- The 7.8% traffic increase which reflected traffic growth all major Atlantic services with the exception of services from Halifax and St. John's to London Heathrow which were suspended as a result of the grounding of the Boeing 737 MAX aircraft in mid-March 2019.
- The 1.8% yield decrease which reflected yield declines on most Atlantic services, reflecting the impact of increased industry capacity, which resulted in competitive pricing activities, as well as a longer average stage length year-over-year.

Compared to the fourth quarter of 2018, Atlantic PRASM decreased 1.0% in the fourth quarter of 2019 on the lower yield.

Pacific Passenger Revenues

In the fourth quarter of 2019, on a capacity reduction of 1.5%, Pacific passenger revenues of \$555 million increased \$6 million or 1.2% from the fourth quarter of 2018.

The table below provides year-over-year percentage changes in Pacific passenger revenues and operating statistics for the fourth quarter of 2019 and each of the previous four quarters.

Pacific	Year-over-Year by Quarter (% Change)				
	Q4'18	Q1'19	Q2'19	Q3'19	Q4'19
Passenger revenues	9.7	4.7	6.7	(5.9)	1.2
Capacity (ASMs)	(0.8)	(1.5)	2.4	(4.1)	(1.5)
Traffic (RPMs)	0.3	(1.9)	2.7	(4.7)	(0.2)
Passenger load factor (pp change)	0.9	(0.4)	0.3	(0.5)	1.1
Yield	9.3	6.7	3.8	(1.2)	1.4
PRASM	10.6	6.2	4.1	(1.9)	2.8

Components of the year-over-year change in fourth quarter Pacific passenger revenues included:

- The 1.4% yield increase which reflected yield growth on services to China, Japan and Taiwan partly offset by yield declines on services to Hong Kong and Korea.
- The 0.2% traffic decrease which reflected traffic declines on services to China and Taiwan, mostly offset by traffic increases on services to Japan, Korea and Australia. The geopolitical situation between Canada and China and the civil unrest in Hong Kong continued to negatively impact travel demand in the quarter, particularly business-related traffic demand between Canada and China/Hong Kong.

Compared to the fourth quarter of 2018, Pacific PRASM increased 2.8% in the fourth quarter of 2019 on the higher yield and a 1.1 percentage point improvement in passenger load factor.

Other Passenger Revenues

In the fourth quarter of 2019, on capacity growth of 7.3%, Other passenger revenues (from routes to and from the Caribbean, Mexico and Central and South America) of \$317 million increased \$34 million or 12.1% from the fourth quarter of 2018.

The table below provides year-over-year percentage changes in Other passenger revenues and operating statistics for the fourth quarter of 2019 and each of the previous four quarters.

Other	Year-over-Year by Quarter (% Change)				
	Q4'18	Q1'19	Q2'19	Q3'19	Q4'19
Passenger revenues	14.5	14.6	13.3	3.4	12.1
Capacity (ASMs)	15.2	12.2	6.1	(2.2)	7.3
Traffic (RPMs)	14.0	9.4	9.6	1.2	9.8
Passenger load factor (pp change)	(0.9)	(2.2)	2.7	3.0	1.9
Yield	0.5	4.8	3.4	2.1	2.2
PRASM	(0.6)	2.2	6.8	5.8	4.5

Components of the year-over-year change in fourth quarter Other passenger revenues included:

- The 9.8% traffic increase which reflected traffic growth on services to South America and on routes to traditional sun destinations.
- The 2.2% yield increase which reflected yield growth on services to South America and Mexico, partly offset by yield decreases on routes to traditional sun destinations. Additional yield earned on Aeroplan redemption revenues and the favourable impact of Air Canada having reverted back to one-stop service to Buenos Aires with a connection in Santiago on April 1, 2019 were contributing factors to the yield improvement year-over-year. Gains from the premium economy cabin also contributed to the yield growth versus 2018.

Compared to the fourth quarter of 2018, PRASM in the Other markets increased 4.5% in the fourth quarter of 2019 on the higher yield and a 1.9 percentage improvement in passenger load factor.

Cargo Revenues

In the fourth quarter of 2019, cargo revenues of \$186 million decreased \$31 million or 14.2% from the same period in 2018 on yield and traffic decreases of 8.7% and 6.0%, respectively. Demand for air cargo decreased industry-wide, particularly in the Atlantic and Pacific markets, causing reductions in volumes and putting downward pressure on yields, reflecting the impact of external factors, such as on-going international trade challenges and reduced economic activities.

The table below provides cargo revenue by geographic region for the fourth quarter of 2019 and the fourth quarter of 2018.

Cargo Revenue (Canadian dollars in millions)	Fourth Quarter		Change	
	2019	2018	\$	%
Canada	\$ 27	\$ 27	\$ -	-
U.S. transborder	11	12	(1)	(12.8)
Atlantic	63	72	(9)	(12.3)
Pacific	70	88	(18)	(20.9)
Other	15	18	(3)	(11.2)
System	\$ 186	\$ 217	\$ (31)	(14.2)

Other Revenues

In the fourth quarter of 2019, other revenues of \$268 million increased \$34 million or 15% when compared to the fourth quarter of 2018, mainly due to the net margin recorded on the redemption and delivery of non-air goods and services related to the Aeroplan program since its acquisition in January 2019. An increase in ground package revenue at Air Canada Vacations was also a contributing factor to the growth in other revenues year-over-year. The increase in ground package revenue at Air Canada Vacations was driven by higher passenger volumes and, to a lesser extent, a higher price of ground packages year-over-year.

CASM and Adjusted CASM

In the fourth quarter of 2019, CASM increased 2.5% and adjusted CASM increased 5.5% compared to the fourth quarter of 2018. This increase reflected, in large part, the impact of the Boeing 737 MAX aircraft grounding, which resulted in a system ASM increase of 3.3% in the fourth quarter of 2019 rather than the planned system ASM growth of approximately 4.6%, in addition to creating significant higher costs associated with replacement aircraft, and higher on-going operating expenses, including as a result of depreciation, aircraft maintenance and pilot wages that continued to be incurred in relation to the Boeing 737 MAX aircraft despite their grounding.

The table below compares Air Canada's CASM and adjusted CASM for the fourth quarter of 2019 to the fourth quarter of 2018. Given that the Aeroplan loyalty business was not consolidated in Air Canada's financial results in 2018, for a more meaningful comparison of the cost performance of the on-going airline business, Air Canada's adjusted CASM for the fourth quarter excludes the operating expenses of Aeroplan.

(cents per ASM)	Fourth Quarter		Change	
	2019	2018	cents	%
CASM	¢ 16.21	¢ 15.81	¢ 0.40	2.5
Remove:				
Aircraft fuel expense ⁽¹⁾ , ground package costs at Air Canada Vacations, and the operating expenses of Aeroplan	(4.54)	(4.75)	0.21	4.4
Adjusted CASM ⁽²⁾	¢ 11.67	¢ 11.06	¢ 0.61	5.5

(1) Includes aircraft fuel expense related to regional airline operations.

(2) Adjusted CASM is a non-GAAP financial measure. Refer to section 22 "Non-GAAP Financial Measures" of this MD&A for additional information.

Operating Expenses

In the fourth quarter of 2019, on a capacity increase of 3.3%, operating expenses of \$4,284 million increased \$236 million or 6% from the fourth quarter of 2018.

Aeroplan-related operating expenses amounted to \$58 million in the fourth quarter of 2019. These expenses mainly impact wages, salaries and benefits, depreciation and amortization, communications and information technology and other expenses.

The more notable components of the year-over-year change in operating expenses are described below.

Aircraft Fuel Expense

In the fourth quarter of 2019, aircraft fuel expense (including fuel expense related to regional airline operations) amounted to \$1,013 million, a decrease of \$78 million or 7% from the fourth quarter of 2018. This decrease reflected the impact of lower jet fuel prices (before the impact of foreign exchange), accounting for a decrease of \$102 million and other factors, including lower fuel hedging expenses, accounting for a decrease of \$25 million. These decreases were partly offset by a higher volume of fuel litres consumed, accounting for an increase of \$45 million, and an unfavourable currency impact of \$4 million.

Wages, Salaries and Benefits Expense

In the fourth quarter of 2019, wages and salaries expense of \$650 million increased \$93 million or 17% from the same period in 2018. This increase was largely due to a 9.2% increase in the number of FTEs, which included the impact of the acquisition of Aeroplan on January 10, 2019 and incremental personnel to support Air Canada's technology projects, including the insourcing of certain functions previously outsourced to third parties. The increase also reflected higher stock-based compensation expense, which was due to the increase in Air Canada's share price during the period, and an increase in expenses related to employee profit sharing programs. Although Air Canada's Boeing 737 MAX fleet was grounded in early 2019, pilot wages related to these aircraft continue to be incurred as Air Canada awaits their return to service.

In the fourth quarter of 2019, employee benefits expense of \$166 million increased \$4 million from the same quarter in 2018 mainly due to the higher level of FTE employees. This increase was partly offset by the favourable impact of higher discount rates related to pension and post-employment benefits.

Regional Airlines Expense

In the fourth quarter of 2019, regional airlines expense of \$621 million increased \$1 million from the same quarter in 2018. The impact of lower aircraft fuel expense and less flying by regional carriers year-over-year was offset by higher capacity purchase fees due to timing of expenses when compared to the fourth quarter of 2018.

The table below provides a breakdown of regional airlines expense for the fourth quarter of 2019 and the fourth quarter of 2018.

(Canadian dollars in millions)	Fourth Quarter		Change	
	2019 ⁽¹⁾	2018	\$	%
Capacity purchase fees ⁽¹⁾	\$ 277	\$ 264	\$ 13	5
Aircraft fuel	116	133	(17)	(13)
Airport and navigation	71	73	(2)	(3)
Sales and distribution costs	38	34	4	12
Other operating expenses	119	116	3	3
Total regional airlines expense	\$ 621	\$ 620	\$ 1	-

(1) Capacity purchase fees exclude the component of fees related to aircraft costs which are accounted for as lease liabilities in accordance with IFRS 16 - Leases.

Depreciation and Amortization Expense

In the fourth quarter of 2019, depreciation and amortization expense of \$520 million increased \$80 million or 18% from the same period in 2018. This increase was largely due to a higher volume of engine maintenance events on leased aircraft, the addition of Boeing 737 MAX and Boeing 787 aircraft into the mainline fleet, and the amortization of intangible assets recorded on the acquisition of Aeroplan on January 10, 2019.

Aircraft Maintenance Expense

In the fourth quarter of 2019, aircraft maintenance expense of \$250 million increased \$5 million or 2% from the same period in 2018.

The table below provides a breakdown of the more significant items included in maintenance expense for the fourth quarter of 2019 and the fourth quarter of 2018.

(Canadian dollars in millions)	Fourth Quarter		Change	
	2019	2018	\$	%
Technical maintenance	\$ 218	\$ 211	\$ 7	3
Maintenance provisions ⁽¹⁾	24	31	(7)	(23)
Other	8	3	5	167
Total aircraft maintenance expense	\$ 250	\$ 245	\$ 5	2

(1) Maintenance provisions relate to return conditions on aircraft leases which are recorded over the term of the lease.

Communication and Information Technology Expense

In the fourth quarter of 2019, communication and information technology expense of \$109 million increased \$40 million or 58% from the same period in 2018. This increase reflected additional information technology projects year-over-year, including those related to security, data platforms and systems resiliency and modernization. This increase also includes the impact of the acquisition of Aeroplan on January 10, 2019, transitional costs associated with the insourcing of certain functions previously outsourced to third parties, as well as transaction fees related to Air Canada's new reservation system, launched in mid-November 2019.

Other Expenses

In the fourth quarter of 2019, other expenses of \$411 million increased \$51 million or 14% from the same period in 2018. This increase reflected the cost of short-term aircraft leases, including for additional capacity related to the grounding of the Boeing 737 MAX aircraft and higher project fees, including those related to the acquisition of Transat. This increase also includes the impact of the acquisition of Aeroplan on January 10, 2019.

The table below provides a breakdown of the more significant items included in other expenses for the fourth quarter of 2019 and the fourth quarter of 2018.

(Canadian dollars in millions)	Fourth Quarter		Change	
	2019	2018	\$	%
Terminal handling	\$ 82	\$ 77	\$ 5	6
Crew cycle	55	52	3	6
Building rent and maintenance	46	40	6	15
Miscellaneous fees and services	51	50	1	2
Remaining other expenses	177	141	36	26
Total other expense	\$ 411	\$ 360	\$ 51	14

Non-operating Income (Expense)

In the fourth quarter of 2019, non-operating income amounted to \$27 million versus non-operating expense of \$570 million in the fourth quarter of 2018.

Components of the year-over-year change in non-operating income included:

- In the fourth quarter of 2019, gains on foreign exchange amounted to \$92 million compared to losses on foreign exchange of \$444 million in the fourth quarter of 2018. The December 31, 2019 closing exchange rate was US\$1=C\$1.299 while the September 30, 2019 closing exchange rate was US\$1=C\$1.3241. The gains on foreign exchange in the fourth quarter of 2019 included foreign exchange gains on long-term debt and lease liabilities of \$159 million and foreign exchange losses on foreign currency derivatives of \$70 million.
- In the fourth quarter of 2019, Air Canada recorded a gain on debt settlements and modifications of \$6 million related to the repricing of its US\$1.1 billion senior secured credit facility while no such gain was recorded in the fourth quarter of 2018.
- In the fourth quarter of 2019, Air Canada recorded a gain on disposal of assets of \$13 million related to the sale of an aircraft, spare engines and a flight simulator while no such gain was recorded in the fourth quarter of 2018.

9. FLEET
Mainline and Air Canada Rouge

The following table provides Air Canada's and Air Canada Rouge's operating fleet as at December 31, 2019. Refer to the Air Canada Express section below for information on the fleet of aircraft operated by regional airlines operating flights on behalf of Air Canada under capacity purchase agreements with Air Canada.

Mainline	Total Seats	Number of Operating Aircraft ⁽²⁾	Average Age	Owned	Leased
<u>Wide-body aircraft</u>					
Boeing 787-8	255	8	5.3	8	-
Boeing 787-9	298	29	3.0	23	6
Boeing 777-300ER	400/450	19	9.5	10	9
Boeing 777-200LR	300	6	12.2	4	2
Boeing 767-300ER	211	5	30.1	4	1
Airbus A330-300	289	13	15.9	8	5
<u>Narrow-body aircraft</u>					
Boeing 737 MAX 8 ⁽¹⁾	169	24	1.6	24	-
Airbus A321	190	15	16.7	5	10
Airbus A320	147	38	25.0	7	31
Airbus A319	108	16	22.2	5	11
Airbus A220-300	137	1	0	1	-
Embraer 190	97	14	12.2	-	14
Total Mainline		188	13.3	99	89
Air Canada Rouge					
<u>Wide-body aircraft</u>					
Boeing 767-300ER ⁽²⁾	282	25	22.6	3	22
<u>Narrow-body aircraft</u>					
Airbus A321	199	14	4.2	4	10
Airbus A320	146	3	12.5	-	3
Airbus A319 ⁽²⁾	136	22	21.2	17	5
Total Air Canada Rouge		64	17.7	24	40
Total Mainline and Air Canada Rouge ⁽³⁾		252	14.4	123	129

(1) The Boeing 737 MAX fleet is grounded. Refer to "Grounding of Boeing 737 MAX Aircraft" below for additional information.

(2) The Boeing 767 aircraft and the Airbus A319 aircraft reflected as owned in the table above are owned by Air Canada and leased to Air Canada Rouge.

(3) Air Canada has contracted with other airlines to provide capacity under wet lease agreements as a result of the grounding of its Boeing 737 MAX fleet. The aircraft under these arrangements are excluded from the table above.

The tables below provide the number of aircraft in Air Canada's operating fleet as at December 31, 2019 as well as Air Canada's planned operating fleet, including aircraft operating and expected to be operated by Air Canada Rouge, as at December 31, 2020 and December 31, 2021. Given the continued grounding of the Boeing 737 MAX aircraft, as described below, Air Canada assumes, in the table below, that six of 12 undelivered Boeing 737 MAX aircraft originally scheduled for delivery in 2019 will be delivered in 2020 and the remaining six will be delivered in 2021. Air Canada also assumes that 14 undelivered Boeing 737 MAX aircraft originally scheduled for delivery in 2020 will be delivered in 2021.

	Actual	Planned			
	December 31, 2019	2020 Fleet Changes	December 31, 2020	2021 Fleet Changes	December 31, 2021
Mainline					
Wide-body aircraft					
Boeing 787-8	8	-	8	-	8
Boeing 787-9	29	-	29	-	29
Boeing 777-300ER	19	-	19	-	19
Boeing 777-200LR	6	-	6	-	6
Boeing 767-300ER	5	-	5	(5)	-
Airbus A330-300	13	4	17	-	17
Narrow-body aircraft					
Boeing 737 MAX 8 ⁽¹⁾	24	6	30	20	50
Airbus A321	15	-	15	-	15
Airbus A320	38	(22)	16	(6)	10
Airbus A319	16	-	16	(7)	9
Airbus A220-300	1	17	18	16	34
Embraer 190	14	(14)	-	-	-
Total Mainline	188	(9)	179	18	197
Air Canada Rouge					
Wide-body aircraft					
Boeing 767-300ER	25	(2)	23	-	23
Narrow-body aircraft					
Airbus A321	14	-	14	-	14
Airbus A320	3	2	5	-	5
Airbus A319	22	-	22	-	22
Total Air Canada Rouge	64	-	64	-	64
Total wide-body aircraft	105	2	107	(5)	102
Total narrow-body aircraft	147	(11)	136	23	159
Total Mainline and Air Canada Rouge	252	(9)	243	18	261

(1) Grounding of Boeing 737 MAX Aircraft

On March 12, 2019 the European Aviation Safety Agency ("EASA") issued an Emergency Directive suspending the operation of the Boeing 737 MAX within, to and from the European skies (including outside territories). On March 13, 2019, Transport Canada issued a safety notice closing Canadian airspace to Boeing 737 MAX aircraft until further notice, followed by the Federal Aviation Administration which issued a temporary grounding order for the Boeing 737 MAX aircraft. On March 14, 2019, Boeing advised it was suspending Boeing 737 MAX deliveries to airline customers. Air Canada was expecting to receive another 12 aircraft for a total fleet of 36 Boeing 737 MAX aircraft by July 2019. Because the timeline for the return to service of the Boeing 737 MAX aircraft remains uncertain, for planning purposes, Air Canada is removing Boeing 737 MAX flying from its schedule until the end of June 2020. The table above may change once the duration and related impact of the grounding, or Boeing's decision to suspend deliveries, of the Boeing 737 MAX aircraft is known. Final decisions on returning the Boeing 737 MAX aircraft to service will be based on Air Canada's safety assessment following the lifting of government safety notices and approval by international regulatory authorities.

