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Management's Discussion and Analysis

for the fourth quarter and year ended March 31, 2020

1. HIGHLIGHTS

FINANCIAL

FOURTH QUARTER OF FISCAL 2020

(amounts in millions, except per share amounts, ROCE and book-to-sales)		**Q4-2020**		Q4-2019		*Variance $*	*Variance %*
Income Statement							
Revenue	**$**	**977.3**	$	1,022.0	$	*(44.7)*	*(4 %)*
Segment operating income (SOI)[1]	**$**	**146.5**	$	170.4	$	*(23.9)*	*(14 %)*
SOI before specific items[1]	**$**	**193.9**	$	177.2	$	*16.7*	*9 %*
Net income attributable to equity holders of the Company	**$**	**78.4**	$	122.3	$	*(43.9)*	*(36 %)*
Basic and diluted earnings per share (EPS)	**$**	**0.29**	$	0.46	$	*(0.17)*	*(37 %)*
Net income before specific items[1]	**$**	**122.3**	$	127.5	$	*(5.2)*	*(4 %)*
EPS before specific items[1]	**$**	**0.46**	$	0.48	$	*(0.02)*	*(4 %)*
Cash Flows							
Free cash flow[1]	**$**	**185.1**	$	116.8	$	*68.3*	*58 %*
Net cash provided by operating activities	**$**	**246.3**	$	166.3	$	*80.0*	*48 %*
Financial Position							
Capital employed[1]	**$**	**4,944.0**	$	4,292.2	$	*651.8*	*15 %*
Non-cash working capital[1]	**$**	**6.0**	$	41.4	$	*(35.4)*	*(86 %)*
Net debt[1]	**$**	**2,365.7**	$	1,882.2	$	*483.5*	*26 %*
Return on capital employed (ROCE)[1]	**%**	**9.1**	%	11.9			
ROCE before specific items	**%**	**10.7**	%	12.9			
Backlog							
Total backlog[1]	**$**	**9,458.1**	$	9,494.9	$	*(36.8)*	*— %*
Order intake[1]	**$**	**778.8**	$	1,414.4	$	*(635.6)*	*(45 %)*
Book-to-sales ratio[1]		**0.80**		1.38			
Book-to-sales ratio for the last 12 months		**1.05**		1.20			

FISCAL 2020

(amounts in millions, except per share amounts)		**FY2020**		FY2019		*Variance $*	*Variance %*
Income Statement							
Revenue	**$**	**3,623.2**	$	3,304.1	$	*319.1*	*10 %*
Segment operating income	**$**	**537.1**	$	480.6	$	*56.5*	*12 %*
SOI before specific items	**$**	**590.4**	$	487.4	$	*103.0*	*21 %*
Net income attributable to equity holders of the Company	**$**	**311.4**	$	330.0	$	*(18.6)*	*(6 %)*
Basic earnings per share	**$**	**1.17**	$	1.24	$	*(0.07)*	*(6 %)*
Diluted earnings per share	**$**	**1.16**	$	1.23	$	*(0.07)*	*(6 %)*
Net income before specific items	**$**	**359.7**	$	335.2	$	*24.5*	*7 %*
EPS before specific items	**$**	**1.34**	$	1.25	$	*0.09*	*7 %*
Cash Flows							
Free cash flow	**$**	**351.2**	$	323.8	$	*27.4*	*8 %*
Net cash provided by operating activities	**$**	**545.1**	$	530.4	$	*14.7*	*3 %*

Specific items include the impacts of the integration of Bombardier's Business Aviation Training Business (BBAT) in fiscal 2019. In fiscal 2020, specific items also include the impacts of Defence and Security's reorganizational costs and the impact of the goodwill impairment charge recognized in Healthcare.

[1] Non-GAAP and other financial measures (see Section 3.7).

IMPACT OF THE COVID-19 PANDEMIC

The COVID-19 pandemic has created unprecedented uncertainty in the global economy, the global air transportation environment, air passenger travel and to CAE's business. Several of our customers are facing significant challenges, with airlines and business jet operators having to ground a majority of their aircraft in response to travel bans, border restrictions, and lower demand for air travel. We continue to take measures to protect the health and safety of our employees, work with our customers to minimize potential disruptions and support our community in addressing the challenges posed by this global pandemic. This outbreak has had an important and immediate impact on all our businesses, especially in the Civil Aviation Training Solutions segment.

For the Civil Aviation Training Solutions segment, the impacts of the COVID-19 pandemic resulted in the closure of certain training centre operations, lower utilization of our simulators in the network due to reduced demand from aviation customers and interruptions in the execution of our backlog. For the Defence and Security segment, delays were experienced in the awarding of new contracts and in the execution and advancement of certain programs. For the Healthcare segment, customers were primarily focused on managing the acute operational demands of this healthcare crisis rather than focusing on their training needs, which resulted in less focus and budget for normal operations and training projects.

To date, we have implemented several flexible measures to protect our financial position and preserve liquidity, including the reduction of capital expenditures and R&D investments in fiscal 2021, strict cost containment measures, salary freezes, salary reductions, reduced work weeks and temporary layoffs, as well as a suspension of our common share dividend and share repurchase plan in response to the impact of the COVID-19 pandemic. Additionally, we have worked with defence customers to secure more favorable terms for milestone payments as well as offer contract modifications to increase work scope and with suppliers for extended payment terms. We have recalled 1,500 employees as a result of government relief programs but there is uncertainty as to how long these programs could last.

You will find more details on the impacts of the COVID-19 pandemic on our business in *About CAE*, *Results by segment, Business risk and uncertainty* and *Use of judgements, estimates and assumptions*.

ADOPTION OF IFRS 16 - LEASES

Effective April 1, 2019 we adopted IFRS 16 - *Leases* using the modified retrospective approach. The modified retrospective approach applies the requirements of the standard retrospectively with the cumulative effects of initial application recorded in opening retained earnings as at April 1, 2019, and with no restatement of the comparative periods. Comparative information continues to be reported under IAS 17 - *Leases* and related interpretations. The impacts of adoption on our consolidated statement of financial position and consolidated income statement are discussed further in *Changes in accounting policies.*

BUSINESS COMBINATIONS

- On April 26, 2019, we acquired the remaining equity interest in Pelesys Learning Systems Inc. (Pelesys), a global leader in the provision of aviation training solutions and courseware;
- On June 26, 2019, we acquired the shares of Luftfartsskolen AS, an ab-initio flight school located in Oslo, Norway, expanding our cadet training capabilities in Europe.

OTHER

- On November 4, 2019, we concluded a 15-year exclusive business aviation training services agreement with Directional Aviation Capital affiliates and the acquisition of a 50% stake in SIMCOM Holdings, Inc. (SIMCOM), an operator of a wide range of jet, turboprop and piston powered aircraft simulators and training devices;
- In December 2019, we issued unsecured senior notes of US$100.0 million, maturing in December 2034, and repaid unsecured senior notes amounting to $95.0 million, which matured during the month;
- After considering the general economic conditions and the deterioration in the global economic environment from the uncertainties of the COVID-19 pandemic, we recorded an impairment charge of $37.5 million relating to goodwill acquired in previous business acquisitions in Healthcare.

EVENTS AFTER THE REPORTING PERIOD

- On April 6, 2020, we announced a series of flexible measures to protect our financial position in response to the COVID-19 pandemic and mitigate the impact on our employees. The measures include temporarily laying off 2,600 of our 10,500 employees and placing another 900 employees on a reduced work week and the suspension of our common share dividend and normal course issuer bid (NCIB);
- On April 9, 2020, we concluded a new two-year $500.0 million unsecured revolving credit facility which provides access to additional liquidity and further strengthens our financial position;
- On April 10, 2020, we concluded an agreement with the Government of Canada to design and manufacture 10,000 CAE Air1 ventilators to provide life support to patients in intensive care to support the COVID-19 pandemic;
- On April 20, 2020, we announced that we have recalled all remaining temporarily laid-off employees in Canada through the Canada Emergency Wage Subsidy (CEWS) program, impacting approximately 1,500 employees. We have accessed and are working to access government support programs in countries in which we operate;
- On May 19, 2020, we concluded an agreement to increase the limit of our receivable purchase program from US$300.0 million to US$400.0 million.

2. INTRODUCTION

In this report, *we*, *us*, *our*, *CAE* and *Company* refer to CAE Inc. and its subsidiaries. Unless we have indicated otherwise:
– *This year* and *2020* mean the fiscal year ending March 31, 2020;
– *Last year, prior year* and *a year ago* mean the fiscal year ended March 31, 2019;
– Dollar amounts are in Canadian dollars.

This report was prepared as of May 22, 2020 and includes our management's discussion and analysis (MD&A) for the year and the three-month period ended March 31, 2020 and the consolidated financial statements and notes for the year ended March 31, 2020. We have prepared it to help you understand our business, performance and financial condition for fiscal 2020. Except as otherwise indicated, all financial information has been reported in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB). All quarterly information disclosed in the MD&A is based on unaudited figures.

For additional information, please refer to our annual consolidated financial statements for this fiscal year, which you will find in the financial report for the year ended March 31, 2020. The MD&A provides you with a view of CAE as seen through the eyes of management and helps you understand the company from a variety of perspectives:
– Our mission;
– Our vision;
– Our strategy;
– Our operations;
– Foreign exchange;
– Non-GAAP and other financial measures;
– Consolidated results;
– Results by segment;
– Consolidated cash movements and liquidity;
– Consolidated financial position;
– Business combinations;
– Events after the reporting period;
– Business risk and uncertainty;
– Related party transactions;
– Changes in accounting policies;
– Controls and procedures;
– Oversight role of Audit Committee and Board of Directors.

You will find our most recent financial report and Annual Information Form (AIF) on our website at www.cae.com, on SEDAR at www.sedar.com or on EDGAR at www.sec.gov. Holders of CAE's securities may also request a printed copy of the Company's consolidated financial statements and MD&A free of charge by contacting Investor Relations (investor.relations@cae.com).

ABOUT MATERIAL INFORMATION

This report includes the information we believe is material to investors after considering all circumstances, including potential market sensitivity. We consider something to be material if:
– It results in, or would reasonably be expected to result in, a significant change in the market price or value of our shares, or;
– It is quite likely that a reasonable investor would consider the information to be important in making an investment decision.

CAUTION REGARDING FORWARD-LOOKING STATEMENTS

This report includes forward-looking statements about our activities, events and developments that we expect to or anticipate may occur in the future including, for example, statements about our vision, strategies, market trends and outlook, future revenues, capital spending, expansions and new initiatives, financial obligations and expected sales. Forward-looking statements normally contain words like *believe*, *expect*, *anticipate*, *plan, intend*, *continue*, *estimate*, *may*, *will*, *should, strategy, future* and similar expressions. By their nature, forward-looking statements require us to make assumptions and are subject to inherent risks and uncertainties associated with our business which may cause actual results in future periods to differ materially from results indicated in forward-looking statements. While these statements are based on management's expectations and assumptions regarding historical trends, current conditions and expected future developments, as well as other factors that we believe are reasonable and appropriate in the circumstances, readers are cautioned not to place undue reliance on these forward-looking statements as there is a risk that they may not be accurate.

Important risks that could cause such differences include, but are not limited to, risks relating to the COVID-19 pandemic such as health and safety, reduction and suspension of operations, global economic conditions, diversions of management attention, heightened IT risks, liquidity risks and credit risks, risks relating to the industry such as competition, business development and awarding of new contracts, level and timing of defence spending, government-funded defence and security programs, constraints within the civil aviation industry, regulatory matters, risks relating to CAE such as evolving standards and technology innovation, our ability to penetrate new markets, R&D activities, fixed-price and long-term supply contracts, strategic partnerships and long-term contracts, procurement and original equipment manufacturer (OEM) leverage, product integration and program management, protection of our intellectual property and brand, third-party intellectual property, loss of key personnel, labour relations, natural or other disasters, environmental laws and regulations, climate change, liability risks that may not be covered by indemnity or insurance, warranty or other product-related claims, integration of acquired businesses through mergers, acquisitions, joint ventures, strategic alliances or divestitures, reputational risk, U.S. foreign ownership, control or influence mitigation measures, length of sales cycle, seasonality, continued returns to shareholders, information technology and cybersecurity, our reliance on technology and third-party providers, data privacy, and risks relating to the market such as foreign exchange, availability of capital, credit risk, pension plan funding, doing business in foreign countries, geopolitical uncertainty, anti-corruption laws and taxation matters. Additionally, differences could arise because of events announced or completed after the date of this report. You will find more information in the *Business risk and uncertainty* section of the MD&A. We caution readers that the risks described above are not necessarily the only ones we face; additional risks and uncertainties that are presently unknown to us or that we may currently deem immaterial may adversely affect our business.

Except as required by law, we disclaim any intention or obligation to update or revise any forward-looking statements whether as a result of new information, future events or otherwise. The forward-looking information and statements contained in this report are expressly qualified by this cautionary statement.

3. ABOUT CAE

3.1 Who we are

CAE is a global leader in training for the civil aviation, defence and security, and healthcare markets. Backed by a record of more than 70 years of industry firsts, we continue to help define global training standards with our innovative virtual-to-live training solutions to make flying safer, maintain defence force readiness and enhance patient safety. We have the broadest global presence in the industry, with over 10,500 employees, 160 sites and training locations in over 35 countries. Each year, we train more than 220,000 civil and defence crewmembers, including more than 135,000 pilots, and thousands of healthcare professionals worldwide.

CAE's common shares are listed on the Toronto and New York stock exchanges under the symbol CAE.

3.2 Our mission

Through the training we provide, our mission is to make air travel safer, defence forces mission ready and healthcare safer.

3.3 Our vision

Our vision is to be the recognized global training partner of choice to enhance safety, efficiency and readiness.

3.4 Our strategy

We address safety, efficiency and readiness for customers in three core markets: civil aviation, defence and security, and healthcare.

We are a unique, pure-play training company with a proven record, of more than 70 years, of commitment to our customers' long-term training needs.

We offer the most innovative and broadest range of comprehensive training solutions across a global network by incorporating a combination of live training on actual platforms, virtual training in simulators and mixed reality applications, and constructive training using computer-generated simulations. Our strategic imperatives focus on the protection of our leadership position and growing at a superior rate than the underlying markets.

Six pillars of strength
We believe there are six fundamental strengths that underpin our strategy and position us well for sustainable long-term growth:
- High degree of recurring business;
- Strong competitive moat;
- Headroom in large markets;
- Underlying long-term secular tailwinds;
- Potential for superior returns;
- Culture of innovation.

High degree of recurring business
We operate in highly regulated industries with mandatory and recurring training requirements for maintaining professional certifications. Over 60% of our business is derived from the provision of services, which is an important source of recurring business, and largely involves long-term agreements with many airlines, business aircraft operators and defence forces.

Strong competitive moat
Our global training network, unique end-to-end cadet to captain training solutions, digitally-enabled training systems, training systems integrator expertise, unrivaled customer intimacy and strong, recognizable brand further strengthen our competitive moat.

Headroom in large markets
We provide innovative training solutions to customers in large addressable markets in civil aviation, defence and security and healthcare. Significant untapped market opportunities exist in these three core businesses, with substantial headroom to grow our market share over the long-term.

Underlying long-term secular tailwinds
The civil aviation sector is expected to grow over the long-term as passenger traffic recovers, and in defence and security, the market is expected to continue to grow with an emphasis on the operational readiness of defence forces. Healthcare is expected to become increasingly relevant in a world more acutely aware of the benefits of healthcare simulation and training to help save lives at a steady state and in a healthcare crisis.

Potential for superior returns
In each of our businesses, we have the potential to grow at a rate superior to our underlying markets because of our potential to gain share within the markets we serve. Our rising proportion of revenue from training services provides potential for lower amplitude cyclicality as training is largely driven by the training requirements of the installed fleet. In addition, we leverage our leading market position to deepen and expand our customer relationships. We see opportunity to further utilize our training network and generate more revenue from existing assets and to deploy new assets with accretive returns.

Culture of innovation
We derive significant competitive advantage as an innovative leader in simulation products and training solutions. In collaboration with our customers, we design and deliver the industry's most sophisticated training systems, employing the latest in simulation, mixed reality and digital technologies, which are shaping the future of training.

3.5 Our operations

We provide integrated training solutions to three markets globally:
- The civil aviation market includes major commercial airlines, regional airlines, business aircraft operators, civil helicopter operators, aircraft manufacturers, third-party training centres, flight training organizations, maintenance repair and overhaul organizations (MRO) and aircraft finance leasing companies;
- The defence and security market includes defence forces, OEMs, government agencies and public safety organizations worldwide;
- The healthcare market includes hospital and university simulation centres, medical and nursing schools, paramedic organizations, defence forces, medical societies and OEMs.

IMPACT OF THE COVID-19 PANDEMIC
In late December 2019, a novel coronavirus (SARS-CoV-2/COVID-19) was identified with original cases in China and cases subsequently confirmed in multiple countries throughout the world. The outbreak was declared a Public Health Emergency of International Concern on January 30, 2020 and was subsequently categorized as a pandemic by the World Health Organization on March 11, 2020. The outbreak of the COVID-19 pandemic has resulted in governments and businesses worldwide adopting emergency measures to combat the spread of the virus while seeking to maintain essential services. These measures have included, without limitation, travel bans, border restrictions, lockdown protocols and self-isolation measures.

COVID-19 has created unprecedented uncertainty in the global economy, the global air transportation environment and air passenger travel, disrupted global supply chains, created significant economic downturn and disruption of financial markets. These adverse economic conditions are expected to continue for as long as the measures taken to contain the spread of the COVID-19 virus persist and certain conditions could continue even upon the gradual removal of such measures and thereafter, especially in the global air transportation environment and air passenger travel. These measures and conditions have adversely affected, and are expected to continue to adversely affect, our business and financial results, for as long as the measures adopted in response to the COVID-19 pandemic remain in place or are re-introduced, and such adverse effects could be material.

The COVID-19 pandemic started impacting several operational locations and markets across the globe starting in January and February in Asia, and through the rest of the world in March 2020. Several of our customers are facing significant challenges, with airlines and business jet operators having to ground a majority of their aircraft in response to travel bans, border restrictions, and lower demand for air travel. This outbreak has had an important and immediate impact on all our businesses, especially in Civil Aviation where commercial airlines are experiencing significant financial challenges, as a result of an unprecedented shock to demand together with significant disruptions to our own operations, including facility closures, supply chain disruptions, program execution delays, slower procurement decisions and changes to our customer's acquisition priorities. We continue to take measures to protect the health and safety of our employees, work with our customers to minimize potential disruptions and support our community in addressing the challenges posed by this global pandemic.

Impacts to CAE's operations

Civil Aviation

Pilot training is an essential service and critical to maintaining our customers' operations, however, with the global airline industry facing a severe and abrupt drop in air passenger travel and with airlines and business jet operators having to ground a majority of their aircraft, we have experienced a significant drop in demand for our training services. Reduction in demand combined with public directives resulted in 19 of our civil aviation training locations, representing approximately one-third of our training network, suspending operations and another 10 training centres operating at significantly reduced capacity as at March 31, 2020. By the beginning of May 2020, 13 training centres were closed and 15 of the training centres that remained open were operating at reduced capacities. In addition to disruptions to our civil training centre network, under public directives, we also had to suspend most manufacturing operations of civil simulator products starting on March 25, 2020; with gradual recommencement of manufacturing operations in May 2020.

Reductions in domestic and international passenger demand have severely impacted the aviation industry. Our commercial airline customers are deferring initial training for new pilots and in some cases, airlines have sought temporary deferrals of pilot recurrent training requirements from local authorities. Business aviation activity has also reduced due to self-isolation measures, travel bans, border restrictions and lockdown protocols. This has resulted in considerably lower training utilization than normal in the fourth quarter of fiscal 2020, which has been reflected in our results for the quarter. To preserve resources, airlines are also deferring new aircraft deliveries and seeking financial help from local governments. This will likely result in lower simulator orders for the upcoming fiscal year than in recent years and some delays in the execution of our backlog. CAE continues to work closely with our customers to monitor the situation and support their needs.

The financial impact from the decreased training utilization, production slowdown, reduced orders and deliveries and other disruptions is expected to significantly negatively impact the operations and financial performance of fiscal of the upcoming fiscal year. The current view for fiscal year 2021 is for a material decrease in operational and financial performance in the first half, and for the second half of the year to potentially begin to inflect positively, as markets are expected to begin to reopen, and travel restrictions are eased.

Defence and Security

While the COVID-19 pandemic has severely impacted all sectors of society, governments have reaffirmed the critical role played by the military and are taking measures to minimize impacts to both defence forces and the defence industrial base. In countries where we have significant operations, most of those governments have classified the defence market as an essential service and determined that some level of training must continue to meet readiness requirements in support of national security. Consequently, only six defence operational sites were closed, which means that over 90% of the sites where we provide services have remained open at full or reduced capacity. Manufacturing operations for defence simulator products have continued during the pandemic, however, execution has been disrupted by mobility limitations and client access restrictions.

Despite some of the mitigating initiatives taken by governments, there have been negative implications on CAE's defence business segment due to the pandemic. We have a range of programs with defence and OEM customers globally that have experienced project advancement delays due to travel bans, border restrictions, client access restrictions and supply chain disruptions. Some of the required progress and acceptance testing has continued with virtual meetings and remote work procedures, but delays have impacted some key milestones negatively affecting revenue and operating profit. In addition, there have been delays in the awarding of new contracts as government acquisition authorities follow directives in their respective countries to shelter-in-place and eliminate travel. These delays impacted order intake during the fourth quarter, and we expect a continued delay in the awarding of new contracts during at least the first half of fiscal year 2021.

Healthcare

In Healthcare, a large contingent of the market for simulation products are medical and nursing schools who have also come under lockdown protocols, which has negatively affected our ability to conclude contracts and to deliver on existing orders. The pandemic began to affect market demand in Asia early in the fourth quarter of fiscal 2020, as border restrictions were implemented, and in Europe and in North America later in March. In the hospital market, our customers are primarily focused on managing the acute operational demands of this healthcare crisis rather than focusing on their training needs, which could result in less focus and budget for normal operations and training projects in the near term. Manufacturing operations for healthcare products also continued during the pandemic.

You will find more details on the financial impacts of COVID-19 on our businesses in *Results by segment*.

Social impact

To help in the fight against COVID-19, our CAE engineers and scientists have designed an easy-to-use, maintainable, easy-to-manufacture ventilator prototype to provide life support to patients in intensive care. In April 2020, CAE was selected by the Canadian government to design and manufacture 10,000 of these CAE Air1 ventilators to support the COVID-19 pandemic.

CAE has also provided complimentary training seminars on how to prepare healthcare workers in the fight against COVID-19. The CAE team launched simulation-based training solutions, both web and hardware based, to train personnel in the safe practice of ventilation and intubation, which is key to saving lives. Additionally, CAE is leveraging its global supply chain to source scarce N95 masks for humanitarian purposes in support of front-line health workers. To date, CAE has secured some 600,000 N95 masks which have been delivered to the Governments of Quebec and Manitoba, doing our part to help keep healthcare-workers safe.

Measures to bolster liquidity and mitigate the impacts to our business

To address the negative impact of COVID-19, CAE has been closely monitoring and actively implementing and updating our response to the evolving COVID-19 pandemic to attenuate the impact on our employees, to ensure CAE preserves the necessary liquidity through this downturn and to ensure that we will be in a position of strength to serve our customers when the markets begin to recover from this pandemic. We have formed a committee composed of the senior leadership team and key leaders in the organization to monitor, on a daily basis, the evolution of the pandemic, to evaluate the measures being put in place by local and national governments and the resulting impacts on CAE and to implement necessary contingency plans in real time as the current situation continues to unfold, with a focus on three priorities: protecting employees' health and safety, supporting customers' critical operations and ensuring business continuity.

To date, CAE has implemented several flexible measures to protect our financial position and preserve liquidity and reduce operating costs, including the reduction of capital expenditures and R&D investments in fiscal 2021, strict cost containment measures, salary freezes, salary reductions, reduced work weeks and temporary layoffs, as well as a suspension of our common share dividend and share repurchase plan in response to the impact of the COVID-19 pandemic. At the same time, we have taken initiatives to renegotiate contracts with defence customers to secure more favorable terms for milestone payments as well as offer contract modifications to increase work scope and with suppliers for extended payment terms. We have also successfully negotiated payment deferrals on certain lease liabilities and government royalty and R&D obligations. Subsequent to the year-end, we concluded a new two-year $500.0 million senior unsecured revolving credit facility and we increased our receivable purchase program from US$300.0 million to US$400.0 million. These transactions provide access to additional liquidity and further strengthen our financial position.

As at March 31, 2020, we had a higher than normal cash and cash equivalents balance on hand to increase liquidity and preserve financial flexibility in light of the COVID-19 pandemic. Total available liquidity at March 31, 2020 was $1.5 billion, including $946.5 million in cash and cash equivalents, undrawn amounts on our revolving credit facility and the balance available under our receivable purchase program. With the addition of our new revolving credit facility and increased limit on our receivable purchase program subsequent to the year-end, we have available liquidity of $2.1 billion. We believe that our cash and cash equivalents, the availability under our committed revolving credit facility and cash generated from our operations will be sufficient to provide liquidity for our operations over the foreseeable future.

To minimize the impact on employees through this difficult period, CAE has accessed government emergency relief measures and wage subsidy programs available around the world. In April 2020, through the Canadian CEWS program, CAE was able to recall all temporarily laid-off employees in Canada. We have accessed and are working to access government support programs in countries in which we operate.

Resiliency of CAE's business

We entered this pandemic from a position of strength with a global leading market position, a balanced business with recurring revenue streams, and a solid financial position. We have taken decisive yet flexible actions to help protect our people and operations over the short-term and to give us the necessary agility to resume long-term growth when global air travel eventually returns.

In Civil aviation, training is highly regulated, and for pilots to remain active and to continue to hold their certifications, they must train regularly to demonstrate proficiency, usually every six to nine months. While training activities related to growth of the global pilot population and movements of pilots to new positions, have been curtailed significantly, recurrent training to maintain certification is non-discretionary. To adapt to these new circumstances, we have already introduced new virtual service offerings to support our customers such as obtaining U.S. Federal Aviation Administration (FAA) and other Civil Aviation Authority approvals for virtual training in certain of our flight training organizations. Our capacity to adapt and the increasing need for airlines to come up with cost containment measures as a result of this pandemic could act as a catalyst for potential customers who may come to realize the benefits of outsourcing their training needs to CAE as a means to reduce their in-house training costs. Another important contributor to our resiliency is the solid backlog of Civil full-flight simulator orders, which have been pre-funded by customer deposits and progress payments. While we expect some requests for deferrals, order cancellations are not common given the capital customers have deployed and since the orders are closely linked to airline operational requirements.

For Defence, governments recognize the critical importance of national defence and have been proactive in implementing measures to maintain and protect the defence industry and its suppliers, evidenced by many governments who are using defence programs as a mechanism to maintain and stimulate the economy. For example, countries such as Canada, the United Kingdom and Australia have implemented measures such as accelerated payments to support supplier cash flows. This, combined with our Defence backlog, provides an additional layer of diversification for our business. We have also demonstrated our ability to adapt in these challenging circumstances with, for example, the development of a range of offboard instructor operator station (IOS) solutions which are now being offered to global defence customers. These offboard IOS solutions help address social distancing requirements by removing the instructor from the cockpit of the simulator and still providing the required features and functionality to continue conducting training and mission rehearsal exercises.

We see future opportunities arising in the Healthcare business including our new CAE Air1 ventilator product line, COVID-19 related training solutions, and increased recognition of the value of simulation-based preparedness for pandemics and other high-risk scenarios. This is supported by professional organizations such as the International Nursing Association of Clinical Simulation and Learning (INACSL) and the Society for Simulation in Healthcare (SSH) who are proposing that regulatory bodies and policymakers demonstrate flexibility by allowing the replacement of clinical hours usually completed in a live healthcare setting with that of virtually simulated experiences as a result of this pandemic.

CIVIL AVIATION MARKET

We provide comprehensive training solutions for flight, cabin, maintenance and ground personnel in commercial, business and helicopter aviation, a complete range of flight simulation training devices, as well as ab initio pilot training and crew sourcing services.

We have the unique capability and global scale to address the total lifecycle needs of the professional pilot, from cadet to captain, with our comprehensive aviation training solutions. We are the world's largest provider of civil aviation training services. Our deep industry experience and thought leadership, large installed base, strong relationships and reputation as a trusted partner, enable us to access a broader share of the market than any other company in our industry. We provide aviation training services in more than 35 countries and through our broad global network of more than 60 training locations, we serve all sectors of civil aviation including airlines and other commercial, business and helicopter aviation operators.

Among our thousands of customers, we have long-term training centre operations and training services agreements and joint ventures with approximately 40 major airlines and aircraft operators around the world. Our range of training solutions includes product and service offerings for pilot, cabin crew and aircraft maintenance technician training, training centre operations, curriculum development, courseware solutions and consulting services. We currently operate 306 full-flight simulators (FFSs)[2], including those operating in our joint ventures. We offer industry-leading technology, and we are shaping the future of training through innovations such as our next generation training systems, including CAE Real-time Insights and Standardized Evaluations (CAE Rise™), which improves training quality, objectivity and efficiency through the integration of untapped flight and simulator data-driven insights into training. In the formation of new pilots, CAE operates the largest ab initio flight training network in the world and has over 30 cadet training programs globally. In resource management, CAE is the global market leader in the provision of flight crew and technical personnel to airlines, aircraft leasing companies, manufacturers and MRO companies worldwide.

Quality, fidelity, reliability and innovation are hallmarks of the CAE brand in flight simulation and we are the world leader in the development of civil flight simulators. We continuously innovate our processes and lead the market in the design, manufacture and integration of civil FFSs for major and regional commercial airlines, business aircraft operators, third-party training centres and OEMs. We have established a wealth of experience in developing first-to-market simulators for more than 35 types of aircraft models. Our flight simulation equipment, including FFSs, are designed to meet the rigorous demands of their long and active service lives, often spanning several decades of continuous use. Our global reach enables us to provide best-in-class support services such as real-time, remote monitoring and enables us to leverage our extensive worldwide network of spare parts and service teams.

Market drivers

Demand for training solutions in the civil aviation market is driven by the following:
- Pilot training and certification regulations;
- Safety and efficiency imperatives of commercial airlines and business aircraft operators;
- Expected long-term global growth in air travel;
- Expected long-term growth or renewal of the active fleet of commercial and business aircraft;
- Demand for trained aviation professionals.

Pilot training and certification regulations

Civil aviation training is a largely recurring business driven by a highly-regulated environment through global and domestic standards for pilot licensing and certification, amongst other regulatory requirements. These recurring training requirements are mandatory and are regulated by national and international aviation regulatory authorities such as the International Civil Aviation Organization, European Aviation Safety Agency (EASA), and the FAA.

In recent years, pilot certification processes and regulatory requirements have become increasingly stringent. Simulation-based pilot certification training is taking on a greater role internationally with the Multi-Crew Pilot License (MPL), with the Airline Transport Pilot certification requirements in the U.S. and with Upset Prevention and Recovery Training (UPRT) requirements mandated by both EASA and the FAA.

Safety and efficiency imperatives of commercial airlines and business aircraft operators

The commercial airline industry is competitive, requiring operators to continuously pursue operational excellence and efficiency initiatives to achieve satisfactory returns while continuing to maintain the highest safety standards and the confidence of air travelers. Airlines are finding it increasingly more effective to seek expertise in training from trusted partners such as CAE to address growing efficiency gaps, pilot capability gaps, evolving regulatory and training environments, and on-going aircraft programs. Partnering with a training provider like CAE gives airlines immediate access to a world-wide fleet of simulators, courses, programs and instruction capabilities, and allows them flexibility in pursuing aircraft fleet options that suit their business.

Our newest innovation in pilot training systems, CAE Rise™, is well positioned to elevate the pilot training experience. Backed by industry-leading technology, this system enables instructors to deliver training in accordance with airlines' Standard Operating Procedures and enables instructors to objectively assess pilot competencies using live data during training sessions. Furthermore, CAE Rise™ augments instructors' capability to identify pilot proficiency gaps and evolve airline training programs to the most advanced aviation safety standards, including Advanced Qualification Program and Evidence Based Training methodologies.

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[2] Non-GAAP and other financial measures (see Section 3.7).

Expected long-term global growth in air travel
The secular growth in air travel results in long-term demand for flight, cabin, maintenance and ground personnel, which in turn drives demand for training solutions.

Temporary disruptions due to the COVID-19 pandemic are significantly adversely impacting air travel as governments worldwide attempt to limit the spread of the virus. For the first three months of calendar 2020, passenger traffic decreased by 22% compared to the first three months of calendar 2019 and the International Air Transport Association (IATA) forecasts that, for the year, domestic and international passenger demand will experience a 48% decrease compared to calendar 2019.

In the short-term, as airlines adjust their fleets to accommodate demand for air travel, we anticipate some measure of pent up training demand as pilots are reassigned to different aircraft types in accordance with their seniority.

Looking ahead, once travel restrictions and lockdown protocols are lifted and as worldwide demand for air travel regains strength, both the commercial and business aviation industries are expected to level out and return to growth over the medium to long-term due to demand recovery combined with the introduction of new aircraft models and technologies.

Expected long-term growth or renewal of the active fleet of commercial and business aircraft
As an integrated training solutions provider, our long-term growth is closely tied to the active commercial and business aircraft fleet. Short and medium-term growth in aircraft fleets will experience pressure as airlines realign fleet capacity to meet new demand levels and OEMs reduced production.

Major business jet OEMs are continuing with plans to introduce a variety of new aircraft models in the upcoming years including Dassault's Falcon 6X and Gulfstream's G700.

Our business aviation training network, comprehensive suite of training programs, key long-term OEM partnerships and ongoing network investments, position us well to effectively address the training demand arising from the entry-into-service of these new aircraft programs.

Our strong competitive moat in the aviation market, as defined by our extensive global training network, best-in-class instructors, comprehensive training programs and strength in training partnerships with airlines and business aircraft operators, allows us to effectively address training needs that arise from a growing active fleet of aircraft.

We are well positioned to leverage our technology leadership and expertise, including CAE 7000XR Series FFSs, CAE 400XR, 500XR, and 600XR Series Flight Training Devices and CAE Simfinity™ ground school solutions, in delivering training equipment solutions that address the growing training needs of airlines, business jet operators, and helicopter operators.

Demand for trained aviation professionals
Demand for trained aviation professionals is driven by air traffic growth, pilot retirements and by the number of aircraft deliveries. As global economies and airlines resume expansion following the COVID-19 pandemic disruption, we are well positioned in the training services market to address the training requirements of airline customers.

DEFENCE AND SECURITY MARKET
We are a training and mission support solutions provider for defence forces across the air, land and naval domains, and for government organizations responsible for public safety.

We are a global leader in the development and delivery of training and mission support solutions for defence forces. While the COVID-19 pandemic has created uncertainty in all sectors of society, governments have reaffirmed the critical and essential role played by the military and are taking measures to minimize impacts to both defence forces and the defence industrial base. Most militaries use a combination of live training on actual platforms, virtual training in simulators, and constructive training using computer-generated simulations. We are skilled and experienced as a training systems integrator capable of helping defence forces achieve an optimal balance of integrated live-virtual-constructive training to achieve mission preparedness. Our expertise in training spans a broad variety of aircraft, including fighters, helicopters, trainer aircraft, maritime patrol, tanker/transport aircraft and remotely piloted aircraft, also called unmanned aerial systems. Increasingly, we are leveraging our training systems integration capabilities in the naval domain to provide naval training solutions, as evidenced by the program to provide the United Arab Emirates Navy with a comprehensive Naval Training Centre and our role supporting the design phase of the Canadian Surface Combatant ship program. We offer training solutions for land forces, including a range of driver, gunnery and maintenance trainers for tanks and armoured fighting vehicles as well as constructive simulation for command and staff training. Increasingly, we are engaged with defence customers to provide a range of mission support solutions, including systems engineering, decision support and staff augmentation. For example, our CAE USA Mission Solutions Inc. (MSI), a subsidiary of CAE USA Inc., that is eligible to pursue and execute higher-level security programs, provides a variety of operational support solutions to the U.S. Department of Defense (DoD).

Defence forces continue to increasingly leverage virtual training and balance their training approach between live, virtual and constructive domains to achieve maximum readiness and efficiency. We pursue programs requiring the integration of live, virtual and constructive training which tend to be larger in size than programs involving only one of the three training domains. We are a first-tier training systems integrator and can offer our customers a comprehensive range of innovative training solutions, ranging from digital learning environments and mixed reality capabilities to integrated live, virtual and constructive training in a secure networked environment. Our solutions typically include a combination of training services, products and software tools designed to cost-effectively maintain and enhance safety, efficiency, and readiness. We have a wealth of experience delivering and operating outsourced training solutions with facilities that are government-owned government-operated; government-owned contractor-operated; or contractor-owned contractor-operated. We offer training needs analysis, training media analysis, courseware, instructional systems design, facilities, tactical control centres, synthetic environments, mixed reality solutions, a range of simulators and training devices, live assets, digital media classrooms, distributed training, scenario development, instructors, training centre operations, and a continuous training improvement process leveraging big data analytics. In addition, we are increasingly leveraging our modeling and simulation expertise to enable defence forces to use synthetic environments for planning, analysis, and operational decision support.

We have delivered simulation products and training services to approximately 50 defence forces in over 40 countries. We provide training and operational support services such as contractor logistics support, maintenance services, systems engineering, staff augmentation, classroom instruction and simulator training at over 100 sites around the world, including our joint ventures. We also support live flying training, such as the live training delivered as part of the North Atlantic Treaty Organization (NATO) Flying Training in Canada and the U.S. Army Fixed-Wing Flight Training programs, as we help our customers achieve an optimal balance across their training enterprise.

Market drivers

Demand for training and operational support solutions in the defence and security markets is driven by the following:

– Defence budgets;
– Installed base of enduring defence platforms and new customers;
– Attractiveness of outsourcing training, maintenance and operational support services;
– Pilot and aircrew recruitment, training and retention challenges faced by militaries globally;
– Desire to integrate training systems to achieve efficiencies and enhanced preparedness;
– Need for synthetic environments to conduct integrated, networked mission training, including joint and coalition forces exercises;
– Desire of governments and defence forces to increase the use of synthetic environments, including mixed reality solutions;
– Relationships with OEMs for simulation and training.

Defence budgets

The global defence market continued its modest growth in 2019 as security threats remain and recapitalization efforts continued, thus requiring governments worldwide to continue increasing defence budgets. Prior to the COVID-19 pandemic, which has created uncertainty as governments introduce fiscal stimulus measures, defence expenditures were expected to grow approximately three percent in 2020 to reach an estimated US$1.9 trillion, with the United States continuing to be the largest contributor to defence spending. The approved DoD budget for fiscal 2020 was US$738 billion. In addition, the majority of the 29 members of NATO devised plans to increase defence spending to two percent of their Gross Domestic Product. For example, Canada expects to grow annual defence spending from approximately $19 billion to $33 billion by 2027. NATO and allied nations continue to confront the immediate challenges posed by security threats and have been increasingly renewing and augmenting their strategic defences in view of emerging and resurgent geopolitical threats. Growing defence budgets in the U.S. and much of NATO, as well as other regions such as Asia and the Middle East, will create increased opportunities throughout the defence establishment. Many countries are also implementing economic stimulus packages related to COVID-19 with defence and the defence industrial base identified as essential, for example the DoD received an additional budget of US$10.5 billion as a COVID-19 emergency stimulus package. Training is fundamental for defence forces to achieve and maintain mission preparedness and continued modest growth in defence spending is expected to result in corresponding opportunities for training and operational support solutions. There is however some risk that defence spending may be negatively impacted because of spending on COVID-19 stimulus measures and the impact of potentially recessionary environment.

Installed base of enduring defence platforms and new customers

CAE generates a high degree of recurring business from its strong position on enduring platforms, including long-term services contracts. Most defence forces in mature markets are required to maximize use of their existing platforms. Upgrades, updates, and life extension programs allow defence forces to leverage existing assets while creating a range of opportunities for simulator upgrades and training support services. Given our extensive installed base of simulators worldwide, our prime contractor position on programs such as the U.S. Air Force (USAF) KC-135 Aircrew Training System and C-130H Aircrew Training System, and our experience on key enduring platforms, we are well-positioned for recurring product upgrades or updates as well as maintenance and support services. In addition, there is strong demand for enduring platforms such as the C-130, P-8, C295, MH-60R, NH90 and MQ-9 in global defence markets, thus creating opportunities to provide new training systems and services for platforms where CAE has significant experience.

Attractiveness of outsourcing training, maintenance and operational support services

Another driver for CAE's expertise and capabilities is the efficiency gained by our customers from outsourcing training and support services. Defence forces and governments continue to find ways to maximize efficiency and enhance readiness, which includes allowing active-duty personnel to focus on operational requirements. There has been a growing trend among defence forces to consider outsourcing a variety of training and operational support services and we expect this trend to continue, which aligns directly with our strategy to grow long-term, recurring services business. We believe governments will increasingly look to industry for training and operational support solutions to achieve faster delivery, lower capital investment requirements, and for support required to meet the demand for producing aircrews and achieve desired readiness levels. For example, we are delivering fixed-wing flight training to the U.S. Army at the CAE Dothan Training Center in Dothan, Alabama. At this training centre, we offer comprehensive classroom, simulator and live-flying training and we believe this type of training service delivery program will become increasingly attractive to defence forces globally.

Pilot and aircrew recruitment, training and retention challenges faced by militaries globally

The COVID-19 pandemic has introduced uncertainty across the commercial aviation landscape, but prior to the pandemic the expansion of global economies and airline fleets had resulted in a shortage of qualified personnel needed to fulfill the growing demand for pilots, as expressed in CAE's Airline and Business Jet Pilot Demand Outlook. This demand from the civil and business aviation sector has a direct impact on the recruitment, training and retention of military pilots. The USAF alone estimates it has a shortfall of approximately 2,100 pilots, which represents 10% of the entire force. The challenge has led to militaries looking at numerous initiatives designed to address the pilot shortage, including initiatives specifically related to training such as the U.S. Air Force Pilot Training Transformation project. Militaries are considering further outsourcing as well as adopting new technologies that help make pilot training more streamlined and efficient. The military pilot and aircrew shortage and related training challenges will create opportunities for CAE's products, services and solutions.

Desire to integrate training systems to achieve efficiencies and enhanced preparedness

Increased operational tempo combined with limited personnel and budget pressures have prompted defence forces around the world to seek reliable partners who can help develop, manage and deliver the training systems required to support today's complex platforms and operations. Increasingly, defence forces are considering a more integrated and holistic approach to training. To help manage the complexities and challenges, many training programs are calling for industry partners to help design and manage a total training system. Our approach has positioned us globally as a platform-independent training systems integrator. The overall intent for defence forces is to maximize commonality for increased efficiencies, cost savings, and most importantly, enhanced capability for mission preparedness. As a training systems integrator, we address the overall training enterprise to deliver comprehensive solutions, from undergraduate individual training all the way through to operational, multi-service and joint mission training.

Need for synthetic environments to conduct integrated, networked mission training, including joint and coalition forces exercises

There is a growing trend among defence forces to use synthetic training to meet more of their mission training requirements, and to integrate and network various training systems so military forces can train in a virtual world. Simulation-based technology solutions enable defence customers to plan sophisticated missions and carry out full-mission rehearsals in a synthetic environment as a complement to traditional live training for mission preparation. Allies are cooperating and creating joint and coalition forces, which are driving the demand for networked training and operations. Training devices that can be networked to train different crews and allow for networked training across a range of platforms are increasingly important as the desire to conduct mission rehearsal exercises in a synthetic environment increases. For example, the U.S., U.K., Australia, Canada and others all have plans and strategies to leverage live-virtual-constructive domains within a networked common synthetic environment. We are strong proponents of open, standard simulation architectures, such as the Open Geospatial Consortium Common Database, to better enable integrated and networked mission training. For instance, we are currently developing a Joint Multinational Simulation Centre for a Gulf Cooperation Council customer that will be used by commanders and operators from the Army, Air Force, Navy and Staff Colleges to conduct military training and decision support across all level of operations.

Desire of governments and defence forces to increase the use of synthetic environments, including mixed reality solutions

One of the underlying drivers for our expertise and capabilities is the increasing use of synthetic training throughout the defence community. More defence forces and governments are increasingly adopting synthetic environments for a greater percentage of their overall approach because it improves training effectiveness, reduces operational demands on aircraft, lowers risk compared to operating actual platforms and significantly lowers costs. Synthetic environments offer defence forces a cost-effective way to provide a realistic environment for a wide variety of scenarios while contributing to preparedness and readiness. The higher cost of live activities, the desire to save aircraft for operational use, and the advanced simulation technologies delivering more realism are several factors prompting a greater adoption of the use of synthetic environments.

The nature of mission-focused training demands at least some live training; however, the shift to more synthetic training is advancing. For example, in fiscal 2019, we introduced the CAE Medallion MR e-Series visual system designed specifically for fighter and fast-jet training. The CAE Medallion MR e-Series visual system is now being procured by BAE Systems to support synthetic training capabilities for undisclosed customers operating next-generation fighter aircraft. In addition, digital innovations have led to the introduction of the CAE Trax Academy, which integrates virtual-reality enhanced courseware, artificial intelligence virtual coaching, mixed reality capabilities and big data analytics to deliver a comprehensive training continuum for military student pilots. Included as part of the CAE Trax Academy is the CAE Sprint Virtual Reality (VR) trainer that leverages CAE Rise™ for virtual coaching and objective assessment.

Relationships with OEMs for simulation and training

We are an important partner to OEMs because of our experience, global presence, and innovative technologies. We partner with manufacturers in the defence and security market to strengthen relationships and position for future opportunities. OEMs have introduced new platforms and continue to upgrade and extend the life of existing platforms, which drives worldwide demand for training systems. For example, Boeing has developed the P-8 maritime patrol aircraft and has subcontracted CAE to design and develop P-8 operational flight trainers for the U.S. Navy and other international customers. Boeing continues to market the P-8 internationally, which will create further opportunities for us. Other examples of our relationships with OEMs on specific platforms creating opportunities for training systems include Airbus Defence & Space on the C295, which will be delivered to the Royal Canadian Air Force for the Fixed-Wing Search and Rescue program; Leonardo on the M-346 lead-in fighter trainer; Lockheed Martin on the C-130J Super Hercules transport aircraft, which continues to be acquired by several branches of the USAF as well as international militaries; and General Atomics on the Predator family of remotely piloted aircraft. We are also part of Team Seahawk in partnership with the U.S. Navy and companies such as Lockheed Martin/ Sikorsky which is offering the MH-60R helicopter under the foreign military sales program to international customers.

HEALTHCARE MARKET

We offer integrated education and training solutions including surgical and imaging simulations, curriculum, audiovisual and centre management platforms and patient simulators to healthcare students and clinical professionals across the professional life cycle.

Simulation-based training is one of the most effective ways to prepare healthcare practitioners to care for patients and respond to critical situations while reducing medical errors. We are leveraging our experience and best practices in simulation-based aviation training to deliver innovative solutions to improve the safety and efficiency in the delivery of patient care. As such, we have established three CAE Healthcare Centres of Excellence to date to improve clinical education and develop new training technologies and curriculum for healthcare professionals and students. The healthcare simulation market is expanding, with a shift in the U.S. from fee-for-service to value-based care in hospitals, and with simulation centres becoming increasingly more prevalent in nursing and medical schools.

