Cascades

Source of Possibilities

2019 Annual Report

2019 at a Glance

Containerboard Packaging

A Canadian leader

6th largest producer in North America

Specialty Products

A North American leader in industrial and food packaging

A leading North American producer of honeycomb paperboard

Tissue Papers

A leader in tissue papers production in Canada

4th largest producer in North America

Recovery

A Canadian leader in the recovery of recycled fibres

Boxboard Europe[1]

2nd largest producer of coated recycled boxboard in Europe

49th

Global 100 Most Sustainable Corporations in the World
(Corporate Knights)

6th

Canada's top 50 corporate citizens
(Corporate Knights)

9th consecutive year

most responsible company and brand according to Quebecers, as measured by the Barometer of Responsible Consumption

$578 M
invested in property, plant & equipment, business acquisitions and in our management systems, excluding right-of-use assets

$4,996 M
Sales

$547 M
OIBD[2]

$604 M
Adjusted OIBD[2]

3.4 M
short tons of recycled fibre saved from landfills in North America and Europe, for all the Corporation

84%
of the fibre used to make our products is recycled

77%
of our manufacturing waste is reused

1.7[3]
OSHA rate

14%
reduction in our energy consumption since 2010

50%
reduction in our greenhouse gas emissions intensity since 1990*

26%
reduction in our water consumption since 2010

1 Via our 57.95% equity ownership in Reno de Medici S.p.A. (at Dec. 31, 2019), a public Italian company.
2 Please refer to the "Forward-looking Statements" and "Supplemental Information on Non-IFRS Measures" sections for more details.
3 OSHA frequency rate: Number of accidents with lost time or temporary assignments or medical treatments X 200,000 hours/hours worked.
* Direct emissions, preliminary data.

Financial Snapshot

(In millions of Canadian dollars, unless otherwise noted)	**2019**	2018[7]	2017
AS REPORTED			
Sales	**4,996**	4,649	4,321
Operating income	**258**	228	175
% of sales	**5.2%**	4.9%	4.0%
Operating income before depreciation and amortization (OIBD)[1]	**547**	472	390
% of sales	**10.9%**	10.2%	9.0%
Net earnings	**69**	57	507
per share (in dollars)	**$0.74**	$0.60	$5.35
Dividend per share (in dollars)	**$0.24**	$0.16	$0.16
ADJUSTED[1]			
Operating income	**315**	245	178
% of sales	**6.3%**	5.3%	4.1%
Operating income before depreciation and amortization (OIBD)[1]	**604**	489	393
% of sales	**12.1%**	10.5%	9.1%
Net earnings	**96**	79	68
per share (in dollars)	**$1.02**	$0.83	$0.72
Return on assets[1, 2]	**12.0%**	10.6%	9.2%
Return on capital employed[1, 3]	**5.4%**	4.6%	3.7%
FINANCIAL POSITION (AS AT DECEMBER 31)			
Total assets	**5,180**	4,948	4,427
Capital employed[3]	**4,206**	3,881	3,638
Net debt[1]	**1,963**	1,769	1,522
Net debt /adjusted OIBD[1, 8]	**3.25x**	3.5x	3.6x
Equity attributable to shareholders	**1,489**	1,506	1,455
per share (in dollars)	**$15.81**	$15.99	$15.32
Working capital as a % of sales[6]	**10.1%**	10.6%	10.1%
KEY INDICATORS			
Total shipments (in thousands of short tons (s.t.))[4]	**3,366**	3,225	3,114
Manufacturing capacity utilization rate[5]	**92%**	93%	93%
US$/CAN$ - Average rate	**$0.75**	$0.77	$0.77