Measures taken by Air Canada to mitigate the impact of the Boeing 737 MAX grounding include:

- Substituting different aircraft on Boeing 737 MAX routes, maintaining certain owned or leased aircraft in the operating fleet longer than originally planned, including Boeing 767, Airbus A320 and Embraer 190 aircraft, and accelerating the in-take of up to eight Airbus A321 aircraft from WOW Air into its fleet.
- Contracting other carriers to provide additional capacity.
- Implementing several route changes, either changing operating times or substituting larger aircraft with fewer frequencies on routes operated more frequently by smaller aircraft.
- In some cases, deploying Air Canada Rouge aircraft to serve mainline routes and, in a small number of cases, suspending service on certain Boeing 737 MAX routes where alternative capacity is not yet available. Air Canada remains committed to these routes and will resume service as soon as possible. In addition, some seasonal route launches, such as Montréal-Bordeaux and Vancouver-Boston, were delayed.
- Maintaining Boeing 737 MAX aircraft training and flying requirements of pilots assigned to the Boeing 737 MAX aircraft.

Sale of Embraer 190 Aircraft

In August 2018, Air Canada finalized the sale and leaseback of 25 Embraer 190 aircraft. Six of these aircraft were returned to the lessor in 2018 and five of these aircraft were returned to the lessor in 2019, with the remaining 14 aircraft planned to exit the fleet in 2020.

Air Canada Express

The table below provides the number of aircraft operated, as at December 31, 2019, and planned, as at December 31, 2020 and December 31, 2021, on behalf of Air Canada, by Jazz, Sky Regional and other airlines operating flights under the Air Canada Express banner pursuant to capacity purchase agreements with Air Canada.

	Actual	Planned			
	December 31, 2019	2020 Fleet Changes	December 31, 2020	2021 Fleet Changes	December 31, 2021
Embraer 175	25	-	25	-	25
Bombardier CRJ-100/200	22	(7)	15	-	15
Bombardier CRJ-900	26	7	33	2	35
Bombardier Dash 8-100	6	(6)	-	-	-
Bombardier Dash 8-300	23	(4)	19	-	19
Bombardier Dash 8-Q400	44	(4)	40	(4)	36
Total Air Canada Express	146	(14)	132	(2)	130

Other Aircraft with CPA Carriers

A total of five 18-passenger Beech 1900 aircraft were also operated by CPA carriers on behalf of Air Canada.

10. FINANCIAL AND CAPITAL MANAGEMENT

10.1. Liquidity

Air Canada manages its liquidity needs through a variety of strategies, including by seeking to sustain and improve cash from operations and free cash flow, sourcing committed financing, as necessary, for new and existing aircraft, and through other financing activities.

Liquidity needs are primarily related to meeting obligations associated with financial liabilities, capital commitments, on-going operations, contractual and other obligations, which are further discussed in sections 0, 10.7 and 10.8 of this MD&A. Air Canada monitors and manages liquidity risk by preparing rolling cash flow forecasts, monitoring the condition and value of assets available for use as well as those assets being used as security in financing arrangements, seeking flexibility in financing arrangements, and establishing programs to monitor and maintain compliance with terms of financing agreements. At December 31, 2019, unrestricted liquidity amounted to \$7,380 million (comprised of cash, cash equivalents and short-term investments of \$5,889 million, long-term investments of \$512 million and undrawn lines of credit of \$979 million). This compared to unrestricted liquidity of \$5,725 million at December 31, 2018 (comprised of cash, cash equivalents and short-term investments of \$4,707 million and undrawn lines of credit of \$1,018 million). After further review of Air Canada's liquidity management practices, in 2019, Air Canada updated its unrestricted liquidity definition to include long-term investments. Long-term investments are comprised of government bonds and other investment instruments that meet certain credit rating guidelines. Air Canada's long-term investments of \$512 million at December 31, 2019 can be used to meet long-term financial commitments or converted to cash, if needed.

Air Canada defines excess cash as total cash and investments in excess of the minimum cash required to support operations. This measure of liquidity includes cash, cash equivalents, short-term investments, short-term restricted cash and long-term investments. Air Canada uses 20% of trailing 12 months operating revenue as its estimate of the minimum cash required to support on-going business operations. This estimate of minimum cash provides adequate coverage for advance ticket sales and to meet Air Canada's liquidity needs, as described above. Excess cash amounted to \$2,732 million at December 31, 2019. Excess cash is applied against shareholders' equity in the calculation of return on invested capital. Refer to section 22 "Non-GAAP Financial Measures" of this MD&A for additional information.

In addition, Air Canada monitors its financial leverage as measured by the net debt to EBITDA ratio, as further described in section 10.3 of this MD&A.

10.2. Financial Position

The table below provides a condensed consolidated statement of financial position of Air Canada as at December 31, 2019 and as at December 31, 2018.

(Canadian dollars in millions)	December 31, 2019	December 31, 2018	\$ Change
Assets			
Cash, cash equivalents and short-term investments	\$ 5,889	\$ 4,707	\$ 1,182
Other current assets	1,627	1,594	33
Current assets	\$ 7,516	\$ 6,301	\$ 1,215
Investments, deposits and other assets	936	401	535
Property and equipment	12,834	12,183	651
Pension assets	2,064	1,969	95
Deferred income tax	134	314	(180)
Intangible assets	1,002	404	598
Goodwill	3,273	311	2,962
Total assets	\$ 27,759	\$ 21,883	\$ 5,876
Liabilities			
Current liabilities	\$ 7,775	\$ 5,676	\$ 2,099
Long-term debt and lease liabilities	8,024	8,873	(849)
Aeroplan and other deferred revenue	3,136	-	3,136
Pension and other benefit liabilities	2,930	2,547	383
Maintenance provisions	1,240	1,307	(67)
Other long-term liabilities	181	151	30
Deferred income tax	73	52	21
Total liabilities	\$ 23,359	\$ 18,606	\$ 4,753
Total shareholders' equity	\$ 4,400	\$ 3,277	\$ 1,123
Total liabilities and shareholders' equity	\$ 27,759	\$ 21,883	\$ 5,876

Movements in current assets and current liabilities are described in section 10.4 "Working Capital" of this MD&A. Long-term debt and lease liabilities are discussed in sections 10.3 "Net Debt" and 0 "Consolidated Cash Flow Movements" of this MD&A.

Investments, deposits and other assets amounted to \$936 million as at December 31, 2019, an increase of \$535 million from December 31, 2018. The reasons for the increase include Air Canada's equity investment in Chorus, as described below, and the cash amounts placed in long-term investment accounts, as described in section 10.3 "Net Debt" of this MD&A.

At December 31, 2019, property and equipment amounted to \$12,834 million, an increase of \$651 million from December 31, 2018. This increase was due to additions to property and equipment of \$2,552 million, including the non-cash impact of the Jazz CPA extension as described below, offset by the impact of depreciation expense of \$1,872 million.

In 2019, additions to property and equipment included two new Boeing 787 aircraft, six new Boeing 737 MAX aircraft, one new Airbus A220 aircraft and four used Airbus A321 aircraft. These aircraft were purchased with cash. In 2019, additions to property and equipment also included progress payments on future aircraft deliveries and capitalized maintenance costs.

At December 31, 2019, the net long-term pension and other benefit liabilities of \$866 million (comprised of pension and other benefit liabilities of \$2,930 million net of pension assets of \$2,064 million) increased \$288 million from December 31, 2018. The increase was mainly due to total costs recognized of \$354 million during 2019. The increase also included the impact of a 68-basis point decrease in the discount rate used to value the liabilities, largely offset by a strong return on plan assets, resulting in a net loss on remeasurements on employee liabilities of \$32 million (\$22 million, net of tax) recorded on Air Canada's consolidated statement of comprehensive income.

Acquisition of Aeroplan

In January 2019, Air Canada completed the acquisition of Aeroplan, as further described in section 6 "Overview" of this MD&A. In addition to the commercial agreement consideration of \$1,212 million and the \$400 million prepayment of Aeroplan Miles (both of which are recorded within Aeroplan and other deferred revenue), the table below summarizes the additions to Air Canada's consolidated statement of financial position on the acquisition date.

(Canadian dollars in millions)

Fair value of assets acquired		
Cash	\$	-
Accounts receivable		188
Prepaid expenses and other current assets		8
Property and equipment		55
Deferred income tax		44
Intangible assets – Technology-based		38
Intangible assets – Contract-based		225
Intangible assets – Trade name		90
	\$	648
Fair value of liabilities assumed		
Accounts payable and accrued liabilities		210
Deferred revenue (current and long-term)		2,779
Long-term debt (lease liabilities)		41
Pension and other benefit liabilities		39
Deferred income tax		24
	\$	3,093
Fair value of net assets acquired		(2,445)
Goodwill		2,962
Total purchase consideration	\$	517

Capacity Purchase Agreement with Jazz and Equity Investment in Chorus

In February 2019, Air Canada concluded an agreement to amend and extend its capacity purchase agreement ("Jazz CPA") with Jazz, a wholly owned subsidiary of Chorus Aviation Inc. The amendments provide an extension of the CPA term by 10 years from January 1, 2026 to December 31, 2035. The amendments include various minimum levels of covered aircraft at different points in time, providing Air Canada the flexibility to optimize the fleet within its network strategy. The amendments became effective retroactively as at January 1, 2019. With the extension of the Jazz CPA term, increases of \$95 million to the right-of-use asset and \$104 million to the lease liability and a decrease of \$9 million to the maintenance provision were recorded in the first quarter of 2019. The increases to the right-of-use asset and lease liability relate only to those aircraft that are specifically identified to be extended at this time. As additional aircraft are confirmed for extension during the term of the contract, additional right-of-use assets and lease liabilities will be recorded.

Concurrently with the Jazz CPA amendments, Air Canada subscribed for 15,561,600 class B voting shares in the capital of Chorus, representing, at time of issuance, approximately 9.99% of the issued and outstanding class A variable voting shares and class B voting shares of Chorus on a combined basis. This represents an investment of \$97 million by Air Canada. The Chorus shares were issued to Air Canada at a price of \$6.25 per share, representing a 5% premium to the five-day volume weighted average price of the shares as of the close of trading on January 10, 2019. Air Canada and Chorus entered into an investor rights agreement under which, among other things, Air Canada will hold the investment shares for a period of at least 60 months from February 2019, subject to certain limited exceptions. The equity investment in Chorus is accounted for at fair value, with all changes in fair value recorded through other comprehensive income. The fair value of the investment at December 31, 2019 was \$126 million and is recorded in investments, deposits and other assets on Air Canada's consolidated statement of financial position. The change in fair value recorded through other comprehensive income for the year ended December 31, 2019 was \$25 million, comprised of a gain of \$29 million less deferred income tax expense of \$4 million.

10.3. Net Debt

The table below reflects Air Canada's net debt balances as at December 31, 2019 and as at December 31, 2018.

(Canadian dollars in millions, except where indicated)	December 31, 2019	December 31, 2018	\$ Change
Total long-term debt and lease liabilities	\$ 8,024	\$ 8,873	(849)
Current portion of long-term debt and lease liabilities	1,218	1,048	170
Total long-term debt and lease liabilities (including current portion)	\$ 9,242	\$ 9,921	(679)
Less cash, cash equivalents and short and long-term investments	(6,401)	(4,707)	(1,694)
Net debt ⁽¹⁾	\$ 2,841	\$ 5,214	(2,373)
EBITDA (trailing 12 months)	\$ 3,636	\$ 3,213	423
Net debt to EBITDA ratio ⁽²⁾	0.8	1.6	(0.8)

(1) Net debt is an additional GAAP financial measure and a key component of the capital managed by Air Canada and provides management with a measure of its net indebtedness.

(2) Net debt to trailing 12-month EBITDA ratio (also referred to as "leverage ratio" in this MD&A) is a non-GAAP financial measure and is used by Air Canada to measure financial leverage. Leverage ratio is calculated by dividing net debt by trailing 12-month EBITDA. Refer to section 22 "Non-GAAP Financial Measures" of this MD&A for additional information.

At December 31, 2019, total long-term debt and lease liabilities (including current portion) of \$9,242 million decreased \$679 million from December 31, 2018. The favourable impact of a stronger Canadian dollar, as at December 31, 2019 compared to December 31, 2018, decreased foreign currency denominated debt (mainly U.S. dollars) by \$417 million. Partially offsetting this decrease was the impact of the Jazz CPA extension, as described in section 10.2 "Financial Position" of this MD&A, which increased lease liabilities by \$104 million.

At December 31, 2019, net debt of \$2,841 million decreased \$2,373 million from December 31, 2018, reflecting an increase in cash, cash equivalents and short and long-term investment balances of \$1,694 million and a decrease in long-term debt and lease liabilities (including current portion) of \$679 million. At December 31, 2019, Air Canada's leverage ratio (net debt to trailing 12-month EBITDA ratio) was 0.8 versus a leverage ratio of 1.6 at December 31, 2018.

In 2019, Air Canada began placing a portion of its cash in long-term investment accounts in order to improve investment returns while taking into account Air Canada's short-term cash flow needs. As at December 31, 2019, these long-term investments amounted to \$512 million. These investments can be used to meet longer-term financial commitments or converted to cash, if needed. As such, Air Canada updated its definition of net debt to include these long-term investments (as a deduction) to arrive at net debt.

At December 31, 2019, Air Canada's weighted average cost of capital ("WACC"), on a pre-tax basis, was 7.0%. WACC is based on an estimate by management and consists of an estimated cost of equity of 15.0% and a blended average cost of debt and lease liabilities of 5.0% (comprised of an average cost of debt of 4.1% and an average cost of lease liabilities of 6.5%). This compared to WACC, on a pre-tax basis, of 8.0% at December 31, 2018 which consisted of an estimated cost of equity of 18.2% and a blended average cost of debt and lease liabilities of 5.4% (comprised of an average cost of debt of 4.2% and an average cost of lease liabilities of 7.6%).

10.4. Working Capital

The table below provides information on Air Canada's working capital balances as at December 31, 2019 and as at December 31, 2018.

(Canadian dollars in millions)	December 31, 2019	December 31, 2018	\$ Change
Cash, cash equivalents and short-term investments	\$ 5,889	\$ 4,707	\$ 1,182
Accounts receivable	926	796	130
Other current assets	701	798	(97)
Total current assets	\$ 7,516	\$ 6,301	\$ 1,215
Accounts payable and accrued liabilities	2,456	1,911	545
Advance ticket sales	2,939	2,717	222
Aeroplan and other deferred revenue	1,162	-	1,162
Current portion of long-term debt and lease liabilities	1,218	1,048	170
Total current liabilities	\$ 7,775	\$ 5,676	\$ 2,099
Net working capital	\$ (259)	\$ 625	\$ (884)

The net negative working capital of \$259 million at December 31, 2019 represented a decrease of \$884 million from December 31, 2018. Cash used in investing and financing activities related to aircraft acquisitions, the investment in Chorus, the placing of cash in long-term investment accounts (as described in section 10.3 "Net Debt" above), and share repurchases were the main drivers of the decrease in net working capital in 2019.

Accounts payable and accrued liabilities of \$2,456 million at December 31, 2019 increased \$545 million from December 31, 2018 mostly due to an increase in current income tax payable, the addition of accounts payable from the acquisition of Aeroplan and the impact of growth in the business.

The net cash impact of the Aeroplan acquisition and related agreements amounted to an increase in cash of \$1,115 million as at the acquisition date, representing the commercial agreement consideration of \$1,212 million and the \$400 million prepayment of Aeroplan Miles, which are reported as operating cash inflows, less the share purchase price of \$517 million, which is reported as an investing outflow. On a working capital basis, this cash impact was largely offset with the current portion of Aeroplan and other deferred revenue.

10.5. Consolidated Cash Flow Movements

The table below provides the cash flow movements for Air Canada for the periods indicated.

(Canadian dollars in millions)	Fourth Quarter			Full Year		
	2019	2018	\$ Change	2019	2018	\$ Change
Net cash flows from operating activities	\$ 677	\$ 548	\$ 129	\$ 5,712	\$ 3,470	\$ 2,242
Proceeds from borrowings	-	-	-	-	1,210	(1,210)
Reduction of long-term debt and lease liabilities	(276)	(508)	232	(1,084)	(1,706)	622
Shares purchased for cancellation	(125)	(50)	(75)	(373)	(73)	(300)
Issue of shares	1	-	1	9	5	4
Financing fees	(1)	(4)	3	(1)	(12)	11
Net cash flows used in financing activities	\$ (401)	\$ (562)	\$ 161	\$ (1,449)	\$ (576)	\$ (873)
Investments, short-term and long-term	67	36	31	(255)	(848)	593
Additions to property, equipment and intangible assets	(251)	(260)	9	(2,025)	(2,436)	411
Proceeds from sale of assets	18	1	17	24	11	13
Proceeds from sale and leaseback of assets	-	-	-	-	293	(293)
Acquisition of Aeroplan	-	-	-	(517)	-	(517)
Investment in Chorus	-	-	-	(97)	-	(97)
Other	13	(1)	14	75	47	28
Net cash flows used in investing activities	\$ (153)	\$ (224)	\$ 71	\$ (2,795)	\$ (2,933)	\$ 138
Effect of exchange rate changes on cash and cash equivalents	\$ (9)	\$ 16	\$ (25)	\$ (8)	\$ 27	\$ (35)
Increase (decrease) in cash and cash equivalents	\$ 114	\$ (222)	\$ 336	\$ 1,460	\$ (12)	\$ 1,472

Net Cash Flows from (used in) Operating Activities

In the fourth quarter of 2019, net cash flows from operating activities of \$677 million increased \$129 million from the same quarter in 2018 on both an improvement in operating income and an increase in cash from working capital.