We offer the broadest and most innovative portfolio of medical training solutions, including patient, ultrasound and interventional (surgical) simulators, audiovisual and centre management platforms, augmented reality applications, e-learning and curriculum for simulation-based healthcare education and training. We have provided training solutions to customers in more than 80 countries that are currently supported by our global network. We are a leader in patient simulators which are based on advanced models of human physiology that realistically mimic human responses to clinical interventions. For example, our high-fidelity childbirth simulator, Lucina, was designed to offer exceptional realism for simulated scenarios of both normal deliveries and rare maternal emergencies. During the last two years, we continued to invest in the development of new products to address growing demand in the healthcare simulation market. We launched the CAE Juno clinical skills manikin which enables nursing programs to adapt to the decreased access to live patients due to the complex conditions of hospital patients and the liability concerns in healthcare, the CAE Ares emergency care manikin designed for advanced life support and American Heart Association (AHA) training and the CAE Luna neonatal simulator which is an innovative critical care simulation for newborns and infants. With these solutions, we are providing some of the industry's most innovative learning tools to healthcare academic institutes, which represent the largest segment of the healthcare simulation market. We continue to push the boundaries of technology and we were the first to bring a commercial Microsoft HoloLens mixed reality application to the medical simulation market. We continue to integrate augmented and virtual reality into our advanced software platforms to deliver custom training solutions and ground-breaking products.

Through our Healthcare Academy, we deliver peer-to-peer training at customer sites as well as in our training centres in Canada, Germany, the U.K. and U.S. Our Healthcare Academy includes more than 50 adjunct faculties consisting of nurses, physicians, paramedics and sonographers who, in collaboration with leading healthcare institutions, have developed more than 500 Simulated Clinical Experience (SCE) courseware packages for our customers.

We offer turnkey solutions, project management and professional services for healthcare simulation programs. We also collaborate with medical device companies and scientific societies to develop innovative and custom training solutions. In collaboration with the American Society of Anesthesiologists (ASA), we have released five online modules for Anesthesia SimSTAT, a virtual healthcare training environment for practicing physicians. This new platform provides continuing medical education for Maintenance of Certification in Anesthesiology (MOCA) and has allowed us to expand access to simulation-based clinical training among the anesthesia community. Furthermore, through industry partnerships with medical device companies, we have developed a specialized interventional simulator to train physicians to implant a new generation of pacemakers as well as a modular, portable catheterization laboratory interventional simulator, CAE CathLabVR, which was introduced to the cardiac simulation community in September 2018. In January 2018, we announced a collaboration with the AHA to establish a network of International Training Sites to deliver lifesaving AHA courses in countries that are currently underserved.

Market drivers

Demand for our simulation products and services in the healthcare market is driven by the following:

- Limited access to live patients during training;
- Medical and mixed reality technology revolution;
- Broader adoption of simulation, with a demand for innovative and custom training approaches;
- Growing emphasis on patient safety and outcomes.

Limited access to live patients during training

Traditionally, medical education has been an apprenticeship model in which students care for patients under the supervision of more experienced staff. In this model, students have limited access to high-risk procedures, rare complications and critical decision-making skills. The use of simulation in professional training programs complements traditional learning and allows students to hone their clinical and critical thinking skills for high risk, low frequency events. In 2014, the U.S. National Council of State Boards of Nursing released a ground-breaking study on the effectiveness of simulation training in pre-licensure nursing programs and published national simulation guidelines that are still in use today. Among the findings, nursing students who spent up to 50 percent of clinical hours in high-quality simulation were as well-prepared for professional practice as those whose experiences were drawn from traditional clinical practice. In the U.K., the Nursing and Midwifery Council announced in April 2018 that it has lifted the cap on the number of hours nursing students can spend in simulation-based training in place of clinical hours. In addition, during the COVID-19 pandemic, SSH and INACSL called for more flexibility in replacing required clinical training hours for health science students with simulation hours, emphasizing that virtual simulation is an effective teaching method that results in improved student learning outcomes. State boards of nursing have begun to change requirements to help ensure that learners and new graduates can continue their education and would be ready to enter the workforce.

Simulation provides consistent, repeatable training and exposure to a broader range of patients and scenarios than one may experience in normal clinical practice. As an example, our Vimedix ultrasound simulator offers more than 200 patient pathologies for cardiac, emergency and obstetrics and gynaecology medicine. The training and education model is evolving, as evidenced by 22 NATO countries prohibiting the use of live animals in military medical training. CAE Healthcare simulators provide a low-risk alternative for practicing life-saving procedures, inter-professional team training and major disaster response.

Medical and mixed reality technology revolution

Advancements in medical technology are driving the use of simulation. New medical devices and advanced procedures, such as intra-cardiac echocardiography, cardiac assist devices, and mechanical ventilation enhancements, require advanced training solutions, such as simulation, for internal product development and customer training. Regulatory and certification agencies are increasingly stringent in requesting that clinicians be trained before adopting new disruptive technologies, an undertaking for which simulation is well suited. As a training partner of choice with leading OEMs, we continue to collaborate to deliver innovative and custom training for the introduction of new interventional procedures. We were the first to bring a commercial Microsoft HoloLens mixed reality application to the medical simulation market and, in January 2020, we released multiple HoloLens 2 applications which will integrate holographic, modeled physiology into our emergency care, ultrasound and childbirth simulators that allow learners to envision human anatomy.

Broader adoption of simulation, with a demand for innovative and custom training approaches

The majority of product and service sales in healthcare simulation involve healthcare education. We estimate the total healthcare simulation market at approximately US$1.7 billion. North America is the largest market for healthcare simulation, followed by Europe and Asia. Together with our global distribution network, we are reaching new and emerging markets and addressing the international demand potential for simulation-based training. CAE segments the healthcare simulation market by virtual, augmented and mixed reality simulators, high-fidelity patient simulators, interventional simulators, task trainers, ultrasound simulators, audiovisual and simulation centre management solutions, simulated clinical environments and training services. There is a growing body of evidence demonstrating that medical simulation improves clinical competency, patient outcomes and reduces medical errors, which can help mitigate the rate of increase in healthcare costs. Healthcare is expected to become increasingly relevant in a world more acutely aware of the benefits of healthcare simulation and training to help save lives at a steady state and in a healthcare crisis.

Growing emphasis on patient safety and outcomes

CAE expects increased adoption of simulation-based training and certification of healthcare professionals as a means to improve patient safety and outcomes. We believe this would result in a significantly larger addressable market than the current market which is primarily education-based. According to a study by patient-safety researchers published in the British Medical Journal in May 2016, medical errors are the third-leading cause of death in U.S. hospitals and the World Health Organization reported in 2018 that there is a 1 in 300 chance of being harmed during health care. Training using simulation can help clinicians gain confidence, knowledge and expertise for improving patient safety in a risk-free environment. As the Medicare and Medicaid reimbursement structure in U.S. hospitals shifts from being based solely on quantity of services to the quality of services (value-based care), including safety and patient outcomes, CAE expects more hospitals to implement simulation-based training to improve performance and reduce the risk of medical errors.

Simulation is a required or recommended element in a growing movement towards High Stakes Assessment and Certification. Examples in the U.S. include MOCA, Fundamentals of Laparoscopic Surgery and Advanced Trauma Life Support. Moreover, the Accreditation Council for Graduate Medical Education is evolving towards outcome-based assessment with specific benchmarks to measure and compare performance which favours the adoption of simulation products and training.

3.6 Foreign exchange

We report all dollar amounts in Canadian dollars. We value assets, liabilities and transactions that are measured in foreign currencies using various exchange rates as required by IFRS.

The tables below show the variations of the closing and average exchange rates for the three main currencies in which we operate.

We used the closing foreign exchange rates below to value our assets, liabilities and backlog in Canadian dollars at the end of each of the following periods:

	2020	2019	Increase / (decrease)
U.S. dollar (US$ or USD)	**1.41**	1.34	*5%*
Euro (€ or EUR)	**1.55**	1.50	*3%*
British pound (£ or GBP)	**1.75**	1.74	*1%*

We used the average foreign exchange rates below to value our revenues and expenses:

	2020	2019	Increase / (decrease)
U.S. dollar (US$ or USD)	**1.33**	1.31	*2%*
Euro (€ or EUR)	**1.48**	1.52	*(3%)*
British pound (£ or GBP)	**1.69**	1.72	*(2%)*

For fiscal 2020, the effect of translating the results of our foreign operations into Canadian dollars resulted in a decrease in revenue of $11.0 million and a decrease in net income of $2.3 million, when compared to fiscal 2019. We calculated this by translating the current year's foreign currency revenue and net income using the average monthly exchange rates from the previous year and comparing these adjusted amounts to our current year reported results.

You will find more details about our foreign exchange exposure and hedging strategies in *Business Risk and Uncertainty.* A sensitivity analysis for foreign currency risk is included in Note 30 of our consolidated financial statements.

3.7 Non-GAAP and other financial measures

This MD&A includes non-GAAP and other financial measures. Non-GAAP measures are useful supplemental information but may not have a standardized meaning according to GAAP. These measures should not be confused with, or used as an alternative for, performance measures calculated according to GAAP. Furthermore, these non-GAAP measures should not be compared with similarly titled measures provided or used by other companies.

Capital employed

Capital employed

Capital employed is a non-GAAP measure we use to evaluate and monitor how much we are investing in our business. We measure it from two perspectives:

Capital used:

- For the Company as a whole, we take total assets (not including cash and cash equivalents), and subtract total liabilities (not including long-term debt and the current portion of long-term debt);
- For each segment, we take the total assets (not including cash and cash equivalents, tax accounts and other non-operating assets), and subtract total liabilities (not including tax accounts, long-term debt and the current portion of long-term debt, royalty obligations, employee benefit obligations and other non-operating liabilities).

Source of capital:

- In order to understand our source of capital, we add net debt to total equity.

Return on capital employed (ROCE)

ROCE is used to evaluate the profitability of our invested capital. We calculate this ratio over a rolling four-quarter period by taking net income attributable to equity holders of the Company excluding net finance expense, after tax, divided by the average capital employed.

Capital expenditures (maintenance and growth) from property, plant and equipment

Maintenance capital expenditure is a non-GAAP measure we use to calculate the investment needed to sustain the current level of economic activity.

Growth capital expenditure is a non-GAAP measure we use to calculate the investment needed to increase the current level of economic activity.

Earnings per share (EPS) before specific items

Earnings per share before specific items is a non-GAAP measure calculated by excluding restructuring costs, integration costs, acquisition costs and other gains and losses arising from significant strategic transactions as well as significant one-time tax items from the diluted earnings per share from continuing operations attributable to equity holders of the Company. The effect per share is obtained by dividing these restructuring costs, integration costs, acquisition costs, and other gains, net of tax, as well as one-time tax items by the average number of diluted shares. We track it because we believe it provides a better indication of our operating performance on a per share basis and makes it easier to compare across reporting periods.

Free cash flow

Free cash flow is a non-GAAP measure that shows us how much cash we have available to invest in growth opportunities, repay debt and meet ongoing financial obligations. We use it as an indicator of our financial strength and liquidity. We calculate it by taking the net cash generated by our continuing operating activities, subtracting maintenance capital expenditures, investment in other assets not related to growth and dividends paid and adding proceeds from the disposal of property, plant and equipment, dividends received from equity accounted investees and proceeds, net of payments, from equity accounted investees.

Gross profit

Gross profit is a non-GAAP measure equivalent to the operating profit excluding research and development expenses, selling, general and administrative expenses, other (gains) losses – net, after tax share in profit of equity accounted investees and restructuring, integration and acquisition costs. We believe it is useful to management and investors in evaluating our ongoing operational performance.

Net debt

Net debt is a non-GAAP measure we use to monitor how much debt we have after taking into account cash and cash equivalents. We use it as an indicator of our overall financial position, and calculate it by taking our total long-term debt, including the current portion of long-term debt, and subtracting cash and cash equivalents.

Net debt-to-capital is calculated as net debt divided by the sum of total equity plus net debt.

Net debt-to-EBITDA is calculated as net debt divided by the last twelve months EBITDA. EBITDA comprises earnings before income taxes, finance expense – net, depreciation and amortization.

Net income before specific items

Net income before specific items is a non-GAAP measure we use as an alternate view of our operating results. We calculate it by taking our net income attributable to equity holders of the Company from continuing operations and excluding restructuring costs, integration costs, acquisition costs and other gains and losses arising from significant strategic transactions as well as significant one-time tax items. We track it because we believe it provides a better indication of our operating performance and makes it easier to compare across reporting periods.

Non-cash working capital

Non-cash working capital is a non-GAAP measure we use to monitor how much money we have committed in the day-to-day operation of our business. We calculate it by taking current assets (not including cash and cash equivalents and assets held for sale) and subtracting current liabilities (not including the current portion of long-term debt and liabilities held for sale).

Operating profit

Operating profit is an additional GAAP measure that shows us how we have performed before the effects of certain financing decisions, tax structures and discontinued operations. We track it because we believe it makes it easier to compare our performance with previous periods, and with companies and industries that do not have the same capital structure or tax laws.

Order intake and Backlog

Order intake

Order intake is a non-GAAP measure that represents the expected value of orders we have received:

- For the Civil Aviation Training Solutions segment, we consider an item part of our order intake when we have a legally binding commercial agreement with a client that includes enough detail about each party's obligations to form the basis for a contract. Additionally, expected future revenues from customers under short-term and long-term training contracts are included when these customers commit to pay us training fees, or when we reasonably expect the revenue to be generated;
- For the Defence and Security segment, we consider an item part of our order intake when we have a legally binding commercial agreement with a client that includes enough detail about each party's obligations to form the basis for a contract. Defence and Security contracts are usually executed over a long-term period but some of them must be renewed each year. For this segment, we only include a contract item in order intake when the customer has authorized the contract item and has received funding for it;
- For the Healthcare segment, order intake is typically converted into revenue within one year, therefore we assume that order intake is equal to revenue.

The book-to-sales ratio is the total orders divided by total revenue in a given period.

Backlog
Total backlog is a non-GAAP measure that represents expected future revenues and includes obligated backlog, joint venture backlog and unfunded backlog and options:

- Obligated backlog represents the value of our order intake not yet executed and is calculated by adding the order intake of the current period to the balance of the obligated backlog at the end of the previous fiscal year, subtracting the revenue recognized in the current period and adding or subtracting backlog adjustments. If the amount of an order already recognized in a previous fiscal year is modified, the backlog is revised through adjustments;
- Joint venture backlog is obligated backlog that represents the expected value of our share of orders that our joint ventures have received but have not yet executed. Joint venture backlog is determined on the same basis as obligated backlog described above;
- Unfunded backlog represents firm Defence and Security orders we have received but have not yet executed and for which funding authorization has not yet been obtained. Options are included in backlog when there is a high probability of being exercised, but indefinite-delivery/indefinite-quantity (ID/IQ) contracts are excluded. When an option is exercised, it is considered order intake in that period and it is removed from unfunded backlog and options.

Remaining performance obligations
Remaining performance obligations is a GAAP measure, introduced under the application of IFRS 15, which represents the cumulative balance of unsatisfied promises to transfer a distinct good or service to customers as part of a legally binding commercial agreement. This measure is similar to our definition of backlog, however excludes joint venture balances, options and estimated contract values:

- Estimated contract values represent estimated future revenue from customers under exclusive short-term and long-term training contracts when we expect the revenue to be generated, based on regulated customer training requirements but for which no training sessions have yet been booked.

Research and development expenses
Research and development expenses are a financial measure we use to measure the amount of expenditures directly attributable to research and development activities that we have expensed during the period, net of investment tax credits and government contributions.

Segment operating income (SOI)
Segment operating income is a non-GAAP measure and is the sum of our key indicators of each segment's financial performance. Segment operating income gives us an indication of the profitability of each segment because it does not include the impact of any items not specifically related to the segment's performance. We calculate segment operating income by taking the operating profit and excluding restructuring costs of major programs that do not arise from significant strategic transactions.

Segment operating income before specific items further excludes restructuring costs, integration costs, acquisition costs and other gains and losses arising from significant strategic transactions. We track it because we believe it provides a better indication of our operating performance and makes it easier to compare across reporting periods.

Simulator equivalent unit (SEU)
Simulator equivalent unit
SEU is an operating measure we use to show the total average number of FFSs available to generate earnings during the period. For example, in the case of a 50/50 flight training joint venture, we will report only 50% of the FFSs deployed under this joint venture as a SEU. If a FFS is being powered down and relocated, it will not be included as a SEU until the FFS is re-installed and available to generate earnings.

Full-flight simulators (FFSs) deployed in CAE's network
A FFS is a full size replica of a specific make, model and series of an aircraft cockpit, including a motion system. In our count of FFSs deployed in the network, we generally only include FFSs that are of the highest fidelity and do not include any fixed based training devices, or other lower-level devices, as these are typically used in addition to FFSs in the same approved training programs.

Utilization rate
Utilization rate is one of the operating measures we use to assess the performance of our Civil simulator training network. While utilization rate does not perfectly correlate to revenue recognized, we track it, together with other measures, because we believe it is an indicator of our operating performance. We calculate it by taking the number of training hours sold on our simulators during the period divided by the practical training capacity available for the same period.

4. CONSOLIDATED RESULTS

4.1 Results from operations – fourth quarter of fiscal 2020

(amounts in millions, except per share amounts)		**Q4-2020**	Q3-2020	Q2-2020	Q1-2020	Q4-2019
Revenue	$	**977.3**	923.5	896.8	825.6	1,022.0
Cost of sales	$	**665.6**	632.0	660.1	581.9	734.0
Gross profit[3]	$	**311.7**	291.5	236.7	243.7	288.0
As a % of revenue	%	***31.9***	*31.6*	*26.4*	*29.5*	*28.2*
Research and development expenses[3]	$	**36.2**	33.6	35.8	31.9	9.9
Selling, general and administrative expenses	$	**107.9**	118.3	98.0	113.3	123.2
Other losses (gains) – net	$	**14.3**	(3.5)	(11.5)	(0.3)	(5.2)
After tax share in loss (profit) of equity accounted investees	$	**6.8**	(11.8)	(10.4)	(12.1)	(10.3)
Operating profit[3]	$	**146.5**	154.9	124.8	110.9	170.4
As a % of revenue	%	***15.0***	*16.8*	*13.9*	*13.4*	*16.7*
Finance expense – net	$	**38.5**	36.7	34.3	34.9	25.7
Earnings before income taxes	$	**108.0**	118.2	90.5	76.0	144.7
Income tax expense	$	**26.9**	18.4	15.5	13.0	19.3
As a % of earnings before income taxes (income tax rate)	%	***25***	*16*	*17*	*17*	*13*
Net income	$	**81.1**	99.8	75.0	63.0	125.4
Attributable to:						
Equity holders of the Company	$	**78.4**	97.7	73.8	61.5	122.3
Non-controlling interests	$	**2.7**	2.1	1.2	1.5	3.1
	$	**81.1**	99.8	75.0	63.0	125.4
EPS attributable to equity holders of the Company						
Basic and diluted	$	**0.29**	0.37	0.28	0.23	0.46
EPS before specific items[3]	$	**0.46**	0.37	0.28	0.24	0.48

Revenue was 4% lower compared to the fourth quarter of fiscal 2019

Revenue was $44.7 million lower than the fourth quarter of fiscal 2019. Decreases in revenue were $46.1 million and $7.1 million for Defence and Security and Healthcare respectively, partially offset by an increase of $8.5 million in Civil Aviation Training Solutions.

You will find more details in *Results by segment*.

Segment operating income[3] was $23.9 million lower compared to the fourth quarter of fiscal 2019

Segment operating income was $146.5 million this quarter, or 15.0% of revenue, compared to $170.4 million, or 16.7% of revenue, in the fourth quarter of fiscal 2019. Decreases in segment operating income were $41.6 million and $18.3 million in Healthcare and Defence and Security respectively, partially offset by an increase of $36.0 million for Civil Aviation Training Solutions.

Segment operating income before specific items[4] was $193.9 million this quarter, or 19.8% of revenue compared to $177.2 million, or 17.3% of revenue in the fourth quarter of fiscal 2019. On this basis, segment operating income before specific items was $16.7 million or 9% higher over the fourth quarter of fiscal 2019.

On April 1, 2019, we adopted IFRS 16 without restating comparative periods. In accordance with IFRS 16, operating lease expense previously recognized under IAS 17 is no longer incurred but replaced with additional depreciation from the recognition of additional right-of-use assets, recorded evenly over the lease term, and higher interest from the recognition of lease obligations, accreted based on the effective interest method.

You will find more details in *Results by segment*.

Net finance expense was $12.8 million higher than the fourth quarter of fiscal 2019

The increase compared to the fourth quarter of fiscal 2019 was mainly due to higher interest on long-term debt due to the issuance of unsecured senior notes in March and December 2019, primarily to fund the acquisition of BBAT, and higher interest on lease liabilities as a result of the adoption of IFRS 16.

[3] Non-GAAP and other financial measures (see Section 3.7).

Income tax rate was 25% this quarter
Income taxes this quarter were $26.9 million, representing an effective tax rate of 25%, compared to 13% for the fourth quarter of fiscal 2019.

In the fourth quarter last year, the tax rate was lower due to the recognition of deferred tax asset not previously recognized in Canada arising from the acquisition of BBAT and in Europe, partially offset by the negative impact of tax audits in Canada. Excluding these elements, the income tax rate would have been 20% in the fourth quarter last year.

In the fourth quarter this year, the income tax rate was impacted by a goodwill impairment charge for the Healthcare segment. Excluding the effect of the goodwill impairment, the income tax rate would have been 19% this quarter. On this basis, the decrease in the tax rate from the fourth quarter of fiscal 2019 was mainly due to the change in the mix of income from various jurisdictions.

4.2 Results from operations – fiscal 2020

(amounts in millions, except per share amounts)		**FY2020**	FY2019
Revenue	$	**3,623.2**	3,304.1
Cost of sales	$	**2,539.6**	2,362.6
Gross profit	$	**1,083.6**	941.5
As a % of revenue	%	***29.9***	*28.5*
Research and development expenses	$	**137.5**	101.4
Selling, general and administrative expenses	$	**437.5**	415.2
Other gains – net	$	**(1.0)**	(22.3)
After tax share in profit of equity accounted investees	$	**(27.5)**	(33.4)
Operating profit	$	**537.1**	480.6
As a % of revenue	%	***14.8***	*14.5*
Finance expense – net	$	**144.4**	80.9
Earnings before income taxes	$	**392.7**	399.7
Income tax expense	$	**73.8**	59.6
As a % of earnings before income taxes (income tax rate)	%	***19***	*15*
Net income	$	**318.9**	340.1
Attributable to:			
Equity holders of the Company	$	**311.4**	330.0
Non-controlling interests	$	**7.5**	10.1
	$	**318.9**	340.1
EPS attributable to equity holders of the Company			
Basic	$	**1.17**	1.24
Diluted	$	**1.16**	1.23
EPS before specific items	$	**1.34**	1.25

Revenue was $319.1 million or 10% higher than last year
Increases in revenue were $291.7 million, $24.5 million and $2.9 million for Civil Aviation Training Solutions, Defence and Security and Healthcare respectively.

You will find more details in *Results by segment.*

Gross profit was $142.1 million higher than last year
Gross profit was $1,083.6 million this year, or 29.9% of revenue compared to $941.5 million, or 28.5% of revenue last year.

Segment operating income was $56.5 million higher than last year
Segment operating income for the year was $537.1 million, or 14.8% of revenue, compared to $480.6 million, or 14.5% of revenue, last year. The increase in segment operating income was $129.0 million for Civil Aviation Training, partially offset by decreases of $45.8 million and $26.7 million for Healthcare and Defence and Security respectively.

Segment operating income before specific items was $590.4 million, or 16.3% of revenue, compared to $487.4 million, or 14.8% of revenue, last year. On this basis, segment operating income before specific items was $103.0 million or 21% higher compared to last year.

You will find more details in *Results by segment*.

Net finance expense was $63.5 million higher than last year

(amounts in millions)		FY2019 to FY2020
Net finance expense, prior period	$	80.9
Change in finance expense from the prior period:		
Increase in finance expense on long-term debt (other than lease liabilities)	$	42.0
Decrease in finance expense on royalty obligations		(1.9)
Increase in finance expense on lease liabilities		15.7
Increase in other finance expense		1.6
Decrease in borrowing costs capitalized		1.4
Increase in finance expense from the prior period	$	58.8
Change in finance income from the prior period:		
Decrease in interest income on loans and finance lease contracts	$	0.2
Decrease in other finance income		4.5
Increase in finance income from the prior period	$	4.7
Net finance expense, current period	**$**	**144.4**

Net finance expense was $144.4 million this year, $63.5 million or 78% higher than last year. The increase was mainly due to higher interest on long-term debt due to the issuance of unsecured senior notes in March and December 2019, primarily to fund the acquisition of BBAT, higher interest on lease liabilities as a result of the adoption of IFRS 16 and lower finance income.

Income tax rate was 19% this year

This fiscal year, income taxes were $73.8 million, representing an effective tax rate of 19%, compared to 15% for the same period last year.

Last year, the tax rate was lower due to the recognition of deferred tax asset not previously recognized in Canada arising from the acquisition of BBAT and in Europe, partially offset by the negative impact of tax audits in Canada. Excluding these elements, the income tax rate would have been 19% last year.

This year, the income tax rate was impacted by a goodwill impairment charge for the Healthcare segment. Excluding the effect of the goodwill impairment, the income tax rate would have been 17% this year. On this basis, the decrease in the tax rate compared to last year was mainly due to the change in the mix of income from various jurisdictions.

4.3 Consolidated orders and total backlog

Total backlog[4] stable compared to last year

(amounts in millions)		FY2020		FY2019
Obligated backlog[4], beginning of period	$	7,461.4	$	6,839.4
+ order intake[4]		3,821.6		3,971.4
- revenue		(3,623.2)		(3,304.1)
+ / - adjustments		(28.8)		(45.3)
Obligated backlog, end of period	$	7,631.0	$	7,461.4
Joint venture backlog[4] (all obligated)		441.4		414.5
Unfunded backlog and options[4]		1,385.7		1,619.0
Total backlog	$	9,458.1	$	9,494.9

Reconciliation of total backlog to remaining performance obligations				
Total backlog	$	9,458.1	$	9,494.9
Less: Joint venture backlog		(441.4)		(414.5)
Less: Options		(516.4)		(494.5)
Less: Estimated contract value[4]		(3,636.7)		(3,172.2)
Remaining performance obligations	$	4,863.6	$	5,413.7

The book-to-sales ratio for the quarter was 0.80x. The ratio for the last 12 months was 1.05x.

You will find more details in *Results by segment.*

[4] Non-GAAP and other financial measures (see Section 3.7).

5. RESULTS BY SEGMENT

We manage our business and report our results in three segments:

– Civil Aviation Training Solutions;
– Defence and Security;
– Healthcare.

The method used for the allocation of assets jointly used by the operating segments and costs and liabilities jointly incurred (mostly corporate costs) between operating segments is based on the level of utilization when determinable and measurable, otherwise the allocation is based on a proportion of each segment's cost of sales.

Unless otherwise indicated, elements within our segment revenue and segment operating income analysis are presented in order of magnitude.

KEY PERFORMANCE INDICATORS

Segment operating income (loss)

(amounts in millions, except operating margins)		**FY2020**	FY2019	Q4-2020	Q3-2020	Q2-2020	Q1-2020	Q4-2019
Civil Aviation Training Solutions	$	**473.3**	344.3	**151.5**	123.0	100.2	98.6	115.5
	%	***21.8***	*18.4*	***25.2***	*22.0*	*18.9*	*20.6*	*19.5*
Defence and Security	$	**104.8**	131.5	**32.4**	31.3	26.0	15.1	50.7
	%	***7.9***	*10.1*	***9.5***	*9.4*	*7.7*	*4.7*	*13.1*
Healthcare	$	**(41.0)**	4.8	**(37.4)**	0.6	(1.4)	(2.8)	4.2
	%	**—**	*3.9*	**—**	*1.8*	—	—	*10.3*
Segment operating income	$	**537.1**	480.6	**146.5**	154.9	124.8	110.9	170.4
SOI before specific items	$	**590.4**	487.4	**193.9**	157.2	126.0	113.3	177.2

Capital employed[5]

(amounts in millions)		**March 31 2020**	December 31 2019	September 30 2019	June 30 2019	March 31 2019
Civil Aviation Training Solutions	$	**3,869.6**	3,734.5	3,655.2	3,549.6	3,274.7
Defence and Security	$	**1,154.0**	1,074.4	1,191.8	1,192.2	1,032.0
Healthcare	$	**208.0**	224.7	225.8	226.8	222.8
Capital employed	$	**5,231.6**	5,033.6	5,072.8	4,968.6	4,529.5

[5] Non-GAAP and other financial measures (see Section 3.7).

5.1 Civil Aviation Training Solutions

FISCAL 2020 EXPANSIONS AND NEW INITIATIVES

Acquisitions

- On April 26, 2019, we acquired the remaining equity interest in Pelesys, a global leader in the provision of aviation training solutions and courseware;
- On June 26, 2019, we acquired the shares of Luftfartsskolen AS, an ab-initio flight school located in Oslo, Norway, expanding our cadet training capabilities in Europe.

Expansions

- We announced the expansion of our training capacity in Asia with new training centres in Bangkok, Thailand and Gurugram, India;
- We announced the inauguration of new training centres in London Gatwick, Manchester, and Milan to support the start of our 10-year pilot training agreement with easyJet, as well as the growing training needs of airlines in Europe;
- We announced the expansion of our business aviation network with a new Bombardier Global 7500 FFS and a Bombardier Learjet 75 flight-training device;
- On November 4, 2019, we concluded a 15-year exclusive business aviation training services agreement with Directional Aviation Capital affiliates and the acquisition of a 50% stake in SIMCOM, an operator of a wide range of jet, turboprop and piston powered aircraft simulators and training devices.

New programs and products

- We announced the launch of our new cutting-edge digital solution, the electronic training and checking authorization (eTCA) application, to better manage booking requests for training centres dedicated to business aviation;
- We welcomed the first five *CAE Women in Flight* ambassadors and winners of the 2019 scholarships;
- We announced the launch of a new cadet pilot training program in which CAE will train more than 700 new professional pilots over the next 10 years for Southwest Airlines Destination 225° program;
- We announced two new MPL programs in partnership with easyJet and Volotea;
- We announced, together with Jazz Aviation and Seneca School of Aviation, a new cadet pilot training program in Canada called Jazz Approach;
- We have introduced new virtual service offerings to support our customers as a response to border restrictions arising from the COVID-19 pandemic including offering remote support for the installation, acceptance and qualification of FFSs, obtaining FAA and other Civil Aviation Authority approvals for virtual training in certain of our flight training organizations, and developing remote IOS solutions for live instructor interactions during training sessions.

FISCAL 2020 ORDERS

Civil Aviation Training Solutions obtained contracts this quarter expected to generate future revenues of $468.6 million, including contracts for 12 FFSs sold to customers in all regions. This brings the total civil order intake to $2,471.5 million and 49 FFSs for the year.

Notable FFS contract awards for the year included:

- Five FFSs including two Bombardier Challenger CL350s, one Gulfstream G650, one Embraer Legacy 500, and one Embraer Phenom 300 to SIMCOM International;
- Two Boeing 737MAX FFSs to Emirates - CAE Flight Training, a joint venture of Emirates Airline and CAE;
- One Embraer E190 FFS and one Embraer E190-E2 FFS to KLM Royal Airlines;
- Three Boeing 737MAX FFSs to Southwest Airlines;
- Two Boeing 777X FFSs to Emirates Airline;
- One Airbus A330 FFS to Korean Air;
- One Boeing 737MAX FFS to Alaska Airlines;
- 33 FFSs to undisclosed customers.

Notable contract awards for fiscal 2020 included:

- An extension for 6.5 years for pilot training with LATAM;
- An exclusive 5-year pilot and cabin crew training agreement with SAS;
- A 10-year pilot training agreement with JetSmart Airlines SpA;
- An extension for 5 years for pilot training with Sunwing Airlines;
- A 3-year business aviation pilot training renewal with TAG Aviation Holdings;
- A 3-year business aviation pilot training agreement with Western Air Charter.

FINANCIAL RESULTS

(amounts in millions, except operating margins, SEU, FFSs deployed, utilization rate and FFS deliveries)		**FY2020**	FY2019	**Q4-2020**	Q3-2020	Q2-2020	Q1-2020	Q4-2019
Revenue	$	**2,167.5**	1,875.8	**601.9**	558.1	529.9	477.6	593.4
Segment operating income	$	**473.3**	344.3	**151.5**	123.0	100.2	98.6	115.5
Operating margins	%	***21.8***	*18.4*	***25.2***	*22.0*	*18.9*	*20.6*	*19.5*
SOI before specific items	$	**479.4**	351.1	**153.6**	123.4	101.4	101.0	122.3
Operating margins	%	***22.1***	*18.7*	***25.5***	*22.1*	*19.1*	*21.1*	*20.6*
Depreciation and amortization	$	**232.8**	157.2	**59.8**	59.8	57.3	55.9	47.5
Property, plant and equipment expenditures	$	**259.9**	226.4	**78.1**	45.8	52.4	83.6	87.9
Intangible assets and other assets expenditures	$	**36.4**	33.7	**13.7**	7.0	10.3	5.4	7.2
Capital employed	$	**3,869.6**	3,274.7	**3,869.6**	3,734.5	3,655.2	3,549.6	3,274.7
Total backlog	$	**5,341.3**	5,039.6	**5,341.3**	5,263.0	5,124.8	5,090.3	5,039.6
SEU[6]		**247**	218	**250**	252	243	242	224
FFSs deployed in CAE's network[6]		**306**	286	**306**	303	299	294	286
Utilization rate[6]	%	**70**	76	**67**	70	69	76	75
FFS deliveries		**56**	58	**21**	12	18	5	25

Revenue stable compared to the fourth quarter of fiscal 2019

Contributors of increased revenue include the integration into our results of BBAT following its acquisition in the fourth quarter of fiscal 2019, higher revenue recognized from simulator sales due to the timing of production milestones on devices for which revenue was not recognized upon delivery, and the contribution from recently deployed simulators in our network, prior to the negative COVID-19 impact. The increase was offset by a lower number of deliveries compared to record deliveries in the fourth quarter of fiscal 2019, lower utilization in the Americas and Europe, and the impact of COVID-19 as described below.

The COVID-19 pandemic has negatively affected our training revenues during the quarter due to a significant decrease in training services demand as a result of the reduction in airlines global operations and disruption to the global air transportation environment and air passenger travel. In addition, travel bans, border restrictions, lockdown protocols and world-wide self-isolation measures have resulted in centre closures in the quarter. As at March 31, 2020, 19 of our civil aviation training centres suspended operations, and 10 training centres that remained open began operating at significantly reduced capacity. We expect our training utilization to be even further impacted in the first half of fiscal 2021 as a result of continued closures and decreased demand. The Montreal manufacturing plant also ceased manufacturing operations for civil simulator products on March 25, 2020, under public directives, and while this did not have a significant impact on our fiscal 2020 fourth quarter results, we expect it will have an impact during at least the first half of fiscal 2021, subject to the timing of return of manufacturing operations and lifting of global travel restrictions.

Revenue was $2,167.5 million this year, 16% or $291.7 million higher than last year

The increase over last year was due to the integration into our results of BBAT, higher revenue recognized from simulator sales due to the timing of production and other milestones on devices for which revenue was not recognized upon delivery, the contribution from recently deployed simulators in our network prior to the negative COVID-19 impact, and a higher demand for our flight training organization. The increase was partially offset by lower utilization in the Americas and in Europe, a lower number of simulator deliveries, and the impact of COVID-19 as described above.

Segment operating income up 31% over the fourth quarter of fiscal 2019

Segment operating income was $151.5 million (25.2% of revenue) this quarter, compared to $115.5 million (19.5% of revenue) in the fourth quarter of fiscal 2019.

Segment operating income increased by $36.0 million, or 31%, over the fourth quarter of fiscal 2019. The increase was mainly due to the integration into our results of BBAT operations, a favourable program mix from our manufacturing facility, and the contribution from recently deployed simulators in our network, prior to the negative COVID-19 impact. The increase was partially offset by lower utilization mainly in Europe and the impact of COVID-19 as described above.

Excluding the costs arising from the acquisition and integration of BBAT, segment operating income before specific items was $153.6 million (25.5% of revenue) this quarter, compared to $122.3 million (20.6% of revenue) in the fourth quarter of fiscal 2019. On this basis, the current period's segment operating income before specific items was up 26% over the same quarter last year.

[6] Non-GAAP and other financial measures (see Section 3.7).

Segment operating income was $473.3 million, 37% or $129.0 million higher than last year
Segment operating income was $473.3 million (21.8% of revenue) this year, compared to $344.3 million (18.4% of revenue) last year.

The increase was mainly due to the integration into our results of BBAT operations, a favourable program mix from our manufacturing facility, and the contribution from recently deployed simulators in our network, before the negative COVID-19 impact. The increase was partially offset by lower utilization in the Americas and Europe and the impact of COVID-19 as described above.

Excluding the costs arising from the acquisition and integration of BBAT, segment operating income before specific items was $479.4 million (22.1% of revenue) in fiscal 2020, compared to $351.1 million (18.7% of revenue) in fiscal 2019. On this basis, segment operating income before specific items was up 37% over last year.

Property, plant and equipment expenditures at $78.1 million this quarter and $259.9 million for the year
Maintenance capital expenditures were $19.7 million for the quarter and $60.3 million for the year. Growth capital expenditures were $58.4 million for the quarter and $199.6 million for the year.

Capital employed increased $135.1 million over last quarter and $594.9 million over last year
The increase in capital employed over last quarter was due to higher property, plant and equipment, intangible assets and investment in equity accounted investees, primarily due to movements in foreign exchange rates. The increase was partially offset by lower non-cash working capital, driven by higher accounts payable and accrued liabilities, higher contract liabilities, and higher derivative financial liabilities, partially offset by higher accounts receivable and higher contract assets.

The increase in capital employed over last year was due to higher property, plant and equipment, higher investment in equity accounted investees as a result of the acquisition of a 50% stake in SIMCOM, the recognition of right-of-use assets as a result of the adoption of IFRS 16, and higher intangible assets.

Total backlog was up 6% compared to year

(amounts in millions)		**FY2020**		FY2019
Obligated backlog, beginning of period	**$**	**4,679.2**	$	3,835.3
+ order intake		**2,471.5**		2,769.9
- revenue		**(2,167.5)**		(1,875.8)
+ / - adjustments		**10.3**		(50.2)
Obligated backlog, end of period	**$**	**4,993.5**	$	4,679.2
Joint venture backlog (all obligated)		**347.8**		360.4
Total backlog	**$**	**5,341.3**	$	5,039.6

Fiscal 2020 adjustments include foreign exchange movements, partially offset by the revaluation of prior year contracts and the cancellation of orders from a previous year.

Fiscal 2019 adjustments include the revaluation of prior year contracts and negative foreign exchange movements, partially offset by backlog acquired from BBAT.

This quarter's book-to-sales ratio was 0.78x. The ratio for the last 12 months was 1.14x.

5.2 Defence and Security

FISCAL 2020 EXPANSIONS AND NEW INITIATIVES

Expansions
- CAE USA and Leonardo signed a memorandum of agreement to collaborate and offer integrated solutions for helicopter training requirements for the U.S. government market;
- The Netherlands Ministry of Defence opened a new training facility at Maritime Air Base de Kooy in Den Helder, the Netherlands where CAE will provide on-site maintenance and support services for the NH90 full-flight and mission trainer located at the facility;
- MSI was awarded a position on the U.S. Air Force Advisory & Assistance Services ID/IQ contract. MSI will now have opportunity to compete on task orders issued under the ID/IQ contract, which provides for technical training and analytical services to support and improve policy development, operational decision-making and management operations.

New programs and products

- We introduced several new courses at the CAE Dothan Training Center, including C-12/King Air B200 recurrent/refresher courses and a new UPRT course;
- We launched the CAE TRAX Academy, an integrated and advanced training continuum designed to deliver faster and more efficient throughput for military student pilot training. As an integral part of CAE TRAX Academy, we introduced the CAE Sprint Virtual Reality (VR) trainer, which will enable self-paced learning in an immersive, high-fidelity virtual environment;
- A CAE-built Predator Mission Trainer was installed at General Atomics Flight Test and Training Center located near Grand Forks, North Dakota and will be used to advance the quality and capability of remotely piloted aircraft synthetic training;
- We have introduced new virtual service offerings to support our customers to meet social distancing requirements arising from the COVID-19 pandemic, including virtual acceptance testing and developing offboard IOS solutions that allow for the removal of the instructor from the cockpit of the simulator while still providing the required functionality to continue conducting training exercises.

FISCAL 2020 ORDERS

Defence and Security was awarded $276.6 million in orders this quarter and $1,225.6 million in total for fiscal 2020, including notable contract awards from:

- Lockheed Martin to support the design and manufacture of additional C-130J simulators and training devices as well as simulator upgrades for the USAF and U.S. Marine Corps;
- The USAF to continue providing KC-135 aircrew training services as well as perform a range of simulator upgrades and modifications on KC-135 training devices;
- The NATO Support and Procurement Agency to provide the German Navy with a comprehensive training solution for the NH90 Sea Lion helicopter;
- The Federal Office of Bundeswehr Equipment, Information Technology and In-Service Support in Germany to upgrade and modify German Army NH90 full-mission simulators as part of a five-year extension to 2027 of the NH90 contract delivered by the Helicopter Flight Training Services joint venture;
- The U.S. Army to provide fixed-wing flight training and support services at the CAE Dothan Training Center;
- Leonardo to provide M346 training devices and upgrades;
- BAE Systems to provide the CAE Medallion MR e-Series visual system for undisclosed customers;
- Babcock France to provide an additional Pilatus PC-21 full-mission simulator to support pilot training for the French Air Force.

FINANCIAL RESULTS

(amounts in millions, except operating margins)		**FY2020**	FY2019	**Q4-2020**	Q3-2020	Q2-2020	Q1-2020	Q4-2019
Revenue	$	**1,331.2**	1,306.7	**341.8**	332.4	336.5	320.5	387.9
Segment operating income	$	**104.8**	131.5	**32.4**	31.3	26.0	15.1	50.7
Operating margins	%	***7.9***	*10.1*	***9.5***	*9.4*	*7.7*	*4.7*	*13.1*
SOI before specific items	$	**114.5**	131.5	**40.2**	33.2	26.0	15.1	50.7
Operating margins	%	***8.6***	*10.1*	***11.8***	*10.0*	*7.7*	*4.7*	*13.1*
Depreciation and amortization	$	**58.2**	46.5	**15.4**	14.1	14.6	14.1	12.4
Property, plant and equipment expenditures	$	**21.3**	22.0	**5.2**	5.5	6.2	4.4	7.7
Intangible assets and other assets expenditures	$	**53.5**	43.7	**15.0**	11.2	12.7	14.6	14.5
Capital employed	$	**1,154.0**	1,032.0	**1,154.0**	1,074.4	1,191.8	1,192.2	1,032.0
Total backlog	$	**4,116.8**	4,455.3	**4,116.8**	4,171.3	4,113.6	4,271.9	4,455.3

Revenue down 12% over the fourth quarter of fiscal 2019

The COVID-19 pandemic contributed to delays in the execution of programs from backlog and in order intake. A range of Defence programs involving government and OEM customers globally experienced delays due to travel bans, border restrictions, client access restrictions and supply chain disruptions. In addition, there have been delays in the awarding of new contracts as government acquisition authorities follow directives in their respective countries to shelter-in-place and eliminate travel. The decrease in revenue from the fourth quarter of fiscal 2019 was also due to a lower level of activity on North American programs, partially offset by an increased level of activity on European programs this quarter.

Revenue was $1,331.2 million this year, 2% or $24.5 million higher than last year

The increase was mainly due to the integration into our results of AOCE following its acquisition in the second quarter of fiscal 2019, as well as higher revenue from European programs and was partially offset by lower revenue due to COVID-19-related program delays, as described above, and lower revenue from Middle Eastern programs.

Segment operating income down 36% over the fourth quarter of fiscal 2019
Segment operating income was $32.4 million (9.5% of revenue) this quarter, compared to $50.7 million (13.1% of revenue) in the fourth quarter of fiscal 2019.

The decrease from the fourth quarter of fiscal 2019 was due in part to COVID-19 related program delays and a lower level of activity on North American programs, as mentioned above, in addition to reorganizational costs incurred this quarter. The decrease was partially offset by lower selling, general and administrative expenses and increased activity on our European programs.

Following certain changes that we made in the segment focus, we have reviewed certain product offerings that resulted in a loss in value of some assets. This loss has been included in the reorganization costs for the segment. Excluding these reorganizational costs, segment operating income before specific items was $40.2 million (11.8% of revenue) this quarter, compared to $50.7 million (13.1% of revenue) in the fourth quarter of fiscal 2019. On this basis, the current period's segment operating income before specific items was down 21% from the same quarter last year.

Segment operating income was $104.8 million this year, 20% or $26.7 million lower than last year
Segment operating income was $104.8 million (7.9% of revenue) this year, compared to $131.5 million (10.1% of revenue) last year.

The decrease from last year was due in part to COVID-19-related program delays, as described above, lower contributions from North American product programs, due to order delays and execution on program milestones for certain contracts in backlog, as well as reorganizational costs incurred this year. The decrease was partially offset by increased activity on our European programs.

Excluding reorganizational costs, segment operating income before specific items was $114.5 million (8.6% of revenue) in fiscal 2020, compared to $131.5 million (10.1% of revenue) in fiscal 2019. On this basis, the current period's segment operating income before specific items was down 13% from last year.

Capital employed increased $79.6 million over last quarter and increased $122.0 million over last year
The increase over last quarter was mainly due to higher non-cash working capital, intangible assets and property, plant and equipment, primarily due to movements in foreign exchange rates and lower deferred gains and other non-current liabilities.

The increase over last year was primarily due to the recognition of right-of-use assets as a result of the adoption of IFRS 16, movements in foreign exchange rates, mainly on non-cash working capital, intangible assets and property, plant and equipment, and lower deferred gains and other non-current liabilities.

Total backlog down 8% compared to last year

(amounts in millions)		**FY2020**		FY2019
Obligated backlog, beginning of period	**$**	**2,782.2**	$	3,004.1
+ order intake		**1,225.6**		1,079.9
- revenue		**(1,331.2)**		(1,306.7)
+ / - adjustments		**(39.1)**		4.9
Obligated backlog, end of period	**$**	**2,637.5**	$	2,782.2
Joint venture backlog (all obligated)		**93.6**		54.1
Unfunded backlog and options		**1,385.7**		1,619.0
Total backlog	**$**	**4,116.8**	$	4,455.3

Fiscal 2020 adjustments include the revaluation of prior year contracts, partially offset by foreign exchange movements.

Fiscal 2019 adjustments include an addition to reflect the acquisition of AOCE, partially offset by the cancellation of an order and the revaluation of prior year contracts.

This quarter's book-to-sales ratio was 0.81x. The ratio for the last 12 months was 0.92x.

In fiscal 2020, $413.2 million of unfunded backlog was transferred to obligated backlog and $134.5 million was added to the unfunded backlog.

5.3 Healthcare

FISCAL 2020 EXPANSIONS AND NEW INITIATIVES

Expansions

- We added a new Training for Life™ site at Inspira Health Network in New Jersey, U.S., expanding access for customers to personalized product training opportunities from CAE Healthcare's expert educators;
- We expanded our reach in the hospital segment by entering into a group purchasing agreement with Premier, a leading healthcare improvement company, uniting an alliance of approximately 4,000 U.S. hospitals and health systems and approximately 175,000 other providers and organizations;
- We expanded our geographic reach in the Scandinavian market, with new distributors in Denmark, Finland, Norway and Sweden.