In 2019, net cash flows from operating activities of \$5,712 million increased \$2,242 million compared to 2018. As discussed in section 10.4 "Working Capital" of this MD&A, operating cash inflows related to the acquisition of Aeroplan amounted to \$1,612 million. An improvement in operating income year-over-year and gross billings of Aeroplan Miles to program partners since the date of acquisition were also contributing factors to the improvement in net cash flows from operating activities in 2019.

Net Cash Flows from (used in) Investing Activities

In the fourth quarter of 2019, net cash outflows used in investing activities of \$153 million decreased \$71 million in the fourth quarter of 2019.

In 2019, net cash flows used in investing activities of \$2,795 million decreased \$138 million from 2018. A lower level of capital expenditures year-over-year was mainly due to fewer additions to property and equipment and included the impact of an initial settlement payment from Boeing, which is further discussed in section 10.6 "Capital Expenditures" of this MD&A. This was partly offset by the impact of Air Canada's on-going investments in its new reservation and loyalty systems.

Net Cash Flows used in Financing Activities

Reduction of long-term debt and lease liabilities amounted to \$276 million in the fourth quarter of 2019 and \$1,084 million for the full year 2019.

Refer to sections 10.4 "Working Capital", 10.2 "Financial Position" and 10.3 "Net Debt" and 10.9 "Share Information" of this MD&A for additional information.

Free Cash Flow

In conjunction with Air Canada's acquisition of Aeroplan, Air Canada received payments from TD Bank, CIBC, Visa and AMEX in the aggregate amount of \$1,212 million. In addition, TD Bank and CIBC made payments to Air Canada in the aggregate amount of \$400 million as prepayments to be applied towards future monthly payments in respect of Aeroplan Miles. Air Canada has excluded these one-time proceeds in its calculation of free cash flow.

The table below provides the calculation of free cash flow for Air Canada for the periods indicated.

(Canadian dollars in millions)	Fourth Quarter			Full Year		
	2019	2018	\$ Change	2019	2018	\$ Change
Net cash flows from operating activities	\$ 677	\$ 548	\$ 129	\$ 5,712	\$ 3,470	\$ 2,242
Additions to property, equipment and intangible assets, net of proceeds from sale and leaseback transactions	(251)	(260)	9	(2,025)	(2,143)	118
One-time proceeds related to the acquisition of Aeroplan (as described above)	-	-	-	(1,612)	-	(1,612)
Free cash flow ⁽¹⁾	\$ 426	\$ 288	\$ 138	\$ 2,075	\$ 1,327	\$ 748

(1) Free cash flow is a non-GAAP financial measure used by Air Canada as an indicator of the financial strength and performance of its business, indicating how much cash it can generate from operations after capital expenditures and after one-time proceeds related to the acquisition of Aeroplan. Free cash flow is calculated as net cash flows from operating activities minus additions to property, equipment and intangible assets, and is net of proceeds from sale and leaseback transactions. The one-time proceeds related to the acquisition of Aeroplan in 2019 were also excluded from Air Canada's calculation of free cash flow. Refer to section 22 "Non-GAAP Financial Measures" of this MD&A for additional information.

Free cash flow of \$426 million increased \$138 million from the fourth quarter of 2018. Excluding the one-time proceeds related to the Aeroplan acquisition, free cash flow of \$2,075 million in 2019 increased \$748 million from 2018 due to the higher cash flows from operating activities and to a lower level of capital expenditures year-over-year, in large part due to the deferral of Boeing 737 MAX aircraft deliveries.

10.6. Capital Expenditures

Boeing 787

Air Canada took delivery of the last of 37 Boeing 787 aircraft it had on order at the end of April 2019. Air Canada's order with The Boeing Company ("Boeing") included purchase options for 13 Boeing 787 aircraft (entitling Air Canada to purchase aircraft based on previously determined pricing and delivery positions), and purchase rights for 10 Boeing 787 aircraft (entitling Air Canada to purchase aircraft based on Boeing's then current pricing and available delivery positions).

737 MAX Aircraft

Air Canada's agreement with Boeing for the purchase of Boeing 737 MAX aircraft provided for:

- Firm orders for 61 Boeing 737 MAX aircraft, consisting of 50 Boeing 737 MAX 8 and 11 Boeing 737 MAX 9 aircraft with substitution rights between them as well as for the Boeing 737 MAX 7 aircraft.
- Purchase options for 18 Boeing 737 MAX aircraft.
- Certain rights to purchase an additional 30 Boeing 737 MAX aircraft.

Twenty-four Boeing 737 MAX 8 aircraft have been delivered, and Air Canada's order contemplated the delivery of the remaining 37 Boeing 737 MAX aircraft from 2019 to 2024. Given the grounding of the Boeing 737 MAX aircraft and the uncertainty surrounding their return to service, Air Canada assumes, in the capital commitments table below, that six of 12 undelivered Boeing 737 MAX aircraft originally scheduled for delivery in 2019 will be delivered in 2020 and the remaining six will be delivered in 2021. Air Canada also assumes that 14 undelivered Boeing 737 MAX aircraft originally scheduled for delivery in 2020 will be delivered in 2021. This projected delivery schedule is subject to change given the grounding of the Boeing 737 MAX aircraft and the uncertainty surrounding their return to service.

Air Canada has been in discussions with Boeing and is seeking to settle the terms of an arrangement in relation to grounding of the Boeing 737 MAX aircraft. Until such time as an arrangement is finalized, information regarding the outstanding purchase commitments for aircraft is subject to change. An initial settlement payment contemplated by the arrangement was made to Air Canada during the fourth quarter of 2019, with any further amounts subject to finalization of the arrangement. The compensation is accounted for as an adjustment to the purchase price of current and future deliveries and will flow through Air Canada's consolidated statement of operations as reduced depreciation expense over the life of the aircraft, and as a reduction to additions to property and equipment on the consolidated statement of cash flow.

Airbus A220-300 Aircraft

Under a purchase agreement concluded by Air Canada and Bombardier Inc. ("Bombardier") in June 2016, Air Canada has a firm order for 45 Airbus A220-300 aircraft (formerly called Bombardier C-Series CS300 aircraft) and options for an additional 30 Airbus A220-300 aircraft. The first Airbus A220 was delivered in late 2019, with the remaining deliveries to extend to 2022. The first 25 aircraft on delivery are expected to replace Air Canada's existing mainline fleet of Embraer 190 aircraft, with incremental aircraft supporting Air Canada's hub and network growth.

Capital Commitments

As outlined in the table below, the estimated aggregate cost of all aircraft expected to be delivered and other capital purchase commitments as at December 31, 2019 approximates \$4,238 million. As mentioned above, Air Canada assumes, in the table below, that 6 of 12 undelivered Boeing 737 MAX aircraft originally scheduled for delivery in 2019 will be delivered in 2020 and the remaining six will be delivered in 2021. Air Canada also assumes that 14 undelivered Boeing 737 MAX aircraft originally scheduled for delivery in 2020 will be delivered in 2021. The capital commitments in the table below may change once matters relating to the Boeing 737 MAX aircraft's grounding have been resolved.

As described above in section "Capital Expenditures", Air Canada has been in discussions with Boeing and is seeking to settle the terms of an arrangement in relation to grounding of the Boeing 737 MAX aircraft. Until such time as such arrangement is finalized, information regarding the outstanding purchase commitments for aircraft is subject to change.

(Canadian dollars in millions)	2020	2021	2022	2023	2024	Thereafter	Total
Projected committed expenditures	\$ 1,635	\$ 1,532	\$ 898	\$ 173	\$ -	\$ -	\$ 4,238
Projected planned but uncommitted expenditures	484	633	572	686	677	Not available	Not available
Projected planned but uncommitted capitalized maintenance ⁽¹⁾	317	456	407	401	401	Not available	Not available
Total projected expenditures ⁽²⁾	\$ 2,436	\$ 2,621	\$ 1,877	\$ 1,260	\$ 1,078	Not available	Not available

(1) Future capitalized maintenance amounts for 2023 and beyond are not yet determinable, however an estimate of \$401 million has been made for 2023 and 2024.

(2) U.S. dollar amounts are converted using the December 31, 2019 closing exchange rate of US\$1=C\$1.2990. The estimated aggregate cost of aircraft is based on delivery prices that include estimated escalation and, where applicable, deferred price delivery payment interest calculated based on the 90-day U.S. LIBOR rate at December 31, 2019.

10.7. Pension Funding Obligations

Air Canada maintains several defined benefit pension plans, including domestic registered pension plans, supplemental pension plans and pension plans for foreign employees. Air Canada also has several defined contribution pension plans as well as plans providing other retirement and post-employment benefits to its employees.

As at January 1, 2019, the aggregate solvency surplus in Air Canada's domestic registered pension plans was \$2.5 billion. The next valuations to be made as at January 1, 2020 will be completed in the first half of 2020. As permitted by applicable legislation and subject to applicable plan rules, amounts in excess of 105% on a solvency basis may be used to reduce current service contributions under the defined benefit component or to fund the employer contribution to a defined contribution component within the same pension plan.

Total employer defined benefit pension funding contributions (including the international and supplemental plans and the Aeroplan pension plan) were \$109 million in 2019, as described in the table below.

(Canadian dollars in millions)	2019
Domestic registered plans	\$ 9
Other pension arrangements ⁽¹⁾	100
Total employer defined benefit pension funding contributions	\$ 109

(1) Includes retirement compensation arrangements, supplemental plans and international plans.

Total employer defined benefit pension funding contributions (including the international and supplemental plans) are forecasted to be \$100 million in 2020, as described in the table below.

(Canadian dollars in millions)	2020
Domestic registered plans	\$ 3
Other pension arrangements ⁽¹⁾	97
Total projected employer defined benefit pension funding contributions	\$ 100

(1) Includes retirement compensation arrangements, supplemental plans and international plans.

As at December 31, 2019, approximately 87.5% of Air Canada's pension assets were invested in fixed income instruments to mitigate a significant portion of the interest rate (discount rate) risk. Air Canada may continue to increase the percentage of fixed income products matched to pension liabilities, subject to favourable market conditions.

10.8. Contractual Obligations

The table below provides Air Canada's contractual obligations as at December 31, 2019, including those relating to interest and principal repayment obligations on Air Canada's long-term debt and lease liabilities and committed capital expenditures. The committed capital expenditures in the table below may change once the duration and related impact of the grounding, or Boeing's decision to suspend deliveries, of the Boeing 737 MAX aircraft is known.

(Canadian dollars in millions)	2020	2021	2022	2023	2024	Thereafter	Total
<i>Principal</i>							
Long-term debt	\$ 587	\$ 953	\$ 327	\$ 1,392	\$ 292	\$ 2,322	\$ 5,873
Lease liabilities	631	483	408	400	364	1,173	3,459
Total principal obligations	\$ 1,218	\$ 1,436	\$ 735	\$ 1,792	\$ 656	\$ 3,495	\$ 9,332
<i>Interest</i>							
Long-term debt	229	195	160	139	87	240	1,050
Lease liabilities	196	156	126	101	78	335	992
Total interest	\$ 425	\$ 351	\$ 286	\$ 240	\$ 165	\$ 575	\$ 2,042
Total long-term debt and lease liabilities	\$ 1,643	\$ 1,787	\$ 1,021	\$ 2,032	\$ 821	\$ 4,070	\$ 11,374
Committed capital expenditures	\$ 1,635	\$ 1,532	\$ 898	\$ 173	\$ -	\$ -	\$ 4,238
Total contractual obligations ⁽¹⁾	\$ 3,278	\$ 3,319	\$ 1,919	\$ 2,205	\$ 821	\$ 4,070	\$ 15,612

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

10.9. Share Information

The issued and outstanding shares of Air Canada, along with shares potentially issuable, as of the dates indicated below, are as follows:

	December 31, 2019	December 31, 2018
Issued and outstanding shares		
Variable voting shares	126,664,740	125,214,350
Voting shares	137,151,838	145,515,561
Total issued and outstanding shares	263,816,578	270,729,911
Class A variable voting and Class B voting shares potentially issuable		
Stock options	4,890,095	6,014,464
Total shares potentially issuable	4,890,095	6,014,464
Total outstanding and potentially issuable shares	268,706,673	276,744,375

Normal Course Issuer Bid

In May 2019, Air Canada received approval from the Toronto Stock Exchange for the renewal of its normal course issuer bid for its Class A variable voting shares and Class B voting shares (collectively the "shares"), authorizing, between May 31, 2019 and May 30, 2020, the purchase of up to 24,130,551 shares, representing 10% of Air Canada's public float of 241,305,518 shares as at May 17, 2019. The renewal followed the conclusion of the 2018 normal course issuer bid which expired on May 30, 2019.

In connection with the renewal of its issuer bid, Air Canada renewed its automatic share purchase plan (the "Plan") with its designated broker to facilitate the purchase of shares under the issuer bid at times when Air Canada would ordinarily not be permitted to purchase its Shares due to regulatory restrictions or self-imposed blackout periods. Air Canada self-imposes regular blackouts during the period commencing fifteen days prior to the end of each fiscal quarter to, and including, two trading days after the public announcement of Air Canada's quarterly or annual financial results. Pursuant to the Plan, before entering a blackout period, Air Canada may, but is not required to, instruct the designated broker to make purchases under the issuer bid based on parameters established by Air Canada. Such purchases will be determined by the designated broker based on Air Canada's parameters in accordance with the rules of the TSX, applicable securities laws and the terms of the Plan. The Plan was implemented effective May 31, 2019.

In 2019, Air Canada purchased, for cancellation, a total of 9,082,487 shares at an average cost of \$41.64 per share for aggregate consideration of \$378 million. At December 31, 2019, a total of 17,877,551 shares remained available for repurchase under Air Canada's issuer bid.

11. QUARTERLY FINANCIAL DATA

The table below summarizes quarterly financial results for Air Canada for the last eight quarters.

(Canadian dollars in millions, except where indicated)	2018				2019			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Operating revenues	\$ 4,057	\$ 4,324	\$ 5,395	\$ 4,227	\$ 4,434	\$ 4,739	\$ 5,529	\$ 4,429
Operating expenses	3,971	4,016	4,472	4,048	4,307	4,317	4,573	4,284
Operating income	86	308	923	179	127	422	956	145
Non-operating income (expense)	(315)	(414)	31	(570)	158	18	(78)	27
Income (loss) before income taxes	(229)	(106)	954	(391)	285	440	878	172
Income tax (expense) recovery	26	4	(252)	31	60	(97)	(242)	(20)
Net income (loss)	\$ (203)	\$ (102)	\$ 702	\$ (360)	\$ 345	\$ 343	\$ 636	\$ 152
Diluted earnings (loss) per share	\$ (0.74)	\$ (0.37)	\$ 2.55	\$ (1.33)	\$ 1.26	\$ 1.26	\$ 2.35	\$ 0.56
Adjusted pre-tax income (loss)⁽¹⁾	\$ (32)	\$ 185	\$ 815	\$ 68	\$ 24	\$ 326	\$ 857	\$ 66
Adjusted net income (loss)⁽¹⁾	\$ (26)	\$ 129	\$ 580	\$ 55	\$ 17	\$ 240	\$ 613	\$ 47
Adjusted earnings (loss) per share – diluted⁽¹⁾	\$ (0.10)	\$ 0.47	\$ 2.10	\$ 0.20	\$ 0.06	\$ 0.88	\$ 2.27	\$ 0.17

(1) Adjusted pre-tax income (loss), adjusted net income (loss) and adjusted earnings (loss) per share – diluted are non-GAAP financial measures. Refer to section 22 "Non-GAAP Financial Measures" of this MD&A for additional information.

The table below provides a breakdown of the most significant items included in regional airlines expense for the last six quarters.

(Canadian dollars in millions)	2018		2019			
	Q3	Q4	Q1	Q2	Q3	Q4
Capacity purchase fees ⁽¹⁾	\$ 265	\$ 264	\$ 252	\$ 247	\$ 266	\$ 277
Aircraft fuel	149	133	116	126	127	116
Airport and navigation	78	73	69	74	78	71
Sales and distribution costs	44	34	36	41	43	38
Other	109	116	118	113	114	119
Total regional airlines expense	\$ 645	\$ 620	\$ 591	\$ 601	\$ 628	\$ 621

(1) Capacity purchase fees exclude the component of fees related to aircraft costs which are accounted for as lease liabilities in accordance with IFRS 16 – Leases.

The table below provides major quarterly operating statistics for Air Canada for the last six quarters.

System	2018		2019			
	Q3	Q4	Q1	Q2	Q3	Q4
Passenger PRASM (cents)	15.1	14.7	14.6	15.5	15.8	15.0
CASM (cents)	13.5	15.8	16.6	15.5	14.1	16.2
Adjusted CASM (cents) ⁽¹⁾	9.1	11.1	11.4	10.9	9.9	11.7
Fuel cost per litre (cents) ⁽²⁾	83.0	84.3	75.5	79.2	74.7	75.0

(1) Adjusted CASM is a non-GAAP financial measure. A reconciliation of this measure to a comparable GAAP measure can be found in section 22 "Non-GAAP Financial Measures" of this MD&A and in Air Canada's MD&A reports, available at aircanada.com.

(2) Includes aircraft fuel expense related to regional airline operations and fuel handling expenses.

The table below provides Air Canada's revenue passenger miles (RPMs), available seat miles (ASMs) and passenger load factors, on a system-basis and by market, for the last eight quarters.

System	2018				2019			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
RPMs (millions)	20,440	22,654	28,465	20,801	21,293	23,463	27,954	21,403
ASMs (millions)	24,862	27,269	33,137	25,598	26,016	27,910	32,457	26,431
Passenger load factor (%)	82.2	83.1	85.9	81.3	81.8	84.1	86.1	81.0
Domestic								
RPMs (millions)	4,226	5,003	6,339	4,684	4,251	5,097	6,298	4,682
ASMs (millions)	5,280	6,026	7,482	5,667	5,274	6,068	7,474	5,861
Passenger load factor (%)	80.0	83.0	84.7	82.7	80.6	84.0	84.3	79.9
U.S. transborder								
RPMs (millions)	4,037	3,848	4,172	3,734	4,296	3,845	4,010	3,695
ASMs (millions)	4,945	4,673	4,962	4,662	5,341	4,686	4,764	4,700
Passenger load factor (%)	81.6	82.3	84.1	80.1	80.4	82.0	84.2	78.6
Atlantic								
RPMs (millions)	4,573	7,084	10,642	5,813	4,943	7,496	10,580	6,265
ASMs (millions)	5,753	8,571	12,231	7,206	6,177	8,882	12,068	7,710
Passenger load factor (%)	79.5	82.7	87.0	80.6	80.0	84.4	87.7	81.3
Pacific								
RPMs (millions)	4,572	4,936	5,630	4,514	4,486	5,072	5,364	4,504
ASMs (millions)	5,447	5,829	6,484	5,541	5,367	5,971	6,217	5,456
Passenger load factor (%)	83.9	84.7	86.8	81.5	83.6	84.9	86.3	82.6
Other								
RPMs (millions)	3,032	1,783	1,682	2,056	3,317	1,953	1,702	2,257
ASMs (millions)	3,437	2,170	1,978	2,522	3,857	2,303	1,934	2,704
Passenger load factor (%)	88.2	82.1	85.0	81.6	86.0	84.8	88.0	83.5

12. SELECTED ANNUAL INFORMATION

The following table provides selected annual information for Air Canada for the years 2017 through 2019.

(Canadian dollars in millions, except per share figures)	Full Year		
	2019 ⁽¹⁾	2018	2017 ⁽²⁾
Operating revenues	\$ 19,131	\$ 18,003	\$ 16,252
Operating expenses ⁽³⁾	17,481	16,507	14,881
Operating income	1,650	1,496	1,371
Income before income taxes	1,775	228	1,286
Income tax (expense) recovery ⁽⁴⁾	(299)	(191)	743
Net income	\$ 1,476	\$ 37	\$ 2,029
Adjusted pre-tax income ⁽⁵⁾	\$ 1,273	\$ 1,036	\$ 1,165
Adjusted net income ⁽⁵⁾	\$ 917	\$ 738	\$ 1,145
Basic earnings per share	\$ 5.51	\$ 0.14	\$ 7.44
Diluted earnings per share	\$ 5.44	\$ 0.13	\$ 7.31
Adjusted earnings per share – diluted ⁽⁵⁾	\$ 3.37	\$ 2.67	\$ 4.11
Cash, cash equivalents and short-term investments	\$ 5,889	\$ 4,707	\$ 3,804
Total assets	\$ 27,759	\$ 21,883	\$ 17,782
Total long-term liabilities	\$ 15,584	\$ 12,930	\$ 9,259
Total liabilities	\$ 23,359	\$ 18,606	\$ 14,360

- (1) Air Canada began consolidating Aeroplan's financial results on the January 10, 2019, the date of its acquisition of Aeroplan. Refer to section 14 "Accounting Policies" and section 15 "Critical Accounting Estimates and Judgements" of this MD&A for additional information.
- (2) 2017 has not been restated for certain accounting standards, as further described in section 14 "Accounting Policies", which render comparisons to 2018 and 2019 not meaningful.
- (3) In 2017, Air Canada recorded a provision of \$30 million relating to a fine which was reinstated by a decision of the European Commission pertaining to cargo investigations.
- (4) In 2017, Air Canada recorded a tax recovery of \$743 million (representing a deferred income tax recovery of \$759 million and a current income tax expense of \$16 million). This deferred income tax recovery was excluded from adjusted net income as it reflected a one-time recognition of previously unrecognized income tax assets.
- (5) EBITDA, adjusted pre-tax income, adjusted net income and adjusted earnings per share – diluted are non-GAAP financial measures. Reconciliations of these measures to comparable GAAP measures can be found in section 22 "Non-GAAP Financial Measures" of this MD&A and in Air Canada's MD&A reports, available at aircanada.com.

13. FINANCIAL INSTRUMENTS AND RISK MANAGEMENT

Summary of Gain (Loss) on Financial Instruments Recorded at Fair Value

The following is a summary of gains (losses) on financial instruments recorded at fair value included in non-operating income (expense) on Air Canada's consolidated statement of operations for the periods indicated.

(Canadian dollars in millions)	Fourth Quarter		Full Year	
	2019	2018	2019	2018
Share forward contracts	\$ 5	\$ (3)	\$ 23	\$ -
Fuel derivatives	-	-	-	(1)
Financial instruments recorded at fair value	\$ 5	\$ (3)	\$ 23	\$ (1)

Risk Management

Under its risk management policy, Air Canada manages its fuel price risk, foreign exchange risk and interest rate risk through the use of various financial derivative instruments. Air Canada uses these instruments solely for risk management purposes and not for generating trading profit. As such, any change in cash flows associated with derivative instruments is designed to be an economic hedge and offset by changes in cash flows of the relevant risk being hedged.

The fair values of derivative instruments represent the amount of the consideration that could be exchanged in an arm's length transaction between willing parties who are under no compulsion to act. The fair value of these derivatives is determined using prices in active markets, where available. When no such market is available, valuation techniques such as discounted cash flow analysis are applied. The valuation techniques incorporate all factors that would be considered in setting a price, including Air Canada's and the counterparty's respective credit risk.

Fuel Price Risk Management

Fuel price risk is the risk that future cash flows will fluctuate because of changes in jet fuel prices. In order to manage its exposure to jet fuel prices and to help mitigate volatility in operating cash flows, Air Canada can elect to enter into derivative contracts with financial intermediaries. Air Canada may use derivative contracts based on jet fuel, heating oil and crude oil. Air Canada's policy permits hedging of up to 75% of the projected jet fuel purchases for the current calendar year, 50% of the projected jet fuel purchases for the next calendar year, and 25% of projected jet fuel purchases for any calendar year thereafter. These are maximum (but not mandated) limits. There is no minimum monthly hedging requirement. Air Canada performs regular reviews to assess market conditions and adjust its hedging strategy where management considers it warranted.

In 2019, Air Canada purchased crude oil call options covering a portion of 2019 fuel exposure. The cash premium related to these contracts was \$14 million (\$17 million in 2018 for 2018 exposures). Fuel derivative contracts cash settled with no fair value (\$19 million in favour of the counterparties in 2018). Associated premium costs and any hedging gains and losses are reclassified from other comprehensive income to aircraft fuel expense on settlement of the derivatives. A loss of \$14 million was reclassified from other comprehensive income to aircraft fuel expense in 2019 (net fuel hedging loss of \$36 million in 2018). No hedge ineffectiveness was recorded during 2019 and 2018.

There were no outstanding fuel derivatives as at December 31, 2019 and December 31, 2018.

Foreign Exchange Risk Management

Air Canada's financial results are reported in Canadian dollars, while a large portion of its expenses, debt obligations and capital commitments are in foreign currencies, primarily U.S. dollars. Foreign exchange risk is the risk that fluctuations in foreign exchange rates may have on operating results and cash flows. Air Canada's risk management objective is to reduce cash flow risk related to foreign denominated cash flows.

Air Canada generates certain sales in U.S. dollars and in other foreign currencies which are converted to U.S. dollars under the Corporation's risk management program. In 2019, these net operating cash inflows totaled approximately US\$3.7 billion and U.S. denominated operating costs amounted to approximately US\$6.4 billion. Non-operating cash outflows in U.S. dollars, primarily related to interest payments on U.S. dollar denominated debt and net financing outflows, amounted to approximately US\$2.3 billion. For 2019, this resulted in a U.S. dollar net cash flow exposure of approximately US\$5.0 billion.

Air Canada has a target coverage of 70% on a rolling 18-month basis to manage the net U.S. dollar cash flow exposure described above utilizing the following risk management strategies:

- Holding U.S. dollar cash reserves as an economic hedge against changes in the value of the U.S. dollar. U.S. dollar cash and short-term investment balances as at December 31, 2019 amounted to \$1,123 million (US\$862 million) (\$863 million (US\$635 million) as at December 31, 2018). A portion of the cash and investment reserves are an economic hedge against long-term U.S. dollar debt while the remainder of the cash is operational cash and investment reserves which are applied against the rolling 18-month net U.S. dollar cash flow exposure. In 2019, a loss of \$36 million (gain of \$62 million in 2018) was recorded in foreign exchange gain (loss) reflecting the change in Canadian equivalent market value of the U.S. dollar cash, cash equivalents and short-term investment balances held.
- Locking in the foreign exchange rate through the use of a variety of foreign exchange derivatives which have maturity dates corresponding to the forecasted dates of U.S. dollar net outflows.

The level of foreign exchange derivatives entered into and their related maturity dates are dependent upon a number of factors, which include the amount of foreign revenue conversion available, U.S. dollar net cash outflows, as well as the amount attributed to aircraft and debt payments. Based on the notional amount of currency derivatives outstanding at December 31, 2019, as further described below, approximately 73% of net U.S. cash outflows are hedged for 2020 and 50% for 2021, resulting in derivative coverage of 66% over the next 18 months. Operational U.S. dollar cash and investment reserves combined with derivative coverage results in 73% coverage.

As at December 31, 2019, Air Canada had outstanding foreign currency options and swap agreements, settling in 2020 and 2021, to purchase at maturity \$6,599 million (US\$5,080 million) of U.S. dollars at a weighted average rate of \$1.2775 per US\$1.00 (2018 - \$4,987 million (US\$3,659 million) with settlements in 2019 and 2020 at a weighted average rate of \$1.2645 per US\$1.00). Air Canada also has protection in place to sell a portion of its excess Euros, Sterling, YEN, YUAN, and AUD (EUR €335 million, GBP £202 million, JPY ¥46,655 million, CNH ¥286 million and AUD \$209 million) which settle in 2020 and 2021 at weighted average rates of €1.1577, £1.3238, ¥0.0096, ¥0.1469, and AUD \$0.7092 per US\$1.00, respectively (as at December 31, 2018 - EUR €103 million, GBP £208 million, JPY ¥25,922 million, and AUD \$105 million with settlement in 2019 and 2020 at weighted average rates of €1.1910, £1.3567, ¥0.0092, and AUD \$0.7448 respectively per US\$1.00).

The hedging structures put in place have various option pricing features, such as knock-out terms and profit cap limitations and, based on the assumed volatility used in the fair value calculation, the net fair value of these foreign currency contracts as at December 31, 2019 was \$114 million in favour of the counterparties (2018 - \$33 million in favour of the counterparties). These derivative instruments have not been designated as hedges for accounting purposes and are recorded at fair value. In 2019, a gain of \$92 million was recorded in foreign exchange gain (loss) related to these derivatives (2018 - \$245 million gain). In 2019, foreign exchange derivative contracts cash settled with a net fair value of \$173 million in favour of Air Canada (2018 - \$63 million in favour of Air Canada).

Interest Rate Risk Management

Interest rate risk is the risk that the fair value or future cash flows of a financial instrument will fluctuate because of changes in market interest rates.

Air Canada enters into both fixed and floating rate debt and leases certain assets where the rental amount fluctuates based on changes in short-term interest rates. Air Canada manages interest rate risk on a portfolio basis and seeks financing terms in individual arrangements that are most advantageous taking into account all relevant factors, including credit margin, term and basis. The risk management objective is to minimize the potential for changes in interest rates to cause adverse changes in cash flows to Air Canada. The cash, cash equivalents and short-term investment portfolio, which earns a floating rate of return, is an economic hedge for a portion of the floating rate debt.

The ratio of fixed to floating rate obligations outstanding is designed to maintain flexibility in Air Canada's capital structure and is based upon a long-term objective of 60% fixed and 40% floating but allows the flexibility to adjust to prevailing market conditions. The ratio at December 31, 2019, was 83% fixed and 17% floating (81% and 19%, respectively, as at December 31, 2018).

14. ACCOUNTING POLICIES

Air Canada adopted IFRS 16 – Leases on January 1, 2019. Additional information is available in Note 2 of Air Canada's audited consolidated financial statements and notes for 2019.

Acquisition of Aeroplan – Accounting Policy Impacts

The following are updates to Air Canada's accounting policies applicable prospectively following the acquisition of Aeroplan on January 10, 2019. Refer to section 15 "Critical Accounting Estimates and Judgements" for additional information.

Passenger Revenues – Update from Aeroplan Acquisition

Prior to the acquisition of Aeroplan, advance ticket sales included the proceeds from the sale of flight tickets to Aeroplan, a corporation that provides loyalty program services to Air Canada and purchased seats from Air Canada pursuant to the Commercial Participation and Services Agreement between Aeroplan and Air Canada (the "CPSA"). Under the CPSA, Aeroplan purchased passenger tickets from Air Canada, which are accounted for as passenger revenues by Air Canada when transportation is provided.

Subsequent to the acquisition of Aeroplan on January 10, 2019, advance ticket sales continue to include the value of Aeroplan Mile redemptions for flight tickets issued by Air Canada post-acquisition. For Aeroplan Miles issued after the acquisition date, the value of Aeroplan deferred revenue related to Aeroplan Miles issued but not yet redeemed is determined with reference to their Equivalent Ticket Value ("ETV") for Miles issued from qualifying air travel, or with reference to the consideration received for Aeroplan Miles sold to third party Aeroplan program partners. ETV is determined based on the value a passenger receives by redeeming Aeroplan Miles for a ticket rather than paying cash. On the acquisition date, the outstanding Aeroplan Miles were recorded at fair value as Aeroplan deferred revenue.

Breakage represents the estimated Aeroplan Miles that are not expected to be redeemed by Aeroplan members. The amount of revenue recognized related to breakage is based on the number of Aeroplan Miles redeemed in a period in relation to the total number of Aeroplan Miles expected to be redeemed. The number of Aeroplan Miles redeemed in a period also factors into any revised estimate for breakage. Changes in breakage are accounted for as follows: in the period of change, the deferred revenue balance is adjusted as if the revised estimate had been used in prior periods with the offsetting amount recorded as an adjustment to passenger revenue; and for subsequent periods, the revised estimate is used.

Intangible Assets

Contract-based, marketing-based and technology-based intangible assets, with an acquisition fair value of \$225 million, \$90 million and \$38 million, respectively, were recorded upon the acquisition of Aeroplan on January 10, 2019. The contract-based intangible assets have an estimated useful life of 11.5 years, being the term of the primary commercial agreements with program partners, which expire in 2030. The marketing-based trade name is considered an indefinite life intangible asset.

IFRIC 23 – Uncertainty over Income Tax Treatments

IFRIC 23 is effective for years beginning on or after January 1, 2019. IFRIC 23 provides a framework to consider, recognize and measure the accounting impact of tax uncertainties and provides specific guidance in several areas where previously IAS 12 Income Taxes was silent. The Corporation has adopted the interpretation of IFRIC 23 and concluded that it has no impact on previously reported results.

IFRS 15 – Revenue from Contracts with Customers

In September 2019, the IFRS Interpretations Committee finalized its decision that an entity should account for its obligations to compensate passengers for delayed and cancelled flights as variable consideration under IFRS 15. Air Canada adopted this accounting treatment in the fourth quarter on a retrospective basis, with 2018 restated. Previously, Air Canada recognized passenger compensation costs by applying IAS 37 Provisions, Contingent Liabilities and Contingent Assets. While there is no impact to the amount of passenger compensation recognized, presentation within Air Canada's consolidated statement of operations is impacted as the compensation is reclassified against passenger revenue.

The impact on Air Canada's consolidated statement of operations was a decrease of \$74 million from other operating expenses, a decrease of \$13 million from regional airlines expense, and a decrease to passenger revenues of \$87 million in 2019 (decrease of \$51 million from other operating expenses, decrease of \$11 million from regional airlines expense, and a decrease to passenger revenues of \$62 million in 2018).

15. CRITICAL ACCOUNTING ESTIMATES AND JUDGMENTS

Critical accounting estimates are those estimates of management that are most important to the portrayal of Air Canada's financial condition and results of operations. They require management's most difficult, subjective or complex judgments, often because of the need to make estimates and judgments about the effect of matters that are inherently uncertain. Actual results could differ from those estimates and judgments under different assumptions or conditions.

Air Canada has identified the following areas that depend on critical accounting estimates utilized in the preparation of its consolidated financial statements.

Employee Future Benefits

Air Canada maintains several defined benefit plans providing pension, other retirement and post-employment benefits to its employees. The cost and related liabilities of Air Canada's pensions, other post-retirement and post-employment benefit programs are determined using actuarial valuations. The actuarial valuations involve assumptions, including discount rates, future salary increases, mortality rates and future benefit increases. Also, due to the long-term nature of these programs, such estimates are subject to significant uncertainty.

Assumptions

Management is required to make significant estimates about actuarial and financial assumptions to determine the cost and related liabilities of Air Canada's employee future benefits.

Financial Assumptions

Discount Rate

The discount rate used to determine the pension obligation was determined by reference to market interest rates on corporate bonds rated "AA" or better with cash flows that approximate the timing and amount of expected benefit payments.

Future increases in compensation are based upon the current compensation policies, labour and employment agreements and economic forecasts.

The significant weighted average assumptions used to determine Air Canada's accrued benefit obligations and cost are as follows:

	Pension Benefits		Other Employee Future Benefits	
	2019	2018	2019	2018
Discount rate used to determine:				
Net interest on the net benefit obligation for the year ended December 31	3.81%	3.60%	3.81%	3.60%
Service cost for the year ended December 31	3.93%	3.70%	3.93%	3.70%
Accrued benefit obligation as at December 31	3.13%	3.81%	3.13%	3.81%
Rate of future increases in compensation used to determine:				
Accrued benefit cost for the year ended December 31	2.50%	2.50%	Not applicable	Not applicable
Accrued benefit obligation as at December 31	2.50%	2.50%	Not applicable	Not applicable

Sensitivity Analysis

Sensitivity analysis is based on changing one assumption while holding all other assumptions constant. In practice, this may be unlikely to occur, and changes in some of the assumptions may be correlated. When calculating the sensitivity of the defined benefit obligation to variations in significant actuarial assumptions, the same method (present value of the defined benefit obligation calculated with the projected unit credit method at the end of the reporting period) has been applied as that used for calculating the liability recognized in the consolidated statement of financial position.

Sensitivity analysis on 2019 pension expense and net financing expense relating to pension benefit liabilities, based on different actuarial assumptions with respect to discount rate is set out below. The effects on each pension plan of a change in an assumption are weighted proportionately to the total plan obligation to determine the total impact for each assumption presented.

(Canadian dollars in millions)	0.25 Percentage Point	
	Decrease	Increase
Discount rate on obligation assumption		
Pension expense	\$ 19	\$ (19)
Net financing expense relating to pension benefit liabilities	24	(20)
Total	\$ 43	\$ (39)
Increase (decrease) in pension obligation	\$ 816	\$ (787)

The increase (decrease) in the pension obligation for a 0.25 percentage point change in the discount rate relates to the gross amount of the pension liabilities and is before the impact of any change in plan assets. As at December 31, 2019, approximately 87.5% of Air Canada's pension liabilities were matched with fixed income products to mitigate a significant portion of the interest rate (discount rate) risk.