New programs and products

- We announced a new CAE Centre of Excellence for simulation-based education at ESPA-Montreal, the first healthcare education and industry partnership devised to impact patient care in Quebec, Canada;
- We collaborated with the Canadian Association of Schools of Nursing to develop a module of ten recommended SCE courseware packages for student nurses that can be practiced with the CAE Juno manikin;
- We, together with ASA, launched the Anesthesia SimSTAT - PACU and Labor & Delivery Unit modules, new modules in a series of interactive screen-based anesthesia simulation modules, which have been approved by the American Board of Anesthesiology for MOCA credits;
- We developed several custom solutions for OEMs including Baylis Medical for a simulator to support its cardiovascular transseptal puncture systems, Edwards Lifesciences for new advanced critical care and cardiac care devices, and Cardinal Health (Cordis) for a cardiovascular simulation mobile application, continuing to leverage our technologies and expertise to leading medical device companies by developing risk-free training for physicians;
- We released Microsoft HoloLens 2 augmented reality training applications for our CAE Ares emergency care simulator, CAE Lucina childbirth simulator and CAE Vimedix ultrasound simulator using 3D, interactive cardiac, respiratory and circulatory systems that allow learners to envision human anatomy;
- In response to the COVID-19 pandemic, we have offered several free training resources during March and April 2020 to support front-line healthcare providers with their most urgent training needs including a ventilator reskilling course, a point-of-care lung ultrasound training, COVID-19 Simulated Clinical Experience, webinars, and an outreach toolkit;
- On April 10, 2020, we concluded an agreement with the Government of Canada to manufacture and supply 10,000 CAE Air1 ventilators to provide life support to patients in intensive care to support the COVID-19 pandemic.

Other

- On November 12, 2019, we invested in a healthcare software company that enables increased efficiency of learning. The investment is in the form of a controlling 50% equity interest, for cash consideration of $0.9 million;
- We are collaborating with the McGill University Healthcare Centre Foundation, whereby CAE Healthcare donated $500,000 in cash and in kind, over 5 years to the Foundation, including state-of-the-art simulation training equipment and curriculum, to support its new Interprofessional Skills and Simulation Network.

Innovation Awards

- We won an EMS World Innovation Award for CAE AresAR, the Microsoft HoloLens application for our emergency care manikin that includes six augmented reality scenarios.

FINANCIAL RESULTS

(amounts in millions, except operating margins)		**FY2020**	FY2019	**Q4-2020**	Q3-2020	Q2-2020	Q1-2020	Q4-2019
Revenue	$	**124.5**	121.6	**33.6**	33.0	30.4	27.5	40.7
Segment operating (loss) income	$	**(41.0)**	4.8	**(37.4)**	0.6	(1.4)	(2.8)	4.2
Operating margins	%	**—**	*3.9*	**—**	*1.8*	—	—	*10.3*
SOI before specific items	$	**(3.5)**	4.8	**0.1**	0.6	(1.4)	(2.8)	4.2
Operating margins	%	**—**	*3.9*	***0.3***	*1.8*	—	—	*10.3*
Depreciation and amortization	$	**14.4**	13.5	**3.3**	3.8	3.5	3.8	3.6
Property, plant and equipment expenditures	$	**2.2**	3.4	**0.7**	0.3	0.2	1.0	0.6
Intangible assets and other assets expenditures	$	**10.7**	9.2	**2.2**	3.1	2.7	2.7	2.8
Capital employed	$	**208.0**	222.8	**208.0**	224.7	225.8	226.8	222.8

Revenue down 17% over the fourth quarter of fiscal 2019

The decrease from the fourth quarter of fiscal 2019 was mainly due to decreased volume on patient simulators and lower revenue from centre management solutions primarily driven by the impact of the COVID-19 pandemic as a large contingent of the market for simulation products are medical and nursing schools have come under lockdown protocols, which has negatively affected our ability to conclude contracts and to deliver on existing orders. In the hospital market, our customers are primarily focused on managing the acute operational demands of this healthcare crisis rather than focusing on their training needs.

Revenue was $124.5 million this year, 2% or $2.9 million higher than last year

The increase was due to higher revenue from key partnerships with OEMs and centre management solutions earned primarily during the first eleven months of the fiscal year. The increase was largely offset by decreased volume on patient and ultrasound simulators driven mainly by the impact of the COVID-19 pandemic as described above.

Segment operating income lower over the fourth quarter of fiscal 2019

Segment operating loss was $37.4 million this quarter, compared to a segment operating income of $4.2 million (10.3% of revenue) in the fourth quarter of fiscal 2019.

The decrease from the fourth quarter of fiscal 2019 was primarily due to the goodwill impairment charge recognized this quarter. The decrease was also due to decreased revenues, as described above, the net benefit from a remeasurement of long-term royalty obligations recognized last year and higher net research and development costs incurred for the development of recently launched programs and products, partially offset by reduced selling, general and administrative expenses.

Excluding the goodwill impairment charge, segment operating income before specific items was $0.1 million (0.3% of revenue) this quarter, compared to $4.2 million (10.3% of revenue) in the fourth quarter of fiscal 2019, which represents a decrease of $4.1 million over the same quarter last year.

Segment operating loss was $41.0 million this year, a decrease of $45.8 million compared to last year

Segment operating loss was $41.0 million this year, compared to a segment operating income of $4.8 million (3.9% of revenue) last year.

The $45.8 million decrease over last year was primarily due to the goodwill impairment charge recognized in the fourth quarter of fiscal 2020. The decrease was also due to the negative impacts of the COVID-19 pandemic on revenue, as described above, higher investments in selling, general and administrative expenses to support the expansion of our sales force, the net benefit from a remeasurement of long-term royalty obligations recognized last year and higher net research and development expenses incurred for the development of recently launched programs and products. The decrease was partially offset by higher revenue earned during the first eleven months of the fiscal year.

Excluding the goodwill impairment charge, segment operating loss before specific items was $3.5 million in fiscal 2020, compared to a segment operating income of $4.8 million (3.9% of revenue) in fiscal 2019, which represent a decrease of $8.3 million over last year.

Capital employed decreased by $16.7 million over last quarter and decreased by $14.8 million from last year

The decrease over last quarter was mainly due to lower intangible assets because of the goodwill impairment charge. The decrease was partially offset by higher non-cash working capital, resulting primarily from an increase in inventories and accounts receivable, partially offset by an increase in accounts payable and accrued liabilities.

The decrease over last year was primarily due to lower intangible assets because of the goodwill impairment charge, partially offset by the recognition of right-of-use assets as a result of the adoption of IFRS 16.

6. CONSOLIDATED CASH MOVEMENTS AND LIQUIDITY

We manage liquidity and regularly monitor the factors that could affect it, including:
– Cash generated from operations, including timing of milestone payments and management of working capital;
– Capital expenditure requirements;
– Scheduled repayments of long-term debt obligations, our credit capacity and expected future debt market conditions.

6.1 Consolidated cash movements

(amounts in millions)		**FY2020**		FY2019		**Q4-2020**		Q4-2019
Cash provided by operating activities*	**$**	**597.3**	$	495.2	**$**	**165.2**	$	131.4
Changes in non-cash working capital		**(52.2)**		35.2		**81.1**		34.9
Net cash provided by operating activities	**$**	**545.1**	$	530.4	**$**	**246.3**	$	166.3
Maintenance capital expenditures[7]		**(80.3)**		(79.2)		**(25.0)**		(24.4)
Other assets		**(15.9)**		(14.5)		**(8.0)**		(3.9)
Proceeds from the disposal of property, plant and equipment		**0.5**		2.7		**0.1**		0.2
Net (payments to) proceeds from equity accounted investees		**(9.9)**		(37.7)		**0.4**		(10.7)
Dividends received from equity accounted investees		**22.6**		22.0		**—**		14.9
Dividends paid		**(110.9)**		(99.9)		**(28.7)**		(25.6)
Free cash flow[7]	**$**	**351.2**	$	323.8	**$**	**185.1**	$	116.8
Growth capital expenditures[7]		**(203.1)**		(172.6)		**(59.0)**		(71.8)
Capitalized development costs		**(86.2)**		(69.4)		**(25.2)**		(20.8)
Common shares repurchased		**(49.6)**		(94.4)		**(16.8)**		(1.6)
Other cash movements, net		**40.9**		24.0		**4.0**		12.4
Business combinations, net of cash and cash equivalents acquired		**(10.1)**		(827.8)		**—**		(794.3)
Acquisition of investment in equity accounted investees		**(113.5)**		—		**—**		—
Addition of assets through the monetization of royalties		**—**		(202.7)		**—**		—
Effect of foreign exchange rate changes on cash and cash equivalents		**7.8**		(6.9)		**19.5**		(7.5)
Net change in cash before proceeds and repayment of long-term debt	**$**	**(62.6)**	$	(1,026.0)	**$**	**107.6**	$	(766.8)

* before changes in non-cash working capital

Free cash flow of $185.1 million this quarter
Free cash flow was $68.3 million higher compared to the fourth quarter of fiscal 2019 mainly due to a lower investment in non-cash working capital and an increase in cash provided by operating activities, partially offset by lower dividends received from equity accounted investees.

Free cash flow of $351.2 million this year
Free cash flow was $27.4 million higher compared to last year mainly due to an increase in cash provided by operating activities and lower payments to equity accounted investees, partially offset by a higher investment in non-cash working capital and higher dividends paid.

Capital expenditures were $84.0 million this quarter and $283.4 million for the year
Growth capital expenditures were $59.0 million this quarter and $203.1 million for the year. Our growth capital allocation decisions are market-driven in nature and are intended to keep pace with the demand of our existing and new customers. Maintenance capital expenditures were $25.0 million this quarter and $80.3 million for the year.

6.2 Sources of liquidity

We have a committed line of credit at floating rates, provided by a syndicate of lenders. We and some of our subsidiaries can borrow funds directly from this credit facility to cover operating and general corporate expenses and to issue letters of credit.

The total amount available through this revolving credit facility at March 31, 2020 was US$850.0 million (2019 – US$550.0 million). There was an amount of US$505.5 million drawn under the facility as at March 31, 2020 (2019 – nil) and US$21.3 million was used for letters of credit (2019 – US$32.9 million). Given the uncertainty of the economic environment, a portion of the revolving credit facility was drawn down and the proceeds have been included in the cash on hand in short terms investments. The applicable interest rate on this revolving credit facility is variable, based on the bank's prime rate, bankers' acceptance rates or LIBOR plus a margin based on the private credit rating. Subsequent to the year-end we concluded a new two-year $500.0 million senior unsecured revolving credit facility, subject to the same financial covenants as the initial facility, to provide access to additional liquidity during the COVID-19 pandemic as a supplement to our current committed line of credit.

[7] Non-GAAP and other financial measures (see Section 3.7).

We have an unsecured Export Development Canada (EDC) Performance Security Guarantee (PSG) account for US$225.0 million (2019 – US$225.0 million). This is an uncommitted revolving facility strictly for the issuance of performance bonds, advance payment guarantees or similar instruments. As at March 31, 2020 the total outstanding for these instruments was $159.5 million (2019 – $160.9 million).

We manage a program in which we sell interests in certain of our accounts receivable (receivable purchase program) to a third party for cash consideration for amounts up to US$300.0 million (2019 – US$300.0 million). As at March 31, 2020, the Canadian dollar equivalent of $333.1 million (2019 – $266.2 million) of specific accounts receivable were sold to a financial institution. Subsequent to the year-end we concluded an agreement to increase the limit of our receivable purchase program from US$300.0 million to US$400.0 million.

As at March 31, 2020, we are compliant with all our financial covenants.

At the end of the fiscal year, we had a higher than normal cash and cash equivalents balance on hand to increase liquidity and preserve financial flexibility in light of the COVID-19 pandemic. Total available liquidity at March 31, 2020 was $1.5 billion, including $946.5 million in cash and cash equivalents, undrawn amounts on our revolving credit facility and the balance available under our receivable purchase program. With the addition of our new revolving credit facility and increased limit on our receivable purchase program subsequent to the year-end, we have total available liquidity of $2.1 billion.

We expect COVID-19 to have an immediate and negative impact on the amount and timing of cash generated from operations. The management of consolidated liquidity requires a regular monitoring of expected cash inflows and outflows, which is achieved through a forecast of our consolidated liquidity position, to ensure adequacy and efficient use of cash resources. Liquidity adequacy is assessed in view of seasonal needs, stress-test results, growth requirements and capital expenditures, and the maturity profile of indebtedness, including availability of credit facilities, working capital requirements, compliance with financial covenants and the funding of financial commitments. Based on our scenario analysis, we believe that our cash and cash equivalents, the availability under our committed revolving credit facility and cash we expect to generate from our operations will be sufficient to meet financial requirements in the foreseeable future. To preserve liquidity and reduce operating costs, we have enacted initiatives such as the reduction of capital expenditures and R&D investments in fiscal 2021, strict cost containment measures, salary freezes, salary reductions, reduced work weeks and temporary layoffs, as well as a suspension of our common share dividends and share repurchase plan.

The following table summarizes the long-term debt:

(amounts in millions)		**As at March 31 2020**		As at March 31 2019
Total long-term debt	**$**	**3,312.2**	$	2,328.3
Less:				
Current portion of long-term debt		**93.5**		201.3
Current portion of lease liabilities		**112.7**		62.8
Long-term portion of long-term debt	**$**	**3,106.0**	$	2,064.2

In May 2019, we repurchased an asset previously financed under lease for $12.5 million [US $9.3 million] acquired as part of the BBAT acquisition.

In June 2019, we repaid unsecured senior notes of $80.4 million [US $60.0 million] and a term loan of $14.9 million [US $11.0 million].

In June 2019, we entered into a term loan for the financing of several new aircraft for our operations in North America. This represents an obligation of $5.5 million as at March 31, 2020.

In October 2019, we repurchased assets previously financed under lease for $9.8 million [US $7.5 million].

In December 2019, we repaid unsecured senior notes of $95.0 million, and issued notes for US $100.0 million, representing an obligation of $141.1 million as at March 31, 2020. Additionally, we used $15.7 million [US $11.7 million] of restricted cash, previously held as collateral, to repay part of an existing term loan.

6.3 Government participation

We have agreements with various governments whereby the latter contribute a portion of the cost, based on expenditures incurred by CAE, of certain R&D programs for modeling, simulation and training services technology.

During fiscal 2014, we announced Project Innovate, an R&D program extending over five and a half years. The goal of Project Innovate is to expand our modeling and simulation technologies, develop new ones and continue to differentiate our service offering. Concurrently, the Government of Canada agreed to participate in Project Innovate through a repayable loan of up to $250 million made through the Strategic Aerospace and Defence Initiative (SADI).

During fiscal 2016, we amended and extended our Project New Core Markets, an R&D program, for an additional four years. The aim is to leverage our modeling, simulation and training services expertise in healthcare. The Quebec government, through Investissement Québec (IQ), agreed to participate up to $70 million in contributions related to costs incurred before the end of fiscal 2020.

During fiscal 2017, we announced our participation in Project SimÉco 4.0, an R&D project under the SA²GE program. The aim of this project is the development of new products or processes which will further contribute to greenhouse gas emissions reductions. The government of Quebec, through the Ministry of Economy, Science and Innovation, and SA²GE have committed to contribute amounts up to 50% of eligible costs incurred by CAE to fiscal 2020.

During fiscal 2019, we announced a plan to invest in R&D innovations over the next five years, including Project Digital Intelligence. The aim is to develop the next generation training solutions for aviation, defence and security and healthcare to leverage digital technologies. The Government of Canada, through the Strategic Innovation Fund (SIF), and the Government of Québec, through IQ, agreed to participate in the project through interest free loans of up to $150.0 million and $47.5 million, respectively, in relation to eligible costs incurred from fiscal 2019 to fiscal 2023.

You will find more details in Note 1, Note 18 and Note 25 of our consolidated financial statements.

As part of our mitigation measures and to minimize the impact on employees, CAE has accessed and is working to access government emergency relief measures and wage subsidy programs available around the world, where we have operations.

On April 11, 2020, the Canada Emergency Wage Subsidy (CEWS) was brought into law in Canada. The CEWS covers employers who have suffered a drop in gross revenues of at least 15% in March, and 30% in April and May and is effective until June 6, 2020, subject to extensions to be determined by the government. CAE has qualified for the CEWS subsidy program which allowed us to recall previously furloughed Canadian-based employees until June 6, 2020.

6.4 Contractual obligations

We enter into contractual obligations and commercial commitments in the normal course of our business. The table below represents our contractual obligations and commitments for the next five years and thereafter:

Contractual obligations

(amounts in millions)	2021	2022	2023	2024	2025	Thereafter	Total
Long-term debt (excluding interest)	$ 93.5	$ 360.7	$ 412.0	$ 266.0	$ 232.6	$ 1,459.6	$ 2,824.4
Lease liabilities (excluding interest)	112.7	90.0	63.3	36.0	23.0	162.8	487.8
Purchase commitments	204.7	30.3	4.0	0.8	—	—	239.8
	$ 410.9	**$ 481.0**	**$ 479.3**	**$ 302.8**	**$ 255.6**	**$ 1,622.4**	**$ 3,552.0**

We also had total availability under the committed revolving credit facility of US$323.2 million as at March 31, 2020 compared to US$517.1 million at March 31, 2019. Subsequent to the year-end we concluded a new two-year $500.0 million senior unsecured revolving credit facility which further increased our total availability under our committed line of credit.

We have purchase commitments related to agreements that are enforceable and legally binding. Most are agreements with subcontractors to provide services for long-term contracts that we have with our clients. The terms of the agreements are significant because they set out obligations to buy goods or services in fixed or minimum amounts, at fixed, minimum or variable prices and at various points in time.

As at March 31, 2020, we had other long-term liabilities that are not included in the table above. These include some accrued pension liabilities, deferred revenue and various other long-term liabilities. CAE's cash obligation in respect of the accrued employee pension liability depends on various elements including market returns, actuarial gains and losses and interest rates. We did not include deferred tax liabilities since future payments of income taxes depend on the amount of taxable earnings and on whether there are tax loss carry-forwards available.

7. CONSOLIDATED FINANCIAL POSITION

7.1 Consolidated capital employed

(amounts in millions)		**As at March 31 2020**		As at April 1 2019(1)		As at March 31 2019
Use of capital:						
Current assets	**$**	**2,808.6**	$	2,109.6	$	2,112.9
Less: cash and cash equivalents		**(946.5)**		(446.1)		(446.1)
Current liabilities		**(2,062.3)**		(1,917.0)		(1,889.5)
Less: current portion of long-term debt		**206.2**		295.9		264.1
Non-cash working capital[8]	**$**	**6.0**	$	42.4	$	41.4
Property, plant and equipment		**2,154.0**		1,943.3		2,149.3
Right-of-use assets		**395.9**		432.8		—
Other long-term assets		**3,125.1**		2,899.9		2,903.3
Other long-term liabilities		**(737.0)**		(787.9)		(801.8)
Total capital employed	**$**	**4,944.0**	$	4,530.5	$	4,292.2
Source of capital[8]:						
Current portion of long-term debt	**$**	**206.2**	$	295.9	$	264.1
Long-term debt		**3,106.0**		2,298.2		2,064.2
Less: cash and cash equivalents		**(946.5)**		(446.1)		(446.1)
Net debt[8]	**$**	**2,365.7**	$	2,148.0	$	1,882.2
Equity attributable to equity holders of the Company		**2,489.7**		2,303.8		2,331.3
Non-controlling interests		**88.6**		78.7		78.7
Source of capital	**$**	**4,944.0**	$	4,530.5	$	4,292.2

(1) On April 1, 2019, we adopted IFRS 16 without restating comparative periods. Accordingly, to allow for better comparability, capital employed variances should be compared with figures as at April 1, 2019 instead of March 31, 2019.

Capital employed increased $413.5 million, or 9%, from last year (April 1, 2019)

The increase over last year was mainly due to higher other long-term assets and property, plant and equipment, partially offset by lower right-of-use assets.

Return on capital employed (ROCE)[8]

Our ROCE was 9.1% this quarter. ROCE before specific items was 10.7% this quarter, which compares to 12.9% in the fourth quarter of last year and 11.4% last quarter. Specific items include the impacts of the integration of BBAT in fiscal 2020 and in fiscal 2019. In fiscal 2020, specific items also include the impacts of Defence and Security reorganizational costs following the organization strategic changes and the review of certain product offerings mainly in Asia.

Excluding the impacts of IFRS 16, ROCE would have been 9.2% and ROCE before specific items would have been 10.9% this quarter, which compares to 12.9% in the fourth quarter of last year and 11.6% last quarter.

As we have adopted IFRS 16 without restating comparative periods, we have not restated the prior period calculations of ROCE to account for the recognition of right-of-use assets. To enable comparability with prior periods, we have excluded the impacts of the adoption of IFRS 16 from the fiscal 2020 ROCE calculation by removing the new right-of-use assets from capital employed and by adding back finance expense, after tax, to net income.

Non-cash working capital decreased by $36.4 million from last year (April 1, 2019)

The decrease was mainly due to higher derivative financial liabilities and contract liabilities, partially offset by higher inventories and accounts receivable.

Net property, plant and equipment increased by $210.7 million from last year (April 1, 2019)

The increase was mainly due to capital expenditures and movements in foreign exchange rates, partially offset by depreciation.

Right-of-use assets decreased by $36.9 million from last year (April 1, 2019)

The decrease was mainly due to depreciation, partially offset by movements in foreign exchange rates.

[8] Non-GAAP and other financial measures (see Section 3.7).

Other long-term assets increased by $225.2 million from last year (April 1, 2019)

The increase was mainly due to a higher investment in equity accounted investees as a result of the acquisition of a 50% stake in SIMCOM, a higher investment in finance leases, and higher intangible assets.

Net debt higher than last year

The increase was mainly due to the recognition of new lease liabilities of $265.8 million as a result of the adoption of IFRS 16, movements in foreign exchange rates and the impact of cash movements during the year. Given the uncertainty of the economic environment, a portion of the revolving credit facility was drawn down and the proceeds have been included in the cash on hand in short terms investments.

Change in net debt

(amounts in millions, except net debt-to-capital and net debt-to-EBITDA)		**FY2020**		FY2019
Net debt, beginning of period	**$**	**1,882.2**	$	649.4
Lease liabilities added on April 1, 2019 as a result of the adoption of IFRS 16	**$**	**265.8**	$	—
Impact of cash movements on net debt				
(see table in the consolidated cash movements section)		**62.6**		1,026.0
Effect of foreign exchange rate changes on long-term debt		**108.8**		29.3
Impact from business combinations		**1.6**		152.8
Lease liability movements		**27.3**		—
Other		**17.4**		24.7
Change in net debt during the period	**$**	**483.5**	$	1,232.8
Net debt, end of period	**$**	**2,365.7**	$	1,882.2
Net debt-to-capital[9]	**%**	***47.8***	%	*43.9*
Net debt-to-capital excluding the impacts of IFRS 16	**%**	***44.2***		
Net debt-to-EBITDA[9]		***2.81***		*2.70*
Net debt-to-EBITDA excluding the impacts of IFRS 16		***2.62***		

As we have adopted IFRS 16 without restating comparative periods, we have not restated the prior period calculations of net debt-to-capital or net debt-to-EBITDA. To enable comparability with prior periods, we have excluded the impacts of the adoption of IFRS 16 from the fiscal 2020 net debt-to-capital and net debt-to-EBITDA calculations by removing the new lease liabilities from net debt, removing the new right-of-use assets from capital employed and by adding back depreciation and finance expense to EBITDA.

Total equity increased by $168.3 million this year

The increase in equity was mainly due to net income of $318.9 million and stock options exercised of $26.5 million, partially offset by cash dividends of $110.9 million, common shares repurchased and cancelled of $49.6 million and the impacts of adoption of IFRS 16 of $27.5 million.

Outstanding share data

Our articles of incorporation authorize the issue of an unlimited number of common shares and an unlimited number of preferred shares issued in series. We had a total of 265,619,627 common shares issued and outstanding as at March 31, 2020 with total share capital of $679.5 million. In addition, we had 6,050,854 options outstanding under the Employee Stock Option Plan (ESOP).

As at April 30, 2020, we had a total of 265,621,627 common shares issued and outstanding and 6,042,104 options outstanding under the ESOP.

Repurchase and cancellation of common shares

On February 7, 2020, we announced the renewal of the NCIB to purchase up to 5,321,474 of our common shares. The NCIB began on February 25, 2020 and will end on February 24, 2021 or on such earlier date when we complete our purchases or elect to terminate the NCIB. These purchases will be made on the open market plus brokerage fees through the facilities of the TSX and/or alternative trading systems at the prevailing market price at the time of the transaction, in accordance with the TSX's applicable policies. All common shares purchased pursuant to the NCIB will be cancelled. Share repurchases under our NCIB program were suspended as part of our COVID-19 pandemic mitigation measures.

In fiscal 2020, we repurchased and cancelled a total of 1,493,331 common shares under the previous and current NCIB (2019 – 3,671,900), at a weighted average price of $33.22 per common share (2019 – $25.70), for a total consideration of $49.6 million (2019 – $94.4 million). An excess of $45.8 million (2019 – $85.6 million) of the shares' repurchase value over their carrying amount was charged to retained earnings as share repurchase premiums.

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[9] Non-GAAP and other financial measures (see Section 3.7).

Dividends
We paid a dividend of $0.10 per share in the first quarter and $0.11 per share in the second, third and fourth quarter of fiscal 2020. These dividends were eligible under the Income Tax Act *(Canada)* and its provincial equivalents.

Our Board of Directors (the Board) has the discretion to set the amount and timing of any dividend. The Board reviews the dividend policy annually based on the cash requirements of our operating activities, liquidity requirements and projected financial position. Dividend payments to common shareholders were suspended as part of our COVID-19 pandemic mitigation measures.

Guarantees
As at March 31, 2020, we have a total of $189.6 million outstanding letters of credit which are not recognized in the consolidated statement of financial position, compared to $205.1 million last fiscal year.

Pension obligations
We maintain defined benefit and defined contribution pension plans. Subsequent to recent legislative changes, the defined benefit pension plans are considered sufficiently funded. We expect to contribute $28.7 million in fiscal 2021.

7.2 Off balance sheet arrangements

In the normal course of business, we manage a program in which we sell interests in certain of our accounts receivable (receivable purchase program) to a financial institution for cash consideration with limited recourse to CAE.

You will find more details about our financial assets program in *Sources of Liquidity.*

7.3 Financial instruments

We are exposed to various financial risks in the normal course of business. We enter into forward contracts and swap agreements to manage our exposure to fluctuations in foreign exchange rates, interest rates and share price which have an effect on our share-based payments costs. We formally assess, both at inception of the hedge relationship and on an ongoing basis, whether the derivatives we use in hedging transactions are highly effective in offsetting changes in cash flows of hedged items in relation to the hedged risk. We enter into these transactions to reduce our exposure to risk and volatility, and not for trading or speculative purposes. We only enter into contracts with counterparties that are of high credit quality.

Classification of financial instruments
We have made the following classifications for our financial instruments:

Financial assets:
- Cash and cash equivalents, restricted cash and derivative instruments not designated as hedging instrument in a hedge relationship, are classified at fair value through profit and loss (FVTPL);
- Accounts receivable, non-current receivables, net investment in finance leases and advances are classified at amortized cost, except for those that are acquired for the purpose of selling or repurchasing in the near term and classified as held for trading which are measured at FVTPL;
- Equity investments are classified at fair value through OCI (FVOCI).

Financial liabilities:
- Accounts payable and accrued liabilities, long-term debt, including interest payable, as well as lease liabilities and royalty obligations are classified at amortized cost;
- Contingent consideration arising on business combinations and derivative instruments not designated as hedging instrument in a hedge relationship are is classified at FVTPL.

Fair value of financial instruments
The fair value of a financial instrument is determined by reference to the available market information at the reporting date. When no active market exists for a financial instrument, we determine the fair value of that instrument based on valuation methodologies as discussed below. In determining assumptions required under a valuation model, we primarily use external, readily observable market data inputs. Assumptions or inputs that are not based on observable market data incorporate our best estimates of market participant assumptions. Counterparty credit risk and our own credit risk are taken into account in estimating the fair value of financial assets and financial liabilities.

The following assumptions and valuation methodologies have been used to measure the fair value of financial instruments:

– The fair value of cash and cash equivalents, accounts receivable, accounts payable and accrued liabilities approximate their carrying values due to their short-term maturities;
– The fair value of derivative instruments, which include forward contracts, swap agreements and embedded derivatives accounted for separately and is calculated as the present value of the estimated future cash flows using an appropriate interest rate yield curve and forward foreign exchange rate. Assumptions are based on market conditions prevailing at each reporting date. The fair value of derivative instruments reflect the estimated amounts that we would receive or pay to settle the contracts at the reporting date;
– The fair value of the equity investments, which does not have a readily available market value, is estimated using a discounted cash flow model, which includes some assumptions that are not based on observable market prices or rates;
– The fair value of non-current receivables is estimated based on discounted cash flows using current interest rates for instruments with similar risks and remaining maturities;
– The fair value of long-term debts, royalties obligations and other non-current liabilities are estimated based on discounted cash flows using current interest rates for instruments with similar risks and remaining maturities. Upon adoption of IFRS 16 on April 1, 2019, fair value disclosures are no longer required for lease liabilities;
– The fair value of the contingent considerations arising on business combinations are based on the estimated amount and timing of projected cash flows, the probability of the achievement of the criteria on which the contingency is based and the risk-adjusted discount rate used to present value the probability-weighted cash flows.

A description of the fair value hierarchy is discussed in Note 28 of our consolidated financial statements.

Financial risk management

Due to the nature of the activities that we carry out and as a result of holding financial instruments, we are exposed to credit risk, liquidity risk and market risk, including foreign currency risk and interest rate risk. Our exposure to credit risk, liquidity risk and market risk is managed within risk management parameters documented in corporate policies. These risk management parameters remain unchanged since the previous period, unless otherwise indicated.

Credit risk

Credit risk is defined as our exposure to a financial loss if a debtor fails to meet its obligations in accordance with the terms and conditions of its arrangements with CAE. We are exposed to credit risk on our accounts receivable and certain other assets through our normal commercial activities. We are also exposed to credit risk through our normal treasury activities on our cash and cash equivalents and derivative financial assets. Credit risks arising from our normal commercial activities are managed with regards to customer credit risk.

Our customers are mainly established companies, some of which have publicly available credit ratings, as well as government agencies, which facilitates risk assessment and monitoring. In addition, we typically receive substantial non-refundable advance payments for contracts with customers. We closely monitor our exposure to major airline companies in order to mitigate our risk to the extent possible. Furthermore, our trade receivables are not concentrated with specific customers but are held with a wide range of commercial and government organizations. As well, our credit exposure is further reduced by the sale of certain of our accounts receivable to third-party financial institutions for cash consideration on a limited recourse basis (receivable purchase program). We do not hold any collateral as security. The credit risk on cash and cash equivalents is mitigated by the fact that they are mainly in place with a diverse group of major North American and European financial institutions.

We are exposed to credit risk in the event of non-performance by counterparties to our derivative financial instruments. We use several measures to minimize this exposure. First, we enter into contracts with counterparties that are of high credit quality. We signed *International Swaps & Derivatives Association, Inc. (ISDA)* Master Agreements with all the counterparties with whom we trade derivative financial instruments. These agreements make it possible to offset when a contracting party defaults on the agreement, for each of the transactions covered by the agreement and in force at the time of default. Also, collateral or other security to support derivative financial instruments subject to credit risk can be requested by CAE or our counterparties (or both parties, if need be) when the net balance of gains and losses on each transaction exceeds a threshold defined in the ISDA Master Agreement. Finally, we monitor the credit standing of counterparties on a regular basis to help minimize credit risk exposure.

The carrying amounts presented in Note 9 and Note 28 of our consolidated financial statements represent the maximum exposure to credit risk for each respective financial asset as at the relevant dates.

Liquidity risk

Liquidity risk is defined as the potential risk that we cannot meet our cash obligations as they become due.

We manage this risk by establishing cash forecasts, as well as long-term operating and strategic plans. The management of consolidated liquidity requires a regular monitoring of expected cash inflows and outflows which is achieved through a forecast of our consolidated liquidity position, for efficient use of cash resources. Liquidity adequacy is assessed in view of seasonal needs, stress-test results, growth requirements and capital expenditures, and the maturity profile of indebtedness, including availability of credit facilities, working capital requirements, compliance with financial covenants and the funding of financial commitments. We manage our liquidity risk to maintain sufficient liquid financial resources to fund our operations and meet our commitments and obligations. In managing our liquidity risk, we have access to revolving credit facilities and agreements to sell interests in certain of our accounts receivable. We also regularly monitor any financing opportunities to optimize our capital structure and maintain appropriate financial flexibility.

Market risk

Market risk is defined as our exposure to a gain or a loss in the value of our financial instruments as a result of changes in market prices, whether those changes are caused by factors specific to the individual financial instruments or its issuer, or factors affecting all similar financial instruments traded in the market. We are mainly exposed to foreign currency risk and interest rate risk.

We use derivative instruments to manage market risk against the volatility in foreign exchange rates, interest rates and share-based payments in order to minimize their impact on our results and financial position. Our policy is not to utilize any derivative financial instruments for trading or speculative purposes.

Foreign currency risk

Foreign currency risk is defined as our exposure to a gain or a loss in the value of our financial instruments as a result of fluctuations in foreign exchange rates. We are exposed to foreign exchange rate variability primarily in relation to certain sale commitments, expected purchase transactions and debt denominated in a foreign currency, as well as on our net investment from our foreign operations which have functional currencies other than the Canadian dollar (in particular the U.S. dollar, Euro and British pound). In addition, these operations have exposures to foreign exchange rates primarily through cash and cash equivalents and other working capital accounts denominated in currencies other than their functional currencies.

We mitigate foreign currency risks by having our foreign operations transact in their functional currency for material procurement, sale contracts and financing activities.

We use forward foreign currency contracts and foreign currency swap agreements to manage our exposure from transactions in foreign currencies. These transactions include forecasted transactions and firm commitments denominated in foreign currencies. Our foreign currency hedging programs are typically unaffected by changes in market conditions, as related derivative financial instruments are generally held until their maturity, consistent with the objective to fix currency rates on the hedged item.

Interest rate risk

Interest rate risk is defined as our exposure to a gain or a loss to the value of our financial instruments as a result of fluctuations in interest rates. We bear some interest rate fluctuation risk on our floating rate long-term debt and some fair value risk on our fixed interest long-term debt. We mainly manage interest rate risk by fixing project-specific floating rate debt in order to reduce cash flow variability. We have floating rate debts through our revolving credit facilities and other specific floating rate debts. A mix of fixed and floating interest rate debt is sought to reduce the net impact of fluctuating interest rates. Derivative financial instruments used to manage interest rate exposures are mainly interest rate swap agreements.

We use financial instruments to manage our exposure to changing interest rates and to adjust our mix of fixed and floating interest rate debt on long-term debt. The mix was 74% fixed-rate and 26% floating-rate at the end of this year (2019 – 83% fixed rate and 17% floating rate).

Our interest rate hedging programs are typically unaffected by changes in market conditions, as related derivative financial instruments are generally held until their maturity to establish asset and liability management matching, consistent with the objective to reduce risks arising from interest rate movements.

Hedge of share-based payments expense

We have entered into equity swap agreements with major Canadian financial institutions to reduce our income exposure to fluctuations in our share price relating to the deferred share units (DSU) plans, restricted share units (RSU) plans and the performance share units (PSU) plan. Pursuant to the agreement, we receive the economic benefit of dividends and share price appreciation while providing payments to the financial institutions for the institution's cost of funds and any share price depreciation. The net effect of the equity swaps partly offset movements in our share price impacting the cost of the DSU, RSU and PSU plans.

Hedge of net investments in foreign operations

As at March 31, 2020, we have designated a portion of our unsecured senior notes and term loans and a portion of our lease liabilities as a hedge of our net investments in U.S. entities. Gains or losses on the translation of the designated portion of these USD long-term debts are recognized in OCI to offset any foreign exchange gains or losses on translation of the financial statements of those U.S. entities.

A sensitivity analysis for foreign currency risk and interest rate risk is included in Note 30 of our consolidated financial statements.

8. BUSINESS COMBINATIONS

Pelesys Learning Systems Inc.

On April 26, 2019, we acquired the remaining 55% equity interest in Pelesys Learning Systems Inc. (Pelesys) for cash consideration (net of cash acquired) of $4.0 million and a long-term payable of $5.7 million.

Pelesys is a global leader in the provision of aviation training solutions and courseware. The acquisition strengthens our courseware offering and consolidate our cadet-to-captain training delivery across our global network. Prior to this transaction, our 45% ownership interest in Pelesys was accounted for using the equity method.

Luftfartsskolen AS

On June 26, 2019, we acquired the shares of Luftfartsskolen AS, an ab-initio flight school located in Oslo, Norway, for cash consideration (net of cash acquired) of $3.5 million. This acquisition strengthens our leadership and global reach in civil aviation training by growing our flight academy network.

The purchase prices of Pelesys and Luftfartsskolen AS are mainly allocated to goodwill and intangible assets. The net assets, including intangibles, arising from these acquisitions are included in Civil Aviation Training Solutions segment.

Other

On November 12, 2019, we invested in a healthcare software company that enables increased efficiency of learning. The investment is in the form of a controlling 50% equity interest, for cash consideration of $0.9 million.

During the year ended March 31, 2020, we completed our final assessment of the fair value of assets acquired and liabilities assumed of all acquisitions realized in fiscal 2020 and those of Avianca's Training Business, Logitude, the Indian Training Centres and Bombardier's Business Aircraft Training Business which were acquired in the year ended March 31, 2019. Adjustments to the determination of net identifiable assets acquired and liabilities assumed for acquisitions realized in the year ended March 31, 2019 resulted in an increase of intangible assets of $6.2 million, a decrease of deferred tax assets of $4.7 million and a decrease of other net assets of $1.5 million.

During the year ended March 31, 2020, an additional net cash consideration of $1.7 million was paid for acquisitions realized in the year ended March 31, 2019.

You will find more details in Note 3 of our consolidated financial statements.

9. EVENTS AFTER THE REPORTING PERIOD

Impact of the COVID-19 pandemic

COVID-19 has created unprecedented uncertainty in the global economy, the global air transportation environment and air passenger travel and to CAE's business. Several of our customers are facing significant challenges, with airlines and business jet operators having to ground a majority of their aircraft in response to travel bans, border restrictions, and lower demand for air travel. We continue to take measures to protect the health and safety of our employees, work with our customers to minimize potential disruptions and support our community in addressing the challenges posed by this global pandemic. This outbreak has had an important and immediate impact on all our businesses, especially in the Civil Aviation Training Solutions segment, as a result of an unprecedented shock to demand together with significant disruptions to our own operations, including facility closures, supply chain disruptions, program execution delays, slower procurement decisions and changes to our customers' acquisition priorities.

For the Civil Aviation Training Solutions segment, the impacts of the COVID-19 pandemic resulted in the closure of certain training centre operations, lower utilization of our simulators in the network due to reduced demand from aviation customers and interruptions in the execution of our backlog. For the Defence and Security segment, delays were experienced in the awarding of new contracts and in the execution and advancement of certain programs. For the Healthcare segment, customers were primarily focused on managing the acute operational demands of this healthcare crisis rather than focusing on their training needs, which resulted in less focus and budget for normal operations and training projects.

To date, we have implemented several flexible measures to protect our financial position and preserve liquidity, including the reduction of capital expenditures and R&D investments in fiscal 2021, strict cost containment measures, salary freezes, salary reductions, reduced work weeks for 900 employees and 2,600 temporary layoffs, as well as a suspension of our common share dividends and share repurchase plan announced on April 6, 2020 in response to the COVID-19 pandemic. Additionally, we have worked with defence customers to secure more favorable terms for milestone payments as well as offer contract modifications to increase work scope and with suppliers for extended payment terms.

CEWS and other government programs

On April 20, 2020, we announced that we have recalled all remaining temporarily laid-off employees in Canada through the CEWS program, impacting approximately 1,500 employees. We have accessed and are working to access government support programs in countries in which we operate.

Cash and liquidity mitigation measures
On April 9, 2020, we concluded a new two-year $500.0 million senior unsecured revolving credit facility and on May 19, 2020, we increased our receivable purchase program from US$300.0 million to US$400.0 million. These transactions provide access to additional liquidity and further strengthen our financial position.

Contract with Government of Canada for CAE Air1 ventilators
On April 10, 2020, we concluded an agreement with the Government of Canada to design and manufacture 10,000 CAE Air1 ventilators to provide life support to patients in intensive care to support the COVID-19 pandemic.

10. BUSINESS RISK AND UNCERTAINTY

We operate in several industry segments that have various risks and uncertainties. Management and the Board discuss the principal risks facing our business quarterly and annually during the strategic planning and budgeting processes. The risks and uncertainties described below are risks that could materially affect our business, financial condition and results of operation. These risks are categorized as risks arising from the COVID-19 pandemic, industry-related risks, risks specific to CAE and risks related to the current market environment. These are not necessarily the only risks we face; additional risks and uncertainties that are presently unknown to us or that we may currently deem immaterial may adversely affect our business.

To mitigate the risks that may impact our future performance, management has established an enterprise risk management policy and a framework that provides a structured approach to assess, identify and prioritize risks. This framework relies on a three lines of defence (LoD) model where the business segments, the risk management function and our internal auditor function work together to manage these risks and continuously improve the risk management process. Management develops and deploys risk mitigation strategies that align with our strategic objectives and business processes. Management continuously reviews the evolution of the principal risks facing our business and the Board oversees the risk management process and validates it through procedures performed by our internal auditors, when it deems necessary. One should carefully consider the following risk factors, in addition to the other information contained herein, before deciding to purchase CAE securities.

10.1 Risks relating to the COVID-19 pandemic

In conducting our activities, CAE is exposed to operational risk events, including biological events. Such external events have occurred in the past such as the Ebola virus, Severe Acute Respiratory Syndrome, H1N1 influenza virus, Avian flu, or the Zika virus, and although not frequent, can have high adverse impacts on our industry and our business. COVID-19 has created unprecedented uncertainty in the global economy, the global air transportation environment and air passenger travel, disrupted global supply chains, created significant economic downturn and disruption of financial markets. The pandemic began to affect market demand in Asia early in the fourth quarter of fiscal 2020 as border restrictions were implemented and through the rest of the world in March 2020. Several of our customers are facing significant challenges, with airlines and business jet operators having to ground a majority of their aircraft in response to travel bans, border restrictions, and lower demand for air travel. This outbreak has had an important and immediate impact on all our businesses, especially in Civil Aviation where certain commercial airlines are experiencing financial difficulties.

It is difficult to accurately predict the duration or severity of the pandemic and it is extremely challenging for CAE to accurately estimate or quantify the magnitude of the pandemic's impact on our operations, financial condition and strategic plan. Due to the unprecedented and ongoing nature of COVID-19 and the fact that the response to the pandemic is evolving in real time and differs geographically from one region to another, estimates of the economic impacts of the COVID-19 pandemic remain inherently highly uncertain and speculative. Even after the COVID-19 pandemic is over, we may continue to experience material adverse effects to our business, financial condition and strategic plans as a result of the continued disruption in the global economy and any resulting recession, the effects of which may persist beyond that time.

CAE has been closely monitoring and actively implementing and updating our response to the evolving COVID-19 pandemic and its impacts on employees, operations, the global economy and the demand for our products and services. We have formed a committee composed of the senior leadership team and key leaders in the organization to monitor, on a daily basis, the evolution of the pandemic, to evaluate the measures being put in place by local and national governments and the resulting impacts on CAE. As needed, the committee implements necessary contingency plans in real time as the current situation continues to unfold, with a focus on three priorities: protecting employees' health and safety; supporting customers to the best of our abilities, and ensuring that we can successfully navigate through this global pandemic.

Health and Safety
The spread of COVID-19 may impact the health of our personnel, partners and contractors, including members of our management team, and may make it difficult to recruit, attract and retain skilled personnel, reducing the availability of our workforce and causing human impacts that may, in turn, negatively impact our business. Prolonged illness of our senior executives could also have an adverse effect on the management of our business and financial results. Since safety is one of our main priorities at CAE, we implemented mitigation measures to reduce the risk of potential outbreaks, including compelling most employees to work from home, where possible, initiating production shifts, creating protocols, policies and guidelines for employees, suppliers, customers and visitors, and closing certain areas in our facilities to facilitate maintenance. We also have in place an emergency succession plan to deal with any situation which requires the immediate replacement of our key senior executives.

Reduction and Suspension of Operations

The pandemic is causing a slowdown and temporary restrictions to our operations in certain geographic locations impacted by the outbreak, including but not limited to the manufacturing plant in Montreal, since non-essential services have been closed by government public directives. Several of our training centres worldwide have also closed, or are operating at significantly reduced capacities, as a result of the severe and abrupt drop in air passenger travel and airlines and business jet operators having to ground a majority of their aircraft. We cannot predict how long the restrictive measures will last or whether other measures will need to be implemented to contain the outbreak in any jurisdiction where CAE operates or holds assets, however, these measures could have a material and adverse effect on our financial and operating performance.

Delay in the production of goods and completion of CAE's services may require us to incur additional non-compensable costs, including overtime work, that are necessary to meet clients' schedules. Due to various factors, a delay in the commencement or completion of a project may also result in penalties or sanctions under contracts or even the cancellation of some contracts. Additionally, some of our customers, including governments, airlines and hospitals around the world, could delay contract awards as they are dealing with the pandemic and their own cash conservation measures.

Global Economy

As an emerging risk, the economic impact could be severe to global economies depending on the duration of the pandemic, the likelihood and scope of any subsequent waves of COVID-19 and the continued measures put in place to contain the outbreak. Global financial markets have experienced, and could continue to experience, significant volatility and weakness. Governments and central banks have reacted with significant monetary and fiscal interventions designed to stabilize economic conditions and financial markets. However, the efficacy of the government and central bank interventions is uncertain. This uncertainty has already materialized with falling global GDP growth, causing a global financial market shock which has directly impacted our share price. Uncertainties related to, and perceived or experienced negative effects from, COVID-19 may continue to cause significant volatility or decline in the trading price of our securities, capital market conditions and general economic conditions. In addition, severe disruption and instability in the global financial markets and continued deteriorations in credit and financing conditions may increase the likelihood of litigation, increase the cost of or limit or restrict our ability to access debt and equity capital or other sources of funding on favourable terms, or at all, lead to consolidation that negatively impacts our business, increased competition, result in reductions in our work force, cause us to further reduce our capital spending or otherwise disrupt our business or make it more difficult to implement our strategic plans. Sustained adverse effects may also prevent us from satisfying debt financial covenants or result in possible credit ratings watch or downgrades. Also the return on our pension plan assets and/or the discount rate used for valuing our post-employment benefit obligations may both be negatively impacted in the near to medium term. This could have an adverse effect on our post-employment benefit plan obligations and pension contributions in future years.

Several governments have implemented temporary measures to help offset the negative economic impacts such as the CEWS program in Canada and deferred tax filings for businesses and individuals worldwide. While these measures are beneficial for CAE and our employees, should the negative economic impacts exceed the period for which these relief measures have been granted, it can lead to increased cost containment policies such as job reductions and capital spending reductions in our own network.

Diversion of management attention

Preparing for and responding to the continuing pandemic has and may continue to divert management's attention from our key strategic priorities, increase costs as we prioritize health and safety matters for our personnel and the continuation of critical ongoing projects, and cause us to reduce, delay, or alter initiatives that may otherwise increase our long-term value.

Heightened IT risks and inefficiencies

The immediate unanticipated rise in remote work arrangements implemented by CAE in response to the COVID-19 outbreak may cause inefficiencies and increased pressure on our information technology infrastructure, and may increase CAE's vulnerability to information technology and cybersecurity related risks and disruption to our information systems.

Liquidity risk

The continuing pandemic has increased the risk that we may encounter difficulty in meeting our obligations associated with financial liabilities. To preserve liquidity throughout the pandemic, subsequent to the year end, we enacted strict cost containment measures and suspended dividend payments to common shareholders and share buybacks under the NCIB program. In addition, we concluded a new two-year $500.0 million senior unsecured revolving credit facility and expanded our receivable purchase program from US$300.0 million to US$400.0 million. These transactions provide us access to additional liquidity and further strengthen our financial position. We believe that our cash and cash equivalents, the availability of cash under our committed revolving credit facility and the cash we expect to generate from our operations, is sufficient to meet financial requirements in the foreseeable future.