An increase of one-year life expectancy would increase the pension benefit obligation by \$516 million.

Assumed health care cost trend rates have a significant effect on the amounts reported for the health care plans. A 5.25% annual rate of increase in the per capita cost of covered health care benefits was assumed for 2019 (2018 - 5.5%). The rate is assumed to decrease gradually to 5% by 2021 (2018 - assumed to decrease gradually to 5% by 2021). A one percentage point increase in assumed health care trend rates would have increased the total of current service and interest costs by \$5 million and the obligation by \$80 million. A one percentage point decrease in assumed health care trend rates would have decreased the total of current service and interest costs by \$4 million and the obligation by \$78 million.

A 0.25 percentage point decrease in discount rate for other employee future benefits would have increased the total of current and interest costs by less than \$1 million and the obligation by \$59 million. A 0.25 percentage point increase in discount rate would have decreased the total of current and interest costs by less than \$1 million and the obligation by \$56 million.

Depreciation and Amortization Period for Long-lived Assets

Air Canada makes estimates about the expected useful lives of long-lived assets and the expected residual value of the assets based on the estimated current and future fair values of the assets, Air Canada's fleet plans and the cash flows they generate. Changes to these estimates, which can be significant, could be caused by a variety of factors, including changes to maintenance programs, changes in jet fuel prices and other operating costs, changes in utilization of the aircraft, and changing market prices for new and used aircraft of the same or similar types. Estimates and assumptions are evaluated at least annually. Generally, these adjustments are accounted for on a prospective basis, through depreciation and amortization expense. For the purposes of sensitivity analysis on these estimates, a 50% reduction to residual values on aircraft with remaining useful lives greater than five years results in an increase of \$16 million to annual depreciation expense. For aircraft with shorter remaining useful lives, the residual values are not expected to change significantly.

Impairment Considerations of Long-lived Assets

Long-lived assets include property and equipment, definite lived intangible assets, indefinite lived intangible assets and goodwill. Assets that have an indefinite useful life, including goodwill, are tested annually for impairment or when events or circumstances indicate that the carrying value may not be recoverable. Assets that are subject to depreciation or amortization are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. When required, an impairment test is performed by comparing the carrying amount of the asset or cash generating unit to their recoverable amount. Recoverable amount is calculated as the higher of an asset's or cash-generating unit's fair value less costs to dispose and its value in use. For the purpose of assessing impairment, assets are grouped at the lowest levels for which there are separately identifiable cash flows (cash-generating units or CGUs). Management has determined that the appropriate level for assessing impairments is at the narrow-body and wide-body fleet levels for aircraft and related assets supporting the operating fleet. Parked aircraft (not including aircraft that are parked but are expected to be so temporarily and returned to service) not used in operations and aircraft leased or subleased to third parties are assessed for impairment at the individual asset level. Fair value less costs to dispose may be calculated based upon a discounted cash flow analysis, which requires management to make a number of significant market participant assumptions including assumptions relating to future operating plans, discount rates and future growth rates. An impairment loss is recognized for the amount by which the asset's carrying amount exceeds its recoverable amount.

Maintenance Provisions

The recording of maintenance provisions related to return conditions on aircraft leases requires management to make estimates of the future costs associated with the maintenance events required under the lease return condition and estimates of the expected future maintenance condition of the aircraft at the time of lease expiry. These estimates take into account current costs of these maintenance events, estimates of inflation surrounding these costs as well as assumptions surrounding utilization of the related aircraft. Any difference in the actual maintenance cost incurred at the end of the lease and the amount of the provision is recorded in aircraft maintenance expense in the period. The effect of any changes in estimates, including changes in discount rates, inflation assumptions, cost estimates or lease expiries, is recognized as an adjustment to the right-of-use asset. Assuming the aggregate cost for return conditions

increases by 5%, holding all other factors constant, there would be a cumulative balance sheet adjustment to increase the provision by \$70 million at December 31, 2019 and an increase to aircraft maintenance expense in 2020 of approximately \$8 million. Expected future cash flows to settle the obligation are discounted. If the discount rates were to increase by 1%, holding all other factors constant, there would be a cumulative balance sheet adjustment to decrease the provision by \$20 million at December 31, 2019. An equivalent but opposite movement in the discount rate would result in a similar impact in the opposite direction.

Business Combinations

Air Canada's business acquisition of Aeroplan was accounted for using the acquisition method of accounting. Under the acquisition method, the estimated fair values of the acquired company's assets and assumed liabilities are added to the consolidated statement of financial position as at the acquisition date. There were various assumptions made when determining the fair values of Aeroplan's assets and assumed liabilities. The most significant assumptions and those requiring the most judgement involve the estimated fair values of intangible assets and the estimated fair values of deferred revenues related to the outstanding Aeroplan Miles obligation ("Aeroplan deferred revenue").

The intangible assets recognized on the acquisition of Aeroplan include technology-based, contract-based and marketing-based (trade name) intangible assets. To determine the fair value of technology-based intangible assets, Air Canada applied a depreciated replacement cost methodology. For contract-based intangible assets, Air Canada used the multi-period excess earnings method. This valuation technique values the intangible assets based on the capitalization of the excess earnings, which are calculated to be in excess of what a reasonable amount of earnings would be on the tangible assets used to generate the earnings. Significant assumptions include, among others, the determination of projected revenues, cash flows, customer retention rates, discount rates and anticipated average income tax rates. To determine the fair value of the trade name, Air Canada used the relief from royalty method. This valuation technique values the intangible assets based on the present value of the expected after-tax royalty cash flow stream using a hypothetical licensing arrangement. Significant assumptions include, among others, the determination of projected revenues, royalty rate, discount rates and anticipated average income tax rates.

The deferred revenues recognized on the acquisition of Aeroplan relate to the estimated fair value of outstanding Aeroplan Miles. The liability assumed was recorded based on the estimated fair value to service the Miles outstanding that are expected to be redeemed.

Aeroplan Loyalty Program

Loyalty program accounting requires management to make several estimates including about the ETV of Aeroplan Miles issued and the breakage on Aeroplan Miles. The ETV of Aeroplan Miles issued is determined based on the value a passenger receives by redeeming Miles for a ticket rather than paying cash. This ETV is estimated with reference to historical Aeroplan redemptions as compared to equivalent ticket purchases after considering similar fare conditions, advance booking periods and other relevant factors including the selling price of Miles to third parties. ETV estimates and assumptions are considered for updates at least annually. A change in the ETV rate is accounted for prospectively on future Miles issued.

Breakage represents the estimated Miles that are not expected to be redeemed. Breakage is estimated by management based on the terms and conditions of membership and historical accumulation and redemption patterns, as adjusted for changes to any terms and conditions or other circumstances that may affect future redemptions. Management uses statistical and simulation models to estimate breakage.

Changes in breakage are accounted for as follows: in the period of change, the deferred revenue balance is adjusted as if the revised estimate had been used in prior periods with the offsetting amount recorded as an adjustment to passenger revenue; and for subsequent periods, the revised estimate is used. A change in assumptions as to the number of Miles expected to be redeemed could have a material impact on revenue in the year in which the change occurs.

As at December 31, 2019, the Aeroplan Miles deferred revenue balance was \$2,825 million. For illustrative purposes, a hypothetical 1% change in the number of outstanding Miles estimated to be redeemed would result in an approximate impact of \$28 million on revenue with a corresponding adjustment to Aeroplan deferred revenue.

16. OFF-BALANCE SHEET ARRANGEMENTS

Guarantees

Guarantees in Fuel and De-icing Arrangements

Air Canada participates in fuel facility arrangements operated through eight Fuel Facility Corporations, and three aircraft de-icing service facilities, along with other airlines that contract for fuel and de-icing services at various major airports in Canada. These entities operate on a cost recovery basis. The aggregate debt of these entities that has not been consolidated by Air Canada under IFRS 10 Consolidated Financial Statements is approximately \$643 million as at December 31, 2019 (December 31, 2018 - \$571 million), which is Air Canada's maximum exposure to loss before taking into consideration the value of the assets that secure the obligations and any cost sharing that would occur amongst the other contracting airlines. Air Canada views this loss potential as remote. Each contracting airline participating in these entities shares pro rata, based on system usage, in the guarantee of this debt. The maturities of these debt arrangements vary but generally extend beyond five years.

Indemnification Agreements

In the ordinary course of Air Canada's business, Air Canada enters into a variety of agreements, such as real estate leases or operating agreements, aircraft financing or leasing agreements, technical service agreements, and director/officer contracts, and other commercial agreements, some of which may provide for indemnifications to counterparties that may require Air Canada to pay for costs and/or losses incurred by such counterparties. Air Canada cannot reasonably estimate the potential amount, if any, it could be required to pay under such indemnifications. Such amount would also depend on the outcome of future events and conditions, which cannot be predicted. While certain agreements specify a maximum potential exposure, certain others do not specify a maximum amount or a limited period. Historically, Air Canada has not made any significant payments under these indemnifications.

Air Canada expects that it would be covered by insurance for most tort liabilities and certain related contractual indemnities.

17. RELATED PARTY TRANSACTIONS

At December 31, 2019, Air Canada had no transactions with related parties as defined under GAAP, except those pertaining to transactions with key management personnel in the ordinary course of their employment or directorship agreements.

18. SENSITIVITY OF RESULTS

Air Canada's financial results are subject to many different internal and external factors which can have a significant impact on operating results. The following table describes, on an indicative basis, the financial impact that changes in fuel prices and the value of the Canadian dollar would generally have had on Air Canada's past operating results. An equivalent but opposite movement of the sensitivity factor in the table below would have generally resulted in a similar but opposite impact. These guidelines were derived from 2019 levels of activity and are based on management estimates. The impacts are not additive, do not reflect the interdependent relationship of the elements and may not be indicative of future trends or results which may vary significantly due to a wide range of factors many of which are beyond the control of Air Canada.

Key Variable (Canadian dollars in millions)	2019 Measure	Sensitivity Factor	Favourable/ (Unfavourable) Estimated Operating Income Impact
Fuel			
Fuel – Jet fuel price (US\$/barrel) ⁽¹⁾	86.1	US\$1/barrel increase	\$ (48)
Fuel – Jet fuel price (CAD cents/litre) ⁽¹⁾	76.1	1% increase	\$ (41)
Key Variable (Canadian dollars in millions)	2019 Measure	Sensitivity Factor	Favourable/ (Unfavourable) Estimated Operating Income and Pre-Tax Income Impacts
Currency Exchange			
C\$ to US\$	US\$1 = C\$1.31	1 cent increase (i.e. \$1.31 to \$1.30 per US\$)	
		Operating income ⁽²⁾	\$ 26
		Net interest expense	4
		Revaluation of long-term debt and lease liabilities, U.S. dollar cash, cash equivalents and short-term investments, and other long-term monetary items, net	63
		Remeasurement of outstanding currency derivatives	(51)
		Pre-tax income impact	\$ 42

(1) Excludes the impact of carrier surcharges and fuel hedging.

(2) The operating income impact of currency exchange movements is before the impact of hedging activities, such as through the use of foreign currency derivatives and holding U.S. dollar cash reserves. The gains and losses related to these hedging activities are recorded in non-operating income (expense) on Air Canada's consolidated statement of operations.

19. ENTERPRISE RISK MANAGEMENT AND GOVERNANCE

Overview

The management of opportunities and risks is an integral part of Air Canada's business processes. Strategic decisions are made by the executive team with consideration of risk implications to the business and its stakeholders. Risks which may be material to Air Canada are identified and monitored on an on-going basis through Air Canada's Enterprise Risk Management (ERM) program which provides insight on a regular basis to the Board of Directors through the Board's Audit, Finance and Risk Committee.

Board Oversight

Risk management is part of Air Canada's corporate governance. The Board of Directors has established board committees (Audit, Finance and Risk Committee; Safety, Health, Environment and Security Committee; Governance and Nominating Committee; and Human Resources and Compensation Committee) to assist in the oversight responsibilities.

Risk information is reviewed by the Board or the relevant Board committee on a quarterly basis. In addition, Board committees review and discuss with management on a regular basis all key enterprise risk exposures based on their respective terms of reference set out in committee charters and the steps taken that seek to monitor/control and mitigate those exposures to satisfy themselves as to the effective risk management of the individual risks. These processes seek to mitigate rather than eliminate risk.

The Audit, Finance and Risk Committee is responsible for the oversight of the ERM program and the work carried out by the Corporate Audit and Advisory department, as stated in its committee charter.

ERM risk reporting is maintained by the Corporate Audit and Advisory department, which provides an independent update as to the state of each enterprise risk on a quarterly basis.

Risk Management Framework and Structure

Air Canada's enterprise risk management framework has been developed to support governance and oversight over the company's most important strategic risks and is aligned to the ISO 31000 standard and COSO ERM 2017 framework.

Formal policies and management committees are in place to manage specific risks such as safety, security, fraud, information security, privacy, environment and fuel price.

Sound business practices and ethical behaviour are also fundamental to Air Canada's risk governance culture. Air Canada has in place (and updates, as required) a Corporate Policy and Guidelines on Business Conduct ("Code of Conduct"), which sets out guiding principles and ethical standards that apply to all Air Canada's corporate activities. A confidential, anonymous reporting process and ethics committee are also in place to oversee adherence to the Code of Conduct.

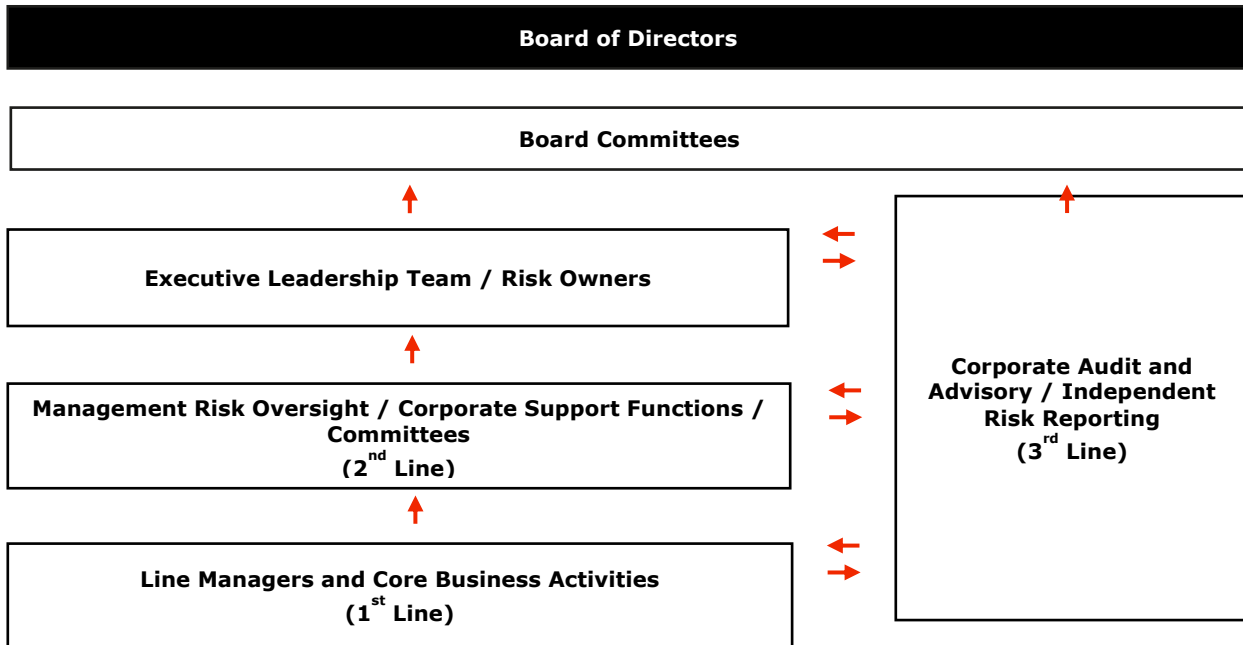
Air Canada's risk management structure is aligned with the "Three Lines of Defence" approach to risk management:

1st line - Business functions are expected to integrate risk management when performing their day-to-day core commercial and operational activities.

2nd line - Support functions establish policies, provide guidance and expertise, and risk oversight (e.g. Safety, Security, Legal and Compliance, Finance/Treasury/Tax, Sourcing and Procurement, Government Affairs, People, Environment, IT Operations and IT Security).

3rd line - Corporate Audit and Advisory department provides an independent and objective perspective on Air Canada's governance, risk management practices and controls.

Air Canada’s ERM and governance structure is as follows:



Although the risk management framework described in this section is aligned with industry best practices, there can be no assurance that it will be sufficient to prevent the occurrence of events that could have a material adverse effect on our financial position, financial performance, cash flows, business or reputation.

20. RISK FACTORS

The risks described below should be read carefully when evaluating Air Canada's business and the forward-looking statements contained in this report and other statements Air Canada may make from time to time. Any of these risks, individually or in combination, could materially and adversely affect Air Canada's business, operating results, financial condition and the outcome of matters as to which forward-looking statements are made. Should a risk materialize, circumstances at the time may also cause that risk to have a different impact than that which might otherwise have been expected. In addition, these risks may not be the only risks faced by Air Canada. Other risks of which Air Canada is not aware or which Air Canada currently deems not to be material may surface and have a material and adverse impact on Air Canada, its business, results from operations, financial condition and the outcome of matters as to which forward-looking statements are made.

Operating results - Air Canada may sustain significant losses and not be able to successfully achieve and/or sustain positive net profitability or realize the objectives of any or all of its initiatives

A variety of factors, including economic conditions and other factors described in this "Risk Factors" section, may result in Air Canada incurring significant losses. The airline industry has historically been characterized by low profit margins and high fixed costs and the costs of operating a flight do not vary significantly with the number of passengers carried. Therefore, a relatively small change in the number of passengers, fare pricing or traffic mix, or increased costs, could have a significant impact on Air Canada's operating and financial results. Due to the competitive nature of the airline industry and customer sensitivity to travel costs, Air Canada may not be able to pass on cost increases to its customers. Despite a focus on improving resiliency to downturns in its business as well as on-going and planned strategic and business initiatives, Air Canada may not be able to successfully achieve and/or sustain positive net profitability or realize all of its objectives, including those which seek to increase revenues, decrease costs, improve margins, profitably deploy additional capacity, generate sufficient returns on its capital expenditures or offset or mitigate risks facing Air Canada, including those described in this MD&A.