Credit risk

There is uncertainty regarding the duration of the COVID-19 pandemic and how it will impact the sufficiency of our customers' liquidity during the period where their operations are significantly impacted by a significant and abrupt reduction in air travel, self-isolation measures, travel bans, border restrictions and lockdown protocols. There is an increased credit risk for our airline customers due to the reduction of their operations and uncertainty relating to air travel recovery and the increased risk of airline bankruptcies. We are, however, a provider of regulated training services which are critical to airline operations, and therefore if any of our customers engage in reorganization or bankruptcy proceedings we are often designated as a critical supplier.

Overall, adverse changes in a customer's financial condition, including those resulting from the COVID-19 pandemic, could cause us to limit or discontinue business with that customer, require us to assume more credit risk relating to that customer's future business, or result in uncollectible trade accounts receivable from that customer. Future credit losses relating to any one of our major customers could be material and could result in a material charge to our financial results.

10.2 Risks relating to the industry

Competition

We sell our simulation products and training services in highly competitive international markets. New participants have emerged in recent years and the competitive environment is intense, with aerospace and defence companies positioning themselves to try to take greater market share by consolidating through mergers and acquisitions and vertical integration strategies and by developing their own internal capabilities. Most of our competitors in the simulation and training markets are also involved in other major segments of the aerospace and defence industry beyond simulation and training. As such, some of them are larger than we are, and may have greater financial, technical, marketing, manufacturing and distribution resources and market share which could adversely affect CAE's ability to compete successfully. In addition, our main competitors are either aircraft manufacturers, or have well-established relationships with aircraft manufacturers, airlines and governments, which may give them an advantage when competing for projects.

OEMs have certain advantages in competing with independent training service providers. An OEM controls the pricing for the data, parts and equipment packages that are often required to manufacture a simulator specific to that OEM's aircraft, which in turn, is a critical capital cost for any simulation-based training service provider. OEMs may be in a position to demand licence fees or royalties to permit the manufacturing of simulators based on the OEM's aircraft, and/or permit any training on their respective simulators. However, CAE may have some advantages, as an independent training provider and simulator manufacturer, having the ability to replicate certain aircraft without data, parts and equipment packages from an OEM, as well as our global reach and diversified training network that includes joint ventures with large airline operators, who are aircraft customers for OEMs. In addition, we work with some OEMs on business opportunities related to equipment and training services.

Economic growth and pressure underlie the demand for all of our products and services. Periods of economic recession, constrained credit, government austerity and/or international commercial sanctions generally lead to heightened competition for demand of our services and products. This in turn, typically leads to a reduction in profit on sales won during such a period. Should such conditions occur, we could experience price and margin erosion.

Business development and awarding of new contracts

We obtain most of our contracts through competitive bidding processes that subject us to the risk of spending a substantial amount of time and effort on proposals for contracts that may not be awarded to CAE. A significant portion of our revenue is dependent on obtaining new orders and continued replenishment of our backlog. We cannot be certain that we will continue to win contracts through competitive bidding processes at the same rate as we have in the past, additionally, the impacts of the COVID-19 pandemic could cause a delay in the awarding of orders. The presence of new market participants as noted above, and their efforts to gain market share, creates heightened competition in bidding which may negatively impact pricing and margins. We intend to continue to grow market share by leveraging a high level of customer satisfaction and operational and organizational productivity.

Level and timing of defence spending

A significant portion of our revenues is generated by sales to defence and security customers around the world. We provide products and services for numerous programs to Australian, Canadian, European, UAE, U.S., and other foreign governments as both the prime and/or subcontractor. As defence spending comes from public funds and is always competing with other public interests for funding, there is a risk associated with the level of spending a particular country may devote to defence as well as the timing of defence contract awards, which can be very difficult to predict and may be impacted by numerous factors such as the political environment, foreign policy, macroeconomic conditions and nature of the international threat environment. Significant reductions to defence spending by mature markets such as in Australia, Canada, Europe, the UAE, and the U.S. or a significant delay in the timing of defence procurement could have a material negative impact on our future revenue, earnings and operations. Particularly, with the increased focus on COVID-19 relief measures around the globe, governments may be forced to reduce their defence spending. Additionally, the precipitous drop in oil prices has further impacted opportunity flow in the Middle East. In order to mitigate the level and timing of defence procurements, we have established a diversified global business and a strong position on enduring platforms.

Government-funded defence and security programs

Like most companies that supply products and services to governments, government agencies routinely audit and investigate government contractors. These agencies may review our performance under our contracts, business processes, cost structure, and compliance with applicable laws, regulations and standards. Our incurred costs for each year are subject to audit by government agencies, which can result in payment demands related to costs they believe should be disallowed. We work with governments to assess the merits of claims and where appropriate reserve for amounts disputed. We could be required to provide repayments to governments and may have a negative effect on our results of operations. Contrary to cost-reimbursable contracts, some costs may not be reimbursed or allowed under fixed-price contracts, which may have a negative effect on our results of operations if we experience costs overruns.

Civil aviation industry

A significant portion of our revenue comes from supplying equipment and training services to the commercial and business airline industries. The civil aviation market is predominantly driven by long-term trends in airline passenger and cargo traffic. The principal factors underlying long-term traffic growth are sustained economic growth and political stability both in developed and emerging markets. Air travel experienced a sharp deterioration in the first few months of calendar 2020. There is a risk that we may experience a delayed recovery in air travel demand due to the unprecedented worldwide travel restrictions, expected higher unemployment rates, and a fall in consumer spending. At this rate, IATA forecasts that domestic and international passenger demand will decrease 48% compared to calendar 2019, and a decrease of 55% for airline passenger revenue. Decreased airline passenger and cargo traffic for an extended period of time could have a material and adverse effect on our financial and operating performance. Specifically, as airlines struggle with reduced capacities or bankruptcies, CAE could experience the cancellation of aircraft orders, reduction in FFS demand and lower demand for pilot recruitment, placement, and training. Despite the temporary global shock caused by the COVID-19 pandemic, the business aviation industry is expected to grow in the long term due to demand recovery combined with the introduction of new aircraft models and technologies.

Demand for training solutions in the civil aviation market is further influenced by airline profitability, availability of aircraft financing, OEMs ability to supply aircraft, world trade policies, technological advances, government-to-government relations, national aviation authority regulations (including the grounding order of the 737 MAX aircraft by global civil aviation authorities and the uncertainties surrounding the implications of the U.K.'s departure from the EASA at the end of calendar 2020 as a result of Brexit), price and other competitive factors, fuel prices and geopolitical environment. Potential impediments to steady growth in air travel include major disruptions such as regional political instability, acts of terrorism, epidemics, pandemics, the prolonged continuation or future waves of the novel coronavirus, natural disasters, prolonged economic recessions, the interruption of global mobility including travel bans and border restrictions, oil price volatility, increased global environmental regulations or other major world events.

Constraints in the credit market may reduce the ability of airlines and others to purchase new aircraft, negatively affecting the demand for our training equipment and services, and the purchase of our products. In addition, airline consolidations, fleet decisions or financial challenges involving any of our major commercial airline customers could impact our revenues and limit our opportunity to generate profits from those customers. Finally, prolonged reduction in operations as a result of COVID-19 could drive an increase of bankruptcies amongst airlines.

Regulatory matters

Our businesses are heavily regulated. We deal with many government agencies and entities and are subject to laws and regulations such as export controls, health, national security and aviation authority of each country. These regulations may change without notice, which could impact our sales and operations. Any changes imposed by a regulatory agency, including changes to safety standards imposed by aviation authorities such as the U.S. FAA, could mean that we have to make unplanned modifications to our products and services, causing delays, higher inventory levels or resulting in postponed or cancelled sales or changes to sales predictions.

The export of CAE's technology and services is subject to export permit approvals and regulatory requirements, which can sometimes take several months to go through the approval process. These can result in delays in obtaining export permits or even prevent us from exporting to certain countries, entities or people in or from a country, and result in negative financial impacts.

We cannot predict the impact that changing laws or regulations might have on our operations. Any changes could present opportunities or, to the contrary, have a materially negative effect on our results of operations or financial condition and we cannot be certain that we will be permitted to sell or licence certain products to customers or otherwise export CAE's technology and services, which could cause a potential loss of revenue for us. Any changes in governmental policy or government actions resulting form the COVID-19 pandemic could disrupt our supply chain, prevent the sale or delivery of our products, or result in export license delays.

If we fail to comply with government laws and regulations related to export controls and national security requirements, we could be fined and/or suspended or barred from government contracts or subcontracts for a period of time, which would negatively affect our revenue from operations and profitability and could have a negative effect on our reputation and ability to procure other government contracts in the future.

Natural or other disasters

Extreme weather conditions or natural or other disasters, such as earthquakes, fires, floods, pandemics, epidemics (such as COVID-19) and similar events could disrupt our operations, damage our infrastructure or properties, endanger our employee's health and safety, impact the availability and cost of materials and resources, increase insurance and other operating costs and have a material adverse effect on our operating results, financial position or liquidity. In addition, we cannot be certain that our insurance coverage will be sufficient to cover all significant risk exposures. We are exposed to liabilities that are unique to the products and services that we provide. CAE maintains insurance for certain risks and may be adequately covered for said risks, however, insurance may not be available, or limits may not be adequate to cover all significant risk exposures. For example, CAE is not covered from the financial losses caused by communicable disease, including viruses and other epidemics, as certain coverages are not available for commercially reasonable terms. It is not certain whether there will be any insurance products in the future covering the risks of communicable disease.

Environmental laws and regulations
CAE is exposed to various environmental risks and is subject to complying with environmental laws and regulations which vary from country to country and are subject to change. CAE's inability to comply with environmental laws and regulations could result in penalties, lawsuits and potential harm to its reputation.

New laws and regulations, stricter enforcement of existing laws and regulations, the discovery of previously unknown contamination, new clean-up requirements or claims on environmental indemnities we committed to may result in us having to incur substantial costs. This could have a materially negative effect on our financial condition and results of operations.

Climate changes
Increased public awareness and growing concerns about climate change and the global transition to a low carbon economy result in a broad range of impacts, including potential strategic, reputational and structural related risks for CAE and its business partners and the emergence and evolvement additional environmental and climate change regulations, frameworks, and guidance. Increasing regulatory expectations create a new set of compliance risks that need to be managed. Global climate change also results in regulatory risks which vary according to the national and local requirements implemented by each jurisdiction where we are present.

In addition, concerns about the environmental impacts of air travel, the "anti-flying" movement and tendencies towards "green" travel initiatives have contributed to higher levels of scrutiny with respect to emissions which could have the effect of reducing demand for air travel and could materially adversely impact our aviation business and reputation. As a result of these increased concerns, we announced that we have committed to become carbon neutral by summer 2020; should we not achieve this objective, it could be badly received or result in further damage to our reputation.

10.3 Risks relating to the Company

Evolving standards and technology innovation
The civil aviation and defence and security markets in which we operate are characterized by changes in customer requirements, new aircraft models, evolving industry standards, increased power to analyze data and evolving customer expectations influenced by global trends such as climate change, pandemics, the growth of developing markets, population growth and demographic factors. If we do not accurately predict the needs of our existing and prospective customers, develop new products, enhance existing products and services and invest in and develop new technologies that address those evolving standards and technologies, we may lose current customers and be unable to attract new customers. This could reduce our revenue and market share.

The evolution of technology could also have a negative impact on the value of our fleet of FFSs or require significant investments to our fleet to update to the evolving technology. The adoption of new technologies, such as artificial intelligence, machine learning and unmanned aerial systems or remotely piloted aircraft, presents opportunities for us, but may result in new and complex risks that would need to be managed effectively.

Our ability to penetrate new markets
Penetration of the new markets represents both a risk and an opportunity for CAE. Success in these markets is by no means assured. As we operate in new markets, unforeseen difficulties, major investments and additional expenditures could arise, which may have an adverse effect on our operations, financial position, profitability and reputation. Penetrating a new market is inherently more difficult than managing within our already established markets. New products and technologies introduced in new markets could also generate unanticipated safety or other concerns resulting in expanded product liability risks, potential product recalls and other regulatory issues that could have an adverse impact on us. In particular, we may be exposed to increased risks in the current year as a result of the development of our CAE Air1 ventilator, as we attempt to enter the medical equipment market.

Research and development activities
We carry out some of our R&D initiatives with the financial participation of governments, including the Government of Quebec through IQ and the SA^{2}GE program, and the Government of Canada through its SADI and SIF. The level of government financial participation reflects government policy, fiscal policy and other political and economic factors. We may not, in the future, be able to replace these existing programs with programs of comparable benefit to us, which could have a negative impact on our financial performance and research and development activities.

We receive investment tax credits from federal and provincial governments in Canada and from the federal government in the U.S. and the U.K. on eligible R&D activities that we undertake. The credits we receive are based on legislation currently enacted. The investment tax credits available to us can be reduced by changes to the respective governments' legislation which could have a negative impact on our financial performance and research and development activities.

Furthermore, our R&D investments in new products or technologies may or may not be successful. Our results may be impacted if we invest in products that are not accepted on the market, if customer demand or preferences change, if new products are not brought to market in a timely manner, if we lack commercial or procurement experience, if we experience delays in obtaining regulatory approvals, or if our products become obsolete. We may incur cost overruns in developing new products.

Fixed-price and long-term supply contracts

We provide our products and services mainly through fixed-price contracts that enable us, contrary to cost-reimbursable contracts, to benefit from performance improvements, cost reductions and efficiencies, but also require us to absorb cost overruns reducing profit margins or incurring losses if we are unable to achieve estimated costs and revenues. It can be difficult to estimate all of the costs associated with these contracts or to accurately project the level of sales we may ultimately achieve. In addition, a number of contracts to supply equipment and services to commercial airlines and defence organizations are long-term agreements that can run up to 25 years. While some of these contracts can be adjusted for increases in inflation and costs, the adjustments may not fully offset the increases, which could negatively affect the results of our operations. While we believe we have recorded adequate provisions for risks of losses on fixed-price contracts, it is possible that fixed-price and long-term supply contracts could subject us to additional losses that exceed obligations under the terms of the contracts.

Strategic partnerships and long-term contracts

We have long-term strategic partnerships and contracts with major airlines, aircraft operators and defence forces around the world, including Authorized Training Provider agreements. These long-term contracts are included in our backlog at the awarded amount but could be subject to unexpected adjustments or cancellations and therefore do not represent a guarantee of our future revenues. We cannot be certain that these partnerships and contracts will be renewed on similar terms, or at all, when they expire, and our financial results could be adversely affected by our partners' level of operations and revenue, financial health, contribution and indemnifications. We can make no assurance that customers will fulfill existing purchase commitments, exercise purchase options or purchase additional products or services from CAE.

Procurement and OEM leverage

We secure data, parts, equipment and many other inputs from a wide variety of OEMs, subcontractors and other sources. We are not always able to find two or more sources for inputs that we require, and, in the case of specific aircraft simulators and other training equipment, significant inputs can only be sole-sourced. We may therefore be vulnerable to delivery schedule delays, the financial condition of the sole-source suppliers and their willingness to deal with us. Within their corporate groups, some sole-source suppliers include businesses that compete with parts of our business. This could lead to onerous licencing terms, high licence fees or even refusal to licence to us the data, parts and equipment packages that are often required to manufacture and operate a simulator based on an OEM's aircraft.

Where we use an internally produced simulation model for an aircraft or develop courseware without using OEM-sourced and licenced data, parts and equipment, the OEM in question may attempt retaliatory or obstructive actions against us to block the provision of training services or manufacturing, sale and/or deployment for training of a simulator for such aircraft, claiming breach of its intellectual property rights or other legal basis. Such actions may cause us to incur material legal fees and/or may delay or prevent completion of the simulator development project or provision of training services, which may negatively impact our financial results.

Similarly, where we use open source software, freeware or commercial off-the-shelf software from a third party, the third party in question or other persons may attempt retaliatory or obstructive actions against us to block the use of such software or freeware, claiming breach of licence rights or other legal basis. Such actions may cause us to incur material legal fees and/or may delay or prevent completion of the simulator development project or provision of training services, which may negatively impact our financial results.

Product integration and program management

Our business could be negatively affected if our products do not successfully integrate or operate with other sophisticated software, hardware, computing and communications systems that are also continually evolving. If we experience difficulties on a project or do not meet project milestones, we may have to devote more engineering and other resources than originally anticipated which may impact timing and profitability.

Protection of our intellectual property and brand

We rely, in part, on trade secrets, copyrights and contractual restrictions, such as confidentiality agreements, patents and licences to establish and protect our proprietary rights. These may not be effective in preventing a misuse of our technology or in deterring others from developing similar technologies. We may be limited in our ability to acquire or enforce our intellectual property rights in some countries. Litigation related to our intellectual property rights could be lengthy and costly and could negatively affect our operations or financial results, whether or not we are successful in defending a claim.

As the training partner of choice to enhance safety, efficiency and readiness, our brand is a significant asset. From time to time, we may authorize the use of our brand, under third party license agreements, such as our partnership with the Saudi National Company of Aviation to create a CAE Authorized Training Centre in the Middle East. Additionally, in certain of our flight training organizations, we outsource some flying to third-party providers, but ultimately remain accountable for their performance operating for our brand. We control and manage the use of our brand and ensure that our partners and suppliers meet rigorous standards to ensure that our brand value is preserved. Adverse publicity related to incidents or litigation involving us, our partners or suppliers may impact the value of our brand.

Third-party intellectual property

Our products contain sophisticated software and computer systems that are supplied to us by third parties. These may not always be available to us. Our production of simulators often depends on receiving confidential or proprietary data on the functions, design and performance of a product or system that our simulators are intended to simulate. Our training systems may also involve the collection and analysis of customer performance data in connection with the use of our training systems. We may not be able to obtain access to these multiple data sets on reasonable terms, or at all.

Infringement claims could be brought against us or against our customers. We may not be successful in defending these claims and we may not be able to develop processes that do not infringe on the rights of third parties, or obtain licences on terms that are commercially acceptable, if at all.

The markets in which we operate are subject to extensive patenting by third parties. Our ability to modify existing products or to develop new products and services may be constrained by third-party patents such that we incur incremental costs to licence the use of the patent or design around the claims made therein.

Key personnel

Our continued success will depend in part on our ability to attract, recruit and retain key personnel and management with relevant skills, expertise and experience. Our compensation policy is designed to mitigate this risk, however, the temporary compensation measures put in place during the COVID-19 pandemic could result in increased risks of losing talent to industries that have not been as severely impacted. We also have succession plans in place to help identify and develop an internal pipeline of leadership talent pertaining to engineers, technical and pilot instructors and general management domains. CAE is dependent on the industry experience, qualifications and knowledge of a variety of employees, including our executive officers, managers and other key employees to execute our business plan and operate our business. If we were to experience a shortfall, illness or a substantial turnover in our leadership or other key employees, our business, results from operations and financial condition could be materially adversely affected. Failure to establish a complete and effective succession plan, including preparation of internal talent and identification of potential external candidates, where relevant, for key roles, could impair our business until qualified replacements are found.

Labour relations

Approximately 2,600 employees are represented by unions and are covered by 55 collective agreements as of March 31, 2020. These differing collective bargaining agreements have various expiration dates. While we maintain positive relationships with our respective unions, the re-negotiations of the collective bargaining agreements could result in work disruption including work stoppages or work slowdowns. Should a work stoppage occur, it could interrupt our manufacturing or service operations at the impacted location which could adversely affect service to our customers and to our financial performance.

Liability risks that may not be covered by indemnity or insurance

We are exposed to liabilities that are unique to the products and services we provide, as our business is complex, international and involves extensive coordination and integration with numerous suppliers, large numbers of highly-skilled employees and partners, advanced technologies and stringent regulatory requirements and performance and reliability standards.

Accordingly, we may be exposed to claims and litigation, including claims for personal injury, illness, death, property damage or business interruption, arising from:
- Deficiencies in our simulation products and services that directly or indirectly cause damage and/or injury;
- Deficiencies in training programs or our training services delivery that directly or indirectly cause damage or injury;
- Incidents occurring during the use of equipment that we have manufactured or operate;
- Incidents involving products and services that we have provided, including claims for personal injuries or death;
- Deficiencies in our live flight training equipment, personnel or operations that directly or indirectly cause damage or injury;
- Deficiencies in our mitigation and protective measures implemented to reduce the risk of a potential COVID-19 outbreak in one of our facilities or failure to adequately protect our customers, employees, contractors, workers and visitors from the virus.

Substantial costs could adversely impact our financial condition, cash flows, or operating results. In some but not all circumstances, we may be entitled to certain legal protections or indemnifications from our customers. Although we maintain insurance coverage from established insurance carriers to cover these risks, our insurance coverage may be inadequate to cover all claims and liabilities, the amount of such insurance coverage may not be sufficient, and we may be forced to bear substantial costs. Any accident, failure of, or defect in our products or services, even if fully indemnified or insured, could result in significant investment and negatively affect our reputation with our customers and the public. It also could affect the cost and availability of adequate insurance in the future.

Warranty or other product-related claims

We manufacture simulators that are highly complex and sophisticated. Additionally, we may purchase simulators or obtain simulators via acquisitions. These simulators may contain defects that are difficult to detect and correct and if they fail to operate correctly, there could be warranty claims or we may incur significant additional costs to modify or retrofit these products. Correcting these defects could require significant additional costs. If a defective product is integrated into our customers' equipment, we could face product liability claims based on damages to the customers' equipment. Any claims, errors or failures could have a negative effect on our operating results and business. We may also be subject to product liability claims relating to equipment and services related to discontinued operations sold in the past.

Mergers, acquisitions, joint ventures, strategic alliances or divestitures
As part of our growth strategy, at times we engage in business acquisitions or form joint ventures and strategic alliances. The realization of anticipated benefits from these acquisitions and related activities depends, in part, upon our ability to integrate the acquired business, the realization of synergies both in terms of successfully marketing our broadened product and service portfolio, efficient consolidation of the operations of the acquired businesses into our existing operations, cost management to avoid duplication, information systems integration, staff reorganization, establishment of controls, procedures, and policies, performance of the management team and other personnel of the acquired operations as well as cultural alignment. There can be no assurance that we will realize anticipated synergies, or that we will meet any financial and performance targets provided. In addition, our inability to adequately integrate an acquired business in a timely manner might result in departures of qualified personnel or lost business opportunities which would negatively impact operations and financial results. There are also risks associated with the acquisition of a business where certain legacy liabilities could arise. We also may make strategic divestitures from time to time. These transactions may result in continued involvement in the divested businesses, such as through guarantees and transition services following the transaction.

Reputational risk
Reputational risk may arise under many situations including, among others, quality or performance issues on our products or services, inability to penetrate new markets or to meet expectations or demand for newly developed products and technologies, failure to maintain ethically and socially responsible operations, injuries or death arising from health and safety incidents during the operation process or training activities, or alleged or proven non-compliance with laws or regulations by our employees, agents, subcontractors, suppliers and/or business partners. Any negative publicity about, or significant damage to, our image and reputation could have an adverse impact on customer perception and confidence and may cause the cancellation of current work or influence our ability to obtain future sales or award of a contract. Furthermore, any unethical conduct by one of our suppliers or subcontractors or any allegations of unfair or illegal business practices by a supplier or subcontractor could also negatively affect our image and reputation. An occurrence of any of these situations could materially adversely affect our business and financial results.

Perceptions pertaining to social and governance approaches have changed in the recent years, and many customers and investors now agree that these issues have become a current concern and could affect corporate profitability and reputation.

U.S. foreign ownership, control or influence mitigation measures
CAE and certain of our subsidiaries are parties to agreements with various departments and agencies of the U.S. government, including the U.S. Department of Defense, which require that these subsidiaries be issued facility security clearances under the U.S. Government National Industrial Security Program. This program requires that any corporation that maintains a facility security clearance be insulated from foreign ownership, control or influence (FOCI) via a mitigation agreement. As a Canadian company, we have entered into FOCI mitigation agreements with U.S. Department of Defense that enable these U.S. subsidiaries to obtain and maintain the requisite facility security clearances to enter into and perform on classified contracts with the U.S. Government. Specifically, these mitigation agreements are a special security agreement for CAE USA Inc. and a proxy agreement (Proxy Agreement) for CAE USA Inc.'s wholly owned subsidiary, CAE USA Mission Solutions Inc. (MSI). If we fail to maintain compliance with either of these FOCI mitigation agreements, the facility security clearances for each entity may be terminated. If this occurred, our U.S. subsidiaries would no longer be eligible to enter into new contracts requiring a facility security clearance and would lose the right to perform its existing contracts with the U.S. government to completion.

A separate board of directors has been established to oversee the management and operations of MSI. Under the Proxy Agreement, we, and our board of directors, are restricted in our oversight over MSI's separate board of directors and its management. In addition, under U.S. Department of Defense rules and procedures, subject to a limited number of restricted matters (such as the sale or disposal of MSI's assets; corporate mergers, consolidations, or reorganizations relating to MSI; pledges, mortgages or other encumbrances on the capital stock of MSI for purposes other than obtaining working capital; the dissolution of MSI; and the filing of a bankruptcy petition with respect to MSI) MSI board of directors acts independently and has sole authority to make all decisions regarding the management of MSI and its business. The actions taken or not taken by the management or MSI board of directors could have an impact on our growth, reputation and profitability.

Length of sales cycle
The sales cycle for our products and services can be long and unpredictable, ranging from 6 to 18 months for civil aviation applications and from 6 to 24 months or longer for defence and security applications. During the time when customers are evaluating our products and services, we may incur expenses and management time. Making these expenditures in a period that has no corresponding revenue will affect our operating results and could increase the volatility of our share price. We may pre-build certain products in anticipation of orders to come and to facilitate a faster delivery schedule to gain competitive advantage; if orders for those products do not materialize when expected, we have to carry the pre-built product in inventory for a period of time until a sale is realized.

Government procurement policies often allow unsuccessful bidders to protest a contract award. The protest of a contract awarded to CAE may result in the cancellation of our award, extend the period before which we can start recognizing revenue or cause us to incur material legal fees.

Seasonality
Our business, revenues and cash flows are affected by certain seasonal trends. In the Civil segment, the level of training delivered is driven by the availability of pilots to train, which tends to be lower in the second quarter as pilots are flying more and training less and thus resulting in lower revenues. In the Defence segment, revenue and cash collection tend to be higher in the second half of the year as contract awards and availability of funding are influenced by the federal government's budget cycle, which in the U.S. is based on a September year-end. We expect these trends to continue in fiscal 2021.

Returns to shareholders

Payment of dividends, the repurchase of shares under our NCIB program and other cash or capital returns to our shareholders are at the discretion of the Board of Directors and depend on various factors, including our operating cash flows, sources of capital, the satisfaction of solvency tests and other financial requirements, our operations and financial results, as well as our dividend and other policies which may be reviewed from time to time.

Given the impacts of the COVID-19 pandemic, CAE's Board of Directors has approved a suspension of dividend payments to common shareholders and share repurchases under our NCIB program to preserve liquidity. This position will be reviewed on a quarterly basis and payments will resume as soon as it is appropriate.

Information technology and cybersecurity

We depend on information technology infrastructure and systems, hosted internally or outsourced, to conduct day-to-day operations and for the effective operation of our business. Our business also requires the appropriate and secure utilization of sensitive and confidential information belonging to third parties such as aircraft OEMs, national defence forces and customers. While we strive to leverage technology to meet the growing needs of our customers and enhance the efficiency of our operations, it nevertheless comes with information security and cybersecurity risks.

Due to the size, scale, and global nature of our operations, our heavy reliance on the internet to conduct day-to-day business activities, our intricate technological infrastructure, our business relationships with aircraft OEMs and defence and security customers and our use of third party service providers, we are subject to heightened risks. These risks include information technology system failures and non-availability, cyber-attacks, cyber extortion, breaches of systems security, malware, unauthorized attempts to gain access to our proprietary and sensitive information, hacking, phishing, identity theft, theft of intellectual property and confidential information, denial-of-service attacks aimed at causing network failures and services interruption and other cybersecurity threats to our information technology infrastructure and systems.

These IT and cybersecurity risks could disrupt our operations, cause the loss of, corruption of, or unauthorized access to business information and data, compromise confidential or classified information belonging to CAE, our employees, or our business partners, including aircraft OEMs and defence and security customers, expose us to client attrition, non-compliance with privacy legislation or any other laws in effect, litigation, fines, penalties or regulatory action, compliance costs, corrective measures, investigative or restoration costs, cost hikes to maintain and upgrade technological infrastructures and systems or reputational harm, all of which could have a negative effect on CAE's operating results, reporting capabilities, profitability and reputation.

A series of governance processes are in place to mitigate these risks. To address the challenges of the evolving cyber threat landscape and as the volume and sophistication of cyber-attacks continue to increase, we continuously review our security measures. We have developed a three year cybersecurity program in order to cope with these increasing threats. We have implemented security controls, policy enforcement mechanisms, management oversight and monitoring systems in order to prevent, detect and address potential threats. However, we may find it necessary to make further investments to protect our data and infrastructure, as well as our customers data, against cyber-attacks.

The increased volume of employees working remotely and using online video conferencing and collaborative platforms due to COVID-19 social distancing measures could result in increased cybersecurity threats. In order to manage these threats, we have increased our monitoring of these threats, we have accelerated certain initiatives and we have been working with third parties to focus on our 24/7 monitoring of our activities.

The amount of cyber insurance coverage that we maintain may not be adequate nor sufficient to cover the claims or liabilities resulting from cyber-attacks. Given the highly evolving nature of cyber or other security threats or disruptions and their increased frequency, the impact of any future incident cannot be easily predicted or mitigated, and the costs related to such threats or disruptions may not be fully insured or indemnified by other means. In addition, the digital transformation and the adoption of emerging technologies, such as artificial intelligence and machine learning, call for continued focus and investment to manage our risks effectively.

Furthermore, we may experience similar security threats at customer sites that we operate or manage or to which we gain access to deliver services. We must rely on our own safeguards as well as the safeguards put in place by our partners to mitigate the threats. Our partners have varying levels of cybersecurity expertise and safeguards, and their relationships with government contractors, such as CAE, may increase the likelihood that they are targeted by the same cyber threats we face.

We may, from time to time, replace or update our information technology networks and systems. The implementation of, and transition to, new networks and systems can temporarily disrupt our business activities and result in productivity disruptions.

Reliance on third-party providers for information technology systems and infrastructure management

We have outsourced certain information technology systems maintenance and support services and infrastructure management functions, to third-party service providers. If these service providers are disrupted or do not perform effectively, it may have a material adverse impact on our operations and/or we may not be able to achieve the expected cost savings and may have to incur additional costs to correct errors made by such service providers. Depending on the function involved, such errors may also lead to business disruption, processing inefficiencies and/or security vulnerability, and can have a negative impact on our reputation. To cope with these risks we have implemented a third party vendor cybersecurity risk process in order to ensure that our suppliers have the appropriate level of controls over the process of CAE information assets outsourced to them.

Data privacy

The management, use and protection of data, including sensitive data, are becoming increasingly important, particularly given the high value attributed to data and the potential exposure to operational risks, reputational risks, and regulatory compliance risks and the coming into force of the General Data Protection Regulation by the European Union in May 2018, and the expected proliferation of similar regulatory frameworks in other regions, such as the enactment of the California Consumer Privacy Act in January 2020. Further, as our collaboration with third parties continues to grow and as we adopt new technologies and business models, our potential exposure to regulatory compliance, operational and reputational risk increases.

If we fail to comply with applicable privacy laws, we could be subject to regulatory penalties, experience damage to our reputation or a loss of confidence in our products and services. We may also incur additional costs for remediation and modification or enhancement of our information systems to prevent future occurrences, all of which could adversely affect our business, operations or financial results.

Furthermore, the adoption of emerging technologies, such as cloud computing, artificial intelligence, process automatization and robotics could lead to both new and complex risks that require continued focus and investment to manage effectively. We identify, assess and manage the operational risk associated with the implementation of new technologies prior to their adoption.

10.4 Risks relating to the market

Foreign exchange

Our operations are global with more than 90% of our revenue generated from worldwide exports and international activities generally denominated in foreign currencies, mainly the U.S. dollar, the Euro and the British pound. Our revenue is generated approximately one-third in each of the U.S, Europe and the rest of the world.

Three areas of our business are exposed to fluctuations of foreign exchange rates; our network of foreign training and services operations, our production operations outside of Canada (Germany, and U.S.) and our production operations in Canada. A significant portion of the revenue generated in Canada is in foreign currencies, while a large portion of our operating costs is in Canadian dollars. When the Canadian dollar increases in value, it negatively affects our foreign currency-denominated revenue and hence our financial results. We generally hedge the milestone payments of sales contracts denominated in foreign currencies to mitigate some of the foreign exchange exposure. We continue to hold a portfolio of currency hedging positions intended to mitigate the risk to a portion of future revenues presented by the volatility of the Canadian dollar versus foreign currencies. The hedges are intended to cover a portion of the revenue to allow the unhedged portion to match the foreign cost component of the contract. Since not all of our revenue is hedged, it is not possible to completely offset the effects of changing foreign currency values, which leaves some residual exposure that may impact our financial results. This residual exposure may be higher when currencies experience significant short-term volatility. When the Canadian dollar decreases in value, it negatively affects our foreign currency-denominated costs.

Business conducted through our foreign operations are substantially based in local currencies. A natural hedge exists by virtue of revenues and operating expenses being in like currencies. However, changes in the value of foreign currencies relative to the Canadian dollar creates unhedged currency translation exposure since results are consolidated in Canadian dollars for financial reporting purposes. Appreciation of foreign currencies against the Canadian dollar would have a positive translation impact and a devaluation of foreign currencies against the Canadian dollar would have the opposite effect.

Availability of capital

We depend, in part, upon our debt funding. We have various debt facilities with maturities ranging between April 2020 and July 2043, and we cannot provide assurance that these facilities will be refinanced at the same cost, for the same duration and on similar terms as were previously available. If we require additional debt funding, our market liquidity may not be sufficient considering multiple factors including a decline in our financial performance, outlook or our credit ratings, which may adversely affect our ability to fund our operations and contractual or financing commitments.

Our credit facilities have certain financial covenants that require us to maintain a minimum leverage ratio. In the event that we are unable to maintain compliance with such covenants, we may have restricted access to capital and we would be required to obtain an amendment or waiver from our lenders, refinance the indebtedness subject to covenants or take other mitigating actions prior to a potential breach.

Credit risk

We are also exposed to credit risk on accounts receivable from our customers. We have adopted policies to ensure we are not significantly exposed to any individual customer. Our policies include analyzing the financial position of certain customers and regularly reviewing their credit quality. We also subscribe from time to time to credit insurance and, in some instances, require a bank letter of credit to secure our customers' payments to us.

Pension plans

Economic and capital market fluctuations can negatively affect the investment performance, funding and expense associated with our defined benefit pension plans. Pension funding for these plans is based on actuarial estimates and is subject to limitations under applicable regulations. Actuarial estimates prepared during the year were based on, amongst others, assumptions regarding the performance of financial markets, discount rates, inflation rates, future salary increases, estimated retirement ages and mortality rates. The actuarial funding valuation reports determine the amount of cash contributions that we are required to make into registered retirement plans. There can be no assurance that our pension expense and the funding of these plans will not increase in the future, negatively impacting our earnings, cash flow and shareholders' equity. We seek to mitigate this risk by implementing policies and procedures designed to control investment risk and through ongoing monitoring of our funding position.

During the last quarter of fiscal 2020, the markets experienced a high level of fluctuations due to the impacts of COVID-19. The decrease in value of our plan assets was however offset by an increase in the pension discount rates. Depending how the markets fluctuate, additional cash contributions may be required to fund our defined benefit and defined contribution pension plans. This may have a negative effect on our operations and financial results.

Doing business in foreign countries
We have operations in over 35 countries including our joint venture operations. We also sell and deliver products and services to customers around the world. Sales to customers outside Canada made up more than 90% of revenue in fiscal 2020. We expect sales outside Canada to continue to represent a significant portion of revenue in the foreseeable future. As a result, we are subject to the risks of doing business internationally, including geopolitical instability.

These are the main risks we are facing attributable to international operations:
– Change in Canadian and foreign government policies, laws, regulations and regulatory requirements, or the interpretation, application, and/or enforcement thereof;
– Adoption of new, and the expansion of existing tariffs, embargoes, controls, sanctions trade, work or travel restrictions and other restrictions;
– Recessions and other economic crises in other regions, or specific foreign economies and the impact on our cost of doing business in those countries;
– Acts of war, civil unrest, force majeure and terrorism;
– Social, economic and geopolitical instability;
– Risk that inter-governmental relationships may deteriorate such that CAE's operations in a given country may be negatively impacted;
– Limitations on the CAE's ability to repatriate cash, funds or capital invested or held in jurisdictions outside Canada;
– Difficulties, delays and expense that may be experienced or incurred in connection with the movement and clearance of personnel and goods through the customs and immigration authorities of multiple jurisdictions;
– Complexity and corruption risks of using foreign representatives and consultants.

Also, changes to the regulatory environment in countries in which we do business may lead to higher custom tariffs, stricter trade policies, changes in the sanctions regime, export restrictions and other restrictions, that may have a negative impact on our sales, financial results and business model.

Geopolitical uncertainty
Global uncertainty continued to intensify throughout fiscal 2020 and, in some parts of the world, political instability has become more pronounced, protracted and unpredictable.

Rising or persisting geopolitical tensions, policy changes and prolonged political instability in various countries where we have a presence could lead to delays or cancellation of orders, deliveries or projects, or the expropriation of assets, in which we have invested significant resources, particularly when the customers are state-owned or state-controlled entities. It is possible that in the markets we serve, unanticipated political instability could impact our operating results and financial position.

The social, political and economic impacts of the changing political landscape in Europe pertaining to the exit of the United Kingdom from the European Union (EU) as of January 31, 2020 may lead to increased complexity in terms of regulations and increased geopolitical and economic risks and could cause disruptions to and create uncertainty surrounding our businesses, including affecting our relationships with existing and future customers, suppliers and employees. The withdrawal transition period will last until December 31, 2020 during which time the U.K. will remain part of the EU's customs union and single market and will work towards negotiating a trade deal with the EU before the transition period ends. Uncertainties pertaining to the political direction of the U.S. and the current Chinese-American trade tension may continue to impact global economic growth prospects and market sentiment.

Anti-corruption laws
Sales to foreign customers are subject to Canadian and foreign laws and regulations, including, without limitation, the *Corruption of Foreign Public Officials Act* (Canada), the *Foreign Corrupt Practices Act* (United States) and other anti-corruption laws. While we have stringent policies in place to comply with such laws, failure by CAE, our employees, foreign representatives and consultants or others working on our behalf to comply with it could result in administrative, civil, or criminal liabilities, including suspension, debarment from bidding for or performing government contracts, which could have a material adverse effect on us. We frequently team with international subcontractors and suppliers who are also exposed to similar risks.

Taxation matters
We collect and pay significant amounts of taxes to various tax authorities. As our operations are complex and the related tax interpretations, regulations, legislation and jurisprudence that pertain to our activities are subject to continual change and evolving interpretation, the final outcome of the taxation of many transactions is uncertain. Also, a substantial portion of our business is conducted in foreign countries and is thereby subject to numerous countries' tax laws and fiscal policies. A change in applicable tax laws, treaties or regulations or their interpretation could result in a higher effective tax rate on our earnings which could significantly impact our financial results. Additionally, many governments have introduced temporary tax relief measures as a result of the COVID-19 pandemic and there is a risk that we will not qualify for them all.

11. RELATED PARTY TRANSACTIONS

A list of principal investments which, in aggregate, significantly impact our results or assets is presented in Note 31 of our consolidated financial statements.

Outstanding balances with our equity accounted investees are as follows:

(amounts in millions)		**2020**		2019
Accounts receivable	**$**	**51.2**	$	33.9
Contract assets		**38.5**		13.4
Other non-current assets		**25.6**		18.7
Accounts payable and accrued liabilities		**5.7**		2.2
Contract liabilities		**28.8**		30.7
Other non-current liabilities		**1.7**		1.6

Transactions with our equity accounted investees are as follows:

(amounts in millions)		**2020**		2019
Revenue	**$**	**166.0**	$	65.5
Purchases		**2.5**		2.4
Other income		**1.5**		1.4

Compensation of key management personnel

Key management personnel have the ability and responsibility to make major operational, financial and strategic decisions for CAE and include certain executive officers. The compensation of key management for employee services are as follows:

(amounts in millions)		**2020**		2019
Salaries and other short-term employee benefits	**$**	**6.5**	$	6.4
Post-employment benefits – defined benefit plans		**2.5**		1.9
Share-based payments expense		**(8.8)**		18.9
	$	**0.2**	$	27.2

12. CHANGES IN ACCOUNTING POLICIES

12.1 New and amended standards adopted

IFRS 16 - *Leases*
In January 2016, the IASB released IFRS 16 - *Leases*, which replaced IAS 17 - *Leases* and related interpretations. The new standard introduces a single lessee accounting model and eliminates the classification of leases as either operating or finance leases. It requires the lessee to recognize a right-of-use asset and a lease liability for substantially all leases. Lessors continue to classify leases as operating leases or finance leases as IFRS 16 substantially carries forward the current lessor accounting requirements.

We adopted IFRS 16 effective April 1, 2019. We elected to use the modified retrospective approach. Under this approach, the comparative information was not restated and the cumulative effect of initially applying IFRS 16 was recognized in equity at the date of initial application, on April 1, 2019.

We have elected to apply the following transitional practical expedients:
- Maintain previous assessment of whether a contract is, or contains, a lease at the date of initial application;
- Use of hindsight when evaluating the lease term if a contract contains options to extend or terminate the lease;
- Recognize short-term leases and leases of low-value assets as a lease expense on a straight-line basis, consistent with current IAS 17 accounting;
- Account for leases for which the remaining lease term ends within 12 months of the effective date as short-term leases;
- Adjust the right-of-use asset by the amount of the previously assessed IAS 37 onerous contract provision as an alternative to an impairment review;
- Exclude initial direct costs from the measurement of the right-of-use asset at the date of initial application;
- Measure the right-of-use asset as if IFRS 16 had been applied since the lease commencement date using the incremental borrowing rate at the date of initial application.

Where we are a lessee, IFRS 16 resulted in on-balance sheet recognition of most of its leases that were previously considered operating leases under IAS 17 unless they met the short-term or low-value exemption.

For the consolidated statement of financial position, this resulted in the recognition of new right-of-use assets of $226.8 million and new lease liabilities of $265.8 million, presented as part of the long-term debt, discounted using the incremental borrowing rate as at April 1, 2019 (weighted average rate applied was 5.4%). In addition, we had existing finance lease assets of $206.0 million under IAS 17 that were reclassified to right-of-use assets.

For the consolidated income statement, depreciation expense on the right-of-use assets and interest expense on the lease liabilities are incurred, replacing the operating lease expense previously recognized under IAS 17 accounting.

For the consolidated statement of cash flows, the principal repayments of the lease liabilities are presented in financing activities, whereas previously operating lease payments under IAS 17 accounting were presented in operating activities.

The cumulative effect of the impacts of adopting IFRS 16 on the consolidated statement of financial position as at April 1, 2019 are presented in the table below:

(amounts in millions)	March 31 2019	IFRS 16 Adjustments	**April 1 2019**
Assets			
Total current assets	$ 2,112.9	$ (3.3)	**$ 2,109.6**
Property, plant and equipment	2,149.3	(206.0)	**1,943.3**
Right-of-use assets	—	432.8	**432.8**
Investment in equity accounted investees	312.1	(3.7)	**308.4**
Other non-current assets	2,591.2	0.3	**2,591.5**
Total assets	$ 7,165.5	$ 220.1	**$ 7,385.6**
Liabilities and equity			
Current portion of long-term debt	$ 264.1	$ 31.8	**$ 295.9**
Other current liabilities	1,625.4	(4.3)	**1,621.1**
Total current liabilities	$ 1,889.5	$ 27.5	**$ 1,917.0**
Long-term debt	2,064.2	234.0	**2,298.2**
Other non-current liabilities	801.8	(13.9)	**787.9**
Total liabilities	$ 4,755.5	$ 247.6	**$ 5,003.1**
Total equity	$ 2,410.0	$ (27.5)	**$ 2,382.5**
Total liabilities and equity	$ 7,165.5	$ 220.1	**$ 7,385.6**

The difference between the amount of new lease liabilities recognized as at April 1, 2019 and our future aggregate minimum lease payments under non-cancellable operating leases as at March 31, 2019, which amounted to $274.1 million, is mainly due to the discounting factors applied to the lease payments, the inclusion of optional renewal period reasonably certain to be exercised, and the exclusion of leases payments for short-term lease and low-value lease.

IFRIC 23 - *Uncertainty over income tax treatments*

In June 2017, the IASB released IFRIC 23 - *Uncertainty over Income Tax Treatments*, which addresses how to determine the taxable profit (loss), tax bases, unused tax losses, unused tax credits and tax rates, when there is uncertainty over income tax treatments under IAS 12 - *Income Taxes*. It specifically considers whether tax treatments should be considered independently or collectively and assumptions for taxation authorities' examinations in regards to taxable profit (loss), tax bases, unused tax losses, unused tax credits or tax rates.

IFRIC 23 was adopted effective April 1, 2019 and resulted in no significant adjustment.

Amendment to IAS 19 - *Employee benefits*

In February 2018, the IASB released an amendment to IAS 19 - *Employee Benefits*, which clarifies how to account for plan amendments, curtailments and settlements on defined benefits plans. The amendment requires the use of updated actuarial assumptions to determine current service cost and net interest for the period after a plan amendment, curtailment or settlement.

This amendment to IAS 19 was adopted April 1, 2019 and will apply to any plan amendments, curtailments or settlements occurring subsequent to April 1, 2019.

12.2 Use of judgements, estimates and assumptions

The preparation of the consolidated financial statements requires management to make judgements, estimates and assumptions that affect the application of accounting policies, the reported amounts of assets and liabilities and disclosures at the date of the consolidated financial statements, as well as the reported amounts of revenues and expenses for the period reported. It also requires management to exercise its judgement in applying accounting policies. The areas involving a high degree of judgement or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements are disclosed below. Actual results could differ from those estimates. Changes will be reported in the period in which they are identified.

Business combinations

Business combinations are accounted for in accordance with the acquisition method. The consideration transferred and the acquiree's identifiable assets, liabilities and contingent liabilities are measured at their fair value. Depending on the complexity of determining these valuations, we either consult with independent experts or develop the fair value internally by using appropriate valuation techniques which are generally based on a forecast of the total expected future net discounted cash flows. These evaluations are linked closely to the assumptions made by management regarding the future performance of the related assets and the discount rate. Contingent consideration is measured at fair value using a discounted cash flow model.

Development costs

Development costs are recognized as intangible assets and are amortized over their useful lives when they meet the criteria for capitalization. Forecasted revenue and profitability for the relevant projects are used to assess compliance with the capitalization criteria and to assess the recoverable amount of the assets.

Impairment of non-financial assets

Our impairment test for goodwill is based on internal estimates of the recoverable amount of the cash generating unit (CGU) or group of CGUs to which goodwill has been allocated and uses valuation models such as the discounted cash flows model (level 3). Key assumptions on which management based its determination of the recoverable amount include expected growth rates and discount rates. These estimates, including the methodology used, can have a material impact on the respective values and ultimately the amount of any goodwill impairment.

Likewise, whenever property, plant and equipment and intangible assets are tested for impairment, the determination of the assets' recoverable amount involves the use of estimates by management and can have a material impact on the respective values and ultimately the amount of any impairment.

See Note 26 of our consolidated financial statements for further details regarding assumptions used.

Revenue recognition

Transaction price allocated to performance obligations

In allocating the transaction price for contracts with multiple performance obligations, we estimate the stand-alone selling price using the expected cost plus a margin approach if they are not directly observable.

Timing of satisfaction of performance obligations

For contracts where revenue is recognized over time using the cost input method, we are required to estimate the work performed to date as a proportion of the total work to be performed. Management conducts monthly reviews of its estimated costs to complete as well as its revenue and margins recognized, on a contract-by-contract basis. The impact of any revisions in cost and revenue estimates is reflected in the period in which the need for a revision becomes known.

Defined benefit pension plans

The cost of defined benefit pension plans and the present value of the employee benefit obligations are determined using actuarial valuations. Actuarial valuations involve, amongst others, making assumptions about discount rates, future salary increases and mortality rates. All assumptions are reviewed at each reporting date. Any changes in these assumptions will impact the carrying amount of the employee benefit obligations and the cost of the defined benefit pension plans. In determining the appropriate discount rate, management considers the interest rates of high quality corporate bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating the terms of the related pension liability. The mortality rate is based on publicly available mortality tables for the specific country. Future salary increases and pension increases are based on expected future inflation rates for the specific country. Individual discount rates are derived from the yield curve and are used to determine the service cost and interest cost of the Canadian defined benefit pension plans at the beginning of the year. The present value of the employee benefit obligations for these Canadian plans is determined based on the individual discount rates derived from the yield curve at the end of the year.

Other key assumptions for pension obligations are based, in part, on current market conditions. See Note 19 of our consolidated financial statements for further details regarding assumptions used.

Government royalty repayments

In determining the amount of repayable government royalties, assumptions and estimates are made in relation to discount rates, expected revenues and the expected timing of revenues. Revenue projections consider past experience and represent management's best estimate about the future. Revenues after a five-year period are extrapolated using estimated growth rates, ranging from 8.0% to 15.0%, over the period of repayments. The estimated repayments are discounted using average rates ranging from 6.0% to 9.5% based on terms of similar financial instruments. These estimates, along with the methodology used to derive the estimates, can have a material impact on the respective values and ultimately any repayable obligation in relation to government participation. A 1% increase to the growth rates would increase the royalty obligations at March 31, 2020 by approximately $2.8 million (2019 - $3.5 million). A 1% decrease to the growth rates would have an opposite impact on the royalty obligations.

Income taxes

We are subject to income tax laws in numerous jurisdictions. Judgement is required in determining the worldwide provision for income taxes. The determination of tax liabilities and assets involves uncertainties in the interpretation of complex tax regulations. We provide for potential tax liabilities based on the weighted average probability of the possible outcomes. Differences between actual results and those estimates could influence the income tax liabilities and deferred tax liabilities in the period in which such determinations are made.

Deferred tax assets are recognized to the extent that it is probable that taxable profit will be available against the losses that can be utilized. Significant management judgement is required to determine the amount of deferred tax assets that can be recognized, based upon the likely timing and the level of future taxable profits together with future tax planning strategies. The recorded amount of total deferred tax assets could be altered if estimates of projected future taxable income and benefits from available tax strategies are lowered, or if changes in current tax regulations are enacted that impose restrictions on the timing or extent of our ability to utilize future tax benefits.

Impact of the COVID-19 pandemic

The COVID-19 pandemic and the resulting measures taken in response to its spread have resulted in significant temporary disruptions to our business operations. The rapidly evolving situation has created a high level of uncertainty and risk that may result in significant impacts on our business, financial performance and operations.

The uncertainties created by the COVID-19 pandemic required the use of judgements and estimates in the areas set out below. The future impact of the COVID-19 pandemic increases the risk, in future reporting periods, of material adjustments to the carrying amount of our net assets.

Goodwill impairment test

We performed our annual impairment test for goodwill during the fourth quarter of fiscal 2020. Goodwill is allocated to CGUs or a group of CGUs, which generally corresponds to our operating segments or one level below. The value in use of each CGU is calculated using estimated cash flows derived from our five-year strategic plan. Cash flows subsequent to the five-year period were extrapolated using a constant growth rate of 2% to 3%. These projections are inherently uncertain due to the fluidly evolving impact of the COVID-19 pandemic. Significant assumptions and estimates are used to determine the expected growth rates embedded in our cash flow projections and the discount rate based on observable market data during the fourth quarter.

Based on the results of our impairment test, we recorded an impairment charge of goodwill of $37.5 million in relation to the Healthcare CGU. See Note 26 of our consolidated financial statements for further details regarding assumptions used.

Impairment of non-financial assets
We have considered the impact of the COVID-19 pandemic on our assessment of impairment indicators, which required significant judgement. We have reviewed our property, plant and equipment, right-of-use assets, amortizable intangible assets, investment in equity accounted investees as well as other assets such as inventories and deferred tax assets. Where impairment indicators were identified in the Civil Aviation Training Solutions segment, no significant impairment charge has been recorded. No impairment indicators were identified in the Defence and Security and Healthcare segments.

Expected credit loss
We have considered the impact of the COVID-19 pandemic on the expected credit loss of our financial instruments (mainly trade receivable and contract assets). The amount and timing of the expected credit losses, as well as the probability assigned thereto, has been based on the available information as at March 31, 2020. As a result of this review, no significant credit loss allowances adjustments have been recorded.

13. CONTROLS AND PROCEDURES

The internal auditor reports regularly to management on any weaknesses it finds in our internal controls and these reports are reviewed by the Audit Committee.

In accordance with National Instrument 52-109 issued by the Canadian Securities Administrators, certificates signed by the President and Chief Executive Officer (CEO) and the Chief Financial Officer (CFO) have been filed. These filings certify the appropriateness of our disclosure controls and procedures and the design and effectiveness of the internal controls over financial reporting.

13.1 Evaluation of disclosure controls and procedures

Our disclosure controls and procedures are designed to provide reasonable assurance that information is accumulated and communicated to our President and CEO and CFO and other members of management, so we can make timely decisions about required disclosure and ensure that information is recorded, processed, summarized and reported within the time periods specified under Canadian and U.S. securities laws.

Under the supervision of the President and CEO and the CFO, management evaluated the effectiveness of our disclosure controls and procedures as of March 31, 2020. The President and CEO and the CFO concluded from the evaluation that the design and operation of our disclosure controls and procedures were effective as at March 31, 2020.

13.2 Internal control over financial reporting

Management is responsible for establishing and maintaining adequate internal controls over financial reporting. Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting, and the preparation of consolidated financial statements for external purposes in accordance with IFRS. Management evaluated the design and operation of our internal controls over financial reporting as of March 31, 2020, based on the framework and criteria established by the Committee of Sponsoring Organizations of the Treadway Commission on Internal Control – Integrated Framework (2013 Framework), and has concluded that our internal control over financial reporting is effective. Management did not identify any material weaknesses.

There were no changes in our internal controls over financial reporting that occurred during fiscal year 2020 that have materially affected, or are reasonably likely to materially affect, our internal controls over financial reporting.

14. OVERSIGHT ROLE OF AUDIT COMMITTEE AND BOARD OF DIRECTORS

The Audit Committee reviews our annual MD&A and related consolidated financial statements with management and the external auditor and recommends them to the Board for their approval. Management and our internal auditor also provide the Audit Committee with regular reports assessing our internal controls and procedures for financial reporting. The external auditor reports regularly to management on any weaknesses it finds in our internal control, and these reports are reviewed by the Audit Committee.

15. ADDITIONAL INFORMATION

You will find additional information about CAE, including our most recent AIF, on our website at www.cae.com, or on SEDAR at www.sedar.com or on EDGAR at www.sec.gov.

16. SELECTED FINANCIAL INFORMATION

The following table provides selected quarterly financial information for the years 2018 through to 2020.

(amounts in millions, except per share amounts and exchange rates)		Q1	Q2	Q3	Q4	Total
Fiscal 2020						
Revenue	**$**	**825.6**	**896.8**	**923.5**	**977.3**	**3,623.2**
Net income	**$**	**63.0**	**75.0**	**99.8**	**81.1**	**318.9**
Equity holders of the Company	**$**	**61.5**	**73.8**	**97.7**	**78.4**	**311.4**
Non-controlling interests	**$**	**1.5**	**1.2**	**2.1**	**2.7**	**7.5**
Basic EPS attributable to equity holders of the Company	**$**	**0.23**	**0.28**	**0.37**	**0.29**	**1.17**
Diluted EPS attributable to equity holders of the Company	**$**	**0.23**	**0.28**	**0.37**	**0.29**	**1.16**
Earnings per share before specific items	**$**	**0.24**	**0.28**	**0.37**	**0.46**	**1.34**
Average number of shares outstanding (basic)		**265.8**	**266.2**	**265.8**	**266.1**	**266.0**
Average number of shares outstanding (diluted)		**267.6**	**268.2**	**267.6**	**267.7**	**267.6**
Average exchange rate, U.S. dollar to Canadian dollar		**1.34**	**1.32**	**1.32**	**1.34**	**1.33**
Average exchange rate, Euro to Canadian dollar		**1.50**	**1.47**	**1.46**	**1.48**	**1.48**
Average exchange rate, British pound to Canadian dollar		**1.72**	**1.63**	**1.70**	**1.72**	**1.69**
Fiscal 2019[(1)]						
Revenue	$	722.0	743.8	816.3	1,022.0	3,304.1
Net income	$	71.6	63.6	79.5	125.4	340.1
Equity holders of the Company	$	69.4	60.7	77.6	122.3	330.0
Non-controlling interests	$	2.2	2.9	1.9	3.1	10.1
Basic EPS attributable to equity holders of the Company	$	0.26	0.23	0.29	0.46	1.24
Diluted EPS attributable to equity holders of the Company	$	0.26	0.23	0.29	0.46	1.23
Earnings per share before specific items	$	0.26	0.23	0.29	0.48	1.25
Average number of shares outstanding (basic)		267.6	267.4	266.1	265.1	266.6
Average number of shares outstanding (diluted)		269.3	269.2	267.5	266.8	268.0
Average exchange rate, U.S. dollar to Canadian dollar		1.29	1.31	1.32	1.33	1.31
Average exchange rate, Euro to Canadian dollar		1.54	1.52	1.51	1.51	1.52
Average exchange rate, British pound to Canadian dollar		1.76	1.71	1.70	1.73	1.72
Fiscal 2018[(1)]						
Revenue	$	656.2	618.2	828.2	720.9	2,823.5
Net income	$	61.2	62.1	145.8	85.6	354.7
Equity holders of the Company	$	59.6	60.3	143.8	82.3	346.0
Non-controlling interests	$	1.6	1.8	2.0	3.3	8.7
Basic EPS attributable to equity holders of the Company	$	0.22	0.22	0.54	0.31	1.29
Diluted EPS attributable to equity holders of the Company	$	0.22	0.22	0.53	0.31	1.28
Earnings per share before specific items	$	0.22	0.20	0.38	0.31	1.11
Average number of shares outstanding (basic)		268.6	268.7	268.1	267.6	268.2
Average number of shares outstanding (diluted)		269.8	269.9	269.5	269.0	269.5
Average exchange rate, U.S. dollar to Canadian dollar		1.35	1.26	1.27	1.26	1.28
Average exchange rate, Euro to Canadian dollar		1.48	1.47	1.49	1.55	1.50
Average exchange rate, British pound to Canadian dollar		1.72	1.64	1.68	1.75	1.70

[(1)] Figures have not been restated to reflect the adoption of IFRS 16. Refer to *Changes in accounting policies* for further details.

Selected segment information

(amounts in millions, except operating margins)	**Q4-2020**	Q4-2019	**FY2020**	FY2019[1]	FY2018[1]
Civil Aviation Training Solutions					
Revenue	**$ 601.9**	$ 593.4	**$ 2,167.5**	$ 1,875.8	$ 1,625.3
Segment operating income	**151.5**	115.5	**473.3**	344.3	330.1
Operating margins (%)	***25.2***	*19.5*	***21.8***	*18.4*	*20.3*
Defence and Security					
Revenue	**$ 341.8**	$ 387.9	**$ 1,331.2**	$ 1,306.7	$ 1,083.0
Segment operating income	**32.4**	50.7	**104.8**	131.5	123.9
Operating margins (%)	***9.5***	*13.1*	***7.9***	*10.1*	*11.4*
Healthcare					
Revenue	**$ 33.6**	$ 40.7	**$ 124.5**	$ 121.6	$ 115.2
Segment operating (loss) income	**(37.4)**	4.2	**(41.0)**	4.8	8.8
Operating margins (%)	**—**	*10.3*	**—**	*3.9*	*7.6*
Total					
Revenue	**$ 977.3**	$ 1,022.0	**$ 3,623.2**	$ 3,304.1	$ 2,823.5
Segment operating income	**146.5**	170.4	**537.1**	480.6	462.8
Operating margins (%)	***15.0***	*16.7*	***14.8***	*14.5*	*16.4*

Selected annual information for the past five years

(amounts in millions, except per share amounts and exchange rates)	**2020**	2019[1]	2018[1]	2017[1]	2016[1]
Revenue	**$ 3,623.2**	$ 3,304.1	$ 2,823.5	$ 2,704.5	$ 2,512.6
Net income	**318.9**	340.1	354.7	256.6	230.3
Equity holders of the Company					
Continuing operations	**311.4**	330.0	346.0	252.0	239.3
Discontinued operations	**—**	—	—	(0.5)	(9.6)
Non-controlling interests	**7.5**	10.1	8.7	5.1	0.6
Average exchange rate, U.S. dollar to Canadian dollar	**1.33**	1.31	1.28	1.31	1.31
Average exchange rate, Euro to Canadian dollar	**1.48**	1.52	1.50	1.44	1.45
Average exchange rate, British pound to Canadian dollar	**1.69**	1.72	1.70	1.71	1.98
Financial position:					
Total assets	**$ 8,483.6**	$ 7,165.5	$ 5,780.2	$ 5,354.8	$ 4,996.7
Total non-current financial liabilities[2]	**3,301.9**	2,242.8	1,380.6	1,370.8	1,318.6
Total net debt	**2,365.7**	1,882.2	649.4	750.7	787.3
Per share:					
Basic EPS attributable to equity holders of the Company					
Continuing operations	**$ 1.17**	$ 1.24	$ 1.29	$ 0.94	$ 0.89
Discontinued operations	**—**	—	—	—	(0.04)
Diluted EPS attributable to equity holders of the Company					
Continuing operations	**1.16**	1.23	1.28	0.93	0.89
Discontinued operations	**—**	—	—	—	(0.04)
Earnings per share before specific items	**1.34**	1.25	1.11	1.03	0.86
Dividends declared	**0.43**	0.39	0.35	0.315	0.295

(1) Figures have not been restated to reflect the adoption of IFRS 16. Refer to *Changes in accounting policies* for further details. Figures in fiscal 2017 and 2016 have not been restated to reflect the adoption of IFRS 15 which was effective fiscal 2019.
(2) Includes long-term debt, long-term derivative liabilities and other long-term liabilities meeting the definition of a financial liability.

CAE INC.

CONSOLIDATED FINANCIAL STATEMENTS

Management's Report on Internal Control Over Financial Reporting

Management of CAE is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Rule 13a-15(f), 15d-15(f) under the Securities Exchange Act of 1934). CAE's internal control over financial reporting is a process designed under the supervision of CAE's President and Chief Executive Officer and Chief Financial Officer to provide reasonable assurance regarding the reliability of financial reporting and the preparation of the Company's consolidated financial statements for external reporting purposes in accordance with IFRS, as issued by the International Accounting Standards Board (IASB).

As of March 31, 2020, management conducted an assessment of the effectiveness of the Company's internal control over the financial reporting based on the framework and criteria established by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) on Internal Control – Integrated Framework (2013 Framework). Based on this assessment, management concluded that the Company's internal control over financial reporting as of March 31, 2020 was effective.

M. Parent	S. Branco
President and Chief Executive Officer	Vice-president, Finance and Chief Financial Officer

Montreal (Canada)
May 22, 2020

Report of Independent Registered Public Accounting Firm

To the Board of

Directors and Shareholders of CAE Inc.

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated statement of financial position of CAE Inc. and its subsidiaries (together, the Company) as of March 31, 2020 and 2019, and the related consolidated statements of income, comprehensive income, changes in equity and cash flows for the years then ended, including the related notes (collectively referred to as the consolidated financial statements). We also have audited the Company's internal control over financial reporting as of March 31, 2020, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of March 31, 2020 and 2019, and its financial performance and its cash flows for the years then ended in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of March 31, 2020, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the COSO.

Change in Accounting Principle

As discussed in Note 2 to the consolidated financial statements, the Company changed the manner in which it accounts for leases on April 1, 2019.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control Over Financial Reporting. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that (i) relate to accounts or disclosures that are material to the consolidated financial statements and (ii) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Goodwill impairment assessment - Healthcare cash-generating unit

As described in Notes 1, 13 and 26 to the consolidated financial statements, the goodwill allocated to the Healthcare cash-generating unit (CGU) was $117.3 million as of March 31, 2020, net of an impairment charge of $37.5 million for the year ended March 31, 2020. Management tests goodwill for impairment annually or at any time if an indicator of impairment exists. Where the recoverable amount of a CGU to which goodwill has been allocated is lower than the CGU's carrying amount, the related goodwill is impaired. The Company's impairment test for goodwill is based on internal estimates of value in use calculations using a discounted cash flow model. Management applied judgment in developing the cash flow projections for the Healthcare CGU, which included the use of significant assumptions relating to expected growth rates and the discount rate.

The principal considerations for our determination that performing procedures relating to the goodwill impairment assessment of the Healthcare CGU is a critical audit matter are there was judgment applied by management in developing the cash flow projections for the Healthcare CGU. This in turn led to a high degree of auditor judgment, subjectivity and effort in performing procedures and evaluating audit evidence related to management's cash flow projections and significant assumptions, including expected growth rates and the discount rate. In addition, the audit effort involved the use of professionals with specialized skill and knowledge.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to management's goodwill impairment assessment. These procedures also included, among others, testing management's process for developing the cash flow projections for the Healthcare CGU; evaluating the appropriateness of the discounted cash flows model; testing the completeness, accuracy and relevance of the underlying data used in the model; and evaluating the reasonableness of the significant assumptions used by management. Evaluating the reasonableness of the significant assumptions used by management related to expected growth rates involved considering the current and historical performance of the Healthcare CGU and the market's response to new products launched by the Company; the consistency with external market and healthcare industry data; and whether these assumptions were consistent with evidence obtained in other areas of the audit. Professionals with specialized skill and knowledge were used to assist in the evaluation of the Company's discounted cash flows model and the discount rate assumption.

Revenue recognition - Estimated costs to complete certain contracts in the Defence and Security and Civil Aviation Training Solutions segments

As described in Note 1 to the consolidated financial statements, the Company recognizes revenue from contracts with customers for the design, engineering, and manufacturing of training devices over time using the cost input method when the Company determines that these devices have a sufficient level of customization such that they have no alternative use and the Company has enforceable rights to payment for work completed to date. For the year ended March 31, 2020, a portion of total consolidated revenue of $3,623.2 million related to revenue recognized from contracts with customers over time using the cost input method in the Defence and Security and Civil Aviation Training Solutions segments.

The measure of progress toward complete satisfaction of the performance obligation is determined by comparing the actual direct contract costs incurred to date to the total estimated costs for the entire contract. Management applies judgment to estimate the work performed to date as a proportion of the total work to be performed.

The principal considerations for our determination that performing procedures relating to revenue recognition for estimated costs to complete certain contracts in the Defence and Security and Civil Aviation Training Solutions segments is a critical audit matter are there was judgment applied by management in determining the estimated costs to complete the contracts. This in turn led to a high degree of auditor judgment, subjectivity and effort in performing procedures and evaluating audit evidence related to the cost assumptions applied by management in determining the estimated costs to complete the contracts.

Addressing the matter involved performing procedures and evaluating audit evidence in connection with forming our overall opinion on the consolidated financial statements. These procedures included testing the effectiveness of controls relating to the revenue recognition process, including controls over the determination of estimated costs to complete the contracts. These procedures also included, among others, testing management's process for determining estimated costs to complete the contracts in the Defence and Security and Civil Aviation Training Solutions segments for a sample of contracts; testing the completeness, accuracy and relevance of the data used in the estimate of the work performed to date as a proportion of the total work to be performed; and evaluating the reasonableness of cost assumptions used by management. Evaluating the reasonableness of cost assumptions used by management involved assessing management's ability to reasonably estimate costs to complete contracts by comparing changes in estimated costs with prior period estimates; performing a look-back analysis to assess variances between actual and estimated costs for completed contracts; and performing procedures to evaluate the timely identification of circumstances which may warrant a modification to a previous cost estimate.

/s/PricewaterhouseCoopers LLP[1]

Montréal, Quebec
May 22, 2020

We have served as the Company's auditor since 1991.

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1 CPA auditor, CA, public accountancy permit No. A119714

Consolidated Income Statement

Years ended March 31 *(amounts in millions of Canadian dollars, except per share amounts)*	Notes		2020 [1]		2019
Revenue	4	**$**	**3,623.2**	$	3,304.1
Cost of sales			**2,539.6**		2,362.6
Gross profit		**$**	**1,083.6**	$	941.5
Research and development expenses			**137.5**		101.4
Selling, general and administrative expenses			**437.5**		415.2
Other gains – net	5		**(1.0)**		(22.3)
Share of after tax profit of equity accounted investees	4		**(27.5)**		(33.4)
Operating profit		**$**	**537.1**	$	480.6
Finance expense – net	6		**144.4**		80.9
Earnings before income taxes		**$**	**392.7**	$	399.7
Income tax expense	7		**73.8**		59.6
Net income		**$**	**318.9**	$	340.1
Attributable to:					
Equity holders of the Company		**$**	**311.4**	$	330.0
Non-controlling interests			**7.5**		10.1
Earnings per share attributable to equity holders of the Company					
Basic	8	**$**	**1.17**	$	1.24
Diluted	8	**$**	**1.16**	$	1.23

(1) Refer to Note 2 - Changes in accounting policies for the impact of adopting IFRS16.

The accompanying notes form an integral part of these Consolidated Financial Statements.

Consolidated Statement of Comprehensive Income

Years ended March 31 *(amounts in millions of Canadian dollars)*	Notes		**2020**		2019
Net income		**$**	**318.9**	$	340.1
Items that may be reclassified to net income					
Foreign currency exchange differences on translation of foreign operations		**$**	**118.3**	$	(12.6)
Reclassification to income of foreign currency exchange differences			**(40.4)**		(23.2)
Net loss on cash flow hedges			**(32.3)**		(6.9)
Reclassification to income of (loss) gain on cash flow hedges			**(0.2)**		2.1
Net loss on hedges of net investment in foreign operations			**(71.0)**		(20.0)
Income taxes	7		**23.0**		2.2
		$	**(2.6)**	$	(58.4)
Items that will never be reclassified to net income					
Remeasurement of defined benefit pension plan obligations	19	**$**	**13.4**	$	4.2
Income taxes	7		**(3.6)**		(1.1)
		$	**9.8**	$	3.1
Other comprehensive income (loss)		**$**	**7.2**	$	(55.3)
Total comprehensive income		**$**	**326.1**	$	284.8
Attributable to:					
Equity holders of the Company		**$**	**315.4**	$	271.8
Non-controlling interests			**10.7**		13.0

The accompanying notes form an integral part of these Consolidated Financial Statements.

Consolidated Statement of Financial Position

As at March 31 *(amounts in millions of Canadian dollars)*	Notes		**2020** [(1)]		2019
Assets					
Cash and cash equivalents		**$**	**946.5**	$	446.1
Accounts receivable	9		**566.1**		496.0
Contract assets	10		**569.3**		523.5
Inventories	11		**616.2**		537.0
Prepayments			**55.1**		57.4
Income taxes recoverable			**30.4**		33.6
Derivative financial assets	28		**25.0**		19.3
Total current assets		**$**	**2,808.6**	$	2,112.9
Property, plant and equipment	12		**2,154.0**		2,149.3
Right-of-use assets	14		**395.9**		—
Intangible assets	13		**2,056.5**		2,027.9
Investment in equity accounted investees	31		**460.6**		312.1
Deferred tax assets	7		**84.5**		71.0
Derivative financial assets	28		**13.1**		12.8
Other non-current assets	15		**510.4**		479.5
Total assets		**$**	**8,483.6**	$	7,165.5
Liabilities and equity					
Accounts payable and accrued liabilities	16	**$**	**934.4**	$	883.8
Provisions	17		**29.2**		28.7
Income taxes payable			**26.4**		25.7
Contract liabilities	10		**746.2**		670.2
Current portion of long-term debt	18		**206.2**		264.1
Derivative financial liabilities	28		**119.9**		17.0
Total current liabilities		**$**	**2,062.3**	$	1,889.5
Provisions	17		**28.6**		36.3
Long-term debt	18		**3,106.0**		2,064.2
Royalty obligations			**141.1**		136.2
Employee benefits obligations	19		**212.8**		212.6
Deferred tax liabilities	7		**150.6**		147.0
Derivative financial liabilities	28		**12.8**		2.7
Other non-current liabilities	20		**191.1**		267.0
Total liabilities		**$**	**5,905.3**	$	4,755.5
Equity					
Share capital	8	**$**	**679.5**	$	649.6
Contributed surplus			**26.9**		24.8
Accumulated other comprehensive income	22		**193.2**		199.0
Retained earnings			**1,590.1**		1,457.9
Equity attributable to equity holders of the Company		**$**	**2,489.7**	$	2,331.3
Non-controlling interests			**88.6**		78.7
Total equity		**$**	**2,578.3**	$	2,410.0
Total liabilities and equity		**$**	**8,483.6**	$	7,165.5

(1) Refer to Note 2 - Changes in accounting policies for the impact of adopting IFRS16.

The accompanying notes form an integral part of these Consolidated Financial Statements.

Consolidated Statement of Changes in Equity

(amounts in millions of Canadian dollars, except number of shares)	Notes	Common shares: Number of shares	Common shares: Stated value	Contributed surplus	Accumulated other comprehensive income (Note 22)	Retained earnings	Total	Non-controlling interests	Total equity
		Attributable to equity holders of the Company							
Balances as at March 31, 2018		267,738,530	$ 633.2	$ 21.3	$ 260.3	$ 1,314.3	$ 2,229.1	$ 68.4	$ 2,297.5
Net income		—	$ —	$ —	$ —	$ 330.0	$ 330.0	$ 10.1	$ 340.1
Other comprehensive (loss) income		—	—	—	(61.3)	3.1	(58.2)	2.9	(55.3)
Total comprehensive (loss) income		—	$ —	$ —	$ (61.3)	$ 333.1	$ 271.8	$ 13.0	$ 284.8
Exercise of stock options	23	1,231,600	21.1	(2.9)	—	—	18.2	—	18.2
Optional cash purchase of common shares		2,459	0.1	—	—	—	0.1	—	0.1
Repurchase and cancellation of common shares	8	(3,671,900)	(8.8)	—	—	(85.6)	(94.4)	—	(94.4)
Share-based payments expense	23	—	—	6.4	—	—	6.4	—	6.4
Transactions with non-controlling interests		—	—	—	—	—	—	(2.7)	(2.7)
Stock dividends	8	146,914	4.0	—	—	(4.0)	—	—	—
Cash dividends	8	—	—	—	—	(99.9)	(99.9)	—	(99.9)
Balances as at March 31, 2019		265,447,603	$ 649.6	$ 24.8	$ 199.0	$ 1,457.9	$ 2,331.3	$ 78.7	$ 2,410.0
Impact of adopting IFRS 16	2	—	—	—	—	(27.5)	(27.5)	—	(27.5)
Balances as at April 1, 2019		265,447,603	$ 649.6	$ 24.8	$ 199.0	$ 1,430.4	$ 2,303.8	$ 78.7	$ 2,382.5
Net income		—	$ —	$ —	$ —	$ 311.4	$ 311.4	$ 7.5	$ 318.9
Other comprehensive (loss) income		—	—	—	(5.8)	9.8	4.0	3.2	7.2
Total comprehensive (loss) income		—	$ —	$ —	$ (5.8)	$ 321.2	$ 315.4	$ 10.7	$ 326.1
Exercise of stock options	23	1,553,846	30.2	(3.7)	—	—	26.5	—	26.5
Optional cash purchase of common shares		2,433	0.1	—	—	—	0.1	—	0.1
Repurchase and cancellation of common shares	8	(1,493,331)	(3.8)	—	—	(45.8)	(49.6)	—	(49.6)
Share-based payments expense	23	—	—	5.8	—	—	5.8	—	5.8
Transactions with non-controlling interests		—	—	—	—	(1.4)	(1.4)	(0.8)	(2.2)
Stock dividends	8	109,076	3.4	—	—	(3.4)	—	—	—
Cash dividends	8	—	—	—	—	(110.9)	(110.9)	—	(110.9)
Balances as at March 31, 2020		**265,619,627**	**$ 679.5**	**$ 26.9**	**$ 193.2**	**$ 1,590.1**	**$ 2,489.7**	**$ 88.6**	**$ 2,578.3**

The accompanying notes form an integral part of these Consolidated Financial Statements.

Consolidated Statement of Cash Flows

Years ended March 31 *(amounts in millions of Canadian dollars)*	Notes		**2020** [1]		2019
Operating activities					
Net income		**$**	**318.9**	$	340.1
Adjustments for:					
Depreciation and amortization			**305.4**		217.2
Share of after tax profit of equity accounted investees			**(27.5)**		(33.4)
Deferred income taxes	7		**2.9**		(23.1)
Investment tax credits			**9.0**		8.2
Impairment of goodwill	26		**37.5**		—
Share-based payments expense	23		**14.5**		9.3
Defined benefit pension plans	19		**15.1**		14.8
Other non-current liabilities			**(39.2)**		(30.3)
Derivative financial assets and liabilities – net			**15.3**		(5.8)
Other			**(54.6)**		(1.8)
Changes in non-cash working capital	21		**(52.2)**		35.2
Net cash provided by operating activities		**$**	**545.1**	$	530.4
Investing activities					
Business combinations, net of cash acquired	3	**$**	**(10.1)**	$	(827.8)
Acquisition of investment in equity accounted investees	32		**(113.5)**		—
Addition of assets through the monetization of royalties	4		**—**		(202.7)
Additions to property, plant and equipment	12		**(283.4)**		(251.8)
Proceeds from disposal of property, plant and equipment			**0.5**		2.7
Additions to intangible assets	13		**(100.6)**		(86.6)
Net payments to equity accounted investees			**(9.9)**		(37.7)
Dividends received from equity accounted investees			**22.6**		22.0
Other			**(1.5)**		2.7
Net cash used in investing activities		**$**	**(495.9)**	$	(1,379.2)
Financing activities					
Net proceeds from borrowing under revolving credit facilities	18	**$**	**708.2**	$	—
Proceeds from long-term debt	18		**167.6**		955.3
Repayment of long-term debt	18		**(233.0)**		(72.7)
Repayment of lease liabilities	18		**(79.8)**		(22.0)
Dividends paid			**(110.9)**		(99.9)
Issuance of common shares			**26.6**		18.3
Repurchase and cancellation of common shares	8		**(49.6)**		(94.4)
Changes in restricted cash			**15.7**		—
Other			**(1.4)**		5.7
Net cash provided by financing activities		**$**	**443.4**	$	690.3
Effect of foreign currency exchange differences on cash and cash equivalents		**$**	**7.8**	$	(6.9)
Net increase (decrease) in cash and cash equivalents		**$**	**500.4**	$	(165.4)
Cash and cash equivalents, beginning of year			**446.1**		611.5
Cash and cash equivalents, end of year		**$**	**946.5**	$	446.1

(1) Refer to Note 2 - Changes in accounting policies for the impact of adopting IFRS16.

The accompanying notes form an integral part of these Consolidated Financial Statements.

Notes to the Consolidated Financial Statements

(Unless otherwise stated, all tabular amounts are in millions of Canadian dollars)

The consolidated financial statements were authorized for issue by the board of directors on May 22, 2020.

NOTE 1 – NATURE OF OPERATIONS AND SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Nature of operations

CAE Inc. and its subsidiaries (or the Company) design, manufacture and supply simulation equipment, provide training, and develop integrated training solutions for defence and security markets, commercial airlines, business aircraft operators, helicopter operators, aircraft manufacturers and for healthcare education and service providers. CAE's flight simulators replicate aircraft performance in normal and abnormal operations as well as a comprehensive set of environmental conditions utilizing visual systems that contain a database of airports, other landing areas, flying environments, mission-specific environments, and motion and sound cues. The Company offers a range of flight training devices based on the same software used on its simulators. The Company also operates a global network of training centres with locations around the world.

The Company's operations are managed through three segments:

(i) Civil Aviation Training Solutions – Provides comprehensive training solutions for flight, cabin, maintenance and ground personnel in commercial, business and helicopter aviation, a range of flight simulation training devices, as well as ab initio pilot training and crew sourcing services;

(ii) Defence and Security – Is a training systems integrator for defence forces across the air, land and naval domains, and for government organizations responsible for public safety;

(iii) Healthcare – Designs and manufactures simulators, audiovisual and simulation centre management solutions, develops courseware and offers services for training of medical, nursing and allied healthcare students as well as medical practitioners worldwide.

CAE is a limited liability company incorporated and domiciled in Canada. The address of the main office is 8585 Côte-de-Liesse, Saint-Laurent, Québec, Canada, H4T 1G6. CAE common shares are traded on the Toronto Stock Exchange (TSX) and on the New York Stock Exchange (NYSE).

Basis of preparation

The key accounting policies applied in the preparation of these consolidated financial statements are described below. These policies have been consistently applied to all years presented, unless otherwise stated.

The consolidated financial statements have been prepared in accordance with Part I of the CPA Canada Handbook – Accounting and International Financial Reporting Standards (IFRS), as issued by the International Accounting Standards Board (IASB).

The consolidated financial statements have been prepared under the historical cost convention, except for the following items measured at fair value: contingent consideration, derivative financial instruments, financial instruments at fair value through profit and loss, financial instruments at fair value through other comprehensive income and liabilities for cash-settled share-based arrangements.

The functional and presentation currency of CAE Inc. is the Canadian dollar.

Basis of consolidation

Subsidiaries

Subsidiaries are all entities over which the Company has control. Control exists when the Company is exposed to, or has the rights to, variable returns from its involvement with the entity and has the ability to affect those returns through the power over the entity. Subsidiaries are fully consolidated from the date control is obtained and they are no longer consolidated on the date control ceases. All intercompany accounts and transactions have been eliminated.

Joint arrangements

Joint arrangements are arrangements in which the Company exercises joint control as established by contracts requiring unanimous consent for decisions about the activities that significantly affect the arrangement's returns. When the Company has the rights to the net assets of the arrangement, the arrangement is classified as a joint venture and is accounted for using the equity method. When the Company has rights to the assets and obligations for the liabilities relating to an arrangement, the arrangement is classified as a joint operation and the Company accounts for each of its assets, liabilities and transactions, including its share of those held or incurred jointly, in relation to the joint operation.

Under the equity method of accounting, interests in joint ventures are initially recognized at cost and adjusted thereafter to recognize the Company's share of the profits or losses and movements in other comprehensive income (OCI) of the investee. When the Company's share of losses in a joint venture equals or exceeds its interests in the joint ventures, the Company does not recognize further losses, unless it will incur obligations or make payments on behalf of the joint ventures.

Unrealized gains resulting from transactions with joint ventures are eliminated, to the extent of the Company's share in the joint venture. For sales of products or services from the Company to its joint ventures, the elimination of unrealized profits is considered in the carrying value of the investment in equity accounted investees in the consolidated statement of financial position and in the share in profit or loss of equity accounted investees in the consolidated income statement.

Business combinations

Business combinations are accounted for under the acquisition method. The consideration transferred for the acquisition of a subsidiary is the fair value of the assets transferred, the liabilities incurred and the equity interests issued by the Company, if any, at the date control is obtained. The consideration transferred includes the fair value of any liability resulting from a contingent consideration arrangement. Acquisition-related costs, other than share and debt issue costs incurred to issue financial instruments that form part of the consideration transferred, are expensed as incurred. Identifiable assets acquired and liabilities assumed in a business combination are measured initially at their fair value at the acquisition date. If a business combination is achieved in stages, the Company remeasures its previously held interest in the acquiree at its acquisition-date fair value and recognizes the resulting gain or loss, if any, in net income.

Contingent consideration classified as a liability is measured at fair value, with subsequent changes recognized in income. If the contingent consideration is classified as equity, it is not remeasured until it is finally settled within equity.

New information obtained during the measurement period, up to 12 months following the acquisition date, about facts and circumstances existing at the acquisition date affect the acquisition accounting.

Non-controlling interests

Non-controlling interests (NCI) represent equity interests in subsidiaries owned by outside parties. The share of net assets of subsidiaries attributable to non-controlling interests is presented as a component of equity. Changes in the Company's ownership interest in subsidiaries that do not result in a loss of control are accounted for as equity transactions.

The Company treats transactions with non-controlling interests as transactions with equity owners of the Company. For interests purchased from non-controlling interests, the difference between any consideration paid and the relevant share acquired of the carrying value of net assets of the subsidiary is recorded in equity. Gains or losses on disposals of non-controlling interests are also recorded in equity.

Financial instruments and hedging relationships

Recognition, classification and measurement

A financial instrument is any contract that gives rise to a financial asset in one entity and a financial liability or equity instrument in another entity. Financial assets and financial liabilities, including derivatives, are recognized in the consolidated statement of financial position when the Company becomes a party to the contractual provisions of the financial instrument. On initial recognition, all financial instruments are measured at fair value. When there is a difference between the fair value of the consideration given or received at initial recognition and the amount determined using a valuation technique, such difference is recognized immediately in income unless it qualifies for recognition as some other type of asset or liability.

Financial instruments are subsequently measured based on their classification, which are:
- Financial instruments measured at amortized cost;
- Financial instruments measured at fair value through profit or loss (FVTPL);
- Financial instruments measured at fair value through other comprehensive income (FVOCI).

Financial assets

A financial asset is measured at amortized cost if it meets both of the following conditions:
- The asset is held within a business model whose objective is to hold assets to collect contractual cash flows; and
- The contractual terms of the financial asset give rise, on specific dates, to cash flows that are solely payments of principal and interest (SPPI) on the principal amount outstanding.

Financial assets at amortized cost are subsequently measured using the effective interest rate (EIR) method and are subject to impairment. Gains and losses are recognized in income when the asset is derecognized, modified or impaired. The Company's financial assets at amortized cost include accounts receivable and advances to a portfolio investment.

Financial assets at FVTPL include financial assets held for trading, financial assets designated upon initial recognition at fair value through profit or loss, and financial assets mandatorily required to be measured at fair value. Financial assets are classified as held for trading if they are acquired for the purpose of selling or repurchasing in the near term. Derivatives, including separated embedded derivatives, are also classified as held for trading unless they are designated as effective hedging instruments. Financial assets with cash flows that are not SPPI are classified and measured at FVTPL, irrespective of the business model. Financial assets at FVTPL are carried in the statement of financial position at fair value with net changes in fair value recognized in the income statement. The Company's financial assets at FVTPL include cash and cash equivalents, and derivative instruments not designated as hedging instrument in a hedge relationship.

Financial assets at FVOCI are equity investments the Company has irrevocably elected to classify at FVOCI. This classification is determined on an instrument-by-instrument basis. Gains and losses on these financial assets are never transferred to income. Dividends are recognized in the income statement when the right of payment has been established, except when the Company benefits from such proceeds as a recovery of part of the cost of the financial asset, in which case, such gains are recorded in OCI.

Financial assets are not reclassified subsequent to their initial recognition, unless the Company changes its business model for managing financial assets.

Financial liabilities

Financial liabilities at FVTPL include financial liabilities held for trading and financial liabilities designated upon initial recognition as at FVTPL. Financial liabilities are classified as held for trading if they are incurred for the purpose of repurchasing in the near term. This category also includes derivatives financial instruments that are not designated as hedging instrument in a hedge relationship. Separated embedded derivatives are also classified as held for trading unless they are designated as effective hedging instruments.

Financial liabilities at FVTPL are carried in the statement of financial position at fair value with net changes in fair value recognized in the income statement. The Company's financial liabilities measured at FVTPL include contingent liabilities arising on business combinations and also derivative instruments not designated as hedging instrument in a hedge relationship.

Financial liabilities at amortized cost are subsequently measured using the EIR method. Gains and losses are recognized in income when the liabilities are derecognized as well as through the EIR amortization process. The Company's financial liabilities at amortized cost include accounts payables, accrued liabilities, long-term debt, including interest payable, as well as royalty obligations.

Transaction costs

Transaction costs that are directly related to the acquisition or issuance of financial assets and financial liabilities (other than those classified at FVTPL and FVOCI) are included in the fair value initially recognized for those financial instruments. These costs are amortized to income using the EIR method.

Offsetting of financial assets and financial liabilities

Financial assets and financial liabilities are offset and the net amount is presented in the consolidated statement of financial position when the Company has an unconditional and legally enforceable right to set off the recognized amounts and intends to settle on a net basis or to realize the assets and settle the liabilities simultaneously.

Hedge accounting

The Company uses derivative financial instruments, such as forward currency contracts, cross currency swaps and interest rate swaps to hedge its foreign currency risks and interest rate risks, respectively. A hedging relationship qualifies for hedge accounting when it meets all of the following effectiveness requirements:

- There is 'an economic relationship' between the hedged item and the hedging instrument;
- The effect of credit risk does not 'dominate the value changes' that result from that economic relationship;
- The hedge ratio of the hedging relationship is the same as that resulting from the quantities of:
  - The hedged item that the Company actually hedges; and
  - The hedging instrument that the Company actually uses to hedge that quantity of hedged item.

For the purpose of hedge accounting, hedges are classified as:

- Cash flow hedges when hedging the exposure to variability in cash flows that is either attributable to a particular risk associated with a recognized asset or liability or a highly probably forecast transaction or the foreign currency risk in an unrecognized firm commitment;
- Hedges of a net investment in a foreign operation;
- Fair value hedges when hedging the exposure to changes in the fair value of a recognized asset or liability or an unrecognized firm commitment.

Documentation

At the inception of a hedge relationship, the Company formally documents the designation of the hedge, the risk management objectives and strategy, the hedging relationship between the hedged item and hedging item and the method for testing the effectiveness of the hedge, which must be reasonably assured over the term of the hedging relationship and can be reliably measured. The Company formally assesses, both at inception of the hedge relationship and on an ongoing basis, whether the derivatives that are used in hedging transactions are highly effective in offsetting changes in fair values or cash flows of hedged items in relation to the hedged risk.

Cash flow hedge

The effective portion of changes in the fair value of derivative instruments that are designated and qualify as cash flow hedges is recognized in OCI, while the ineffective portion is recognized immediately in income. Amounts accumulated in OCI are reclassified to income in the period in which the hedged item affects income. However, when the forecasted transactions that are hedged items result in recognition of non-financial items, gains and losses previously recognized in OCI are included in the initial carrying value of the related non-financial assets acquired or liabilities incurred. The deferred amounts are ultimately recognized in income as the related non-financial items are derecognized or amortized.

Hedge accounting is discontinued prospectively when the hedging relationship no longer meets the criteria for hedge accounting, when the designation is revoked, or when the hedging instrument expires or is sold. Any cumulative gain or loss directly recognized in OCI at that time remains in OCI until the hedged item is recognized in income. When it is probable that a hedged transaction will not occur, the cumulative gain or loss that was recognized in OCI is recognized in income immediately.

Hedge of net investments in foreign operations

The Company has designated certain long-term debts as a hedging item of the Company's overall net investments in foreign operations whose activities are denominated in a currency other than the Company's functional currency. The portion of gains or losses on the hedging item that is determined to be an effective hedge is recognized in OCI and is limited to the translation gain or loss on the net investment.

Fair value hedge

The Company currently does not enter into fair value hedge transactions.

Derecognition

Financial assets

A financial asset is derecognized when:

- The rights to receive cash flows from the asset have expired; or
- The Company has transferred its rights to receive cash flows from the asset and either has transferred substantially all the risks and rewards of the asset or has neither transferred nor retained substantially all the risks and rewards of the asset, but has transferred control of the asset.

The Company is involved in a program in which it sells interests in certain of its accounts receivable. The Company continues to act as a collection agent. Under the program the Company transfers some significant risks and rewards of the accounts receivable it sells and retains others. The accounts receivable are derecognized up to an amount corresponding to the extent of the Company's continuing involvement, which represents its maximum retained exposure.

Impairment of financial assets

The Company uses the expected credit loss (ECL) model for calculating impairment of financial assets and recognizes expected credit losses as loss allowances for assets measured at amortized cost. ECLs are based on the difference between the contractual cash flows due in accordance with the contract and all the cash flows that the Company expects to receive, discounted at the original or credit adjusted effective interest rate. ECLs are recognized in two stages. For credit exposures for which there has not been a significant increase in credit risk since initial recognition, ECLs are provided for credit losses that result from default events that are possible within the next 12-months (a 12-month ECL). For those credit exposures for which there has been a significant increase in credit risk since initial recognition, a loss allowance is required for credit losses expected over the remaining life of the exposure, irrespective of the timing of the default (a lifetime ECL).

For trade receivables and contract assets, the Company applies the simplified approach permitted by IFRS 9, which requires expected lifetime losses to be recognized from initial recognition of the assets.

Financial liabilities

A financial liability is derecognized when the obligation under the liability is discharged, cancelled or expired.

When an existing financial liability is replaced by another from the same lender on substantially different terms, or the terms of an existing liability are substantially modified, such an exchange or modification is treated as a derecognition of the original liability and the recognition of a new liability, and the difference in the respective carrying amounts is recognized in the income statement.

Foreign currency translation

Foreign operations

Assets and liabilities of subsidiaries that have a functional currency other than the Canadian dollar are translated from their functional currency to Canadian dollars at exchange rates in effect at the reporting date. Revenue and expenses are translated at the average exchange rates. The resulting translation adjustments are included in OCI.

When CAE Inc. and its subsidiaries have a long-term intercompany balance receivable from or payable to a foreign operation for which settlement is not planned in the foreseeable future, such item is considered, in substance, a part of the Company's net investment in that foreign operation. Gains or losses arising from the translation of those intercompany balances denominated in foreign currencies are also included in OCI.

Transactions and balances

Monetary assets and liabilities denominated in foreign currencies are translated at the prevailing exchange rate at the reporting date. Non-monetary assets and liabilities, and revenue and expense items denominated in foreign currencies are translated into the functional currency using the exchange rate prevailing at the dates of the respective transactions. Foreign exchange gains and losses resulting from the settlement of such transactions are recognized in income, except when deferred in OCI as qualifying cash flow hedges and qualifying net investment hedges.

Cash and cash equivalents

Cash and cash equivalents consist of cash and highly-liquid investments with original terms to maturity of 90 days or less at the date of purchase.

Accounts receivable

Receivables are initially recognized at fair value and are subsequently carried at amortized cost, net of credit loss allowances, based on expected recoverability. The amount of the allowance is the difference between the asset's carrying amount and the present value of the estimated future cash flows, discounted at the original effective interest rate. The loss is recognized in income. Subsequent recoveries of amounts previously provided for or written-off are recognized in income.

Inventories

Raw materials are valued at the lower of average cost and net realizable value. Spare parts to be used in the normal course of business are valued at the lower of cost, determined on a specific identification basis, and net realizable value.

Work in progress is stated at the lower of cost, determined on a specific identification basis, and net realizable value. The cost of work in progress includes material, labour and an allocation of manufacturing overhead, which is based on normal operating capacity.

Net realizable value is the estimated selling price in the ordinary course of business, less estimated costs of completion and the estimated costs necessary to generate revenue. In the case of raw materials and spare parts, the replacement cost is the best measure of net realizable value.