Economic and geopolitical conditions - Changes in economic and geopolitical conditions could have a material adverse effect on Air Canada, its business, results from operations and financial condition

Air Canada's operating results, like those of other airlines, are sensitive to and may be significantly impacted by economic and geopolitical conditions, which may impact demand for air transportation in general or to or from certain destinations, operating costs, operating revenues, costs and availability of fuel, foreign exchange costs, and costs and availability of capital and supplies. Any prolonged or significant impact arising from economic and geopolitical conditions, including weakness of the Canadian, U.S. or world economies, changes to political, economic, or trade relationships within or between jurisdictions where Air Canada operates flights or does business, or threatened or actual outbreaks of hostilities in or adjacent to regions Air Canada serves or over which it operates flights or does business could have a material adverse effect on Air Canada, its business, results from operations and financial condition.

Boeing 737 MAX Aircraft – The grounding of the Boeing 737 MAX aircraft could materially adversely impact Air Canada, its business, results of operations and financial condition

On March 12, 2019 the European Aviation Safety Agency ("EASA") issued an Emergency Directive suspending the operation of the Boeing 737 MAX within, to and from the European skies (including outside territories). On March 13, 2019, Transport Canada issued a safety notice closing Canadian airspace to Boeing 737 MAX aircraft until further notice, followed by the Federal Aviation Administration which issued a temporary grounding order for the Boeing 737 MAX aircraft. On March 14, 2019, Boeing announced it would suspend Boeing 737 MAX deliveries to airline customers. At that time, Air Canada had 24 Boeing 737 MAX aircraft in its operating fleet, with additional Boeing 737 MAX aircraft scheduled for delivery from 2019

through to 2024. The duration and on-going impact of this action is uncertain and could further negatively affect operations, future network plans, reduce revenues and increase costs, based on a number of factors, including the period of time the aircraft remain unavailable, the availability and cost of appropriate replacement aircraft, passengers' perceptions relation to the Boeing 737 MAX aircraft and the circumstances of any reintroduction of the aircraft to service, any of which could have a material adverse effect on Air Canada, its business, results from operations and financial condition.

Fares and market demand – Fluctuations in fares and demand for air travel and could materially adversely impact Air Canada, its business, results of operations and financial condition

Air Canada fares and passenger demand, like those of other airlines, have fluctuated significantly in the past and may fluctuate significantly in the future. Air Canada is not able to predict with certainty market conditions and the fares that Air Canada may be able to charge. Customer expectations and perception can change rapidly and the demand for lower fares or alternative modes of transportation may impact revenues. Travel, especially leisure travel, is a discretionary consumer expense. Demand for business and premium travel is also impacted by economic conditions. Depressed economic conditions, geopolitical instability, security, health and concerns about the environmental impacts of air travel and tendencies towards less environmentally impactful travel where customers may reduce or alter their travel activities, could each have the effect of reducing demand for air travel and could materially adversely impact Air Canada, its business, results of operations and financial condition.

Competition - Air Canada operates in a highly competitive environment and faces increasing competition in North America and internationally

Air Canada operates within a highly competitive industry and continuously encounters substantial price competition. Carriers, including low-cost, ultra-low-cost, domestic, U.S. and other foreign carriers, have entered, announced their intention to enter or continue to enter or expand into markets Air Canada operates in or plans to operate in, including domestic, U.S. transborder, international and leisure-oriented markets.

Carriers against which Air Canada competes, including U.S. and Canadian carriers, may also undergo (and some have undergone) substantial reorganizations (including by way of merger with or acquisition by another carrier or entity), creating greater access to capital, reduced levels of indebtedness, lower operating costs and other competitive advantages, and may therefore be able to more effectively compete against Air Canada. Consolidation within the airline industry and carriers increasingly entering into integrated commercial cooperation arrangements may also strengthen the ability of carriers to compete. Such intensified competition could have a material adverse effect on Air Canada, its business, results from operations and financial condition.

The prevalence of Internet travel websites and other travel product distribution channels has also resulted in a substantial increase in new routings and discounted and promotional fares initiated by Air Canada's competitors. Competitors also continue to pursue commissions/incentive actions and, in many cases, increase these payments.

Air Canada's ability to reduce its fares in order to effectively compete is dependent on Air Canada's ability to achieve acceptable operating margins and may be limited by applicable laws or government policies to encourage competition.

Increased competition, from existing, emerging or new competitors, including competitors entering into new or expanded joint ventures and other arrangements, or utilizing disruptive business models or technologies, and other competitive actions, or benefiting from foreign subsidies or other advantages not available to Air Canada, could have a material adverse effect on Air Canada, its business, results from operations and financial condition.

Fuel costs - Significant fluctuations or increases in fuel prices could have a material adverse effect on Air Canada, its business, results from operations and financial condition

Fuel costs constitute one of Air Canada's largest operating cost items. Fuel prices have and may continue to fluctuate widely depending on many factors, including international market conditions, geopolitical events, jet fuel refining costs and the Canada/U.S. dollar exchange rate. Air Canada cannot accurately predict the future price of fuel, and it may not be able to sufficiently, or may not, hedge the risk associated with fluctuations in fuel prices. Due to the competitive nature of the airline industry, Air Canada may not be able to pass on increases in fuel prices to its customers by increasing its fares. Furthermore, the impact of lower jet fuel prices could trigger increased competition, resulting in a decrease in revenues for all carriers. Significant fluctuations (including increases) in fuel prices could have a material adverse effect on Air Canada, its business, results from operations and financial condition.

Dependence on technology - Air Canada relies heavily on technology to operate its business and any technology systems failure or data breach could have a material adverse effect on Air Canada, its business, results from operations and financial condition

Air Canada relies heavily on technology to operate its business, including to increase its revenues and reduce its costs. These systems include those relating to Air Canada's websites, reservations, airport customer services, flight operations and communications. Air Canada began implementing a new passenger services system, the Amadeus Altéa Suite, a third party hosted and maintained solution with the reservations, inventory and ticketing (commercial functions) migration partially completed in 2019.

Air Canada's passenger services system, website and other technology systems must efficiently accommodate a high volume of traffic and securely, and accurately deliver flight information and process information critical to Air Canada's business and operations. Air Canada also depends on the performance of its many suppliers, whose performance is in turn dependent upon their respective technologies.

As part of regular business operations, Air Canada collects, processes and stores sensitive data, including personal information of our passengers, employees and information of our business partners. The secure operation of the networks and systems on which this type of information is stored, processed and maintained is critical to Air Canada's business.

Technology systems may be vulnerable to a variety of sources of failure, interruption or misuse, including by reason of human error, third party suppliers' acts or omissions, natural disasters, terrorist attacks, telecommunications failures, power failures, unauthorized or fraudulent users (including cyber-attacks, malware, ransomware, computer viruses and the like), and other operational and security issues.

Technology Systems are at risk of cybersecurity incidents and it is generally viewed that cyber-attacks have increased and will continue to increase in both prevalence and sophistication. Air Canada invests in initiatives, including security initiatives and disaster recovery plans; however, these initiatives may not be successful or adequately address a highly dynamic and continually evolving threat landscape. Any technology system failure, degradation, interruption or misuse, security breach, efficiency of migration to a new system, or failure to comply with applicable data confidentiality, privacy, security or other related obligations, whether at Air Canada or a third party on whom Air Canada relies, could adversely affect Air Canada's reputation and expose Air Canada to litigation, claims for contract breach, fines, sanctions, remediation costs or otherwise materially and adversely affect Air Canada's operations, any of which could have a material adverse effect on Air Canada, its business, results from operations and financial condition.

Strategic, business, technology and other important initiatives - A delay or failure to identify and devise, invest in and implement certain important initiatives could have a material impact on Air Canada, its business, results from operations and financial condition

In order to operate its business, achieve its goals and remain competitive, Air Canada continually seeks to identify and devise, invest in, implement and pursue strategic, business, technology and other important initiatives, such as those relating to the implementation of Amadeus Altéa Suite to replace its existing passenger services system, the launch of Air Canada's new loyalty program, its aircraft fleet renewal program (including the planned re-fleeting of its narrow-body aircraft with Boeing 737 MAX aircraft and Airbus A220 aircraft and disposal of aircraft that are being replaced), participation in the leisure or lower cost market (including through Air Canada Rouge), joint venture arrangements, revenue enhancement

initiatives, business processes, information technology, revenue management, cost transformation, improving premium passenger revenues, expansion of flying capacity (including in respect of new aircraft and routes), corporate culture transformation initiatives seeking to ensure a consistently high-quality customer service experience and others. These initiatives, including activities relating to their development and implementation, may be adversely impacted by a wide range of factors, many of which are beyond Air Canada's control. Such factors include the need to seek legal or regulatory approvals, the performance and reliability of third parties (including suppliers), their services and their products, the implementation and integration of such initiatives into Air Canada's other activities and processes as well as the adoption and acceptance of these initiatives by Air Canada's customers, suppliers and personnel. A delay or failure to sufficiently and successfully identify and devise, invest in or implement any of these initiatives could adversely affect Air Canada's ability to operate its business, achieve its goals and remain competitive and could have a material adverse effect on Air Canada, its business, results from operations and financial condition.

Terrorist attacks and security measures - Terrorist attacks and related consequences could have a material adverse effect on Air Canada, its business, results from operations and financial condition

The potential for terrorist attacks and terrorist activity causes concern and uncertainty in the minds of the traveling public. The occurrence of a terrorist attack, an attempted attack or the perceived threat of one (whether or not involving Air Canada or another carrier, or involving Air Canada's destinations, or other destinations or regions), and restrictive security measures, such as those relating to the content of carry-on baggage, passenger identification document requirements, and passenger screening procedures, could have a material adverse effect on passenger demand for air travel and on the number of passengers traveling on Air Canada's flights. It could also lead to a substantial increase in insurance, security and other costs, including higher operating costs to avoid flying over airspace near conflict zones. Any resulting reduction in passenger revenues and/or increases in costs, could have a material adverse effect on Air Canada, its business, results from operations and financial condition.

Epidemic diseases - Epidemic diseases could impact passenger demand for air travel

Outbreaks or the threat of outbreaks of viruses or other contagions or epidemic diseases, including the Coronavirus outbreak in China, influenza, SARS, Ebola, Zika, as well as any travel or other advisories relating to same, whether domestic or international or whether relating to Canadian cities or regions or other cities, regions or countries, could have a material adverse effect on demand for air travel and could result in a major negative impact on traffic on Air Canada's network. Any resulting reduction in traffic in the markets served by Air Canada could have a material adverse effect on Air Canada, its business, results from operations and financial condition.

Key supplies and suppliers - Air Canada's failure or inability to source certain goods and services from key suppliers on favourable terms could have a material adverse effect on Air Canada, its business, results from operations and financial condition

Air Canada is dependent upon its ability to source, on favourable terms and costs, sufficient quantities of goods and services of desirable quality, in a timely manner or within planned timeframes, required for Air Canada's business or operations, such as fuel, aircraft and related parts, airport services, aircraft maintenance services, and information technology systems and services. In certain cases, Air Canada may only be able to source goods and services from a limited number of suppliers (or from sole source suppliers) and the transition to new or alternative suppliers, which may be necessitated by reason of such suppliers increasing their rates or by their failure, refusal or inability to deliver or perform, may not be possible or may take a significant amount of time or require significant resources. A failure, refusal, delay or inability of a supplier may arise as a result of a wide range of causes, many of which are beyond Air Canada's control. Any failure or inability of Air Canada to successfully source goods and services, or to source goods and services of desirable quality on terms and pricing and within the timeframes acceptable to Air Canada, could have a material adverse effect on Air Canada, its business, results from operations and financial condition.

Casualty losses - Air Canada's business makes it subject to large liability claims for serious

personal injury or death arising out of accidents or disasters

Due to the nature of its core business, Air Canada may be subject to liability claims arising out of accidents or disasters involving aircraft on which Air Canada's customers are traveling or involving aircraft of other carriers maintained or otherwise serviced by Air Canada or through third parties providing services to Air Canada, including claims for serious personal injury or death. Any such accident or disaster may significantly harm Air Canada's reputation for safety, which would have a material adverse effect on Air Canada, its business, results from operations and financial condition. There can be no assurance that Air Canada's insurance coverage will be sufficient to cover one or more large claims and any shortfall may be material.

Accidents and disasters may occur despite all appropriate measures being taken, and as a result of a variety of factors beyond Air Canada's control including acts of terrorism and sabotage, equipment failures, human error, severe weather, lightning strikes and other natural phenomenon, bird strikes as well as the increasing prevalence of unmanned aerial vehicles.

Regulatory matters - Air Canada is subject to extensive and evolving domestic and foreign regulation in a wide range of matters

The airline industry is subject to extensive legal, regulatory and administrative controls and oversight, including in relation to taxes, airport fees and operations, route rights, security, passenger and consumer rights, accessibility of transportation, flight crew and other labour rules, privacy, data security, advertising, licensing, competition, pensions, environment (including noise levels and carbon emissions), foreign exchange controls and, in some measure, pricing.

Compliance with current or future Canadian and international laws, regulations and administrative requirements, including potentially inconsistent or conflicting laws or regulations, or laws or regulations which disproportionately apply to Canadian airlines or Air Canada specifically, may impose significant costs, impediments and/or competitive disadvantages, and there cannot be any assurance that current or future laws, regulations and administrative requirements will not adversely affect Air Canada, its business, results from operations and financial condition.

The ability of Air Canada to operate flights or otherwise offer air services on international routes between airports in Canada and other countries may be subject to change. Applicable arrangements between Canada and foreign governments, which govern many areas including traffic rights, may be amended from time to time, rules and policies with respect to airport operations may be revised, and the availability of appropriate airport slots or facilities may change. Air Canada currently operates a number of flights on international routes under government arrangements, regulations or policies that designate the number of carriers permitted to operate on such routes, the capacity of the carriers providing services on such routes, the airports at which carriers may operate international flights, or the number of carriers allowed access to particular airports. Any further limitations, additions or modifications to such arrangements, regulations or policies could have a material adverse effect on Air Canada, its business, results from operations and financial condition. Additionally, if Canada were to adopt a more liberalized approach in relation to air services arrangements with foreign countries, such an approach could have a material adverse impact on Air Canada, its business, results from operations and financial condition and could result in the impairment of material amounts of related tangible and intangible assets.

Air Canada's current and future plans to enter into or expand revenue-sharing joint ventures and other alliance arrangements on various international routes or consummate acquisitions or other transactions may be challenged by applicable Canadian and international authorities or third parties, and are and may be subject to conditions or receipt of approvals, from applicable Canadian and international authorities, and to satisfying the necessary applicable regulatory requirements. There can be no assurance that such conditions will be met or will continue in effect or that existing, or changes in, regulatory requirements or standards can be satisfied.

Many aspects of Air Canada's operations may also be subject to the proliferation of increasingly stringent laws and regulations relating to environmental reforms, such as in the area of climate change, and including the following:

The International Civil Aviation Organization ("ICAO") global market-based measure known as the Carbon Offsetting Reduction Scheme for International Aviation ("CORSIA"), adopted in 2016, includes emissions from applicable international flights. CORSIA is set to be implemented in phases, with the first two phases (occurring from 2021 to 2023, and 2024 to 2026, respectively) to be voluntary and with the third phase (from 2027 to 2035) to be mandatory. Canada voluntarily adopted the first phase. On the basis of the CORSIA, the European Parliament and Council has continued exempting flights between Europe and third countries from the European Union ("EU") emissions trading system ("ETS"). In 2016, the Canadian Federal Government proposed a pan-Canadian benchmark for carbon pricing to be implemented in all Canadian jurisdictions by 2018, with pricing based on greenhouse gas emissions from all fossil fuels sources including jet fuel and other fuels used by Air Canada in ground operations and stationary combustion equipment. Canadian provinces may either apply an explicit price-based system, such as a carbon tax or levy, or a cap and trade system. Certain provinces, such British Columbia and Québec have implemented a carbon pricing system; others have had the federal carbon pricing backstop system applied. Air Canada and regional carriers operating flights on behalf of Air Canada have been subject to a carbon tax for flights operating on an intra-provincial basis.

Air Canada cannot predict whether, or the manner in which, these or other initiatives will ultimately be implemented or their impact on Air Canada, and future developments in Canada and abroad could adversely impact Air Canada, including by increasing its costs. While Air Canada is continually focused on efficiency improvements, including carbon footprint reduction initiatives, the impact to Air Canada of climate change and other environmental initiatives may, in part, depend upon the extent to which the increased costs relating such initiatives, if any, could be recovered, including in the form of higher passenger fares and cargo rates.

Air Canada is also subject to domestic and foreign laws regarding privacy and security of passenger, employee and other data, including advance passenger information and access to airline reservation systems, which are not consistent in all countries which may assert jurisdiction over Air Canada, including in countries where Air Canada operates, conducts business or processes or stores data. These laws and regulations are proliferating, are becoming increasingly stringent and may conflict with one another. The need to comply with these laws and regulatory regimes results in additional complexities, operating costs and potential exposure to fines and penalties, and further regulation in this area or non-compliance, including in relation to data privacy and security requirements, could have a material adverse effect on Air Canada, its business (including by impacting Air Canada's goodwill and reputation), results from operations and financial condition.

Certain jurisdictions (including Canada, the United States, European Union countries and other jurisdictions where Air Canada operates or conducts business) have enacted and implemented, and they and domestic regulators may in the future enact and implement, consumer protection and passenger rights and accessibility measures. Such measures may impose significant, unique, inconsistent or even conflicting obligations on Air Canada, which may result in increased liability and costs to Air Canada and which could adversely impact Air Canada, its business, results from operations and financial condition.

In 2019, the *Air Passenger Protection Regulations* were adopted under the *Canada Transportation Act* and are stated to govern flights to, from and within Canada, including connecting flights, and specify requirements governing a carrier's obligations, including in the case of flight delay, cancellation, denial of boarding, lost baggage, providing in certain cases minimum standards of treatment, compensation and other obligations. The Minister of Transport is also authorized to order the Canadian Transportation Agency to make regulations respecting any of a carrier's other obligations towards passengers.