Property, plant and equipment

Property, plant and equipment are recorded at cost less any accumulated depreciation and any accumulated net impairment losses. Costs include expenditures that are directly attributable to the acquisition or manufacturing of the item. The cost of an item of property, plant and equipment that is initially recognized includes, when applicable, the initial present value estimate of the costs required to dismantle and remove the asset and restore the site on which it is located at the end of its useful life. Purchased software that is integral to the functionality of the related equipment is capitalized as part of that equipment. Subsequent costs, such as updates on training devices, are included in the asset's carrying amount or recognized as a separate asset only when it is probable that future economic benefits will flow to the Company and the cost of the item can be reliably measured; otherwise, they are expensed.

A loss on disposal is recognized in income when the carrying value of a replaced item is derecognized, unless the item is transferred to inventories. If it is not practicable to determine the carrying value, the cost of the replacement and the accumulated depreciation calculated by reference to that cost will be used to derecognize the replaced part. The costs of day-to-day servicing of property, plant and equipment are recognized in income as incurred. Gains and losses on disposal of property, plant and equipment are determined by comparing the proceeds from disposal with its carrying amount, and are recognized net within other gains and losses.

The different components of property, plant and equipment are recognized separately when their useful lives are materially different and such components are depreciated separately in income.

Prior to the adoption of IFRS 16 on April 1, 2019, leased assets were depreciated over the shorter of the lease term and their useful lives. If it was reasonably certain that the Company would obtain ownership by the end of the lease term, the leased asset was depreciated over its useful life. Land is not depreciated. The estimated useful lives, residual values and depreciation methods are as follows:

	Method	Amortization rate/period
Buildings and improvements	Declining balance/Straight-line	2.5 to 10%/3 to 40 years
Simulators	Straight-line (10% residual)	Not exceeding 25 years
Machinery and equipment	Declining balance/Straight-line	20 to 35%/2 to 15 years
Aircraft	Straight-line (residual not exceeding 15%)	Not exceeding 25 years
Aircraft engines	Based on utilization	Not exceeding 3,500 hours

As at March 31, 2020, the average remaining amortization period for full-flight simulators is 12.0 years (2019 – 11.1 years).

Depreciation methods, useful lives and residual values are reviewed and adjusted, if appropriate, on a prospective basis at each reporting date.

Leases – As a result of adopting IFRS 16 on April 1, 2019

At inception of a contract, the Company assesses whether a contract is, or contains, a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration.

The Company as a lessee

The Company recognizes a right-of-use asset and liability at the lease commencement date. The right-of-use asset is initially measured at cost, which comprises the initial amount of the lease liability adjusted for any lease payments made at or before the commencement date, plus any initial direct costs incurred and an estimate of costs to dismantle and remove the underlying asset or to restore the underlying asset or the site on which it is located, less any lease incentives received.

The right-of-use asset is subsequently depreciated from the commencement date to the earlier of the end of the useful life of the right-of-use asset or the end of the lease term. If it is reasonably certain that the Company will obtain ownership by the end of the lease term through a purchase option, the leased asset is depreciated over its useful life. The depreciation periods, residual values (only applicable when it is reasonably certain that the Company will obtain ownership by the end of the lease term) and depreciation methods are as follows:

	Method	Amortization period
Buildings and land	Straight-line	Not exceeding 40 years
Simulators	Straight-line (10% residual)	Not exceeding 25 years
Machinery and equipment	Straight-line	Not exceeding 7 years

In addition, the right-of-use asset is periodically reduced by impairment losses, if any, and adjusted for certain remeasurements of the lease liability.

The lease liability is initially measured at the present value of the lease payments at the commencement date, discounted using the interest rate implicit in the lease or, if that rate cannot be readily determined, the lessee's incremental borrowing rate. Lease payments comprise of fixed payments, including in-substance fixed payments, variable lease payments that depend on an index or a rate, amounts expected to be payable under a residual value guarantee, the exercise price under a purchase option that the Company is reasonably certain to exercise, lease payments in an optional renewal period that the Company is reasonably certain to exercise and penalties for early termination of a lease if the Company is reasonably certain to terminate.

The lease liability is subsequently measured at amortized cost using the effective interest method and is remeasured when there is a change in future lease payments arising from a change in an index or rate, the estimate of the amount expected to be payable under a residual value guarantee or the Company's assessment of whether it will exercise a purchase, renewal or termination option. When the lease liability is remeasured in this way, a corresponding adjustment is made to the carrying amount of the right-of-use asset, or is recorded in profit or loss if the carrying amount of the right-of-use asset has been reduced to zero.

Lease modifications

A lease modification is a change in the scope of a lease, or the consideration for a lease, that was not part of its original terms and conditions. A lease modification is accounted for as a separate lease if the modification increases the scope of the lease by adding the right to use one or more underlying assets and the consideration for the lease increases by an amount commensurate with the stand-alone price that reflects the circumstances of the contract. Any other modification is not accounted for as a separate lease.

For a lease modification resulting in a decrease in the scope of the lease, the lease liability is remeasured, using a revised discount rate, to reflect the modified lease payments and the carrying amount of the right-of-use asset is reduced to reflect the partial or full termination of the lease. The difference between the reduction in the lease liability and the reduction in the corresponding right-of-use asset's carrying value is recognized in profit or loss.

For all other lease modifications, the lease liability is remeasured, using a revised discount rate, to reflect the modified lease payments, with a corresponding adjustment to the right-of-use asset.

Short-term leases and leases of low-value assets

The Company recognizes the payments associated with short-term leases and leases of low-value assets as an expense on a straight-line basis over the lease term.

Sale and leaseback transaction

In a sale and leaseback transaction the transfer of an asset is recognized as a sale when the customer has obtained control of the underlying asset which is aligned with the Company's revenue recognition policy, otherwise the Company continues to recognize the transferred asset on the balance sheet and record a financial liability equal to the proceeds transferred. When the transfer of an asset satisfies the Company's revenue recognition policy to be accounted for as revenue, a partial recognition of the profit from the sale is recorded immediately after the sale, which is equivalent to the proportion of the asset not retained by the Company through the lease. The proportion of the asset retained by the Company through the lease is recognized as a right-of-use asset and the lease liability is measured as the present value of future lease payments.

The Company as a lessor

The Company determines, at lease commencement, whether each lease is a finance or an operating lease. Leases in which substantially all the risks and rewards of ownership are transferred are classified as finance leases. All other leases are accounted for as operating leases.

With regards to finance leases, the asset is derecognized at the commencement of the lease. The net present value of the minimum lease payments and any discounted unguaranteed residual values of leased assets are presented as investment in finance leases. Finance income is recognized over the term of the lease based on the effective interest method. Revenue from operating leases is recognized on a straight-line basis over the term of the corresponding lease.

When the Company subleases one of its leases it accounts for its interests in the head lease and the sub-lease separately. It assesses the lease classification of a sub-lease with reference to the right-of-use asset arising from the head lease, not with reference to the underlying asset.

Leases – Prior to adopting IFRS 16 on April 1, 2019

Leases in which substantially all the risks and rewards of ownership were transferred and were accounted for finance leases. All other leases were accounted for as operating leases.

The Company as a lessee

Finance leases were capitalized at the lease's commencement at the lower of the fair value of the leased item and the present value of the minimum lease payments. Any initial direct costs of the lessee were added to the amount recognized as an asset. The corresponding obligations were included in long-term debt. Finance expense was recognized over the term of the lease based on the effective interest method. Payments made under operating leases was charged to income on a straight-line basis over the term of the lease. With regards to certain aircraft used in the Company's live training operations, management had concluded that, as at March 31, 2019, the undiscounted lease rental payments in the amount of $46.6 million associated with the lease convention to these aircraft should be accounted for as an off-balance sheet arrangement as it is offset by a reciprocal arrangement with a third party and is non-recourse to CAE.

Sale and leaseback transactions

The Company engaged in sales and leaseback transactions as part of the Company's financing strategy to support investment in the Civil Aviation training Solutions and Defence and Security segments. Where a sale and leaseback transaction resulted in a finance lease, any excess of sales proceeds over the carrying amount was deferred and amortized over the lease term. Where a sale and leaseback transaction results in an operating lease, and it was clear that the transaction was established at fair value, any profit or loss was recognized in income. If the sales price was below fair value, the shortfall was recognized in income immediately except if the loss was compensated for by future lease payments at below market price, it was deferred and amortized in proportion to the lease payments over the period the asset was expected to be used. If the sale price was above fair value, the excess over fair value was deferred and amortized over the period the asset was expected to be used.

The Company as a lessor

With regards to finance leases, the asset was derecognized at the commencement of the lease. The net present value of the minimum lease payments and any discounted unguaranteed residual values of leased assets are presented as investment in finance leases. Finance income was recognized over the term of the lease based on the effective interest method. Income from operating leases was recognized on a straight-line basis over the term of the corresponding lease.

Intangible assets

Goodwill

Goodwill is measured at cost less accumulated impairment losses, if any.

Goodwill arises on the acquisition of subsidiaries. Goodwill represents the excess of the aggregate of the cost of an acquisition, including the Company's best estimate of the fair value of contingent consideration and the acquisition-date fair value of any previous held equity interest in the acquiree, over the fair value of the net identifiable assets of the acquiree at the acquisition date.

Gains and losses on the disposal of an entity include the carrying amount of goodwill relating to the entity sold.

Research and development (R&D)

Research costs are expensed as incurred. Development costs are also charged to income in the period incurred unless they meet all the specific capitalization criteria established in IAS 38, *Intangible Assets*. Capitalized development costs are stated at cost and net of accumulated amortization and accumulated impairment losses, if any. Amortization of the capitalized development costs commences when the asset is available for use and is included in research and development expense.

Other intangible assets

Intangible assets acquired separately are measured at cost upon initial recognition. The cost of intangible assets acquired in a business combination is the fair value as at the acquisition date. Following initial recognition, intangible assets are carried at cost, net of accumulated amortization and accumulated impairment losses, if any.

The cost of an internally generated intangible asset comprises all directly attributable costs necessary to create, produce, and prepare the asset to be capable of operating in the manner intended by management.

Gains and losses on disposal of intangible assets are determined by comparing the proceeds from disposal with its carrying amount and are recognized within other gains and losses.

Amortization

Amortization is calculated using the straight-line method for all intangible assets over their estimated useful lives as follows:

	Amortization period
Capitalized development costs	3 to 10 years
Customer relationships	3 to 20 years
Licenses	3 to 20 years
ERP and other software	3 to 10 years
Other intangible assets	2 to 40 years

As at March 31, 2020, the average remaining amortization period for the capitalized development costs is 5.2 years (2019 – 5.2 years). Amortization methods and useful lives are reviewed and adjusted, if appropriate, on a prospective basis at each reporting date.

Impairment of non-financial assets

The carrying amounts of the Company's non-financial assets subject to amortization are tested for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. Goodwill and assets that are not yet available for use are tested for impairment annually or at any time if an indicator of impairment exists.

The recoverable amount of an asset or a cash-generating unit (CGU) is the greater of its value in use and its fair value less costs of disposal. The recoverable amount is determined for an individual asset; unless the asset does not generate cash inflows that are largely independent of those from other assets or groups of assets. In such case, the CGU that the asset belongs to is used to determine the recoverable amount.

For the purposes of impairment testing, the goodwill acquired in a business combination is allocated to CGUs or groups of CGUs, which generally corresponds to its operating segments or one level below, that are expected to benefit from the synergies of the combination, irrespective of whether other assets or liabilities of the acquiree are assigned to those units.

An impairment loss is recognized if the carrying amount of an asset or CGU exceeds its estimated recoverable amount. Where the recoverable amount of a CGU to which goodwill has been allocated is lower than the CGU's carrying amount, the related goodwill is impaired. Any remaining amount of impairment exceeding the impaired goodwill is recognized on a pro rata basis of the carrying amount of each asset in the respective CGU. Impairment losses are recognized in income.

The Company evaluates impairment losses, other than goodwill impairment, for potential reversals at each reporting date. An impairment loss is reversed if there is any indication that the loss has decreased or no longer exists due to changes in the estimates used to determine the recoverable amount. An impairment loss is reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized. Such reversal is recognized in income.

Borrowing costs

Borrowing costs that are directly attributable to the acquisition or construction of a qualifying asset are capitalized as part of the cost of the asset. A qualifying asset is one that takes a substantial period of time to get ready for its intended use. Capitalization of borrowing costs ceases when the asset is completed and ready for its intended use. All other borrowing costs are recognized as finance expense in income, as incurred.

Other assets

Restricted cash

The Company is required to hold a defined amount of cash as collateral under the terms of certain subsidiaries' external bank financing, government-related sales contracts and business combination arrangements.

Deferred financing costs

Deferred financing costs related to the revolving credit facilities, when it is probable that some or all of the facilities will be drawn down, and deferred financing costs related to sale and leaseback agreements are included in other assets at cost and are amortized on a straight-line basis over the term of the related financing agreements.

Accounts payable and accrued liabilities

Accounts payable and accrued liabilities are recognized initially at fair value and subsequently measured at amortized cost using the effective interest method.

Provisions

Provisions are recognized when the Company has a present legal or constructive obligation as a result of past events, it is probable that an outflow of resources will be required to settle the obligation and the amount can be reliably estimated. Provisions are measured at the present value of the expenditures expected to be required to settle the obligation using a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the obligation. The increase in the provision due to passage of time is recognized as a finance expense. When there are a number of similar obligations, the likelihood that an outflow will be required in settlement is determined by considering the class of obligations as a whole.

Provisions for estimated contract losses are recognized as an onerous contract provision in the period in which the loss is determined. Contract losses are measured at the amount by which the estimated total costs exceed the estimated total revenue from the contract. Warranty provisions are recorded when revenue is recognized based on historical experience, current trends and other assumptions that are believed to be reasonable under the circumstances.

Restoration and simulator removal

In certain situations, simulators are installed at locations that are not owned by the Company. In some of these cases, the Company has an obligation to dismantle and remove the simulators from these sites and to restore the location to its original condition. A provision is recognized for the present value of estimated costs to be incurred to dismantle and remove the simulators from these sites and restore the location. The provision also includes amounts relating to leased land and building where restoration costs are contractually required at the end of the lease. Where such costs arise as a result of capital expenditure, these restoration costs are also capitalized.

Restructuring

Restructuring costs consist mainly of severances and other related costs.

Legal claims

The amount represents a provision for certain legal claims brought against the Company. The corresponding charge is recognized in income within selling, general and administrative expenses or other gains – net. Management's best estimate is that the outcome of these legal claims will not give rise to any significant loss beyond the amounts provided at March 31, 2020.

Warranties

A provision is recognized for expected warranty claims on products sold based on historical experience of the level of repairs and returns. It is expected that most of these costs will be incurred between 1 to 7 years. Assumptions used to calculate the provision for warranties were based on current sales levels and current information available about returns based on the warranty period of products sold.

Long-term debt

Long-term debt is recognized initially at fair value, net of transaction costs incurred. They are subsequently stated at amortized cost. Any difference between the proceeds, net of transaction costs, and the redemption value is recognized in income over the period of borrowings using the effective interest method.

Fees paid on the establishment of loan facilities are recognized as transaction costs of the loan to the extent that it is probable that some or all of the facility will be drawn down. In these cases, the fee is deferred until the drawdown occurs. To the extent that there is no evidence that it is probable that some or all of the facility will be drawn down, the fee is capitalized as a pre-payment for liquidity services and amortized over the period of the facility to which it relates.

Share capital

Common shares are classified as equity. Incremental costs directly attributable to the issue of new shares or stock options are shown in equity as a deduction, net of tax, from the proceeds.

When share capital recognized as equity is repurchased, the amount of the consideration paid, which includes directly attributable costs, net of tax, is recognized as a deduction from equity.

Revenue recognition

The Company recognizes revenue when it transfers the control of the promised goods or services to the customer. The transaction price is the amount of consideration to which the Company is expected to be entitled to in exchange for transferring promised goods or services. Variable consideration is included in the transaction price when it is highly probable that there will be no significant reversal of revenue in the future. Variable consideration is usually derived from sales incentives, in the form of discounts or volume rebates, and penalties. The Company identifies the various performance obligations of the contract and allocates the transaction price based on the estimated relative stand-alone selling prices of the promised goods or services underlying each performance obligation.

The Company's performance obligations are satisfied over time or at a point in time depending on the transfer of control to the customer.

Sales of goods and services

Customized training devices

Revenues from contracts with customers for the design, engineering, and manufacturing of training devices are recognized over time using the cost input method when the Company determines that these devices have a sufficient level of customization such that they have no alternative use and the Company has enforceable rights to payment for work completed to date. The measure of progress toward complete satisfaction of the performance obligation is generally determined by comparing the actual direct contract costs incurred to date to the total estimated costs for the entire contract. When the Company determines that there is an alternative use for these devices, revenue is recognized at a point in time, when the customer obtains control of the device.

Standardized training devices

Revenue from contracts with customers for the construction of standardized training devices is recognized at a point in time, when the customer obtains control of the device.

Training services

Revenues from the sale of training hours or training courses are recognized at a point in time, when services are rendered.

For flight schools, cadet training courses are offered mainly by way of ground school and live aircraft flight. For both phases, revenue is recognized over time, using the time elapsed input method.

Product maintenance, support and updates

Revenues from the sale of product maintenance services and post-delivery customer support are recognized over time, using the time elapsed output method or costs incurred method. Revenues from update services, to enhance a training device currently owned by a customer, are recognized over time, using the cost input method.

Spare parts

Revenue from the sale of spare parts is recognized at a point in time, which is generally on delivery to the customer.

Software arrangements

Revenue from off-the-shelf software sales is recognized at a point in time, on delivery. Revenue from fixed-price software arrangements and software customization contracts that require significant production, modification, or customization of software is recognized over time using the cost input method.

Other

Significant financing component

The Company accounts for a significant financing component on contracts of more than 12 months where timing of cash receipts and revenue recognition differ substantially. The transaction price for such contracts is adjusted for the time value of money, using the rate that would be reflected in a separate financing transaction between the Company and its customers at contract inception, to take into consideration the significant financing component.

Non-monetary transactions

The Company may also enter into sales arrangements where little or no monetary consideration is involved. The non-monetary transactions are measured at the most reliable measure of the fair value of the asset or service given up or fair value of the asset or service received.

Contract modifications

Contract modifications, which consist of an increase in the scope or price of a contract, are accounted for as a separate contract when the additional goods or services to be delivered are distinct from those delivered prior to the contract modification and when the price increases by an amount of consideration that reflects its stand-alone selling price. Contract modifications are treated prospectively when the additional goods or services are distinct, but the price increase does not reflect the stand-alone selling price. When the remaining goods or services are not distinct, the Company recognizes an adjustment to revenue of the initial contract on a cumulative catch-up basis at the date of the contract modification.

Costs to obtain and to fulfill a contract

The Company recognizes incremental costs of obtaining a contract as an asset when they are expected to be recovered over a period of more than one year. The Company recognizes costs directly related to fulfilling a contract with a customer as an asset when they generate or enhance resources that will be used to satisfy the performance obligation in the future and they are expected to be recovered, These assets are amortized on a systematic basis that is consistent with the Company's transfer of the related goods or services to the customer.

Right to invoice

If the Company has the right to invoice a customer in an amount that directly corresponds with the value of the Company's performance to date then revenue can be recognized at the invoice amount.

Contract balances
The timing of revenue recognition, billing and cash collections results in accounts receivable, contract assets and contract liabilities on the consolidated financial position.

Contract assets are recognized when revenue is recognized in excess of billings or when the Company has a right to consideration and that right is conditional to something other than the passage of time. Contract assets are subsequently transferred to accounts receivable when the right to payment becomes unconditional.

Contract liabilities are recognized when payments received from customers are in excess of revenue recognized. Contract liabilities are subsequently recognized in revenue when the Company satisfies its performance obligations.

Contract assets and contract liabilities are reported in a net position on a contract-by-contract basis at the end of each reporting period and are classified as current based on our normal operating cycle.

Employee benefits

Defined benefit pension plans
The Company maintains defined benefit pension plans that provide benefits based on length of service and final average earnings.

The defined benefit asset or liability comprises the present value of the defined benefit obligation at the reporting date less the fair value of plan assets out of which the obligations are to be settled. The defined benefit obligations are actuarially determined for each plan using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash flows using the interest rate of high-quality corporate bonds that are denominated in the currency in which the benefit will be paid and that have terms to maturity approximating the terms of the related pension obligation. In countries where there is no deep market in such bonds, the market rates on government bonds are used.

The value of any employee benefit asset recognized is restricted to the present value of any economic benefits available in the form of refunds from the plan or reductions in the future contributions to the plan (asset ceiling test). Minimum funding requirements may give rise to an additional liability to the extent that they require paying contributions to cover an existing shortfall. Plan assets can only be used to fund employee benefits, are not available to the creditors of the Company, nor can they be paid directly to the Company. Fair value of plan assets is based on market price information.

The Company determines the net pension cost of its Canadian defined benefit plans utilizing individual discount rates derived from the yield curve.

Actuarial gains and losses arising from experience adjustments, changes in actuarial assumptions and the effect of any asset ceiling and minimum liability are recognized to OCI in the period in which they arise. Past service costs are recognized as an expense as incurred at the earlier of when the plan amendment or curtailment occurs and when the entity recognizes related termination benefits.

Defined contribution pension plans
The Company also maintains defined contribution plans for which the Company pays fixed contributions to publicly or privately administered pension insurance plans on a mandatory, contractual or voluntary basis. The Company has no legal or constructive obligation to pay further amounts if the fund does not hold sufficient assets to pay the benefits to all employees. Obligations for contributions to defined contribution pension plans are recognized as an employee benefit expense in income as the services are provided.

Termination benefits
Termination benefits are recognized as an expense when the Company is demonstrably committed, without realistic possibility of withdrawal, to a formal detailed plan to either terminate employment before the normal retirement date, or to provide termination benefits as a result of an offer made to encourage voluntary redundancy. Termination benefits for voluntary redundancies are recognized as an expense, if the Company has made an offer of voluntary redundancy, based on the number of employees expected to accept the offer. Benefits falling due more than 12 months after the reporting date are discounted to their present value.

Share-based payment transactions

The Company's share-based payment plans consist of two categories: an equity-settled share-based payment plan comprised of the stock option plan; and cash-settled share-based payments plans that include the stock purchase plan, deferred share units (DSU) plans, restricted share units (RSU) plans and the performance share units (PSU) plan.

For both categories, the fair value of the employee services received in exchange is recognized as an expense in income. Service and non-market performance conditions attached to the transactions are not taken into account in determining fair value.

For the equity-settled plan, the cost of equity-settled transactions is measured at fair value using the Black-Scholes option pricing model. The compensation expense is measured at the grant date and recognized over the service period with a corresponding increase to contributed surplus. The cumulative expenses recognized for equity-settled transactions at each reporting date represents the extent to which the vesting period has expired and management's best estimate of the number of equity instruments that will ultimately vest. For options with graded vesting, each tranche is considered a separate grant with a different vesting date and fair value, and each tranche is accounted for separately. When the stock options are exercised, the Company issues new common shares and the proceeds received net of any directly attributable transaction costs are credited to share capital.

For cash-settled plans, a corresponding liability is recognized. The fair value of employee services received is calculated by multiplying the number of units expected to vest with the fair value of one unit as of grant date based on the market price of the Company's common shares. The fair value of the stock purchase plan is a function of the Company's contributions. Until the liability is settled, the Company re-measures the fair value of the liability at the end of each reporting period and at the date of settlement, with any changes in fair value recognized in income for the period. The Company has entered into equity swap agreements in order to reduce its earnings exposure related to the fluctuation in the Company's share price relating to the DSU plans, RSU plans and PSU plan.

Current and deferred income tax

Income tax expense comprises current and deferred tax. An income tax expense is recognized in income except to the extent that it relates to items recognized in OCI or directly in equity, in which case it is recognized in OCI or directly in equity, respectively,

Current tax is the amount expected to be paid or recovered from taxation authorities on the taxable income or loss for the year, using tax rates enacted or substantively enacted at the reporting date in the countries where the Company and its subsidiaries operate and generate taxable income, and any adjustment to tax payable or receivable in respect of previous years.

Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulation is subject to interpretation. It establishes provisions, where appropriate, on the basis of amounts expected to be paid to the tax authorities.

Deferred tax is recognized using the financial position liability method, providing for temporary differences between the tax bases of assets or liabilities and their carrying amounts in the consolidated financial statements, except for temporary differences on the initial recognition of assets and liabilities in a transaction that is not a business combination and that affects neither accounting nor taxable income and taxable.

Deferred income tax is provided on temporary differences arising on investments in subsidiaries, and jointly controlled entities, except where the timing of the reversal of the temporary difference is controlled by the Company and it is probable that the temporary difference will not reverse in the foreseeable future.

Deferred tax is measured on an undiscounted basis at the tax rates that are expected to be applied to temporary differences when they reverse, based on the laws that have been enacted or substantively enacted by the reporting date.

Deferred tax assets are recognized for all deductible temporary differences and carry forward of unused tax losses. The recognition of deferred tax assets are limited to the amount which is probable to be realized.

Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that a recognized deferred tax asset will be realized. Unrecognized deferred tax assets are reassessed at each reporting date and are recognized to the extent that it has become probable that an unrecognized deferred tax asset will be realized.

Deferred tax assets and liabilities are offset if there is a legally enforceable right to offset current tax liabilities and assets, and they relate to income taxes levied by the same tax authority on the same taxable entity, or on different taxable entities which intend to settle current tax liabilities and assets on a net basis or if their tax assets and liabilities will be realized simultaneously.

Taxes on income in the interim periods are accrued by jurisdiction using the effective tax rate that would be applicable to expected total annual profit or loss of the jurisdiction.

Earnings per share

Earnings per share is calculated by dividing the net income for the period attributable to the equity holders of the Company by the weighted average number of common shares outstanding during the period. The diluted weighted average number of common shares outstanding is calculated by taking into account the dilution that would occur if the securities or other agreements for the issuance of common shares were exercised or converted into common shares at the later of the beginning of the period or the issuance date unless it is anti-dilutive. The treasury stock method is used to determine the dilutive effect of the stock options. The treasury stock method is a method of recognizing the use of proceeds that could be obtained upon the exercise of stock options in computing diluted earnings per share. It assumes that any proceeds would be used to purchase common shares at the average market price during the period. Only the Company's stock options have a dilutive potential on common shares.

Government participation

Government contributions are recognized when there is reasonable assurance that the contributions will be received, and all attached conditions will be complied with by the Company. Government participation related to the acquisition of intangible assets is recorded as a reduction of the cost of the related asset while government participation related to current expenses is recorded as a reduction of the related expenses.

The Company benefits from investment tax credits that are deemed to be equivalent to government contributions. Contributions are received for Project New Core Markets from Investissement Québec (IQ) for costs incurred in R&D programs. Contributions were received in previous fiscal years for Project Phoenix from Industry Canada under the Technology Partnerships Canada (TPC) program and from IQ.

Project New Core Markets and Project Phoenix require the Company to pay royalties. The obligation to pay royalties, recognized as royalty obligations, is recorded when the contribution is receivable and is estimated based on future projections. The obligation is discounted using the prevailing market rates of interest, at that time, for a similar instrument (similar as to currency, term, type of interest rate, guarantees or other factors) with a similar credit rating. The current portion is included as part of accrued liabilities. The difference between the amounts received and the discounted value of royalty obligations is accounted for as a government contribution which is recognized as a reduction of related expenses or as a reduction of the cost of the related asset.

The Company recognizes the Government of Canada’s participation in Project Falcon and Project Innovate and the Government of Canada's and the Government of Québec's in Project Digital Intelligence as interest-bearing long-term debt. The initial measurement of the accounting liability is discounted using the prevailing market rates of interest, at that time, for a similar instrument (similar as to currency, term, type of interest rate, guarantees or other factors) with a similar credit rating. The difference between the face value of the long-term obligation and the discounted value of the long-term obligation is accounted for as a government contribution which is recognized as a reduction of related expenses or as a reduction of the cost of the related asset.

Investment tax credits

Investment tax credits (ITCs) arising from R&D activities are deducted from the related costs and are accordingly included in the determination of net income when there is reasonable assurance that the credits will be realized. ITCs arising from the acquisition or development of property, plant and equipment and capitalized development costs are deducted from the cost of those assets with amortization calculated on the net amount. Investment tax credits expected to be recovered beyond 12 months are classified in Other non-current assets. Investment tax credits are deemed to be equivalent to government contributions. These government contributions are received for costs incurred in R&D projects.

Use of judgements, estimates and assumptions

The preparation of the consolidated financial statements requires the Company’s management (management) to make judgements, estimates and assumptions that affect the application of accounting policies, the reported amounts of assets and liabilities and disclosures at the date of the consolidated financial statements, as well as the reported amounts of revenues and expenses for the period reported. It also requires management to exercise its judgement in applying the Company’s accounting policies. The areas involving a high degree of judgement or complexity, or areas where assumptions and estimates are significant to the consolidated financial statements are disclosed below. Actual results could differ from those estimates. Changes will be reported in the period in which they are identified.

Business combinations

Business combinations are accounted for in accordance with the acquisition method. The consideration transferred and the acquiree’s identifiable assets, liabilities and contingent liabilities are measured at their fair value. Depending on the complexity of determining these valuations, the Company either consults with independent experts or develops the fair value internally by using appropriate valuation techniques which are generally based on a forecast of the total expected future net discounted cash flows. These evaluations are linked closely to the assumptions made by management regarding the future performance of the related assets and the discount rate. Contingent consideration is measured at fair value using a discounted cash flow model.

Development costs

Development costs are recognized as intangible assets and are amortized over their useful lives when they meet the criteria for capitalization. Forecasted revenue and profitability for the relevant projects are used to assess compliance with the capitalization criteria and to assess the recoverable amount of the assets.

Impairment of non-financial assets

The Company’s impairment test for goodwill is based on internal estimates of the recoverable amount of the CGU or group of CGUs to which goodwill has been allocated and uses valuation models such as the discounted cash flows model (level 3). Key assumptions on which management based its determination of the recoverable amount include expected growth rates and discount rates. These estimates, including the methodology used, can have a material impact on the respective values and ultimately the amount of any goodwill impairment.

Likewise, whenever property, plant and equipment and intangible assets are tested for impairment, the determination of the assets’ recoverable amount involves the use of estimates by management and can have a material impact on the respective values and ultimately the amount of any impairment.

See Note 26 for further details regarding assumptions used.

Revenue recognition

Transaction price allocated to performance obligations

In allocating the transaction price for contracts with multiple performance obligations, the Company estimates the stand-alone selling price using the expected cost plus a margin approach if they are not directly observable.

Timing of satisfaction of performance obligations

For contracts where revenue is recognized over time using the cost input method, the Company is required to estimate the work performed to date as a proportion of the total work to be performed. Management conducts monthly reviews of its estimated costs to complete as well as its revenue and margins recognized, on a contract-by-contract basis. The impact of any revisions in cost and revenue estimates is reflected in the period in which the need for a revision becomes known.

Defined benefit pension plans

The cost of defined benefit pension plans and the present value of the employee benefit obligations are determined using actuarial valuations. Actuarial valuations involve, amongst others, making assumptions about discount rates, future salary increases and mortality rates. All assumptions are reviewed at each reporting date. Any changes in these assumptions will impact the carrying amount of the employee benefit obligations and the cost of the defined benefit pension plans. In determining the appropriate discount rate, management considers the interest rates of high quality corporate bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating the terms of the related pension liability. The mortality rate is based on publicly available mortality tables for the specific country. Future salary increases and pension increases are based on expected future inflation rates for the specific country. Individual discount rates are derived from the yield curve and are used to determine the service cost and interest cost of the Canadian defined benefit pension plans at the beginning of the year. The present value of the employee benefit obligations for these Canadian plans is determined based on the individual discount rates derived from the yield curve at the end of the year.

Other key assumptions for pension obligations are based, in part, on current market conditions. See Note 19 for further details regarding assumptions used.

Government royalty repayments

In determining the amount of repayable government royalties, assumptions and estimates are made in relation to discount rates, expected revenues and the expected timing of revenues. Revenue projections consider past experience and represent management's best estimate about the future. Revenues after a five-year period are extrapolated using estimated growth rates, ranging from 8.0% to 15.0%, over the period of repayments. The estimated repayments are discounted using average rates ranging from 6.0% to 9.5% based on terms of similar financial instruments. These estimates, along with the methodology used to derive the estimates, can have a material impact on the respective values and ultimately any repayable obligation in relation to government participation. A 1% increase to the growth rates would increase the royalty obligations at March 31, 2020 by approximately $2.8 million (2019 – $3.5 million). A 1% decrease to the growth rates would have an opposite impact on the royalty obligations.

Income taxes

The Company is subject to income tax laws in numerous jurisdictions. Judgement is required in determining the worldwide provision for income taxes. The determination of tax liabilities and assets involves uncertainties in the interpretation of complex tax regulations. The Company provides for potential tax liabilities based on the weighted average probability of the possible outcomes. Differences between actual results and those estimates could influence the income tax liabilities and deferred tax liabilities in the period in which such determinations are made.

Deferred tax assets are recognized to the extent that it is probable that taxable profit will be available against the losses that can be utilized. Significant management judgement is required to determine the amount of deferred tax assets that can be recognized, based upon the likely timing and the level of future taxable profits together with future tax planning strategies. The recorded amount of total deferred tax assets could be altered if estimates of projected future taxable income and benefits from available tax strategies are lowered, or if changes in current tax regulations are enacted that impose restrictions on the timing or extent of the Company's ability to utilize future tax benefits.

Impact of the COVID-19 pandemic

The COVID-19 pandemic and the resulting measures taken in response to its spread have resulted in significant temporary disruptions to the Company business operations. The rapidly evolving situation has created a high level of uncertainty and risk that may result in significant impacts on the Company's business, financial performance and operations.

The uncertainties created by the COVID-19 pandemic required the use of judgements and estimates in the areas set out below. The future impact of the COVID-19 pandemic increases the risk, in future reporting periods, of material adjustments to the carrying amount of the Company's net assets.

Goodwill impairment test
The Company performed its annual impairment test for goodwill during the fourth quarter of fiscal 2020. Goodwill is allocated to CGUs or a group of CGUs, which generally corresponds to the Company's operating segments or one level below. The value in use of each CGU is calculated using estimated cash flows derived from the Company's five-year strategic plan. Cash flows subsequent to the five-year period were extrapolated using a constant growth rate of 2% to 3%. These projections are inherently uncertain due to the fluidly evolving impact of the COVID-19 pandemic. Significant assumptions and estimates are used to determine the expected growth rates embedded in our cash flow projections and the discount rate based on observable market data during the fourth quarter.

Based on the results of its impairment test, the Company recorded an impairment charge of goodwill of $37.5 million in relation to the Healthcare CGU (see Note 26).

Impairment of non-financial assets
The Company has considered the impact of the COVID-19 pandemic on its assessment of impairment indicators, which required significant judgement. The Company has reviewed its property, plant and equipment, right-of-use assets, amortizable intangible assets, investment in equity accounted investees as well as other assets such as inventories and deferred tax assets. Where impairment indicators were identified in the Civil Aviation Training Solutions segment, no significant impairment charge has been recorded. No impairment indicators were identified in the Defence and Security and Healthcare segments.

Expected credit loss
The Company has considered the impact of the COVID-19 pandemic on the expected credit loss of its financial instruments (mainly trade receivable and contract assets). The amount and timing of the expected credit losses, as well as the probability assigned thereto, has been based on the available information as at March 31, 2020. As a result of this review, no significant credit loss allowances adjustments have been recorded (see Note 9).

NOTE 2 – CHANGES IN ACCOUNTING POLICIES

New and amended standards adopted by the Company

IFRS 16 - *Leases*
In January 2016, the IASB released IFRS 16 - *Leases*, which replaced IAS 17 - *Leases* and related interpretations. The new standard introduces a single lessee accounting model and eliminates the classification of leases as either operating or finance leases. It requires the lessee to recognize a right-of-use asset and a lease liability for substantially all leases. Lessors continue to classify leases as operating leases or finance leases as IFRS 16 substantially carries forward the current lessor accounting requirements.

IFRS 16 was adopted effective April 1, 2019. The Company elected to use the modified retrospective approach. Under this approach, the comparative information was not restated and the cumulative effect of initially applying IFRS 16 was recognized in equity at the date of initial application, on April 1, 2019.

The Company has elected to apply the following transitional practical expedients:

– Maintain previous assessment of whether a contract is, or contains, a lease at the date of initial application;
– Use of hindsight when evaluating the lease term if a contract contains options to extend or terminate the lease;
– Recognize short-term leases and leases of low-value assets as a lease expense on a straight-line basis, consistent with current IAS 17 accounting;
– Account for leases for which the remaining lease term ends within 12 months of the effective date as short-term leases;
– Adjust the right-of-use asset by the amount of the previously assessed IAS 37 onerous contract provision as an alternative to an impairment review;
– Exclude initial direct costs from the measurement of the right-of-use asset at the date of initial application;
– Measure the right-of-use asset as if IFRS 16 had been applied since the lease commencement date using the incremental borrowing rate at the date of initial application.

Where the Company is a lessee, IFRS 16 resulted in on-balance sheet recognition of most of its leases that were previously considered operating leases under IAS 17 unless they met the short-term or low-value exemption.

For the consolidated statement of financial position, this resulted in the recognition of new right-of-use assets of $226.8 million and new lease liabilities of $265.8 million, presented as part of the long-term debt, discounted using the incremental borrowing rate as at April 1, 2019 (weighted average rate applied was 5.4%). In addition, the Company had existing finance lease assets of $206.0 million under IAS 17 that were reclassified to right-of-use assets.

For the consolidated income statement, depreciation expense on the right-of-use assets and interest expense on the lease liabilities are incurred, replacing the operating lease expense previously recognized under IAS 17 accounting.

For the consolidated statement of cash flows, the principal repayments of the lease liabilities are presented in financing activities, whereas previously operating lease payments under IAS 17 accounting were presented in operating activities.

The cumulative effect of the impacts of adopting IFRS 16 on the consolidated statement of financial position as at April 1, 2019 are presented in the table below:

(amounts in millions)		March 31 2019		IFRS 16 Adjustments		**April 1 2019**
Assets						
Total current assets	$	2,112.9	$	(3.3)	**$**	**2,109.6**
Property, plant and equipment		2,149.3		(206.0)		**1,943.3**
Right-of-use assets		—		432.8		**432.8**
Investment in equity accounted investees		312.1		(3.7)		**308.4**
Other non-current assets		2,591.2		0.3		**2,591.5**
Total assets	$	7,165.5	$	220.1	**$**	**7,385.6**
Liabilities and equity						
Current portion of long-term debt	$	264.1	$	31.8	**$**	**295.9**
Other current liabilities		1,625.4		(4.3)		**1,621.1**
Total current liabilities	$	1,889.5	$	27.5	**$**	**1,917.0**
Long-term debt		2,064.2		234.0		**2,298.2**
Other non-current liabilities		801.8		(13.9)		**787.9**
Total liabilities	$	4,755.5	$	247.6	**$**	**5,003.1**
Total equity	$	2,410.0	$	(27.5)	**$**	**2,382.5**
Total liabilities and equity	$	7,165.5	$	220.1	**$**	**7,385.6**

The difference between the amount of new lease liabilities recognized as at April 1, 2019 and the future aggregate minimum lease payments under non-cancellable operating leases of the Company as at March 31, 2019, which amounted to $274.1 million, is mainly due to the discounting factors applied to the lease payments, the inclusion of optional renewal period reasonably certain to be exercised, and the exclusion of leases payments for short-term lease and low-value lease.

IFRIC 23 - *Uncertainty over income tax treatments*

In June 2017, the IASB released IFRIC 23 - *Uncertainty over Income Tax Treatments*, which addresses how to determine the taxable profit (loss), tax bases, unused tax losses, unused tax credits and tax rates, when there is uncertainty over income tax treatments under IAS 12 - *Income Taxes*. It specifically considers whether tax treatments should be considered independently or collectively and assumptions for taxation authorities' examinations in regards to taxable profit (loss), tax bases, unused tax losses, unused tax credits or tax rates.

IFRIC 23 was adopted effective April 1, 2019 and resulted in no significant adjustment.

Amendment to IAS 19 - *Employee benefits*

In February 2018, the IASB released an amendment to IAS 19 - *Employee Benefits*, which clarifies how to account for plan amendments, curtailments and settlements on defined benefits plans. The amendment requires the use of updated actuarial assumptions to determine current service cost and net interest for the period after a plan amendment, curtailment or settlement.

This amendment to IAS 19 was adopted April 1, 2019 and will apply to any plan amendments, curtailments or settlements occurring subsequent to April 1, 2019.

NOTE 3 – BUSINESS COMBINATIONS

Year ended March 31, 2020

Pelesys Learning Systems Inc.

On April 26, 2019, the Company acquired the remaining 55% equity interest in Pelesys Learning Systems Inc. (Pelesys) for cash consideration (net of cash acquired) of $4.0 million and a long-term payable of $5.7 million.

Pelesys is a global leader in the provision of aviation training solutions and courseware. The acquisition strengthens the Company's courseware offering and consolidate its cadet-to-captain training delivery across its global network. Prior to this transaction, the Company's 45% ownership interest in Pelesys was accounted for using the equity method.

Luftfartsskolen AS

On June 26, 2019, the Company acquired the shares of Luftfartsskolen AS, an ab-initio flight school located in Oslo, Norway, for cash consideration (net of cash acquired) of $3.5 million. This acquisition strengthens the Company's leadership and global reach in civil aviation training by growing its flight academy network.

The purchase prices of Pelesys and Luftfartsskolen AS are mainly allocated to goodwill and intangible assets. The net assets, including intangibles, arising from these acquisitions are included in Civil Aviation Training Solutions segment.

Other

On November 12, 2019, the Company invested in a healthcare software company that enables increased efficiency of learning. The investment is in the form of a controlling 50% equity interest, for cash consideration of $0.9 million.

During the year ended March 31, 2020, the Company completed its final assessment of the fair value of assets acquired and liabilities assumed of all acquisitions realized in fiscal 2020 and those of Avianca's Training Business, Logitude, the Indian Training Centres and Bombardier's Business Aircraft Training Business which were acquired during the year ended March 31, 2019. Adjustments to the determination of net identifiable assets acquired and liabilities assumed for acquisitions realized in the year ended March 31, 2019 resulted in an increase of intangible assets of $6.2 million, a decrease of deferred tax assets of $4.7 million and a decrease of other net assets of $1.5 million.

During the year ended March 31, 2020, an additional net cash consideration of $1.7 million was paid for acquisitions realized during the year ended March 31, 2019.

Year ended March 31, 2019

Alpha-Omega Change Engineering

On July 31, 2018, the Company acquired the shares of Alpha-Omega Change Engineering Inc. (AOCE) for cash consideration of $34.4 million, subject to purchase price adjustments related to working capital. AOCE is a provider of aircrew training services, operational test and evaluation, and engineering support services to the U.S. Department of Defense and U.S. intelligence service.

Avianca's Training Business

On January 30, 2019, as part of an exclusive 15-year training outsourcing agreement, the Company acquired the remaining 50% equity interest in Avianca-CAE Flight Training (ACFT), a recently formed training joint venture, and training assets located in Colombia and El Salvador from Avianca Holdings, for cash consideration of $50.1 million.

Prior to this transaction, the Company's 50% ownership interest in ACFT was accounted for using the equity method.

Logitude

On March 7, 2019, the Company acquired the shares of Logitude Oy for total consideration of $8.7 million. Logitude designs and develops software solutions related to flight and cabin crew training management and training records management, including evidence-based training.

Bombardier's Business Aircraft Training Business

On March 13, 2019, the Company acquired Bombardier's Business Aircraft Training (BAT) Business for cash consideration of $709.9 million, subject to purchase price adjustments primarily related to working capital.

The acquisition provides the Company with a specialized workforce, a portfolio of customers, and business jet full-flight simulators and training devices to add to its training network.

Indian Training Centres

On March 27, 2019, the Company acquired the remaining 50% equity interest in the CAE Flight Training (India) Private Limited (CFTPL) joint venture and an additional 25% equity interest in the CAE Simulation Training Private Limited (CSTPL) Indian joint venture for cash consideration of $31.5 million.

As a result, the Company acquired control over CFTPL's assets for the training centres located in India, including a portfolio of customers, and now owns a 50% equity interest in CSTPL, a joint venture training centre between CAE and InterGlobe Enterprises located in India.

Prior to this acquisition, the Company's 50% ownership interest in CFTPL was accounted for using the equity method. The gain resulting from the remeasurement to fair value of the previously held interest in CFTPL is included in Other gains - Net in the consolidated income statement.

The determination of the fair value of the net assets acquired and liabilities assumed arising from the acquisitions are as follows:

	Bombardier's BAT Business	Other	Total
Current assets, excluding cash on hand	$ —	$ 45.4	$ 45.4
Current liabilities	(6.1)	(39.8)	(45.9)
Property, plant and equipment	134.6	40.6	175.2
Investment in equity accounted investee	—	21.7	21.7
Intangible assets	695.8	115.7	811.5
Deferred tax	13.1	14.1	27.2
Other non-current assets	9.3	—	9.3
Long-term debt, including current portion	(137.6)	(15.2)	(152.8)
Other non-current liabilities	(2.7)	(49.0)	(51.7)
Fair value of net assets acquired, excluding cash acquired	$ 706.4	$ 133.5	$ 839.9
Cash acquired	—	4.6	4.6
Total purchase consideration	$ 706.4	$ 138.1	$ 844.5
Net short-term receivable (payable)	2.9	(4.1)	(1.2)
Settlement of pre-existing relationship	0.6	0.5	1.1
Fair value of previously held interest in equity accounted investees	—	(12.0)	(12.0)
Total cash consideration	$ 709.9	$ 122.5	$ 832.4

The fair value of the acquired identifiable intangible assets amount to $811.5 million and consists of goodwill of $443.0 million ($334.5 million is deductible for tax purposes), licenses of $169.5 million, customer relationships of $191.4 million and other intangible assets of $7.6 million.

The fair value and the gross contractual amount of the acquired accounts receivable were $23.6 million.

During the year ended March 31, 2019, total acquisition costs incurred relating to these acquisitions were included in Other gains - Net in the consolidated income statement.

The net assets acquired, including intangibles, of AOCE are included in the Defence and Security segment. The goodwill arising from the acquisition is attributable to the enhancement of the Company's core capabilities as a training systems integrator, strengthening of its position on enduring platforms such as fighter aircraft and expanded ability to pursue higher-level security programs in the United States.

The net assets acquired, including intangibles, of Avianca's Training Business, Logitude, Bombardier's BAT Business and the Indian Training Business are included in the Civil Aviation Training Solutions segment. The goodwill arising from these acquisitions is mainly attributable to the expansion of CAE's customer installed base of business jet and commercial flight simulators, market capacity consolidation and expected synergies from combining operations.

During the year ended March 31, 2019, the Company finalized the purchase price allocation of AOCE and the acquisitions realized in the year ended March 31, 2018. As at March 31, 2019, the purchase price allocation for Avianca's Training Business, Logitude, Bombardier's Business Aircraft Training Business and the Indian Training Centres were preliminary at that time.

NOTE 4 – OPERATING SEGMENTS AND GEOGRAPHIC INFORMATION

The Company elected to organize its operating segments principally on the basis of its customer markets. The Company manages its operations through its three segments. Operating segments are reported in a manner consistent with the internal reporting provided to the chief operating decision-maker.

The Company has decided to disaggregate revenue from contracts with customers by segment, by products and services and by geographic regions as the Company believes it best depicts how the nature, amount, timing and uncertainty of its revenue and cash flows are affected by economic factors.

Results by segment

The profitability measure employed by the Company for making decisions about allocating resources to segments and assessing segment performance is operating profit (hereinafter referred to as segment operating income). The accounting principles used to prepare the information by operating segments are the same as those used to prepare the Company's consolidated financial statements. The method used for the allocation of assets jointly used by operating segments and costs and liabilities jointly incurred (mostly corporate costs) between operating segments is based on the level of utilization when determinable and measurable, otherwise the allocation is based on a proportion of each segment's cost of sales and revenue.