Aeroplan loyalty program – Loss of redemption partners, changes to accrual or redemption settlement rates, increased redemption rates of loyalty points, or disruptions or other interruptions of services affecting the Aeroplan loyalty program could have a material adverse effect on Air Canada, its business, results from operations and financial condition

In January 2019, Air Canada completed the acquisition of Aeroplan Inc. (formerly Aimia Canada Inc.), owner and operator of the Aeroplan loyalty business and program. Air Canada offers its customers who are Aeroplan members the opportunity to earn Aeroplan Miles, which management believes is a significant factor in many customers' decision to travel with Air Canada and contributes to building customer loyalty. The success of the Aeroplan program is dependent on maintaining sufficient accumulation and redemption

partners. Increases in redemption rates for outstanding Aeroplan Miles, any failures to adequately operate the Aeroplan program or interruptions or disruptions of Aeroplan program services, could have a material adverse effect on Air Canada, its business, results from operations and financial condition.

Air Canada is working to implement a new, redesigned Aeroplan loyalty program which involves significant investments as well as certain risks and uncertainties, including risks relating to attracting new and retaining current members, implementing the required information technology and loyalty management systems, and transitioning from the current Aeroplan program to the new loyalty program. Though Air Canada believes it would be able to mitigate and overcome risks and successfully create and launch its new loyalty program, the transition from the current Aeroplan program and the launch and operation of Air Canada's new loyalty program entail risks which could have a material adverse effect on Air Canada, its business, results from operations and financial condition.

Climate Change - Changes in environmental conditions, environmental regulations and public opinion regarding air travel could have a material adverse effect on Air Canada, its business, results from operations and financial condition

Air Canada, like other airlines, is subject to climate change-related risks, including in relation to other factors described in this MD&A. The airline industry is a source of carbon dioxide and other greenhouse gases and faces extensive related laws and regulations, including those described in this MD&A. Climate change may increase the frequency and intensity of severe weather on the ground and at altitude (including turbulence events). Severe weather events at airports or destinations served by Air Canada may impact the viability or cost of flying to such destinations. Concern about climate change and the impact of carbon emissions from flights may result in reduced demand for air travel and adversely impact public perception of Air Canada and its brand. Climate change as well as a failure to adapt to and address evolving related regulations, or changes in public opinion, failure to implement technologies which adequately reduce climate or environmental impacts, improve sustainability of its operations or otherwise respond to climate change-related challenges, in a timely manner, could have a material adverse effect on Air Canada, its brand, its business, results from operations and financial condition.

Interruptions or disruptions in service - Interruptions or disruptions in service could have a material adverse effect on Air Canada, its business, results from operations and financial condition

Air Canada's business is significantly dependent upon its ability to operate without interruption to or from a number of hub airports, including Toronto Pearson. Delays or disruptions in service, including those due to security, computer malfunctions or other incidents, weather conditions, labour conflicts with airport workers, baggage handlers, air traffic controllers, security personnel, and other workers not employed by Air Canada or other causes beyond the control of Air Canada could have a material adverse impact on Air Canada, its business, results from operations and financial condition.

Interruptions and disruptions in service may be caused by, and the demand and cost of air travel may be adversely impacted by, environmental conditions, technology issues and factors in addition to those relating to the weather, including those identified in this MD&A. Environmental conditions and factors, such as those arising from volcanic eruptions or other natural phenomena, those arising from man-made sources, and those arising from increases in the frequency, strength and duration of severe weather events, including as a result of climate change, could cause interruptions and disruptions in service, increase Air Canada's costs or adversely impact demand for air travel, any of which could have a material adverse impact on Air Canada, its business, results from operations and financial condition.

Regional carriers - The failure by regional carriers to fulfill their obligations to Air Canada could have a material adverse effect on Air Canada, its business, results from operations and financial condition

Air Canada seeks to enhance its network through capacity purchase agreements with certain airlines and regional airlines such as Jazz and Sky Regional operating flights on behalf of Air Canada. Pursuant to the terms of the Jazz CPA, Air Canada pays Jazz a number of fees, some of which are fixed and others which are determined based upon certain costs incurred by Jazz. Air Canada also reimburses Jazz for certain pass-through costs incurred by Jazz (or arranges to provide the related supplies to Jazz), such as fuel, navigation, landing and terminal fees. In addition, the Jazz CPA requires that Jazz maintain a minimum

fleet size and contains a minimum average daily utilization guarantee which requires Air Canada to utilize Jazz for that amount of flying. Significant increases in Jazz's costs, the failure by Jazz to adequately fulfill its obligations under the Jazz CPA, factors which may reduce the utilization of the Jazz fleet, including economic or market downturns, and unexpected interruptions or cessation of Jazz's services, as well as similar circumstances relating to other airlines from whom Air Canada sources capacity, could have a material adverse effect on Air Canada, its business, results from operations and financial condition.

Air Canada's brand – The failure to preserve or grow the value of Air Canada's brand could have a material adverse effect on Air Canada, its business, results from operations and financial condition

Air Canada believes that its success is dependent on the value of its brand and on Air Canada's ability to preserve, grow and leverage that value. The Air Canada brand is recognized throughout the world, and Air Canada has received high ratings in external brand value studies, based in part on consumer perceptions on a variety of subjective qualities. Air Canada believes it has and continues to build an excellent reputation globally for the safety and quality of its services, and for the delivery of a consistently positive passenger experience. Air Canada's reputation and brand could be damaged if exposed to significant adverse publicity through social media. Adverse publicity, whether justified or not, can rapidly spread through social or digital media. To the extent we are unable to respond timely and appropriately to adverse publicity, our brand and reputation may be damaged. Any failure to preserve or grow Air Canada's brand, including by reason of the conduct of Air Canada or any of its business partners or other external parties, could have a material adverse effect on Air Canada, its business, results from operations and financial condition.

Leverage - Air Canada has a significant amount of indebtedness, and there can be no assurance that it will be able to satisfy its debt, lease and other obligations

Air Canada has a significant amount of indebtedness, including substantial obligations under aircraft leases, aircraft purchases and other financings, and as a result of any challenging economic or other conditions affecting Air Canada, Air Canada may incur greater levels of indebtedness than currently exist or are planned. Although Air Canada has been focusing on reducing its level of indebtedness and improving its leverage ratios, the amount of indebtedness that Air Canada has and which it may incur in the future could have a material adverse effect on Air Canada. The ability of Air Canada to make scheduled payments under its indebtedness will depend on, among other things, its future operating performance and its ability to refinance its indebtedness, if necessary. Air Canada incurs a significant proportion of its indebtedness in foreign currencies, primarily in U.S. dollars, and as a result, future debt servicing repayments are subject to foreign exchange risk. There can be no assurance that Air Canada will at all times be able to generate sufficient cash from its operations to satisfy its debts, lease and other obligations. Each of these factors is, to a large extent, subject to economic, financial, competitive, regulatory, operational and other factors, many of which are beyond Air Canada's control.

Labour costs and labour relations - Air Canada may not be able to maintain labour costs at appropriate levels or secure labour agreements which permit it to successfully pursue its strategic initiatives. There can be no assurance that collective bargaining agreements will be further renewed without labour conflicts and/or disruptions

Labour costs constitute one of Air Canada's largest operating cost items. There can be no assurance that Air Canada will be able to maintain such costs at levels that do not negatively affect its business, results from operations and financial condition. Most of Air Canada's employees are unionized. While Air Canada has established long term arrangements with unions representing a significant portion of its unionized employees, there can be no assurance that future agreements with employees' unions or the outcome of arbitrations will be on terms consistent with Air Canada's expectations or comparable to agreements entered into by Air Canada's competitors. Any future agreements or outcomes of negotiations or arbitrations, including in relation to wages or other labour costs or work rules, may result in increased labour costs or other charges, or terms and conditions restricting or reducing, Air Canada's ability to sustain its business objectives or pursue its strategic initiatives, which could have a material adverse effect on Air Canada, its business, results from operations and financial condition.

There can be no assurance that collective agreements will be further renewed without labour conflict or action or that there will not otherwise be any labour conflict or action that could also lead to a degradation, interruption or stoppage in Air Canada's service or otherwise adversely affect the ability of Air Canada to execute on its business plans or operate its business, either of which could have a material adverse effect on Air Canada, its business, results from operations and financial condition. In respect of the unions for Canadian-based employees, strikes or lock-outs may lawfully occur following the term and negotiations of the renewal of collective agreements once a number of pre-conditions prescribed by the *Canada Labour Code* have been satisfied.

Any labour disruption or work stoppage by any of the unionized work groups of Jazz, or other airlines operating flights on behalf of Air Canada, or other key suppliers, or of other parties with whom Air Canada conducts business or relies on could have a material adverse effect on Air Canada, its business, results from operations and financial condition. In addition, labour conflicts at Star Alliance® partners or involving the operations of key airports could result in lower demand for connecting traffic with Air Canada, which could have a material adverse effect on Air Canada, its business, results from operations and financial condition.

Star Alliance and Joint Ventures - Departure of a key member from Star Alliance or the failure by a key member to meet its obligations, including under joint ventures arrangements, could have a material adverse effect on Air Canada, its business, results from operations and financial condition

The strategic and commercial arrangements with Star Alliance members, including Air Canada's A++ joint venture counterparties, Lufthansa AG and United Airlines, provide Air Canada with important benefits, including codesharing, efficient connections and transfers, reciprocal participation in frequent flyer programs and use of airport lounges from the other members. Should a key member leave Star Alliance or otherwise fail to meet its obligations towards Air Canada, Air Canada, its business, results from operations and financial condition could be materially adversely affected.

Limitations due to restrictive covenants - Covenants contained in agreements to which Air Canada is a party may affect and, in some cases, significantly limit or prohibit the manner in which Air Canada operates its business

Some of the financing and other major agreements to which Air Canada is a party contain, and in the future may contain, restrictive, financial (including in relation to asset valuations, liquidity, fixed charge coverage ratio) and other covenants which affect and, in some cases, significantly limit or prohibit, among other things, the manner in which Air Canada may structure or operate its business, including by reducing Air Canada's liquidity, limiting Air Canada's ability to incur indebtedness, create liens, sell assets, pay dividends, make capital expenditures, and engage in acquisitions, mergers or restructurings or a change of control. Although Air Canada has, more recently, been able to negotiate more favourable and less restrictive covenants, there can be no assurance that it will be able to continue to do so. Future financing and other significant agreements may be subject to similar or stricter covenants which limit Air Canada's operating and financial flexibility, which could materially and adversely affect Air Canada's ability to operate its business and its profitability.

A failure by Air Canada to comply with its contractual obligations (including restrictive, financial and other covenants), or to pay its indebtedness and fixed costs, could result in a variety of material adverse consequences, including the acceleration of its indebtedness, the withholding of credit card proceeds by the credit card service providers and the exercise of remedies by its creditors, lessors or other co-contracting parties, and such defaults could trigger additional defaults under other indebtedness or agreements. In such a situation, Air Canada may not be able to repay the accelerated indebtedness or fulfill its obligations under certain contracts, make required aircraft lease payments or otherwise cover its fixed costs. Also, the lenders under the financing arrangements could foreclose upon all or substantially all of the assets of Air Canada which secure Air Canada's obligations.

Refer to section 10.8 "Contractual Obligations" of this MD&A for information on Air Canada's credit card processing agreements.

Need for capital and liquidity - Air Canada may not be able to obtain sufficient funds in a timely way and on acceptable terms to provide adequate liquidity and to finance necessary operating and capital expenditures

Air Canada's liquidity levels may be adversely impacted by risks identified in this MD&A, including economic conditions, foreign exchange rates, increased competition, volatile fuel prices, labour issues, and contractual covenants (which require Air Canada to maintain minimum cash reserves and which could require Air Canada to deposit cash collateral with third parties). As part of Air Canada's efforts to manage such challenges and to support Air Canada's business strategy, significant liquidity and significant on-going operating and capital expenditures are required.

Although Air Canada's liquidity levels have significantly improved over the last several years, there can be no assurance that Air Canada will continue to maintain sufficient liquidity, whether from operations or by obtaining funds on terms acceptable to Air Canada, to finance the operating and capital expenditures necessary to manage any challenges and support its business strategy.

A major decline in the market price of Air Canada's securities, including a major decline in capital markets in general, a downgrade in Air Canada's credit ratings, differences between Air Canada's actual or anticipated financial results and the published expectations of financial analysts, as well as events affecting our business or operating environment, may negatively impact Air Canada's ability to raise capital, issue debt, borrow on acceptable terms, attract and/or retain key employees, make strategic acquisitions, enter into business arrangements or operate its business, and such factors may contribute to volatility in Air Canada's securities.

Legal proceedings - Air Canada may be subject to legal proceedings which could have a material adverse impact

In the course of conducting its business, Air Canada is subject to various claims and litigation (including class action claims), including with respect to its contractual arrangements and current or new laws and regulations. Any future claims or litigation could have a material adverse effect on Air Canada, its business, results from operations and financial condition.

Foreign exchange - A significant deterioration of the Canadian dollar relative to the U.S. dollar could have a material adverse effect on Air Canada, its business, results from operations and financial condition

Air Canada's financial results are sensitive to the fluctuating value of the Canadian dollar. Air Canada incurs significant expenses in U.S. dollars for items such as fuel, aircraft purchases, aircraft leasing and maintenance, airport charges, ground package costs, sales and distribution costs, interest and debt servicing payments, while a substantial portion of its revenues are generated in Canadian dollars. In addition, Air Canada may not be able to sufficiently, or may not, hedge the risk associated with fluctuations in exchange rates. A significant deterioration of the Canadian dollar relative to the U.S. dollar or other foreign currencies would increase the costs of Air Canada relative to its U.S. or other foreign competitors. Any of these factors could have a material adverse effect on Air Canada, its business, results from operations and financial condition.

Pension plans - Failure or inability by Air Canada to make required cash contributions to its pension plans could have a material adverse effect on Air Canada, its business, results from operations and financial condition

Air Canada maintains several defined benefit pension plans, including domestic registered pension plans, supplemental pension plans and international pension plans. Canadian federal pension legislation requires that the funded status of registered pension plans be determined periodically, on both a going concern basis (essentially assuming indefinite plan continuation) and a solvency basis (essentially assuming immediate plan termination). In addition, current service contributions in respect of a domestic registered plan are required except to the extent they are funded (and if permitted subject to applicable plan rules and legislation) through a sufficient surplus in such plan. Air Canada's pension funding obligations (including projected funding obligations) may vary significantly based on a wide variety of factors, including pension plan solvency valuations, regulatory developments, plan demographics, changes to plan provisions, changes to pension asset investment strategies, assumptions and methods used and changes in economic

conditions (mainly the return on fund assets and changes in interest rates) and other factors. Deteriorating economic conditions or a prolonged period of low or decreasing interest rates may result in significant increases in Air Canada's funding obligations, which could have a material adverse effect on Air Canada, its business, results from operations and financial condition. See section 10.7 "Pension Funding Obligations" of this MD&A for additional information.

Key personnel - Air Canada is dependent on key employees and could be materially adversely affected by a shortfall or substantial turnover

Air Canada is dependent on the industry experience, qualifications and knowledge of a variety of employees, including its executive officers, managers, airline flight and operations personnel and other key employees to execute its business plan and operate its business. If Air Canada were to experience a shortfall or a substantial turnover in its leadership or other key employees, Air Canada, its business, results from operations and financial condition could be materially adversely affected. Additionally, Air Canada may be unable to attract and retain additional qualified key personnel as needed in the future.

Availability of insurance coverage and increased insurance costs - Increases in insurance costs or reduction in insurance coverage could have a material adverse effect on Air Canada, its business, results from operations and financial condition

The aviation insurance industry has been continually re-evaluating the terrorism risks that it covers which may adversely affect some of Air Canada's existing insurance carriers or Air Canada's ability to obtain future insurance coverage (including war risk insurance coverage). To the extent that Air Canada's existing insurance carriers are unable or unwilling to provide it with insurance coverage and in the absence of measures by the Government of Canada to provide the required coverage, Air Canada's insurance costs may increase further and may result in Air Canada being in breach of regulatory requirements or contractual arrangements requiring that specific insurance be maintained, which could have a material adverse effect on Air Canada, its business, results from operations and financial condition.

21. CONTROLS AND PROCEDURES

Disclosure Controls and Procedures and Internal Controls over Financial Reporting

Disclosure controls and procedures within the Corporation have been designed to provide reasonable assurance that all relevant information is identified to its President and Chief Executive Officer ("CEO"), its Deputy Chief Executive Officer and Chief Financial Officer ("CFO") and its Disclosure Policy Committee to ensure appropriate and timely decisions are made regarding public disclosure.

Internal controls over financial reporting have been designed by management, under the supervision of, and with the participation of the Corporation's CEO and CFO, to provide reasonable assurance regarding the reliability of the Corporation's financial reporting and its preparation of financial statements for external purposes in accordance with GAAP.

The Corporation will file certifications, signed by the Corporation's CEO and CFO, with the Canadian Securities Administrators ("CSA") upon filing of the Corporation's Annual Information Form. In those filings, the Corporation's CEO and CFO will certify, as required by National Instrument 52-109, the appropriateness of the financial disclosure, the design and effectiveness of the Corporation's disclosure controls and procedures and the design and effectiveness of internal controls over financial reporting. The Corporation's CEO and CFO also certify the appropriateness of the financial disclosures in the Corporation's interim filings with securities regulators. In those interim filings, the Corporation's CEO and CFO also certify the design of the Corporation's disclosure controls and procedures and the design of internal controls over financial reporting.

The Corporation's Audit, Finance and Risk Committee reviewed this MD&A and the audited consolidated financial statements, and the Corporation's Board of Directors approved these documents prior to their release.

Management's Report on Disclosure Controls and Procedures

Management, under the supervision of and with the participation of the Corporation's CEO and CFO, evaluated the effectiveness of the Corporation's disclosure controls and procedures (as defined under National Instrument 52-109) and concluded, as at December 31, 2019, that such disclosure controls and procedures were effective.