	Civil Aviation Training Solutions		Defence and Security		Healthcare		Total	
	2020	2019	**2020**	2019	**2020**	2019	**2020**	2019
External revenue	**$ 2,167.5**	$1,875.8	**$ 1,331.2**	$ 1,306.7	**$ 124.5**	$ 121.6	**$ 3,623.2**	$ 3,304.1
Depreciation and amortization	**232.8**	157.2	**58.2**	46.5	**14.4**	13.5	**305.4**	217.2
Impairment of non-financial assets – net	**1.8**	4.9	**3.2**	—	**37.5**	—	**42.5**	4.9
Write-downs of inventories – net	**1.3**	0.7	**4.9**	0.9	**0.2**	0.1	**6.4**	1.7
Write-downs of accounts receivable – net	**5.4**	4.4	**—**	0.2	**0.1**	—	**5.5**	4.6
Share of after tax profit of equity accounted investees	**18.3**	23.0	**9.2**	10.4	**—**	—	**27.5**	33.4
Segment operating income (loss)	**473.3**	344.3	**104.8**	131.5	**(41.0)**	4.8	**537.1**	480.6

Capital expenditures by segment, which consist of additions to property, plant and equipment and intangible assets, are as follows:

	2020	2019
Civil Aviation Training Solutions	**$ 296.3**	$ 260.1
Defence and Security	**74.8**	65.7
Healthcare	**12.9**	12.6
Total capital expenditures	**$ 384.0**	$ 338.4

Addition of assets through the monetization of royalties

During the year ended March 31, 2019, the Company agreed to monetize its future royalty obligations under an Authorized Training Provider agreement with Bombardier and extend this agreement to 2038. In December 2018, the Company concluded the monetization transaction which resulted in a cash outlay of $202.7 million. The monetization represents the discounted sum of expected royalties payable by CAE over the next 20 years. As a result of this transaction, $156.7 million of intangible assets (Note 13) and $46.0 million of property, plant and equipment (Note 12) were recognized in the Civil Aviation Training Solutions segment.

Assets and liabilities employed by segment

The Company uses assets employed and liabilities employed to assess resources allocated to each segment. Assets employed include accounts receivable, contract assets, inventories, prepayments, property, plant and equipment, right-of-use assets, intangible assets, investment in equity accounted investees, derivative financial assets and other non-current assets. Liabilities employed include accounts payable and accrued liabilities, provisions, contract liabilities, derivative financial liabilities and other non-current liabilities.

Assets and liabilities employed by segment are reconciled to total assets and liabilities as follows:

	2020	2019
Assets employed		
Civil Aviation Training Solutions	**$ 5,089.5**	$ 4,373.0
Defence and Security	**1,767.5**	1,627.2
Healthcare	**253.9**	271.6
Assets not included in assets employed	**1,372.7**	893.7
Total assets	**$ 8,483.6**	$ 7,165.5
Liabilities employed		
Civil Aviation Training Solutions	**$ 1,219.9**	$ 1,098.3
Defence and Security	**613.5**	595.2
Healthcare	**45.9**	48.8
Liabilities not included in liabilities employed	**4,026.0**	3,013.2
Total liabilities	**$ 5,905.3**	$ 4,755.5

Products and services information

The Company's revenue from external customers for its products and services are as follows:

	2020	2019
Simulation products	**$ 1,537.0**	$ 1,473.8
Training and services	**2,086.2**	1,830.3
Total external revenue	**$ 3,623.2**	$ 3,304.1

Geographic information

The Company markets its products and services globally. Revenues are attributed to geographical regions based on the location of customers. Non-current assets other than financial instruments and deferred tax assets are attributed to geographical regions based on the location of the assets excluding goodwill. Goodwill is attributed to geographical regions based on the Company's allocation of the related purchase price. The Company has retrospectively revised the geographic information for the comparative period to conform to the current presentation.

	2020	2019
External revenue		
Canada	**$ 323.2**	$ 253.3
United States	**1,541.8**	1,285.0
United Kingdom	**208.8**	210.4
Rest of Americas	**127.7**	76.2
Europe	**631.7**	682.6
Asia	**707.1**	699.7
Africa and Oceania	**82.9**	96.9
	$ 3,623.2	$ 3,304.1

	2020	2019
Non-current assets other than financial instruments and deferred tax assets		
Canada	**$ 1,449.4**	$ 1,395.2
United States	**1,845.5**	1,580.7
United Kingdom	**403.4**	285.2
Rest of Americas	**250.4**	269.2
Europe	**801.0**	692.6
Asia	**586.9**	533.2
Africa and Oceania	**35.1**	35.4
	$ 5,371.7	$ 4,791.5

NOTE 5 – OTHER GAINS – NET

	2020	2019
Disposal of property, plant and equipment	$ 7.0	$ 1.2
Net gain on foreign currency exchange differences	41.6	24.8
Remeasurement of royalty obligations	1.9	7.9
Impairment of goodwill (Note 26)	(37.5)	—
Other	(12.0)	(11.6)
Other gains – net	$ 1.0	$ 22.3

Other

During the year ended March 31, 2020, reorganizational costs of $9.7 million, which includes write-downs of inventories of $3.8 million and impairment of intangible assets of $3.2 million, were recognized in the Defence and Security segment following changes made in the segment organization and the review of certain product offerings. Additionally, write-downs of assets of $9.4 million, which includes impairment of property, plant and equipment of $1.8 million, and integration costs of Bombardier's BAT Business of $6.1 million were recognized in the Civil Aviation Training Solutions segment. These costs were offset by a remeasurement gain of $13.4 million, due to the decrease in fair value of a contingent consideration liability incurred in connection with a fiscal 2018 business combination.

During the year ended March 31, 2019, an impairment of $4.9 million on certain older assets in our network and acquisition and integration costs of Bombardier's BAT Business of $6.8 million were recognized in the Civil Aviation Training Solutions segment. These costs were offset by a gain of $3.7 million generated primarily from the remeasurement to fair value of the previously held interest in CFTPL.

NOTE 6 – FINANCE EXPENSE – NET

	2020	2019
Finance expense:		
Long-term debt (other than lease liabilities)	$ 105.1	$ 63.1
Lease liabilities	23.3	7.6
Royalty obligations	10.0	11.9
Employee benefits obligations (Note 19)	5.6	5.7
Other	15.5	13.8
Borrowing costs capitalized	(3.6)	(5.0)
Finance expense	$ 155.9	$ 97.1
Finance income:		
Loans and investment in finance leases	$ (8.3)	$ (8.5)
Other	(3.2)	(7.7)
Finance income	$ (11.5)	$ (16.2)
Finance expense – net	$ 144.4	$ 80.9

NOTE 7 – INCOME TAXES

Income tax expense

A reconciliation of income taxes at Canadian statutory rates with the reported income taxes is as follows:

	2020	2019
Earnings before income taxes	$ 392.7	$ 399.7
Canadian statutory income tax rates	26.64%	26.72%
Income taxes at Canadian statutory rates	$ 104.6	$ 106.8
Effect of differences in tax rates in other jurisdictions	(19.9)	(13.4)
Unrecognized tax benefits and tax benefits not previously recognized	3.4	(33.0)
Non-taxable revenues	(6.2)	(5.5)
Tax impact on after tax profit of equity accounted investees	(6.1)	(8.0)
Other	(2.0)	12.7
Income tax expense	$ 73.8	$ 59.6

The Company's applicable tax rate corresponds to the combined Canadian tax rates applicable in the provinces where the Company operates. The decrease is due to a change in the tax rates and the allocation of income in the jurisdictions it operates.

Significant components of the provision for the income tax expense are as follows:

		2020		2019
Current income tax expense :				
Current year	**$**	**65.1**	$	69.9
Prior years' tax adjustments		**5.8**		12.8
Deferred income tax (recovery) expense:				
Tax benefit not previously recognized used to reduce the deferred tax expense		**(2.8)**		(36.1)
Change in income tax rates		**(1.0)**		(1.3)
Origination and reversal of temporary differences		**6.7**		14.3
Income tax expense	**$**	**73.8**	$	59.6

Deferred tax assets and liabilities

During the year ended March 31, 2020, movements in temporary differences are as follows:

	Balance beginning of year	Impact of adopting IFRS 16 (Note 2)	Recognized in income	Recognized in OCI	Business combinations	Foreign currency exchange differences	**Balance end of year**
Non-capital loss carryforwards	$ 35.2	$ —	$ (1.2)	$ —	$ —	$ (0.6)	**$ 33.4**
Unclaimed research & development expenditures	45.1	—	19.3	—	—	—	**64.4**
Capital loss carryforwards	0.7	—	0.7	—	—	—	**1.4**
Investment tax credits	(74.1)	—	4.1	—	—	—	**(70.0)**
Property, plant and equipment and right-of-use of assets	(73.2)	5.8	(11.2)	—	(3.1)	(6.7)	**(88.4)**
Intangible assets	(87.4)	—	(1.9)	—	(2.9)	(0.8)	**(93.0)**
Deferred revenues, contract assets and contract liabilities	2.0	—	(18.9)	—	—	1.0	**(15.9)**
Foreign currency exchange difference	(13.9)	—	(2.1)	13.3	—	0.4	**(2.3)**
Derivative financial assets and liabilities	0.2	—	15.6	9.7	—	—	**25.5**
Defined benefit obligation	55.4	—	0.1	(3.6)	—	1.2	**53.1**
Other	34.0	—	(7.4)	—	(0.6)	(0.3)	**25.7**
Net deferred income tax (liabilities) assets	$ (76.0)	$ 5.8	$ (2.9)	$ 19.4	$ (6.6)	$ (5.8)	**$ (66.1)**

During the year ended March 31, 2019, movements in temporary differences are as follows:

	Balance beginning of year	Recognized in income	Recognized in OCI	Business combinations	Foreign currency exchange differences	Balance end of year
Non-capital loss carryforwards	$ 45.7	$ (9.6)	$ —	$ 0.8	$ (1.7)	$ 35.2
Unclaimed research & development expenditures	37.4	7.7	—	—	—	45.1
Capital loss carryforwards	—	0.7	—	—	—	0.7
Investment tax credits	(64.6)	(9.5)	—	—	—	(74.1)
Property, plant and equipment and right-of-use of assets	(104.6)	16.4	—	18.3	(3.3)	(73.2)
Intangible assets	(87.8)	5.7	—	(6.2)	0.9	(87.4)
Deferred revenues, contract assets and contract liabilities	(8.6)	(2.8)	—	14.3	(0.9)	2.0
Foreign currency exchange difference	(13.9)	(1.3)	1.0	—	0.3	(13.9)
Derivative financial assets and liabilities	(0.3)	(0.7)	1.2	—	—	0.2
Defined benefit obligation	51.6	0.7	(1.1)	0.7	3.5	55.4
Other	21.6	15.8	—	(0.7)	(2.7)	34.0
Net deferred income tax (liabilities) assets	$ (123.5)	$ 23.1	$ 1.1	$ 27.2	$ (3.9)	$ (76.0)

As at March 31, 2020, a deferred income tax liability on taxable temporary differences of $2,544.3 million (2019 – $2,294.4 million) related to investments in subsidiaries and interests in joint ventures has not been recognized, because the Company controls whether the liability will be incurred and it is satisfied that it will not be incurred in the foreseeable future.

The non-capital losses incurred in various jurisdictions expire as follows:

Expiry date	Unrecognized	Recognized
2021 - 2025	$ 18.2	$ 1.2
2026 - 2039	116.0	50.5
No expiry date	41.0	84.5
	$ 175.2	$ 136.2

As at March 31, 2020, the Company has $149.9 million (2019 – $125.4 million) of deductible temporary differences for which deferred tax assets have not been recognized. These amounts will reverse during a period of up to 25 years.

NOTE 8 – SHARE CAPITAL, EARNINGS PER SHARE AND DIVIDENDS

Share capital

Authorized and issued shares

The Company is authorized to issue an unlimited number of common shares without par value and an unlimited number of preferred shares without par value, issuable in series.

The preferred shares may be issued with rights and conditions to be determined by the Board of Directors, prior to their issue. To date, the Company has not issued any preferred shares.

As at March 31, 2020, the number of common shares issued and fully paid was 265,619,627 (2019 – 265,447,603).

Repurchase and cancellation of common shares

On February 7, 2020, the Company announced the renewal of the normal course issuer bid (NCIB) to purchase up to 5,321,474 of its common shares. The NCIB began on February 25, 2020 and will end on February 24, 2021 or on such earlier date when the Company completes its purchases or elects to terminate the NCIB. These purchases will be made on the open market plus brokerage fees through the facilities of the TSX and/or alternative trading systems at the prevailing market price at the time of the transaction, in accordance with the TSX's applicable policies. All common shares purchased pursuant to the NCIB will be cancelled.

During the year ended March 31,2020, the Company repurchased and cancelled a total of 1,493,331 common shares under the previous and current NCIB (2019 – 3,671,900), at a weighted average price of $33.22 per common share (2019 – $25.70), for a total consideration of $49.6 million (2019 – $94.4 million). An excess of $45.8 million (2019 – $85.6 million) of the shares' repurchase value over their carrying amount was charged to retained earnings as share repurchase premiums. Subsequent to year end, the Company has temporary suspended its NCIB (see Note 33).

Earnings per share computation

The denominators for the basic and diluted earnings per share computations are as follows:

	2020	2019
Weighted average number of common shares outstanding	**265,951,131**	266,580,019
Effect of dilutive stock options	**1,644,353**	1,394,135
Weighted average number of common shares outstanding for diluted earnings per share calculation	**267,595,484**	267,974,154

As at March 31, 2020, stock options to acquire 1,293,200 common shares (2019 – 1,722,800) have been excluded from the above calculation since their inclusion would have had an anti-dilutive effect.

Dividends

During the year ended March 31, 2020, the dividends declared were $114.3 million or $0.43 per share (2019 – $103.9 million or $0.39 per share). Subsequent to year end, the Company has temporary suspended its common share dividends (see Note 33).

NOTE 9 – ACCOUNTS RECEIVABLE

Details of accounts receivable are as follows:

		2020		2019
Current trade receivables	$	**215.1**	$	227.3
Past due trade receivables				
1-30 days		**95.7**		55.4
31-60 days		**27.8**		19.5
61-90 days		**34.1**		7.6
Greater than 90 days		**105.3**		79.6
Credit loss allowances		**(27.5)**		(22.0)
Total trade receivables	$	**450.5**	$	367.4
Investment in finance leases (Note 14)		**16.8**		11.4
Receivables from related parties (Note 32)		**45.8**		30.9
Other receivables		**53.0**		86.3
Total accounts receivable	$	**566.1**	$	496.0

Changes in credit loss allowances are as follows:

		2020		2019
Credit loss allowances, beginning of year	$	**(22.0)**	$	(20.9)
Additions		**(7.4)**		(7.3)
Amounts charged off		**0.8**		5.0
Unused amounts reversed		**1.8**		0.7
Foreign currency exchange differences		**(0.7)**		0.5
Credit loss allowances, end of year	$	**(27.5)**	$	(22.0)

NOTE 10 – BALANCE FROM CONTRACTS WITH CUSTOMERS

Net contract liabilities are as follows:

		2020		2019
Contract assets	$	**569.3**	$	523.5
Contract liabilities - current		**(746.2)**		(670.2)
Contract liabilities - non-current		**(83.3)**		(102.5)
Net contract liabilities	$	**(260.2)**	$	(249.2)

During the year ended March 31, 2020, the Company recognized revenue of $532.2 million (2019 - $599.4 million) that was included in the contract liability balance at the beginning of the year.

During the year ended March 31, 2020, the Company recognized revenue of $29.8 million (2019 - $22.4 million) related to performance obligations satisfied in previous years. This primarily relates to estimate at completion adjustments that impacted revenue and measures of completion.

Remaining performance obligations

As at March 31, 2020, the amount of the revenues expected to be realized in future years from performance obligations that are unsatisfied, or partially unsatisfied, was $4,863.5 million. The Company expects to recognize approximately 41% of these remaining performance obligations as revenue by March 31, 2021, an additional 22% by March 31, 2022 and the balance thereafter.

NOTE 11 – INVENTORIES

		2020		2019
Work in progress	$	**405.1**	$	342.4
Raw materials, supplies and manufactured products		**211.1**		194.6
	$	**616.2**	$	537.0

During the year ended March 31, 2020, use of inventory recognized in cost of sales amounted to $500.3 million (2019 – $523.5 million).

NOTE 12 – PROPERTY, PLANT AND EQUIPMENT

	Buildings and land	Simulators	Machinery and equipment	Aircraft	Assets under finance lease	Assets under construction	Total
Net book value as at March 31, 2018	$ 226.7	$ 1,185.9	$ 50.3	$ 55.4	$ 121.2	$ 164.4	$ 1,803.9
Additions	27.3	10.3	16.9	2.5	—	194.8	251.8
Additions – business combinations (Note 3)	0.2	70.4	0.5	0.3	103.4	0.4	175.2
Additions – monetization of royalties (Note 4)	—	46.0	—	—	—	—	46.0
Disposals	—	(1.3)	—	(0.2)	—	—	(1.5)
Depreciation	(16.8)	(83.1)	(17.3)	(4.5)	(15.9)	—	(137.6)
Impairment	—	(4.9)	—	—	—	—	(4.9)
Transfers and others	4.4	232.3	1.2	—	(6.2)	(212.8)	18.9
Foreign currency exchange differences	(0.1)	(5.3)	(0.1)	1.3	3.5	(1.8)	(2.5)
Net book value as at March 31, 2019	$ 241.7	$ 1,450.3	$ 51.5	$ 54.8	$ 206.0	$ 145.0	$ 2,149.3
Impact of adopting IFRS 16 (Note 2)	—	—	—	—	(206.0)	—	(206.0)
Net book value as at April 1, 2019	$ 241.7	$ 1,450.3	$ 51.5	$ 54.8	—	$ 145.0	$ 1,943.3
Additions	31.0	27.3	13.9	11.3	—	207.1	290.6
Additions – business combinations (Note 3)	0.1	—	0.1	0.6	—	—	0.8
Disposals	(0.1)	(0.5)	—	(0.1)	—	—	(0.7)
Depreciation	(17.7)	(105.0)	(17.9)	(5.0)	—	—	(145.6)
Impairment	—	(1.8)	—	—	—	—	(1.8)
Transfers and others	2.2	155.0	2.8	4.6	—	(151.6)	13.0
Foreign currency exchange differences	5.6	44.0	1.0	3.1	—	0.7	54.4
Net book value as at March 31, 2020	**$ 262.8**	**$ 1,569.3**	**$ 51.4**	**$ 69.3**	**—**	**$ 201.2**	**$ 2,154.0**

	Buildings and land	Simulators	Machinery and equipment	Aircraft	Assets under finance lease	Assets under construction	Total
Cost	$ 455.4	$ 2,005.0	$ 221.1	$ 67.0	$ 345.7	$ 145.0	$ 3,239.2
Accumulated depreciation and impairment	(213.7)	(554.7)	(169.6)	(12.2)	(139.7)	—	(1,089.9)
Net book value as at March 31, 2019	$ 241.7	$ 1,450.3	$ 51.5	$ 54.8	$ 206.0	$ 145.0	$ 2,149.3
Impact of adopting IFRS 16 (Note 2)	—	—	—	—	(206.0)	—	(206.0)
Net book value as at April 1, 2019	$ 241.7	$ 1,450.3	$ 51.5	$ 54.8	—	$ 145.0	$ 1,943.3
Cost	$ 490.0	$ 2,191.1	$ 203.1	$ 82.2	—	$ 201.2	$ 3,167.6
Accumulated depreciation and impairment	(227.2)	(621.8)	(151.7)	(12.9)	—	—	(1,013.6)
Net book value as at March 31, 2020	**$ 262.8**	**$ 1,569.3**	**$ 51.4**	**$ 69.3**	**—**	**$ 201.2**	**$ 2,154.0**

During the year ended March 31, 2020, depreciation of $142.8 million (2019 – $134.9 million) has been recorded in cost of sales, $0.8 million (2019 – $0.7 million) in research and development expenses and $2.0 million (2019 – $2.0 million) in selling, general and administrative expenses.

NOTE 13 – INTANGIBLE ASSETS

	Goodwill (Note 26)	Capitalized development costs	Customer relationships	Licenses	ERP and other software	Other intangible assets	Total
Net book value as at March 31, 2018	$ 625.5	$ 173.7	$ 154.5	$ —	$ 64.9	$ 37.0	$ 1,055.6
Additions – internal development	—	69.4	—	—	17.2	—	86.6
Additions – business combinations (Note 3)	443.0	7.6	191.4	169.5	—	—	811.5
Additions – monetization of royalties (Note 4)	—	—	—	156.7	—	—	156.7
Amortization	—	(30.5)	(22.4)	(2.3)	(14.3)	(5.4)	(74.9)
Transfers and others	—	(10.0)	—	—	2.7	0.5	(6.8)
Foreign currency exchange differences	(0.8)	0.4	(0.7)	0.5	0.2	(0.4)	(0.8)
Net book value as at March 31, 2019	$ 1,067.7	$ 210.6	$ 322.8	$ 324.4	$ 70.7	$ 31.7	$ 2,027.9
Additions – internal development	—	86.2	—	—	12.0	—	98.2
Additions – acquired separately	—	—	—	1.8	—	0.6	2.4
Additions – business combinations (Note 3)	20.1	5.8	13.0	(7.0)	—	—	31.9
Amortization	—	(39.6)	(34.7)	(12.8)	(14.1)	(4.9)	(106.1)
Impairment	(37.5)	(3.2)	—	—	—	—	(40.7)
Transfers and others	—	(11.1)	2.9	(2.7)	4.1	—	(6.8)
Foreign currency exchange differences	35.0	0.8	8.0	5.0	0.3	0.6	49.7
Net book value as at March 31, 2020	**$ 1,085.3**	**$ 249.5**	**$ 312.0**	**$ 308.7**	**$ 73.0**	**$ 28.0**	**$ 2,056.5**

	Goodwill	Capitalized development costs	Customer relationships	Licenses	ERP and other software	Other intangible assets	Total
Cost	$ 1,067.7	$ 375.0	$ 460.9	$ 326.7	$ 208.8	$ 104.1	$ 2,543.2
Accumulated amortization and impairment	—	(164.4)	(138.1)	(2.3)	(138.1)	(72.4)	(515.3)
Net book value as at March 31, 2019	$ 1,067.7	$ 210.6	$ 322.8	$ 324.4	$ 70.7	$ 31.7	$ 2,027.9
Cost	$ 1,122.8	$ 454.2	$ 486.1	$ 326.2	$ 213.3	$ 98.3	$ 2,700.9
Accumulated amortization and impairment	(37.5)	(204.7)	(174.1)	(17.5)	(140.3)	(70.3)	(644.4)
Net book value as at March 31, 2020	**$ 1,085.3**	**$ 249.5**	**$ 312.0**	**$ 308.7**	**$ 73.0**	**$ 28.0**	**$ 2,056.5**

During the year ended March 31, 2020, amortization of $65.8 million (2019 – $43.7 million) has been recorded in cost of sales, $38.5 million (2019 – $29.4 million) in research and development expenses and $1.8 million (2019 – $1.8 million) in selling, general and administrative expenses.

NOTE 14 – LEASES

Leases as lessee

Right-of-use assets

	Buildings and land	Simulators	Machinery and equipment	Aircraft	Total
Net book value as at March 31, 2019	$ —	$ —	$ —	$ —	$ —
Impact of adopting IFRS 16 (Note 2)	241.8	183.7	7.3	—	432.8
Net book value as at April 1, 2019	$ 241.8	$ 183.7	$ 7.3	$ —	$ 432.8
Additions and remeasurements	30.1	(3.4)	0.6	—	27.3
Additions – business combinations (Note 3)	1.1	—	—	0.4	1.5
Depreciation	(25.3)	(20.1)	(3.1)	(0.2)	(48.7)
Transfers and others	(1.0)	(25.3)	0.2	—	(26.1)
Foreign currency exchange differences	5.2	3.9	—	—	9.1
Net book value as at March 31, 2020	**$ 251.9**	**$ 138.8**	**$ 5.0**	**$ 0.2**	**$ 395.9**

During the year ended March 31, 2020, depreciation of $47.0 million has been recorded in cost of sales and $1.7 million in selling, general and administrative expenses.

Short-term leases, leases of low-value assets and variable lease payments
During the year ended March 31, 2020, expenses of $16.3 million have been recognized in net income relating to short-term leases, leases of low-value assets and variable lease payments not included in the measurement of lease liabilities.

Leases as lessor

Operating Lease

As at March 31, 2020, the net book value of property, plant and equipment leased under operating lease to third parties was $72.8 million (2019 - $91.7 million).

Undiscounted lease payments to be received under operating leases are as follows:

		2020		2019
Less than 1 year	**$**	**38.3**	$	36.2
Between 1 and 2 years		**35.6**		30.6
Between 2 and 3 years		**30.4**		29.7
Between 3 and 4 years		**25.8**		25.8
Between 4 and 5 years		**25.3**		21.4
More than 5 years		**65.7**		42.8
Total undiscounted lease payments receivable	**$**	**221.1**	$	186.5

Finance Lease

Undiscounted lease payments to be received under finance leases are as follows:

		2020		2019
Less than 1 year	**$**	**19.5**	$	13.4
Between 1 and 2 years		**19.8**		13.7
Between 2 and 3 years		**27.4**		11.4
Between 3 and 4 years		**10.3**		10.1
Between 4 and 5 years		**11.6**		13.3
More than 5 years		**146.8**		113.3
Total undiscounted lease payments receivable	**$**	**235.4**	$	175.2
Unearned finance income		**(71.4)**		(66.0)
Discounted unguaranteed residual values of leased assets		**(9.0)**		(6.3)
Total investment in finance leases	**$**	**155.0**	$	102.9
Current portion (Note 9)		**16.8**		11.4
Non-current portion (Note 15)	**$**	**138.2**	$	91.5

NOTE 15 – OTHER NON-CURRENT ASSETS

		2020		2019
Restricted cash	**$**	**12.4**	$	27.3
Prepaid rent to a portfolio investment		**23.3**		27.3
Advances to a portfolio investment		**29.7**		29.5
Investment in finance leases (Note 14)		**138.2**		91.5
Non-current receivables		**40.2**		40.7
Investment tax credits		**231.5**		231.9
Other		**35.1**		31.3
	$	**510.4**	$	479.5

NOTE 16 – ACCOUNTS PAYABLE AND ACCRUED LIABILITIES

		2020		2019
Accounts payable trade	**$**	**539.7**	$	458.9
Accrued liabilities		**370.9**		400.2
Deferred revenue		**15.2**		11.6
Amount due to related parties (Note 32)		**5.7**		2.2
Current portion of royalty obligations		**2.9**		10.9
	$	**934.4**	$	883.8

NOTE 17 – PROVISIONS

Changes in provisions are as follows:

	Restoration and simulator removal	Restructuring	Legal	Warranties	Other	Total
Provisions, as at March 31, 2019	$ 8.0	$ 11.8	$ 3.4	$ 37.5	$ 4.3	$ 65.0
Impact of adopting IFRS 16 (Note 2)	—	(10.2)	—	—	—	(10.2)
Provisions, as at April 1, 2019	$ 8.0	$ 1.6	$ 3.4	$ 37.5	$ 4.3	$ 54.8
Additions	3.7	—	0.1	10.4	9.3	23.5
Business combinations (Note 3)	—	—	—	—	0.2	0.2
Amount used	(0.1)	(0.3)	(0.1)	(15.4)	(5.3)	(21.2)
Reversal of unused amounts	—	—	—	(0.2)	(0.5)	(0.7)
Foreign currency exchange differences	0.4	0.1	0.2	0.1	0.4	1.2
Provisions, as at March 31, 2020	**$ 12.0**	**$ 1.4**	**$ 3.6**	**$ 32.4**	**$ 8.4**	**$ 57.8**
Current portion	**0.4**	**1.4**	**2.8**	**17.6**	**7.0**	**29.2**
Non-current portion	**$ 11.6**	**$ —**	**$ 0.8**	**$ 14.8**	**$ 1.4**	**$ 28.6**

NOTE 18 – DEBT FACILITIES

Long-term debt, net of transaction costs is as follows:

	Notional amount	Maturity	**2020** Current	**2020** Non-current	2019 Current	2019 Non-current
Unsecured senior notes						
U.S. dollar, fixed rate - 3.60% to 4.90%	US$975.0	2024-2034	**$ —**	**$ 1,370.4**	$ 80.1	$ 1,163.1
Canadian dollar, fixed rate - 4.15%	$30.0	2024-2027	**—**	**30.0**	45.0	30.0
Canadian dollar, variable rate			**—**	**—**	50.0	—
Term loans						
U.S. dollar, variable rate	US$183.1	2021-2025	**79.7**	**177.1**	8.0	259.2
Canadian dollar, variable rate	$46.5	2020-2028	**5.6**	**40.7**	5.6	46.3
Other			**8.2**	**7.9**	8.4	24.8
Lease liabilities						
U.S. dollar		2020-2041	**91.7**	**214.4**	61.4	179.3
Other		2020-2043	**21.0**	**160.7**	1.4	17.2
R&D obligations						
Canadian dollar		2021-2039	**—**	**391.5**	4.2	344.3
Revolving credit facilities						
U.S. dollar, variable rate		2023	**—**	**423.3**	—	—
Canadian dollar, variable rate		2023	**—**	**290.0**	—	—
Total long-term debt			**$ 206.2**	**$ 3,106.0**	$ 264.1	$ 2,064.2

Unsecured senior notes

In December 2019, the Company issued unsecured senior notes amounting to US$100.0 million maturing in 2034 and bearing interest of 4.90%.

In June and December 2019, the Company repaid unsecured senior notes amounting to US$60.0 million and $95.0 million respectively.

R&D obligations

Represents obligations with the Government of Canada and the Government of Quebec relative to R&D programs whereby the government entities provide funding through loans for a portion of eligible spending related to specified R&D projects, up to a predetermined maximum funding amount. As at March 31, 2020, the remaining undrawn amount available under these programs was $86.3 million (2019 - $149.7 million). In March 2020, as part of the governments economic response to the COVID-19 pandemic, the Company obtained payment deferrals of nine months on amounts due in fiscal 2021.

Revolving credit facilities

In August 2019, the Company renegotiated its revolving credit facilities agreement, increasing the total amount available from US $550.0 million to US $850.0 million. The maturity date of September 2023 and the applicable interest rate of the revolving term credit facilities remained unchanged.

The facilities bear interest at variable rates, plus a margin that is determined based on the Company's private credit rating. The Company has the ability to draw down amounts in U.S. dollar, Canadian dollar, Euro or British pound. The facilities have standard financial covenants requiring a minimum fixed charge coverage and a maximum debt coverage.

Subsequent to year end, the Company concluded a new two-year $500.0 million unsecured revolving credit facility (see Note 33).

Information on the change in liabilities for which cash flows have been classified as financing activities in the statement of cash flows are as follows:

	Unsecured senior notes	Term loans	Lease liabilities	R&D obligations	Revolving credit facilities	Total
Net book value as at March 31, 2018	$ 684.1	$ 131.1	$ 145.4	$ 300.3	$ —	$ 1,260.9
Changes from financing cash flows						
Proceeds from long-term debt	663.7	255.1	—	36.5	—	955.3
Repayment of long-term debt	—	(70.6)	—	(2.1)	—	(72.7)
Repayment of lease liabilities	—	—	(22.0)	—	—	(22.0)
Total changes from financing cash flows	$ 663.7	$ 184.5	$ (22.0)	$ 34.4	$ —	$ 860.6
Non-cash changes						
Business combinations (Note 3)	—	15.2	137.6	—	—	152.8
Foreign currency exchange differences	20.1	4.2	5.0	—	—	29.3
Interests	—	—	0.8	13.8	—	14.6
Other	0.3	17.3	(7.5)	—	—	10.1
Total non-cash changes	$ 20.4	$ 36.7	$ 135.9	$ 13.8	$ —	$ 206.8
Net book value as at March 31, 2019	$ 1,368.2	$ 352.3	$ 259.3	$ 348.5	$ —	$ 2,328.3
Impact of adopting IFRS 16 (Note 2)	—	—	265.8	—		265.8
Net book value as at April 1, 2019	$ 1,368.2	$ 352.3	$ 525.1	$ 348.5	$ —	$ 2,594.1
Changes from financing cash flows						
Net proceeds from borrowing under revolving credit facilities	—	—	—	—	708.2	708.2
Proceeds from long-term debt	131.7	5.5	—	30.4	—	167.6
Repayment of long-term debt	(175.4)	(53.4)	—	(4.2)	—	(233.0)
Repayment of lease liabilities	—	—	(79.8)	—	—	(79.8)
Total changes from financing cash flows	$ (43.7)	$ (47.9)	$ (79.8)	$ 26.2	708.2	$ 563.0
Non-cash changes						
Business combinations (Note 3)	—	—	1.6	—	—	1.6
Foreign currency exchange differences	75.2	14.7	13.8	—	5.1	108.8
Additions and remeasurement of lease liabilities	—	—	27.3	—	—	27.3
Interests	—	—	—	16.8	—	16.8
Other	0.7	0.1	(0.2)	—	—	0.6
Total non-cash changes	$ 75.9	$ 14.8	$ 42.5	$ 16.8	$ 5.1	$ 155.1
Net book value as at March 31, 2020	**$ 1,400.4**	**$ 319.2**	**$ 487.8**	**$ 391.5**	**$ 713.3**	**$ 3,312.2**

As at March 31, 2020, the Company is in compliance with all of its financial covenants.

NOTE 19 – EMPLOYEE BENEFITS OBLIGATIONS

Defined benefit pension plans

The Company has three registered funded defined benefit pension plans in Canada (two for employees and one for designated executives) that provide benefits based on length of service and final average earnings. The Company also maintains funded pension plans for employees in the Netherlands and United Kingdom that provide benefits based on similar provisions.

The Company's annual contributions, to fund both benefits accruing in the year and deficits accumulated over prior years, and the plans' financial position are determined based on actuarial valuations. Applicable pension legislations prescribe minimum funding requirements.

In addition, the Company maintains unfunded plans in Canada, United States and Germany that provide defined benefits based on length of service and final average earnings. These unfunded plans are the sole obligation of the Company, and there is no requirement to fund them. However, the Company is obligated to pay the benefits when they become due. As at March 31, 2020, the Company has issued letters of credit totalling $60.6 million (2019 – $58.9 million) to collateralize the obligations under the Canadian plans.

The funded plans are trustee administered funds. Plan assets held in trusts are governed by local regulations and practices in each country, as is the nature of the relationship between the Company and the trustees and their composition. Responsibility for governance of the plans, including investment decisions and contribution schedules, lies jointly with the Company and the board of trustees.

The employee benefits obligations are as follows:

		2020		2019
Funded defined benefit pension obligations	$	**649.2**	$	664.4
Fair value of plan assets		**530.1**		543.7
Funded defined benefit pension obligations – net	$	**119.1**	$	120.7
Unfunded defined benefit pension obligations		**93.7**		91.9
Employee benefits obligations	$	**212.8**	$	212.6

Changes in funded defined benefit pension obligations and fair value of plan assets are as follows:

						2020						2019
		Canadian		**Foreign**		**Total**		Canadian		Foreign		Total
Pension obligations, beginning of year	$	**597.2**	$	**67.2**	$	**664.4**	$	546.8	$	65.2	$	612.0
Current service cost		**30.4**		**2.1**		**32.5**		27.2		1.8		29.0
Interest cost		**18.0**		**1.1**		**19.1**		17.4		1.2		18.6
Past service cost		**—**		**—**		**—**		1.7		—		1.7
Actuarial loss (gain) arising from:												
Experience adjustments		**9.2**		**0.4**		**9.6**		1.4		0.1		1.5
Economic assumptions		**(64.3)**		**0.5**		**(63.8)**		13.3		4.1		17.4
Demographic assumptions		**—**		**(0.4)**		**(0.4)**		—		(0.8)		(0.8)
Employee contributions		**7.2**		**0.6**		**7.8**		6.9		0.5		7.4
Pension benefits paid		**(20.8)**		**(1.5)**		**(22.3)**		(17.5)		(1.3)		(18.8)
Foreign currency exchange differences		**—**		**2.3**		**2.3**		—		(3.6)		(3.6)
Pension obligations, end of year	$	**576.9**	$	**72.3**	$	**649.2**	$	597.2	$	67.2	$	664.4
Fair value of plan assets, beginning of year	$	**485.3**	$	**58.4**	$	**543.7**	$	440.9	$	56.3	$	497.2
Interest income		**14.9**		**0.9**		**15.8**		14.3		1.0		15.3
Return on plan assets, excluding amounts included in interest income		**(40.0)**		**(0.2)**		**(40.2)**		21.3		2.9		24.2
Employer contributions		**22.1**		**2.3**		**24.4**		20.3		2.1		22.4
Employee contributions		**7.2**		**0.6**		**7.8**		6.9		0.5		7.4
Pension benefits paid		**(20.8)**		**(1.5)**		**(22.3)**		(17.5)		(1.3)		(18.8)
Administrative costs		**(0.9)**		**(0.2)**		**(1.1)**		(0.9)		(0.1)		(1.0)
Foreign currency exchange differences		**—**		**2.0**		**2.0**		—		(3.0)		(3.0)
Fair value of plan assets, end of year	$	**467.8**	$	**62.3**	$	**530.1**	$	485.3	$	58.4	$	543.7

Changes in unfunded defined benefit pension obligations are as follows:

						2020						2019
		Canadian		**Foreign**		**Total**		Canadian		Foreign		Total
Pension obligations, beginning of year	$	**77.2**	$	**14.7**	$	**91.9**	$	72.2	$	13.6	$	85.8
Current service cost		**3.3**		**0.6**		**3.9**		3.4		0.1		3.5
Interest cost		**2.1**		**0.2**		**2.3**		2.2		0.2		2.4
Past service cost		**—**		**(0.1)**		**(0.1)**		(1.7)		1.7		—
Actuarial loss (gain) arising from:												
Experience adjustments		**7.7**		**(0.6)**		**7.1**		—		0.1		0.1
Economic assumptions		**(7.2)**		**1.1**		**(6.1)**		1.2		0.5		1.7
Demographic assumptions		**—**		**—**		**—**		—		0.1		0.1
Pension benefits paid		**(2.8)**		**(0.7)**		**(3.5)**		(2.8)		(0.9)		(3.7)
Business combinations (Note 3)		**(2.3)**		**—**		**(2.3)**		2.7		—		2.7
Foreign currency exchange differences		**—**		**0.5**		**0.5**		—		(0.7)		(0.7)
Pension obligations, end of year	$	**78.0**	$	**15.7**	$	**93.7**	$	77.2	$	14.7	$	91.9

Net pension cost is as follows:

							2020						2019
		Canadian		**Foreign**		**Total**		Canadian		Foreign		Total
Funded plans												
Current service cost	**$**	**30.4**	**$**	**2.1**	**$**	**32.5**	$	27.2	$	1.8	$	29.0
Interest cost		**18.0**		**1.1**		**19.1**		17.4		1.2		18.6
Interest income		**(14.9)**		**(0.9)**		**(15.8)**		(14.3)		(1.0)		(15.3)
Past service cost		**—**		**—**		**—**		1.7		—		1.7
Administrative cost		**0.9**		**0.2**		**1.1**		0.9		0.1		1.0
Net pension cost of funded plans	**$**	**34.4**	**$**	**2.5**	**$**	**36.9**	$	32.9	$	2.1	$	35.0
Unfunded plans												
Current service cost	**$**	**3.3**	**$**	**0.6**	**$**	**3.9**	$	3.4	$	0.1	$	3.5
Interest cost		**2.1**		**0.2**		**2.3**		2.2		0.2		2.4
Past service cost		**—**		**(0.1)**		**(0.1)**		(1.7)		1.7		—
Net pension cost of unfunded plans	**$**	**5.4**	**$**	**0.7**	**$**	**6.1**	$	3.9	$	2.0	$	5.9
Total net pension cost	**$**	**39.8**	**$**	**3.2**	**$**	**43.0**	$	36.8	$	4.1	$	40.9

During the year ended March 31, 2020, pension costs of $15.8 million (2019 – $15.4 million) have been charged in cost of sales, $4.3 million (2019 – $5.5 million) in research and development expenses, $14.3 million (2019 – $11.8 million) in selling, general and administrative expenses, $5.6 million (2019 – $5.7 million) in finance expense and $3.0 million (2019 – $2.5 million) were capitalized.

Fair value of the plan assets, by major categories, are as follows:

						2020						2019
		Quoted		**Unquoted**		**Total**		Quoted		Unquoted		Total
Canadian plans												
Equity funds												
Canadian	**$**	**—**	**$**	**55.2**	**$**	**55.2**	$	—	$	58.1	$	58.1
Foreign		**—**		**165.7**		**165.7**		—		210.5		210.5
Bond funds												
Government		**—**		**92.2**		**92.2**		—		109.7		109.7
Corporate		**—**		**85.2**		**85.2**		—		68.8		68.8
Cash and cash equivalents		**—**		**4.3**		**4.3**		—		9.7		9.7
Other		**—**		**65.2**		**65.2**		—		28.5		28.5
Total Canadian plans	**$**	**—**	**$**	**467.8**	**$**	**467.8**	$	—	$	485.3	$	485.3
Foreign plans												
Insured annuities	**$**	**—**	**$**	**55.9**	**$**	**55.9**	$	—	$	52.2	$	52.2
Equity instruments		**2.4**		**—**		**2.4**		2.5		—		2.5
Debt instruments												
Corporate		**3.5**		**—**		**3.5**		3.3		—		3.3
Other		**—**		**0.5**		**0.5**		—		0.4		0.4
Total Foreign plans	**$**	**5.9**	**$**	**56.4**	**$**	**62.3**	$	5.8	$	52.6	$	58.4
Total plans	**$**	**5.9**	**$**	**524.2**	**$**	**530.1**	$	5.8	$	537.9	$	543.7

As at March 31, 2020 and March 31, 2019, there were no common shares of the Company in the pension plan assets.

Significant assumptions (weighted average) used are as follows:

		Canadian		Foreign
	2020	2019	**2020**	2019
Pension obligations as at March 31:				
Discount rate	**3.96%**	3.33%	**1.46%**	1.64%
Compensation rate increases	**3.66%**	3.65%	**2.92%**	2.92%
Net pension cost for years ended March 31:				
Discount rate	**3.33%**	3.48%	**1.64%**	1.88%
Compensation rate increases	**3.66%**	3.65%	**2.92%**	2.86%

Assumptions regarding future mortality are based on actuarial advice in accordance with published statistics and mortality tables and experience in each territory. The mortality tables and the average life expectancy in years for a member age 45 and 65 are as follows:

As at March 31, 2020 *(in years)*		Life expectancy over 65 for a member			
			Male		Female
Country	Mortality table	at age 45	at age 65	at age 45	at age 65
Canada	CPM private tables	**23.5**	**22.0**	**25.6**	**24.3**
Netherlands	AG2018	**23.9**	**21.8**	**25.9**	**23.7**
Germany	Heubeck RT2018G	**23.0**	**20.2**	**25.9**	**23.7**
United Kingdom	S2PxA CMI 2018	**23.1**	**22.0**	**25.1**	**22.0**
United States	CPM private tables	**24.7**	**23.3**	**26.2**	**24.9**

As at March 31, 2019 *(in years)*		Life expectancy over 65 for a member			
			Male		Female
Country	Mortality table	at age 45	at age 65	at age 45	at age 65
Canada	CPM private tables	23.4	21.9	25.5	24.2
Netherlands	AG2018	23.8	21.7	25.8	23.6
Germany	Heubeck RT2018G	22.8	20.0	25.8	23.6
United Kingdom	S2PxA CMI 2018	23.5	22.4	25.5	24.2
United States	CPM private tables	23.4	21.9	25.8	24.4

As at March 31, 2020, the weighted average duration of the defined benefit obligation is 18 years.

The impact on the defined benefit obligation as a result of a 0.25% change in the significant assumptions as at March 31, 2020 are as follows:

	Funded plans		Unfunded plans		
	Canadian	Foreign	Canadian	Foreign	Total
Discount rate:					
Increase	**$ (24.4)**	**$ (3.6)**	**$ (2.5)**	**$ (0.5)**	**$ (31.0)**
Decrease	**26.1**	**3.9**	**2.7**	**0.5**	**33.2**
Compensation rate:					
Increase	**6.7**	**0.3**	**0.3**	**—**	**7.3**
Decrease	**(6.4)**	**(0.3)**	**(0.3)**	**—**	**(7.0)**

Through its defined benefit plans, the Company is exposed to a number of risks, the most significant being the exposure to asset volatility, to changes in bond yields and to changes in life expectancy. The plan liabilities are calculated using a discount rate set with reference to corporate bond yields, if plan assets underperform against this yield, this will create a deficit. A decrease in corporate bond yields will increase plan liabilities, although this will be partially offset by an increase in the value of the plans' bond holdings. The plans' obligations are to provide benefits for the duration of the life of its members, therefore, increases in life expectancy will result in an increase in the plans' liabilities.

Contributions reflect actuarial assumptions of future investment returns, salary projections and future service benefits. The expected employer contributions and expected benefits paid for the next fiscal year are as follows:

	Canadian	Foreign	Total
Expected employer contributions in funded plans	$ 21.7	$ 3.1	$ 24.8
Expected benefits paid in unfunded plans	3.3	0.6	3.9

NOTE 20 – OTHER NON-CURRENT LIABILITIES

	2020	2019
Deferred revenue and contract liabilities	**$ 104.7**	$ 134.1
Share-based payments liabilities (Note 23)	**35.1**	75.4
Contingent consideration arising on business combinations	**—**	11.9
Interest payable	**21.1**	15.1
Other	**30.2**	30.5
	$ 191.1	$ 267.0

NOTE 21 – SUPPLEMENTARY CASH FLOWS INFORMATION

Changes in non-cash working capital are as follows:

		2020		2019
Cash (used in) provided by non cash working capital :				
Accounts receivable	$	**(39.9)**	$	(1.3)
Contract assets		**(29.9)**		(72.1)
Inventories		**(87.5)**		(22.2)
Prepayments		**(0.9)**		(5.7)
Income taxes		**8.2**		6.5
Accounts payable and accrued liabilities		**53.5**		154.5
Provisions		**(6.5)**		(8.7)
Contract liabilities		**50.8**		(15.8)
	$	**(52.2)**	$	35.2

Supplemental information:

		2020		2019
Interest paid	$	**108.7**	$	55.2
Interest received		**11.4**		14.9
Income taxes paid		**34.2**		34.0

NOTE 22 – ACCUMULATED OTHER COMPREHENSIVE INCOME

	Foreign currency exchange differences on translation of foreign operations				Net changes in cash flow hedges				Net changes in financial assets carried at FVOCI				Total			
		2020		2019		2020		2019		2020		2019		2020		2019
Balances, beginning of year	$	**208.9**	$	266.6	$	**(10.5)**	$	(6.9)	$	**0.6**	$	0.6	$	**199.0**	$	260.3
Other comprehensive income (loss)		**17.0**		(57.7)		**(22.8)**		(3.6)		**—**		—		**(5.8)**		(61.3)
Balances, end of year	$	**225.9**	$	208.9	$	**(33.3)**	$	(10.5)	$	**0.6**	$	0.6	$	**193.2**	$	199.0

NOTE 23 – SHARE-BASED PAYMENTS

The Company's share-based payment plans consist of two categories: an equity-settled share-based payment plan comprised of the stock option plan; and cash-settled share-based payments plans that include the stock purchase plan, deferred share units (DSU) plans, restricted share units (RSU) plans and the performance share units (PSU) plan.