Management's Report on Internal Controls over Financial Reporting

Management, under the supervision of and with the participation of the Corporation's CEO and CFO, evaluated the effectiveness of the Corporation's internal controls over financial reporting (as defined under National Instrument 52-109). In making this evaluation, management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commissions ("COSO") in Internal Control - Integrated Framework (2013). Based on that evaluation, management and the CEO and CFO have concluded that, as at December 31, 2019, the Corporation's internal controls over financial reporting were effective. This evaluation took into consideration the Corporation's Corporate Disclosure Policy and the functioning of its Disclosure Policy Committee.

Changes in Internal Controls over Financial Reporting

There have been changes to the Corporation's internal controls over financial reporting during the quarter ended December 31, 2019 that have materially affected, or are reasonably likely to materially affect, its internal controls over financial reporting.

In November 2019, the Corporation transitioned to a new reservation system, which results in significant changes and enhancements to the airline's reservation, ticketing and sales processes. This transition included migrating open ticket reservations into the new system. As a result of the system change, internal controls, documentation and procedures were updated and tested during the fourth quarter of 2019.

In addition, during the first quarter of 2019 and as previously reported, Air Canada adopted new internal control procedures related to the adoption of IFRS 16 – Leases and the consolidation of the Aeroplan loyalty program.

As a result of the adoption of IFRS 16 – Leases, new internal controls were implemented in the first quarter of 2019 to track and record additional lease liabilities and right-of-use assets, including new processes to record changes and other modifications related to those lease contracts. In addition, new processes have been implemented to provide the disclosures required by the new standard.

As described in section 14 "Accounting Policies" and section 15 "Critical Accounting Estimates and Judgements", there are a number of new accounting estimates and policies applied related to the accounting for Aeroplan deferred revenue, including estimates related to Equivalent Ticket Value and breakage. New internal controls have been implemented as a result of the Aeroplan acquisition.

22. NON-GAAP FINANCIAL MEASURES

Below is a description of certain non-GAAP financial measures used by Air Canada to provide readers with additional information on its financial and operating performance. Such measures are not recognized measures for financial statement presentation under GAAP, do not have standardized meanings, may not be comparable to similar measures presented by other entities and should not be considered a substitute for or superior to GAAP results.

EBITDA

EBITDA (earnings before interest, taxes, depreciation and amortization) is commonly used in the airline industry and is used by Air Canada as a means to view operating results before interest, taxes, depreciation and amortization as these costs can vary significantly among airlines due to differences in the way airlines finance their aircraft and other assets. Air Canada excludes special items from EBITDA as these items may distort the analysis of certain business trends and render comparative analysis to other airlines less meaningful.

EBITDA is reconciled to GAAP operating income as follows:

(Canadian dollars in millions)	Fourth Quarter			Full Year		
	2019	2018	\$ Change	2019	2018	\$ Change
Operating income – GAAP	\$ 145	\$ 179	\$ (34)	\$ 1,650	\$ 1,496	\$ 154
Add back:						
Depreciation and amortization	520	440	80	1,986	1,717	269
EBITDA	\$ 665	\$ 619	\$ 46	\$ 3,636	\$ 3,213	\$ 423

Adjusted CASM

Air Canada uses adjusted CASM as a means to assess the operating and cost performance of its on-going airline business without the effects of aircraft fuel expense, the cost of ground packages at Air Canada Vacations, the operating costs of Aeroplan during its initial year of acquisition, and special items as these items may distort the analysis of certain business trends and render comparative analysis to other airlines less meaningful.

In calculating adjusted CASM, aircraft fuel expense is excluded from operating expense results as it fluctuates widely depending on many factors, including international market conditions, geopolitical events, jet fuel refining costs and Canada/U.S. currency exchange rates. Air Canada also incurs expenses related to ground packages at Air Canada Vacations which some airlines, without comparable tour operator businesses, may not incur. In addition, these costs do not generate ASMs and therefore excluding these costs from operating expense results provides for a more meaningful comparison across periods when such costs may vary.

Excluding aircraft fuel expense, the cost of ground packages at Air Canada Vacations and special items from operating expenses generally allows for a more meaningful analysis of Air Canada's operating expense performance and a more meaningful comparison to that of other airlines.

Following the completion of Air Canada's acquisition of Aeroplan on January 10, 2019, Air Canada began consolidating Aeroplan's results. Given that the Aeroplan loyalty business was not consolidated in Air Canada's financial results in 2018, for a more meaningful comparison of the cost performance of the on-going airline business, Air Canada's adjusted CASM for 2019 excludes the operating expenses of Aeroplan.

Adjusted CASM is reconciled to GAAP operating expense as follows:

(Canadian dollars in millions, except where indicated)	Fourth Quarter			Full Year		
	2019	2018	\$ Change	2019	2018	\$ Change
Operating expense – GAAP	\$ 4,284	\$ 4,048	\$ 236	\$ 17,481	\$ 16,507	\$ 974
Adjusted for:						
Aircraft fuel expense	(1,013)	(1,091)	78	(4,347)	(4,500)	153
Ground package costs	(131)	(126)	(5)	(627)	(602)	(25)
Operating expenses of Aeroplan	(58)	-	(58)	(200)	-	(200)
Operating expense, adjusted for the above-noted items	\$ 3,082	\$ 2,831	\$ 251	\$ 12,307	\$ 11,405	\$ 902
ASMs (millions)	26,431	25,597	3.3%	112,814	110,866	1.8%
Adjusted CASM (cents)	¢ 11.67	¢ 11.06	5.5%	¢ 10.91	¢ 10.29	6.1%

Adjusted Pre-tax Income (Loss)

Adjusted pre-tax income (loss) is used by Air Canada to assess the overall pre-tax financial performance of its business without the effects of foreign exchange gains or losses, net financing expense relating to employee benefits, gains or losses on financial instruments recorded at fair value, gains or losses on sale and leaseback of assets, gains or losses on debt settlements and modifications, gains or losses on disposal of assets, and special items as these items may distort the analysis of certain business trends and render comparative analysis to other airlines less meaningful. Air Canada uses adjusted pre-tax income (loss) before interest to determine return on invested capital.

Adjusted pre-tax income (loss) is reconciled to GAAP income before income taxes as follows:

(Canadian dollars in millions)	Fourth Quarter			Full Year		
	2019	2018	\$ Change	2019	2018	\$ Change
Income (loss) before income taxes – GAAP	\$ 172	\$ (391)	\$ 563	\$ 1,775	\$ 228	\$ 1,547
Adjusted for:						
Foreign exchange (gain) loss	(92)	444	(536)	(499)	578	(1,077)
Net financing expense relating to employee benefits	10	12	(2)	39	50	(11)
(Gain) loss on financial instruments recorded at fair value	(5)	3	(8)	(23)	1	(24)
Gain on debt settlements and modifications	(6)	-	(6)	(6)	(9)	3
(Gain) loss on disposal of assets ⁽¹⁾	(13)	-	(13)	(13)	188	(201)
Adjusted pre-tax income	\$ 66	\$ 68	\$ (2)	\$ 1,273	\$ 1,036	\$ 237

(1) In 2018, Air Canada recorded a loss on disposal of assets of \$188 million related to the sale of 25 Embraer 190 aircraft.

Adjusted Net Income (loss) and Adjusted Earnings (Loss) per Share – Diluted

Air Canada uses adjusted net income (loss) and adjusted earnings (loss) per share – diluted as a means to assess the overall financial performance of its business without the after-tax effects of foreign exchange gains or losses, net financing expense relating to employee benefits, gains or losses on financial instruments recorded at fair value, gains or losses on sale and leaseback of assets, gains or losses on debt settlements and modifications, gains or losses on disposal of assets, and special items as these items may distort the analysis of certain business trends and render comparative analysis to other airlines less meaningful.

Adjusted net income (loss) is reconciled to GAAP net income as follows:

(Canadian dollars in millions)	Fourth Quarter			Full Year		
	2019	2018	\$ Change	2019	2018	\$ Change
Net income (loss) – GAAP	\$ 152	\$ (360)	\$ 512	\$ 1,476	\$ 37	\$ 1,439
Adjusted for:						
Foreign exchange (gain) loss	(94)	403	(497)	(430)	530	(960)
Net financing expense relating to employee benefits	7	10	(3)	28	37	(9)
(Gain) loss on financial instruments recorded at fair value	(4)	3	(7)	(17)	1	(18)
Gain on debt settlements and modifications	(4)	(5)	1	(4)	(4)	-
(Gain) loss on disposal of assets ⁽¹⁾	(10)	4	(14)	(10)	137	(147)
Special net income tax recovery ⁽²⁾	-	-	-	(126)	-	(126)
Adjusted net income	\$ 47	\$ 55	\$ (8)	\$ 917	\$ 738	\$ 179
Weighted average number of outstanding shares used in computing diluted income per share (in millions)	269	275	(6)	272	276	(4)
Adjusted earnings per share – diluted	\$ 0.17	\$ 0.20	\$ (0.03)	\$ 3.37	\$ 2.67	\$ 0.70

(1) In 2018, Air Canada recorded a loss on disposal of assets of \$188 million related to the sale of 25 Embraer 190 aircraft.

(2) Air Canada recorded special net income tax items in 2019 mainly related to Air Canada's acquisition of Aeroplan on January 10, 2019.

The table below reflects the share amounts used in the computation of basic and diluted earnings per share on an adjusted earnings per share basis.

(in millions)	Fourth Quarter		Full Year	
	2019	2018	2019	2018
Weighted average number of shares outstanding – basic	266	271	268	272
Effect of dilution	3	4	4	4
Weighted average number of shares outstanding – diluted	269	275	272	276

Return on Invested Capital

Air Canada uses return on invested capital ("ROIC") as a means to assess the efficiency with which it allocates its capital to generate returns. ROIC is based on adjusted pre-tax income (loss), excluding interest expense. Invested capital includes average year-over-year long-term debt, average year-over-year lease obligations, average year-over-year shareholders' equity, net of excess cash. Air Canada defines excess cash as total cash and investments in excess of the minimum cash required to support operations. This measure of liquidity includes cash, cash equivalents, short-term investments, short-term restricted cash and long-term investments. Air Canada uses 20% of trailing 12 months operating revenue as its estimate of the minimum cash required to support on-going business operations. This estimate of minimum cash provides adequate coverage for advance ticket sales and to meet Air Canada's liquidity needs, as described in section 10.1 "Liquidity" of this MD&A. Air Canada calculates invested capital based on a book value-based method of calculating ROIC, as described above. Refer to the definition of adjusted pre-tax income (loss) for a discussion as to why Air Canada uses adjusted pre-tax income (loss) to assess the overall pre-tax financial performance of its business.

Return on invested capital is reconciled to GAAP income before income taxes as follows:

	12 Months Ended	
	December 31, 2019	December 31, 2018
<i>(Canadian dollars in millions, except where indicated)</i>		
Income before income taxes - GAAP	\$ 1,775	\$ 228
Remove:		
Foreign exchange (gain) loss	(499)	578
Net financing expense relating to employee benefits	39	50
(Gain) loss on financial instruments recorded at fair value	(23)	1
Gain on debt settlements and modifications ⁽¹⁾	(6)	(9)
(Gain) loss on disposal of assets ⁽²⁾	(13)	188
Adjusted pre-tax income	\$ 1,273	\$ 1,036
Adjusted for:		
Interest expense	515	567
Adjusted pre-tax income before interest	\$ 1,788	\$ 1,603
Invested capital:		
Average long-term debt and lease liabilities	9,582	9,649
Average shareholders' equity, net of excess cash	1,951	2,227
Invested capital	\$ 11,533	\$ 11,876
Return on invested capital (%)	15.5%	13.5%

(1) In 2019, Air Canada recorded a gain on debt settlements and modifications of \$6 million related to the repricing of its US\$1.1 billion senior secured credit facility.

In 2018, Air Canada recorded a gain on debt settlements and modifications of \$9 million comprised of a gain of \$11 million related to the repricing of its US\$1.1 billion senior secured credit facility and a loss of \$2 million related to the prepayment of fixed rate debt.

(2) In 2019, Air Canada recorded a gain on disposal of assets of \$13 million related to the sale of an aircraft, spare engines and a flight simulator.

In 2018, Air Canada recorded a loss on disposal of assets of \$188 million related to the sale of 25 Embraer aircraft.

Free Cash Flow

Free cash flow is commonly used in the airline industry and is used by Air Canada as an indicator of the financial strength and performance of its business, indicating the amount of cash Air Canada is able to generate from operations and after capital expenditures. Free cash flow is calculated as net cash flows from operating activities minus additions to property, equipment and intangible assets, and is net of proceeds from sale and leaseback transactions. Free cash flow in 2019 also excludes the one-time proceeds related to the Aeroplan acquisition. Refer to section 10.5 "Consolidated Cash Flow Movements" of this MD&A for a reconciliation of this non-GAAP financial measure to the nearest measure under GAAP.

Net Debt to Trailing 12-Month EBITDA (Leverage Ratio)

Net debt to trailing 12-month EBITDA ratio (also referred to as "leverage ratio" in this MD&A) is commonly used in the airline industry and is used by Air Canada as a means to measure financial leverage. Leverage ratio is calculated by dividing net debt by trailing 12-month EBITDA (excluding special items). As mentioned above, Air Canada excludes special items from EBITDA results (which are used to determine leverage ratio) as these items may distort the analysis of certain business trends and render comparative analysis to other airlines less meaningful. Refer to section 10.3 "Net Debt" of this MD&A for a reconciliation of this non-GAAP financial measure to the nearest measure under GAAP.

23. GLOSSARY

Adjusted CASM – Refers to operating expense per ASM adjusted to remove the effects of aircraft fuel expense, ground packages costs at Air Canada Vacations, the operating expenses of Aeroplan, and special items. Adjusted CASM is a non-GAAP financial measure. Refer to section 22 “Non-GAAP Financial Measures” of this MD&A for additional information.

Adjusted net income (loss) – Refers to the consolidated net income (loss) of Air Canada adjusted to remove the after-tax effects of foreign exchange gains or losses, net financing expense relating to employee benefits, gains or losses on financial instruments recorded at fair value, gains or losses on sale and leaseback of assets, gains or losses on debt settlements and modifications, gains or losses on disposal of assets, and special items. Adjusted net income (loss) is a non-GAAP financial measure. Refer to section 22 “Non-GAAP Financial Measures” of this MD&A for additional information.

Adjusted pre-tax income (loss) – Refers to the consolidated income (loss) of Air Canada before income taxes and adjusted to remove the effects of foreign exchange gains or losses, net financing expense relating to employee benefits, gains or losses on financial instruments recorded at fair value, gains or losses on sale and leaseback of assets, gains or losses on debt settlements and modifications, gains or losses on disposal of assets, and special items. Adjusted pre-tax income (loss) is a non-GAAP financial measure. Refer to section 22 “Non-GAAP Financial Measures” of this MD&A for additional information.

Aeroplan – Refers to Aeroplan Inc., formerly known as Aimia Canada Inc.

Atlantic passenger and cargo revenues – Refers to revenues from flights that cross the Atlantic Ocean with origins and destinations principally in Europe, India, the Middle East and North Africa.

Available seat miles or ASMs – Refers to a measure of passenger capacity calculated by multiplying the total number of seats available for passengers by the miles flown.

Average stage length – Refers to the average mile per departure seat and is calculated by dividing total ASMs by total seats dispatched.

Boeing – Refers to The Boeing Company.

Bombardier – Refers to Bombardier Inc.

CASM – Refers to operating expense per ASM.

Domestic passenger and cargo revenues – Refers to revenues from flights within Canada.

EBITDA – Refers to earnings before interest, taxes, depreciation and amortization. EBITDA is a non-GAAP financial measure. Refer to section 22 “Non-GAAP Financial Measures” of this MD&A for additional information. Air Canada excludes special items from EBITDA.

Free cash flow – Refers to net cash flows from operating activities minus additions to property, equipment and intangible assets, and is net of proceeds from sale and leaseback transactions. Free cash flow in 2019 also excludes the one-time proceeds related to the Aeroplan acquisition. Free cash flow is a non-GAAP financial measure. Refer to sections 10.5 “Consolidated Cash Flow Movements” and 22 “Non-GAAP Financial Measures” of this MD&A for additional information.

Jazz – Refers to Jazz Aviation LP.

Jazz CPA – Refers to the capacity purchase agreement between Air Canada and Jazz.

Leverage ratio – Refers to the ratio of net debt to trailing 12-month EBITDA (calculated by dividing net debt by trailing 12-month EBITDA). Leverage ratio is a non-GAAP financial measure. Refer to sections 10.3 “Net Debt” and 22 “Non-GAAP Financial Measures” of this MD&A for additional information.

Loss (gain) on debt settlements and modifications – Refers to gains or losses related to debt settlements and modifications that, in management's view, are to be separately disclosed by virtue of their size or incidence to enable a fuller understanding of the Corporation's financial performance.

Other passenger and cargo revenues – Refers to revenues from flights with origins and destinations principally in Central and South America, the Caribbean and Mexico.

Pacific passenger and cargo revenues – Refers to revenues from flights that cross the Pacific Ocean with origins and destinations principally in Asia and Australia.

Passenger load factor – Refers to a measure of passenger capacity utilization derived by expressing Revenue Passenger Miles as a percentage of Available Seat Miles.

Passenger revenue per available seat mile or PRASM – Refers to average passenger revenue per ASM.

Percentage point (pp) – Refers to a measure for the arithmetic difference of two percentages.

Return on invested capital or ROIC – Refers to return on invested capital and is a measure used to assess the efficiency with which a company allocates its capital to generate returns. ROIC is a non-GAAP financial measure. Refer to section 22 "Non-GAAP Financial Measures" of this MD&A for additional information.

Revenue passenger carried – Refers to the International Air Transport Association's (IATA) definition of passenger carried whereby passengers are counted on a flight number basis rather than by journey/itinerary or by leg.

Revenue passenger miles or RPMs – Refers to a measure of passenger traffic calculated by multiplying the total number of revenue passengers carried by the miles they are carried.

Seats dispatched – Refers to the number of seats on non-stop flights. A non-stop flight refers to a single takeoff and landing.

Sky Regional – Refers to Sky Regional Airlines Inc.

Special items – Refers to those items that, in management's view, are to be separately disclosed by virtue of their significance to the financial statements, to enable a fuller understanding of the Corporation's financial performance.

Toronto Pearson – Refers to Lester B. Pearson International Airport.

Weighted average cost of capital or WACC – Refers to management's estimate of its cost of capital, in which each category of capital is proportionately weighted.

Yield – Refers to average passenger revenue per RPM.