The expense and the carrying amount of liability arising from share-based arrangements are as follows:

	Share-based payments expense				**Carrying amount of share-based payments liabilities**			
		2020		2019		**2020**		2019
Equity-settled plan								
Stock option plan	$	**5.8**	$	6.4		**n.a.**		n.a.
Cash-settled plans								
Stock purchase plan		**10.3**		8.5	$	**—**	$	—
Deferred share unit (DSU) plans		**(2.4)**		6.3		**(8.4)**		(15.5)
Restricted share unit (RSU) plans		**(10.9)**		13.0		**(24.7)**		(43.2)
Performance share unit (PSU) plan		**(2.9)**		26.5		**(16.2)**		(47.0)
	$	**(0.1)**	$	60.7	$	**(49.3)**	$	(105.7)

During the year ended March 31, 2020, share-based payments expense of $1.2 million (2019 – $0.8 million) was capitalized.

The Company holds equity swap agreements in order to mitigate the compensation expense related to the DSU plans, RSU plans and PSU plan (see Note 30). During the year ended March 31, 2020, an expense of $44.0 million was recognized in income (2019 – recovery of $13.2 million).

Stock option plan

Stock options to purchase common shares of the Company are granted to certain employees, officers and executives of the Company. The stock option exercise price is equal to the common shares weighted average price on the TSX of the five days of trading prior to the grant date. Stock options vest over four years of continuous employment from the grant date. The stock options must be exercised within a seven-year period, but are not exercisable during the first year after the grant date. As at March 31, 2020, a total of 11,892,268 common shares (2019 – 13,446,114) remained authorized for issuance under the stock option plan.

Changes in outstanding stock options are as follows:

			2020			2019
	Number of stock options		**Weighted average exercise price**	Number of stock options		Weighted average exercise price
Stock options outstanding, beginning of year	**6,504,125**	**$**	**20.41**	6,155,525	$	17.31
Granted	**1,320,700**		**34.50**	1,733,100		27.15
Exercised	**(1,553,846)**		**17.06**	(1,231,600)		14.78
Forfeited	**(196,825)**		**24.17**	(82,525)		17.41
Expired	**(23,300)**		**10.06**	(70,375)		18.20
Stock options outstanding, end of year	**6,050,854**	**$**	**24.25**	6,504,125	$	20.41
Stock options exercisable, end of year	**2,187,379**	**$**	**19.05**	2,082,325	$	16.36

During the year ended March 31, 2020, the weighted average market share price for stock options exercised was $34.77 (2019 – $27.11).

As at March 31, 2020, summarized information about the stock options issued and outstanding is as follows:

				Options Outstanding			Options Exercisable
Range of exercise prices	Number of stock options outstanding	Weighted average remaining contractual life (years)		Weighted average exercise price	Number of stock options exercisable		Weighted average exercise price
$11.02 to $15.14	570,125	1.73	$	14.56	570,125	$	14.56
$15.34 to $22.26	2,654,704	3.77		19.68	1,308,279		19.09
$27.14 to $40.53	2,826,025	5.66		30.51	308,975		27.14
Total	6,050,854	4.46	$	24.25	2,187,379	$	19.05

During the year ended March 31, 2020, the weighted average fair value of stock options granted was $4.98 (2019 – $4.23).

The assumptions used in the calculation of the fair value of the stock options on the grant date using the Black-Scholes option pricing model are as follows:

		2020		2019
Common share price	**$**	**33.94**	$	27.42
Exercise price	**$**	**34.50**	$	27.15
Dividend yield		**1.18%**		1.31%
Expected volatility		**19.70%**		18.34%
Risk-free interest rate		**1.48%**		2.07%
Expected stock option life		**4 years**		4 years

Expected volatility is estimated by considering historical average common share price volatility over the expected life of the stock options.

Stock purchase plan

Employees of the Company and its participating subsidiaries can acquire common shares through regular payroll deductions. The Company contributes $1 for every $2 of employee contributions, up to a maximum of 3% of the employee's base salary. The employee and Company's contributions are remitted to an independent plan administrator who purchases common shares on the market on behalf of the employee.

Deferred share unit (DSU) plans

Non-employee directors holding less than the minimum required holdings of common shares of the Company receive their Board retainer compensation in the form of deferred share units (DSUs). A non-employee director holding no less than the minimum required holdings of common shares may also elect to participate in the DSU plan in respect of part or all of his or her retainer. Such retainer amount is converted to DSUs based on the common shares price on the TSX on the date such retainer becomes payable to the non-employee director.

Certain executives can elect to defer a portion or entire short-term incentive payment to the DSU plan on an annual basis. Such deferred short-term incentive amount is converted to DSUs based on the common shares weighted average price on the TSX of the five days of trading prior to the date such incentive becomes payable to the executives.

DSUs entitle the holders to receive a cash payment equal to the common shares closing price on the TSX on the payment date, or, in certain cases, the weighted average price of to the five days prior to the payment date. Holders are also entitled to dividend equivalents payable in additional DSUs in an amount equal to the dividends paid on the common shares from the date of issuance to the payment date.

DSUs vest immediately and are paid upon any termination of employment or when a non-employee director ceases to act as a director.

Changes in outstanding DSUs are as follows:

	2020	2019
DSUs outstanding, beginning of year	**523,470**	675,097
Granted	**79,196**	92,211
Redeemed	**(140,251)**	(253,176)
Dividends paid in DSUs	**7,420**	9,338
DSUs vested and outstanding, end of year	**469,835**	523,470

Restricted share unit (RSU) plans

Restricted share units (RSUs) are granted to certain employees, officers and executives of the Company. RSUs entitle the holders to receive a cash payment based on the average closing price on the TSX for the 20 trading days preceding the vesting date, if restriction criteria are met. Restriction criteria include continuing employment for a period of up to three years. RSUs are paid three years after the grant date.

Changes in outstanding RSUs are as follows:

	2020	2019
RSUs outstanding, beginning of year	**1,570,063**	1,688,664
Granted	**149,477**	148,670
Cancelled	**(16,207)**	(11,010)
Redeemed	**(228,928)**	(268,836)
Dividends paid in RSUs	**16,198**	12,575
RSUs outstanding, end of year	**1,490,603**	1,570,063
RSUs vested, end of year	**1,391,195**	1,462,052

As at March 31, 2020, vested and outstanding RSUs includes 1,044,359 RSUs granted under the previous plan (2019 – 1,067,648), which are paid upon any termination of employment of the holder. Under the previous plan, holders are also entitled to dividend equivalents payable in additional RSUs in an amount equal to the dividends paid on the common shares from the date of issuance to the payment date.

Performance share unit (PSU) plan

Performance share units (PSUs) are granted to certain employees, officers and executives of the Company. PSUs entitle the holders to receive a cash payment equal to the average closing price on the TSX of the common shares for the 20 trading days preceding the vesting date multiplied by a factor which ranges from 0% to 200% based on the attainment of performance criteria set out pursuant to the plan, if restriction criteria are met. Restriction criteria include continuing employment for a period of up to three years. PSUs are paid three years after the grant date.

Changes in outstanding PSUs are as follows:

	2020	2019
PSUs outstanding, beginning of year	**1,141,200**	1,230,717
Granted	**730,352**	756,386
Cancelled	**(41,991)**	(25,491)
Redeemed	**(852,688)**	(820,412)
PSUs outstanding, end of year	**976,873**	1,141,200
PSUs vested, end of year	**758,209**	876,095

NOTE 24 – EMPLOYEE COMPENSATION

Total employee compensation expense recognized in income is as follows:

		2020		2019
Salaries and other short-term employee benefits	**$**	**1,218.6**	$	1,071.2
Share-based payments expense, net of equity swap (Note 23)		**42.7**		46.7
Post-employment benefits – defined benefit plans (Note 19)		**40.0**		38.4
Post-employment benefits – defined contribution plans		**19.2**		17.2
Termination benefits		**4.4**		4.3
Total employee compensation	**$**	**1,324.9**	$	1,177.8

NOTE 25 – GOVERNMENT PARTICIPATION

Government contributions were recognized as follows:

		2020		2019
Credited to property, plant and equipment and intangible assets	**$**	**15.6**	$	16.8
Credited to income		**18.0**		28.4
Total government contributions	**$**	**33.6**	$	45.2

NOTE 26 – IMPAIRMENT OF NON-FINANCIAL ASSETS

The carrying amount of goodwill allocated to the Company's CGUs per operating segment is as follows:

		Civil Aviation Training Solutions		Defence and Security		Healthcare		Total
Net book value as at March 31, 2018	$	266.8	$	217.5	$	141.2	$	625.5
Business combinations (Note 3)		375.1		67.9		—		443.0
Foreign currency exchange differences		(11.3)		5.4		5.1		(0.8)
Net book value as at March 31, 2019	$	630.6	$	290.8	$	146.3	$	1,067.7
Business combinations (Note 3)		19.2		—		0.9		20.1
Impairment		—		—		(37.5)		(37.5)
Foreign currency exchange differences		17.5		9.9		7.6		35.0
Net book value as at March 31, 2020	**$**	**667.3**	**$**	**300.7**	**$**	**117.3**	**$**	**1,085.3**

Goodwill is allocated to CGUs or a group of CGUs, which generally corresponds to the Company's operating segments or one level below.

The Company performed its annual impairment test for goodwill during the fourth quarter of fiscal 2020. The Company determined the recoverable amount of the Civil Aviation Training Solutions, Defense and Security and Healthcare CGUs based on value in use calculations. The value in use of each CGU is calculated using estimated cash flows derived from the Company's five-year strategic plan as approved by management. Cash flows subsequent to the five-year period were extrapolated using a constant growth rate of 2% to 3%. These projections are inherently uncertain due to the fluidly evolving impact of the COVID-19 pandemic. The discount rates used to calculate the recoverable amounts reflect each CGUs' specific risks and market conditions and range from 7.0% to 15.0%.

Based on the results of its impairment test of the Healthcare CGU, the Company recorded an impairment charge of $37.5 million relating to goodwill acquired in previous business acquisitions. The impairment charge is based on the general economic conditions at the time of the test, which negatively affected the discount rate used and the Healthcare CGU's cash flow projections. The determination of the recoverable amount of the Healthcare CGU excluded the cash flows expected from the contract with the Government of Canada to design and manufacture 10,000 CAE Air1 ventilators, which was concluded subsequent to year end (see Note 33). Variations in the Company assumptions and estimates, particularly in the expected growth rates embedded in its cash flow projections and the discount rate could have a significant impact on fair value. An increase of 1% in the discount rate would have resulted in an additional impairment charge of approximately $17.0 million. A decrease of 1% in the growth rate would have resulted in an additional impairment charge of approximately $10.0 million.

No impairment charge was identified for the CGUs included in the Civil Aviation Training Solutions and Defense and Security segments.

NOTE 27 – CONTINGENCIES AND COMMITMENTS

Contingencies

In the normal course of operations, the Company is party to a number of lawsuits, claims and contingencies. Although it is possible that liabilities may be incurred in instances for which no accruals have been made, the Company does not believe that the ultimate outcome of these matters will have a material impact on its consolidated financial position.

The Company is subject to audits from various government and regulatory agencies on an ongoing basis. As a result, from time to time, authorities may disagree with positions and conclusions taken by the Company in its filings.

During the year ended March 31, 2015, the Company received a reassessment from the Canada Revenue Agency challenging the Company's characterization of the amounts received under the SADI program. No amount has been recognized in the Company's financial statements, since the Company believes that there are strong grounds for defence and will vigorously defend its position. Such matters cannot be predicted with certainty, however, the Company believes that the resolution of these proceedings will not have a material adverse effect on its financial position.

Commitments

Contractual purchase commitments that are not recognized as liabilities are as follows:

		2020		2019
Less than 1 year	**$**	**204.7**	$	240.2
Between 1 and 5 years		**35.1**		51.5
Total contractual purchase commitments	**$**	**239.8**	$	291.7

NOTE 28 – FAIR VALUE OF FINANCIAL INSTRUMENTS

The fair value of a financial instrument is determined by reference to the available market information at the reporting date. When no active market exists for a financial instrument, the Company determines the fair value of that instrument based on valuation methodologies as discussed below. In determining assumptions required under a valuation model, the Company primarily uses external, readily observable market data inputs. Assumptions or inputs that are not based on observable market data incorporate the Company's best estimates of market participant assumptions. Counterparty credit risk and the Company's own credit risk are taken into account in estimating the fair value of financial assets and financial liabilities.

The following assumptions and valuation methodologies have been used to measure the fair value of financial instruments:

(i) The fair value of cash and cash equivalents, accounts receivable, accounts payable and accrued liabilities approximate their carrying values due to their short-term maturities;

(ii) The fair value of derivative instruments, which include forward contracts, swap agreements and embedded derivatives accounted for separately and is calculated as the present value of the estimated future cash flows using an appropriate interest rate yield curve and forward foreign exchange rate. Assumptions are based on market conditions prevailing at each reporting date. The fair value of derivative instruments reflect the estimated amounts that the Company would receive or pay to settle the contracts at the reporting date;

(iii) The fair value of the equity investments, which does not have a readily available market value, is estimated using a discounted cash flow model, which includes some assumptions that are not based on observable market prices or rates;

(iv) The fair value of non-current receivables is estimated based on discounted cash flows using current interest rates for instruments with similar risks and remaining maturities;

(v) The fair value of long-term debts, royalties obligations and other non-current liabilities are estimated based on discounted cash flows using current interest rates for instruments with similar risks and remaining maturities. Upon adoption of IFRS 16 on April 1, 2019, fair value disclosures are no longer required for lease liabilities;

(vi) The fair value of the contingent considerations arising on business combinations are based on the estimated amount and timing of projected cash flows, the probability of the achievement of the criteria on which the contingency is based and the risk-adjusted discount rate used to present value the probability-weighted cash flows.

Fair value hierarchy

The fair value hierarchy reflects the significance of the inputs used in making the measurements and has the following levels:

Level 1: Quoted prices (unadjusted) in active markets for identical assets or liabilities;

Level 2: Inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly (i.e. as prices in markets that are not active) or indirectly (i.e. quoted prices for similar assets or liabilities);

Level 3: Inputs for the asset or liability that are not based on observable market data (unobservable inputs).

Each type of fair value is categorized based on the lowest level input that is significant to the fair value measurement in its entirety.

The carrying values and fair values of financial instruments, by class, are as follows:

			2020		2019
	Level	Carrying Value	Fair value	Carrying Value	Fair value
		Total	Total	Total	Total
Financial assets (liabilities) measured at FVTPL					
Cash and cash equivalents	Level 1	$ **946.5**	$ **946.5**	$ 446.1	$ 446.1
Restricted cash	Level 1	**12.4**	**12.4**	27.3	27.3
Embedded foreign currency derivatives	Level 2	**—**	**—**	0.1	0.1
Equity swap agreements	Level 2	**(55.5)**	**(55.5)**	10.4	10.4
Forward foreign currency contracts	Level 2	**(7.2)**	**(7.2)**	(2.5)	(2.5)
Contingent consideration arising on business combinations	Level 3	**—**	**—**	(11.9)	(11.9)
Derivatives assets (liabilities) designated in a hedge relationship					
Foreign currency swap agreements	Level 2	**(0.3)**	**(0.3)**	11.1	11.1
Forward foreign currency contracts	Level 2	**(31.6)**	**(31.6)**	(6.5)	(6.5)
Financial assets (liabilities) measured at amortized cost					
Accounts receivable(1)	Level 2	**514.5**	**514.5**	440.3	440.3
Investment in finance leases	Level 2	**155.0**	**183.2**	102.9	114.5
Advances to a portfolio investment	Level 2	**29.7**	**29.7**	29.5	29.5
Other assets(2)	Level 2	**22.1**	**20.5**	25.7	25.7
Accounts payable and accrued liabilities(3)	Level 2	**(709.1)**	**(709.1)**	(770.8)	(770.8)
Total long-term debt(4)	Level 2	**(2,830.6)**	**(2,960.4)**	(2,335.4)	(2,470.7)
Other non-current liabilities(5)	Level 2	**(182.0)**	**(167.9)**	(164.0)	(184.6)
Financial assets measured at FVOCI					
Equity investments	Level 3	**3.3**	**3.3**	3.3	3.3
		$ **(2,132.8)**	$ **(2,221.9)**	$ (2,194.4)	$ (2,338.7)

(1) Includes trade receivables and certain other receivables.
(2) Includes non-current receivables and certain other non-current assets.
(3) Includes trade accounts payable, accrued liabilities, interest payable, certain payroll-related liabilities and current royalty obligations.
(4) The carrying value excludes transaction costs.
(5) Includes non-current royalty obligations and other non-current liabilities.

Changes in level 3 financial instruments are as follows:

Balance as at March 31, 2019	$ **(8.6)**
Total realized and unrealized gains included in income	**11.9**
Balance as at March 31, 2020	$ **3.3**

NOTE 29 – CAPITAL RISK MANAGEMENT

The Company's objectives when managing capital are threefold:
(i) Optimize the Company's cost of capital;
(ii) Maintain the Company's financial strength and credit quality;
(iii) Provide the Company's shareholders with an appropriate rate of return on their investment.

The Company manages its capital structure and makes corresponding adjustments based on changes in economic conditions and the risk characteristics of the underlying assets. In order to maintain or adjust the capital structure, the Company may adjust the amount of dividends paid to shareholders, issue new shares or debt, use cash to reduce debt or repurchase shares.

To accomplish its objectives stated above, the Company monitors its capital on the basis of the net debt to capital. This ratio is calculated as net debt divided by the sum of the net debt and total equity. Net debt is calculated as total debt, including the short-term portion (as presented in the consolidated statement of financial position and including non-recourse debt) less cash and cash equivalents. Total equity comprises share capital, contributed surplus, accumulated other comprehensive income, retained earnings and non-controlling interests.

The level of debt versus equity in the capital structure is monitored, and the ratios are as follows:

		2020		2019
Total long-term debt (Note 18)	$	**3,312.2**	$	2,328.3
Less: cash and cash equivalents		**(946.5)**		(446.1)
Net debt	$	**2,365.7**	$	1,882.2
Equity		**2,578.3**		2,410.0
Total net debt plus equity	$	**4,944.0**	$	4,292.2
Net debt: equity		**48:52**		44:56

The Company has certain debt agreements which require the maintenance of a certain level of capital.

NOTE 30 – FINANCIAL RISK MANAGEMENT

Due to the nature of the activities that the Company carries out and as a result of holding financial instruments, the Company is exposed to credit risk, liquidity risk and market risk, including foreign currency risk and interest rate risk. The Company's exposure to credit risk, liquidity risk and market risk is managed within risk management parameters documented in corporate policies. These risk management parameters remain unchanged since the previous period, unless otherwise indicated.

Credit risk

Credit risk is defined as the Company's exposure to a financial loss if a debtor fails to meet its obligations in accordance with the terms and conditions of its arrangements with the Company. The Company is exposed to credit risk on its accounts receivable and certain other assets through its normal commercial activities. The Company is also exposed to credit risk through its normal treasury activities on its cash and cash equivalents and derivative financial assets. Credit risks arising from the Company's normal commercial activities are managed with regards to customer credit risk.

The Company's customers are mainly established companies, some of which have publicly available credit ratings, as well as government agencies, which facilitates risk assessment and monitoring. In addition, the Company typically receives substantial non-refundable advance payments for contracts with customers. The Company closely monitors its exposure to major airline companies in order to mitigate its risk to the extent possible. Furthermore, the Company's trade receivables are not concentrated with specific customers but are held with a wide range of commercial and government organizations. As well, the Company's credit exposure is further reduced by the sale of certain of its accounts receivable to third-party financial institutions for cash consideration on a limited recourse basis (receivable purchase program). The Company does not hold any collateral as security. The credit risk on cash and cash equivalents is mitigated by the fact that they are mainly in place with a diverse group of major North American and European financial institutions.

The Company is exposed to credit risk in the event of non-performance by counterparties to its derivative financial instruments. The Company uses several measures to minimize this exposure. First, the Company enters into contracts with counterparties that are of high credit quality. The Company signed *International Swaps & Derivatives Association, Inc. (ISDA)* Master Agreements with all the counterparties with whom it trades derivative financial instruments. These agreements make it possible to offset when a contracting party defaults on the agreement, for each of the transactions covered by the agreement and in force at the time of default. Also, collateral or other security to support derivative financial instruments subject to credit risk can be requested by the Company or its counterparties (or both parties, if need be) when the net balance of gains and losses on each transaction exceeds a threshold defined in the ISDA Master Agreement. Finally, the Company monitors the credit standing of counterparties on a regular basis to help minimize credit risk exposure.

The carrying amounts presented in Note 9 and Note 28 represent the maximum exposure to credit risk for each respective financial asset as at the relevant dates.

Liquidity risk

Liquidity risk is defined as the potential risk that the Company cannot meet its cash obligations as they become due.

The Company manages this risk by establishing cash forecasts, as well as long-term operating and strategic plans. The management of consolidated liquidity requires a regular monitoring of expected cash inflows and outflows which is achieved through a forecast of the Company's consolidated liquidity position, for efficient use of cash resources. Liquidity adequacy is assessed in view of seasonal needs, stress-test results, growth requirements and capital expenditures, and the maturity profile of indebtedness, including availability of credit facilities, working capital requirements, compliance with financial covenants and the funding of financial commitments. The Company manages its liquidity risk to maintain sufficient liquid financial resources to fund its operations and meet its commitments and obligations. In managing its liquidity risk, the Company has access to revolving credit facilities of US$850.0 million (2019 – US$550.0 million). As well, the Company has agreements to sell interests in certain of its accounts receivable for an amount of up to US$300.0 million (2019 – US $300.0 million) (receivable purchase program). As at March 31, 2020, the Canadian dollar equivalent of $333.1 million (2019 – $266.2 million) of specific accounts receivable were sold to a financial institution pursuant to these agreements. Proceeds were net of $4.2 million in fees (2019 – $4.4 million). Subsequent to the year end, the Company concluded an agreement to increase the limit of its receivable purchase program from US$300.0 million to US$400.0 million (see Note 33). The Company also regularly monitors any financing opportunities to optimize its capital structure and maintain appropriate financial flexibility.

The following tables present a maturity analysis based on contractual maturity date, of the Company's financial liabilities based on expected cash flows. Cash flows from derivatives presented either as derivative assets or liabilities have been included, as the Company manages its derivative contracts on a gross basis. The amounts are the contractual undiscounted cash flows. All amounts contractually denominated in foreign currency are presented in Canadian dollar equivalent amounts using the period-end spot rate except as otherwise stated:

As at March 31, 2020	**Carrying amount**	**Contractual cash flows**	**Less than 1 year**	**Between 1 and 2 years**	**Between 2 and 3 years**	**Between 3 and 4 years**	**Between 4 and 5 years**	**More than 5 years**
Non-derivative financial liabilities								
Accounts payable and accrued liabilities (1)	**$ 709.1**	**$ 709.1**	**$ 709.1**	**$ —**	**$ —**	**$ —**	**$ —**	**$ —**
Total long-term debt (2)	**3,305.2**	**4,319.8**	**296.5**	**555.1**	**564.8**	**383.4**	**340.1**	**2,179.9**
Other non-current liabilities (3)	**182.0**	**397.8**	**0.7**	**49.8**	**31.2**	**32.1**	**32.4**	**251.6**
	$ 4,196.3	**$ 5,426.7**	**$ 1,006.3**	**$ 604.9**	**$ 596.0**	**$ 415.5**	**$ 372.5**	**$ 2,431.5**
Net derivative financial liabilities								
Forward foreign currency contracts (4)	**$ 38.8**							
Outflow		**$ 1,862.5**	**$ 1,636.1**	**$ 171.0**	**$ 42.4**	**$ 9.2**	**$ 3.8**	**$ —**
Inflow		**(1,822.8)**	**(1,606.6)**	**(164.8)**	**(39.4)**	**(8.5)**	**(3.5)**	**—**
Swap derivatives on total long-term debt	**0.3**	**(6.3)**	**7.8**	**(4.0)**	**(3.9)**	**(3.0)**	**(2.2)**	**(1.0)**
Equity swap agreement	**55.5**	**55.5**	**55.5**	**—**	**—**	**—**	**—**	**—**
	$ 94.6	**$ 88.9**	**$ 92.8**	**$ 2.2**	**$ (0.9)**	**$ (2.3)**	**$ (1.9)**	**$ (1.0)**
	$ 4,290.9	**$ 5,515.6**	**$ 1,099.1**	**$ 607.1**	**$ 595.1**	**$ 413.2**	**$ 370.6**	**$ 2,430.5**

As at March 31, 2019	Carrying amount	Contractual cash flows	Less than 1 year	Between 1 and 2 years	Between 2 and 3 years	Between 3 and 4 years	Between 4 and 5 years	More than 5 years
Non-derivative financial liabilities								
Accounts payable and accrued liabilities (1)	$ 770.8	$ 770.8	$ 770.8	$ —	$ —	$ —	$ —	$ —
Total long-term debt (2)	2,335.4	3,393.0	359.8	251.7	200.3	239.4	228.6	2,113.2
Other non-current liabilities (3)	175.9	413.0	0.3	19.3	44.2	31.6	32.6	285.0
	$ 3,282.1	$ 4,576.8	$ 1,130.9	$ 271.0	$ 244.5	$ 271.0	$ 261.2	$ 2,398.2
Net derivative financial liabilities (assets)								
Forward foreign currency contracts (4)	$ 9.0							
Outflow		$ 1,708.0	$ 1,448.0	$ 186.4	$ 55.0	$ 16.3	$ 1.0	$ 1.3
Inflow		(1,699.0)	(1,437.1)	(189.4)	(54.7)	(15.5)	(1.0)	(1.3)
Swap derivatives on total long-term debt	(11.1)	(12.7)	(2.1)	(2.0)	(2.0)	(2.0)	(1.9)	(2.7)
Embedded foreign currency derivatives	(0.1)	(0.1)	(0.1)	—	—	—	—	—
Equity swap agreement	(10.4)	(10.4)	(10.4)	—	—	—	—	—
	$ (12.6)	$ (14.2)	$ (1.7)	$ (5.0)	$ (1.7)	$ (1.2)	$ (1.9)	$ (2.7)
	$ 3,269.5	$ 4,562.6	$ 1,129.2	$ 266.0	$ 242.8	$ 269.8	$ 259.3	$ 2,395.5

(1) Includes trade accounts payable, accrued liabilities, interest payable and certain payroll-related liabilities.
(2) Contractual cash flows include contractual interest and principal payments related to debt obligations and excludes transaction costs.
(3) Includes non-current royalty obligations and other non-current liabilities.
(4) Outflows and inflows are presented in CDN equivalent using the contractual forward foreign currency rate and include forward foreign currency contracts

Market risk

Market risk is defined as the Company's exposure to a gain or a loss in the value of its financial instruments as a result of changes in market prices, whether those changes are caused by factors specific to the individual financial instruments or its issuer, or factors affecting all similar financial instruments traded in the market. The Company is mainly exposed to foreign currency risk and interest rate risk.

Derivative instruments are utilized by the Company to manage market risk against the volatility in foreign exchange rates, interest rates and share-based payments in order to minimize their impact on the Company's results and financial position. The Company's policy is not to utilize any derivative financial instruments for trading or speculative purposes.

Foreign currency risk

Foreign currency risk is defined as the Company's exposure to a gain or a loss in the value of its financial instruments as a result of fluctuations in foreign exchange rates. The Company is exposed to foreign exchange rate variability primarily in relation to certain sale commitments, expected purchase transactions and debt denominated in a foreign currency, as well as on the net investment from its foreign operations which have functional currencies other than the Canadian dollar (in particular the U.S. dollar (USD), Euro (€ or EUR) and British pound (GBP or £). In addition, these operations have exposures to foreign exchange rates primarily through cash and cash equivalents and other working capital accounts denominated in currencies other than their functional currencies.

The Company mitigates foreign currency risks by having its foreign operations transact in their functional currency for material procurement, sale contracts and financing activities.

The Company uses forward foreign currency contracts and foreign currency swap agreements to manage the Company's exposure from transactions in foreign currencies. These transactions include forecasted transactions and firm commitments denominated in foreign currencies.

The forward foreign currency contracts outstanding are as follows:

		2020		2019
Currencies (sold/bought)	**Notional Amount** (1)	**Average Rate**	Notional Amount (1)	Average Rate
USD/CDN				
Less than 1 year	**$ 833.7**	**0.74**	$ 717.4	0.77
Between 1 and 3 years	**176.4**	**0.76**	167.3	0.77
Between 3 and 5 years	**13.0**	**0.77**	17.4	0.79
More than 5 years	**—**	**—**	1.3	—
EUR/CDN				
Less than 1 year	**180.5**	**0.64**	166.2	0.65
Between 1 and 3 years	**12.3**	**0.60**	71.3	0.61
GBP/CDN				
Less than 1 year	**71.5**	**0.59**	49.8	0.58
Between 1 and 3 years	**0.2**	**0.60**	1.8	0.55
CDN/USD				
Less than 1 year	**289.7**	**1.36**	282.9	1.33
Between 1 and 3 years	**23.7**	**1.32**	—	—
Other currencies				
Less than 1 year	**247.5**	**n.a.**	231.6	n.a.
Between 1 and 3 years	**0.8**	**n.a.**	1.0	n.a.
Between 3 and 5 years	**13.2**	**n.a.**	—	n.a.
Total	**$ 1,862.5**		$ 1,708.0	

(1) Exchange rates as at the end of the respective periods were used to translate amounts in foreign currencies.

During the year ended March 31, 2013, the Company entered into interest-only cross currency swap agreements related to its multi-tranche private placement debt issued in December 2012, to effectively fix the USD-denominated interest cash flows in CDN equivalent. The Company designated two USD to CDN interest-only currency swap agreements as cash flow hedges with outstanding notional amounts of US$127.0 million ($130.5 million) (2019 – US$127.0 million ($130.5 million)) and US$98.0 million ($100.7 million) (2019 – US $98.0 million ($100.7 million)) corresponding to the two tranches of the private placement until December 2024 and December 2027 respectively.

The Company's foreign currency hedging programs are typically unaffected by changes in market conditions, as related derivative financial instruments are generally held until their maturity, consistent with the objective to fix currency rates on the hedged item.

Foreign currency risk sensitivity analysis

The following table presents the Company's exposure to foreign currency risk of financial instruments and the pre-tax effects on net income and OCI as a result of a reasonably possible strengthening of 5% in the relevant foreign currency against the Canadian dollar as at March 31. This analysis assumes all other variables remain constant.

	USD		€		GBP	
	Net income	OCI	Net income	OCI	Net income	OCI
2020	**$ 4.8**	**$ (19.6)**	**$ (0.5)**	**$ (3.1)**	**$ 0.2**	**$ (0.4)**
2019	3.0	(17.2)	(0.4)	(4.0)	1.2	(0.2)

A reasonably possible weakening of 5% in the relevant foreign currency against the Canadian dollar would have an opposite impact on pre-tax income and OCI.

Interest rate risk

Interest rate risk is defined as the Company's exposure to a gain or a loss to the value of its financial instruments as a result of fluctuations in interest rates. The Company bears some interest rate fluctuation risk on its floating rate long-term debt and some fair value risk on its fixed interest long-term debt. The Company mainly manages interest rate risk by fixing project-specific floating rate debt in order to reduce cash flow variability. The Company has floating rate debts through its revolving credit facilities and other-specific floating rate debts. A mix of fixed and floating interest rate debt is sought to reduce the net impact of fluctuating interest rates. Derivative financial instruments used to manage interest rate exposures are mainly interest rate swap agreements. As at March 31, 2020, 74% (2019 – 83%) of the long-term debt bears fixed interest rates.

The Company's interest rate hedging programs are typically unaffected by changes in market conditions, as related derivative financial instruments are generally held until their maturity to establish asset and liability management matching, consistent with the objective to reduce risks arising from interest rate movements.

Interest rate risk sensitivity analysis

During the year ended March 31, 2020, a 1% increase in interest rates would decrease the Company's net income by $5.7 million (2019 – $4.1 million) and would have no impact on the Company's OCI (2019 – nil) assuming all other variables remained constant. A 1% decrease in interest rates would have an opposite impact on net income.

Hedge of share-based payments expense

The Company has entered into equity swap agreements with major Canadian financial institutions to reduce its income exposure to fluctuations in its share price relating to the deferred share units (DSU) plans, restricted share units (RSU) plans and the performance share units (PSU) plan. Pursuant to the agreement, the Company receives the economic benefit of dividends and share price appreciation while providing payments to the financial institutions for the institution's cost of funds and any share price depreciation. The net effect of the equity swaps partly offset movements in the Company's share price impacting the cost of the DSU, RSU and PSU plans. As at March 31, 2020, the equity swap agreements covered 2,800,000 common shares (2019 – 2,250,000) of the Company.

Hedge of net investments in foreign operations

As at March 31, 2020, the Company has designated a portion of its unsecured senior notes and term loans totalling US$862.8 million (2019 – US$822.8 million) and a portion of its lease liabilities totaling US$48.1 million (2019 – US$64.0 million) as a hedge of its net investments in U.S. entities. Gains or losses on the translation of the designated portion of these USD long-term debts are recognized in OCI to offset any foreign exchange gains or losses on translation of the financial statements of those U.S. entities.

Letters of credit and guarantees

As at March 31, 2020, the Company had outstanding letters of credit and performance guarantees in the amount of $189.6 million (2019 – $205.0 million) issued in the normal course of business. These guarantees are issued under the revolving credit facilities and the Performance Securities Guarantee (PSG).

The advance payment guarantees are related to progress/milestone payments made by the Company's customers and are reduced or eliminated upon delivery of the product. The contract performance guarantees are linked to the completion of the intended product or service rendered by the Company and to the customer's requirements. The customer releases the Company from these guarantees at the signing of a certificate of completion. The letter of credit for the lease obligation provides credit support for the benefit of the owner participant on a sale and leaseback transaction and varies according to the payment schedule of the lease agreement.

		2020		2019
Advance payments	**$**	**36.0**	$	44.7
Contract performance		**44.0**		42.3
Lease obligations		**37.1**		39.9
Financial obligations		**63.0**		76.9
Other		**9.5**		1.2
	$	**189.6**	$	205.0

Indemnifications

In certain instances when the Company sells businesses, it may retain certain liabilities for known exposures and provide indemnification to the buyer with respect to future claims for certain unknown liabilities that exist, or arise from events occurring, prior to the sale date, including liabilities for taxes, legal matters, environmental exposures, product liability, and other obligations. The terms of the indemnifications vary in duration, from one to two years for certain types of indemnities, terms for tax indemnifications that are generally aligned to the applicable statute of limitations for the jurisdiction in which the divestiture occurred, and terms for environmental liabilities that typically do not expire. The maximum potential future payments that the Company could be required to make under these indemnifications are either contractually limited to a specified amount or unlimited.

The Company believes that other than the liabilities already accrued, the maximum potential future payments that it could be required to make under these indemnifications are not determinable at this time, as any future payments would be dependent on the type and extent of the related claims, and all available defences, which cannot be estimated. However, historically, costs incurred to settle claims related to these indemnifications have not been material to the Company's consolidated financial position, net income or cash flows.

NOTE 31 – RELATED PARTY RELATIONSHIPS

The following tables include principal investments which, in aggregate, significantly impact the results or assets of the Company:

Investments in subsidiaries consolidated in the Company's financial statements:

Name	Country of incorporation	**% equity interest 2020**	% equity interest 2019
AACE Vietnam Limited Liability Company	Vietnam	**100.0%**	100.0%
CAE Academia de Aviacion (Espana) S.L.	Spain	**100.0%**	100.0%
CAE (UK) plc	United Kingdom	**100.0%**	100.0%
CAE (US) Inc.	United States	**100.0%**	100.0%
CAE Aircrew Training Services plc	United Kingdom	**76.5%**	76.5%
CAE Australia Pty Ltd.	Australia	**100.0%**	100.0%
CAE Aviation Services Pte Ltd.	Singapore	**100.0%**	100.0%
CAE Aviation Training B.V.	Netherlands	**100.0%**	100.0%
CAE Aviation Training Peru S.A.	Peru	**100.0%**	100.0%
CAE Brunei Multi Purpose Training Centre Sdn Bhd	Brunei	**60.0%**	60.0%
CAE Center Amsterdam B.V.	Netherlands	**100.0%**	100.0%
CAE Center Brussels N.V.	Belgium	**100.0%**	100.0%
CAE Centre Copenhagen A/S	Denmark	**100.0%**	100.0%
CAE Centre Hong Kong Limited	Hong Kong	**100.0%**	100.0%
CAE Centre Oslo AS	Norway	**100.0%**	100.0%
CAE Centre Stockholm AB	Sweden	**100.0%**	100.0%
CAE CFT B.V.	Netherlands	**100.0%**	100.0%
CAE Civil Aviation Training Solutions Inc.	United States	**100.0%**	100.0%
CAE Colombia Flight Training S.A.S.	Colombia	**100.0%**	100.0%
CAE Crewing Services Limited	Ireland	**100.0%**	100.0%
CAE El Salvador Flight Training S.A. de C.V.	El Salvador	**99.5%**	99.5%
CAE Electronik GmbH	Germany	**100.0%**	100.0%
CAE Engineering Korlatolt Felelossegu Tarsasag	Hungary	**100.0%**	100.0%
CAE Entrenamiento de Vuelo Chile Limitada	Chile	**100.0%**	100.0%
CAE Flight & Simulator Services Sdn. Bhd.	Malaysia	**100.0%**	100.0%
CAE Flight Training (India) Private Limited	India	**100.0%**	100.0%
CAE Flight Training Center Mexico, S.A. de C.V.	Mexico	**100.0%**	100.0%
CAE GAH Aviation Technology Services Co Ltd	China	**80.0%**	—%
CAE Global Academy Évora, SA	Portugal	**100.0%**	100.0%
CAE Healthcare Canada Inc.	Canada	**100.0%**	100.0%
CAE Healthcare Inc.	United States	**100.0%**	100.0%
CAE India Private Limited	India	**100.0%**	100.0%
CAE Integrated Enterprise Solutions Australia Pty Ltd.	Australia	**100.0%**	100.0%
CAE International Holdings Limited	Canada	**100.0%**	100.0%
CAE Kuala Lumpur Sdn Bhd	Malaysia	**100.0%**	100.0%
CAE Luxembourg Acquisition S.à r.l.	Luxembourg	**100.0%**	100.0%
CAE Maritime Middle East L.L.C.	United Arab Emirates	**49.0%**	49.0%
CAE Middle East L.L.C.	United Arab Emirates	**49.0%**	49.0%
CAE Military Aviation Training Inc.	Canada	**100.0%**	100.0%
CAE New Zealand Pty Ltd.	New Zealand	**100.0%**	100.0%
CAE North East Training Inc.	United States	**100.0%**	100.0%
CAE Oslo - Aviation Academy AS	Norway	**100.0%**	—%
CAE Oxford Aviation Academy Phoenix Inc.	United States	**100.0%**	100.0%
CAE Services Italia S.r.l.	Italy	**100.0%**	100.0%
CAE Servicios Globales de Instrucción de Vuelo (España), S.L.	Spain	**100.0%**	100.0%
CAE Shanghai Company, Limited	China	**100.0%**	100.0%
CAE SimuFlite Inc.	United States	**100.0%**	100.0%
CAE Simulation Technologies Private Limited	India	**100.0%**	100.0%
CAE Simulator Services Inc.	Canada	**100.0%**	100.0%

Investments in subsidiaries consolidated in the Company's financial statements (continued):

Name	Country of incorporation	**% equity interest 2020**	% equity interest 2019
CAE Singapore (S.E.A.) Pte Ltd.	Singapore	**100.0%**	100.0%
CAE South America Flight Training do Brasil Ltda.	Brazil	**100.0%**	100.0%
CAE STS Limited	United Kingdom	**100.0%**	100.0%
CAE Training & Services Brussels NV	Belgium	**100.0%**	100.0%
CAE Training & Services UK Ltd.	United Kingdom	**100.0%**	100.0%
CAE Training Norway AS	Norway	**100.0%**	100.0%
CAE USA Inc.	United States	**100.0%**	100.0%
CAE USA Mission Solutions Inc.	United States	**100.0%**	100.0%
CAE Verwaltungsgesellschaft mbH	Germany	**100.0%**	100.0%
Flight Training Device (Mauritius) Ltd.	Mauritius	**100.0%**	100.0%
Logitude Oy	Finland	**100.0%**	100.0%
Oxford Aviation Academy (Oxford) Limited	United Kingdom	**100.0%**	100.0%
Parc Aviation Engineering Services Ltd.	Ireland	**100.0%**	100.0%
Parc Aviation Limited	Ireland	**100.0%**	100.0%
Parc Aviation UK Ltd	United Kingdom	**100.0%**	100.0%
Parc Interim Limited	Ireland	**100.0%**	100.0%
Pelesys Aviation Maintenance Training Inc.	Canada	**100.0%**	29.3%
Pelesys Learning Systems Inc.	Canada	**100.0%**	45.0%
Presagis Canada Inc.	Canada	**100.0%**	100.0%
Presagis Europe (S.A.)	France	**100.0%**	100.0%
Presagis USA Inc.	United States	**100.0%**	100.0%
Servicios de Instrucción de Vuelo, S.L.	Spain	**80.0%**	80.0%
SIM-Industries Brasil Administracao de Centros de Treinamento Ltda.	Brazil	**100.0%**	100.0%
SIV Ops Training, S.L.	Spain	**80.0%**	80.0%

Investments in joint ventures accounted for under the equity method:

Name	Country of incorporation	**% equity interest 2020**	% equity interest 2019
Aviation Training Northeast Asia B.V.	Netherlands	**50.0%**	50.0%
CAE Flight and Simulator Services Korea, Ltd.	Korea	**50.0%**	50.0%
CAE-LIDER Training do Brasil Ltda.	Brazil	**50.0%**	50.0%
CAE Melbourne Flight Training Pty Ltd.	Australia	**50.0%**	50.0%
CAE Middle East Pilot Services LLC	United Arab Emirates	**49.0%**	49.0%
CAE Simulation Training Private Limited	India	**50.0%**	50.0%
Embraer CAE Training Services LLC	United States	**49.0%**	49.0%
Emirates-CAE Flight Training LLC	United Arab Emirates	**49.0%**	49.0%
Flight Training Alliance GmbH	Germany	**50.0%**	50.0%
HATSOFF Helicopter Training Private Limited	India	**50.0%**	50.0%
Helicopter Training Media International GmbH	Germany	**50.0%**	50.0%
HFTS Helicopter Flight Training Services GmbH	Germany	**25.0%**	25.0%
JAL CAE Flight Training Co. Ltd.	Japan	**50.0%**	50.0%
National Flying Training Institute Private Limited	India	**51.0%**	51.0%
Pegasus Ucus Egitim Merkezi A.S.	Turkey	**49.9%**	49.9%
Philippine Academy for Aviation Training Inc.	Philippines	**40.0%**	40.0%
Rotorsim s.r.l.	Italy	**50.0%**	50.0%
Rotorsim USA LLC	United States	**50.0%**	50.0%
SIMCOM Holdings, Inc	United States	**50.0%**	—%
Singapore CAE Flight Training Pte Ltd.	Singapore	**50.0%**	50.0%

During the year ended March 31, 2020, the unrecognized share of losses of joint ventures for which the Company ceased to recognize when applying the equity method was $3.3 million (2019 – $5.7 million). As at March 31, 2020, the cumulative unrecognized share of losses for these entities was $16.0 million (2019 – $12.7 million) and the cumulative unrecognized share of comprehensive loss of joint ventures was $16.1 million (2019 – $13.4 million).

Partnership with Directional Aviation Capital

On November 4, 2019, the Company concluded a strategic partnership with Directional Aviation Capital (DAC) including a 15-year exclusive business aviation training services agreement with DAC affiliates and the acquisition of a 50% equity interest in SIMCOM Holdings, Inc. for cash consideration of $113.5 million [US $86.3 million]. The Company obtained joint control over SIMCOM, therefore the joint venture is accounted for using the equity method. SIMCOM operates simulators and training devices representative of a wide range of jet, turboprop and piston powered aircraft and is headquartered in Orlando, Florida.

Over the course of the 15-year business aviation training services agreement, DAC's affiliated business aircraft operators, which include Flexjet, Flight Options, Flairjet, Sirio, Nextant Aerospace and Corporate Wings, will train exclusively with SIMCOM and CAE.

NOTE 32 – RELATED PARTY TRANSACTIONS

The Company's outstanding balances with its equity accounted investees are as follows:

		2020		2019
Accounts receivable (Note 9)	**$**	**51.2**	$	33.9
Contract assets		**38.5**		13.4
Other non-current assets		**25.6**		18.7
Accounts payable and accrued liabilities (Note 16)		**5.7**		2.2
Contract liabilities		**28.8**		30.7
Other non-current liabilities		**1.7**		1.6

The Company's transactions with its equity accounted investees are as follows:

		2020		2019
Revenue	**$**	**166.0**	$	65.5
Purchases		**2.5**		2.4
Other income		**1.5**		1.4

Compensation of key management personnel

Key management personnel have the ability and responsibility to make major operational, financial and strategic decisions for the Company and include certain executive officers. The compensation of key management for employee services are as follows:

		2020		2019
Salaries and other short-term employee benefits	**$**	**6.5**	$	6.4
Post-employment benefits – defined benefit plans		**2.5**		1.9
Share-based payments expense		**(8.8)**		18.9
	$	**0.2**	$	27.2

NOTE 33 – EVENTS AFTER THE REPORTING PERIOD

Impact of the COVID-19 pandemic

COVID-19 has created unprecedented uncertainty in the global economy, the global air transportation environment and air passenger travel and to CAE's business. Several of its customers are facing significant challenges, with airlines and business jet operators having to ground a majority of their aircraft in response to travel bans, border restrictions, and lower demand for air travel. The Company continues to take measures to protect the health and safety of its employees, work with its customers to minimize potential disruptions and support its community in addressing the challenges posed by this global pandemic. This outbreak has had an important and immediate impact on all of the Company's businesses, especially in the Civil Aviation Training Solutions segment, as a result of an unprecedented shock to demand together with significant disruptions to its own operations, including facility closures, supply chain disruptions, program execution delays, slower procurement decisions and changes to its customers' acquisition priorities.

For the Civil Aviation Training Solutions segment, the impacts of the COVID-19 pandemic resulted in the closure of certain training centre operations, lower utilization of its simulators in the network due to reduced demand from aviation customers and interruptions in the execution of its products backlog. For the Defence and Security segment, delays were experienced in the awarding of new contracts and in the execution and advancement of certain programs. For the Healthcare segment, customers were primarily focused on managing the acute operational demands of this healthcare crisis rather than focusing on their training needs, which resulted in less focus and budget for normal operations and training projects.

To date, the Company has implemented several flexible measures to protect its financial position and preserve liquidity, including the reduction of capital expenditures and R&D investments in fiscal 2021, strict cost containment measures, salary freezes, salary reductions, reduced work weeks for 900 employees and 2,600 temporary layoffs, as well as a suspension of the Company's common share dividends and share repurchase plan announced on April 6, 2020 in response to the COVID-19 pandemic. Additionally, the Company has worked with defence customers to secure more favorable terms for milestone payments as well as offer contract modifications to increase work scope and with suppliers for extended payment terms.

CEWS and other government programs
On April 20, 2020, the Company announced that it has recalled all remaining temporarily laid-off employees in Canada through the Canada Emergency Wage Subsidy (CEWS) program, impacting approximately 1,500 employees. The Company has also accessed and is working to access government support programs in countries in which the Company operates.

Cash and liquidity mitigation measures
On April 9, 2020, the Company concluded a new two-year $500.0 million senior unsecured revolving credit facility and on May 19, 2020, increased its receivable purchase program from US$300.0 million to US$400.0 million. These transactions provide access to additional liquidity and further strengthen the Company's financial position.

Contract with Government of Canada for CAE Air1 ventilators
On April 10, 2020, the Company concluded an agreement with the Government of Canada to design and manufacture 10,000 CAE Air1 ventilators to provide life support to patients in intensive care to support the COVID-19 pandemic.