1 See "Forward-looking Statements" and "Supplemental Information on Non-IFRS Measures" sections for more details.
2 Return on assets is a non-IFRS measure defined as the last twelve months' ("LTM") adjusted OIBD/LTM quarterly average of total assets less cash and cash equivalents. Not adjusted for discontinued operations. Starting in Q2 2017, including Greenpac on a consolidated basis.
3 Return on capital employed is a non-IFRS measure and is defined as the after-tax amount of the LTM adjusted operating income, as well as our share of core associates and joint ventures, divided by the LTM quarterly average of capital employed. Capital employed is defined as the quarterly average of total assets less trade and other payables and cash and cash equivalents. Not adjusted for discontinued operations. Including Greenpac as an associate up to Q1 2017 and on a consolidated basis starting in Q2 2017.
4 Shipments do not take into account the elimination of business sector inter-segment shipments. Starting in Q2 2017, including Greenpac. Shipments from our Specialty Products segment are not presented as they use different units of measure.
5 Defined as: Manufacturing internal and external shipments/practical capacity. Excluding Specialty Products segment manufacturing activities. Starting in Q2 2017, including Greenpac.
6 Working capital includes accounts receivable (excluding the short-term portion of other assets) plus inventories less trade and other payables. Percentage of sales = Average LTM working capital/LTM sales. It includes or excludes significant business acquisitions and disposals. Starting in Q2 2017, including Greenpac.
7 2018 results have been adjusted to reflect retrospective adjustments of purchase price allocation. See Note 5 of the 2019 Audited Consolidated Financial Statements for more details.
8 Pro-forma up to 2018 to include business acquisitions on a last twelve months basis.

Financial Highlights

Symbol: CAS

(ON THE TORONTO STOCK EXCHANGE)

S&P / TSX Indices

- COMPOSITE
- SMALL CAP
- DIVIDEND
- CLEAN TECHNOLOGY
- COMPOSITE CANADA REVENUE EXPOSURE

BMO Indices

- SMALL CAP
- SMALL CAP QUÉBEC

94.2 million
Common shares outstanding
as at December 31, 2019

83.9 million
Total number of common shares traded
in 2019

$0.08
Quarterly dividend per share[1]
in 2019

2.9%
Annual dividend yield[2]
as at December 31, 2019

$13.45
Intraday high
in 2019

$7.55
Intraday low
in 2019

$1.06
Market capitalization
as at December 31, 2019
(in billions)

Moody's: Ba2 (stable)
S&P: BB- (stable)
Corporate credit ratings
as at December 31, 2019

1 Quarterly dividend increased from $0.04 to $0.08 per share in Q3 2019.
2 Yield assumes quarterly dividend of $0.08 per share in 2019.

Cascades Share Price Performance in 2019

Table of Contents

4 **Message from Alain Lemaire**
Executive Chairman of the Board
The Value of our Commitments

6 **Message from Mario Plourde**
President and Chief Executive Officer
Progress Through Innovation

10 **Financial Information**
Management's Discussion and Analysis, Management's Report, Independent Auditor's Report and Consolidated Financial Statements

130 **Raw Materials and Overview of our Results**

132 **Cascades Worldwide**

Cascades Inc.'s 2019 Annual Information Form will be available, upon request, from the Corporation's head office as of **March 27, 2020**.

The document will also be accessible via the Corporation's website (www.cascades.com) and will be filed on SEDAR (www.sedar.com) as of this date.

On peut se procurer la version française du présent rapport annuel en s'adressant au siège social de la Société à l'adresse suivante :

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Alain Lemaire

Executive Chairman of the Board of Directors

The Value of our Commitments

Dear Shareholders,

Recycling has been central to the Cascades business model since its inception. As a result of this foundation, most of Cascades' products are made with recycled materials, a fact that distinguishes the Corporation from many other North American packaging and tissue companies. In recent years there has been growing concern about the overall environmental impact caused by products throughout their lifecycles. Cascades' unique legacy of ecological expertise and its commitment to environmental stewardship firmly place it at the forefront of its peers to meet the rising demand for sustainable packaging and tissue solutions.

Considering this evolving market framework, Cascades is very proud to be gaining recognition for its longstanding commitment to the environment. The Corporation was recently named amongst the Global 100 Most Sustainable Corporations in the World by Corporate Knights in the organization's 2020 annual analysis of more than 7,000 companies world-wide with revenues of over $1 billion. Significantly, Cascades was the ONLY company within the Containers and Packaging category to be awarded this recognition.

Environmental considerations have always been, and always will be, a part of Cascades' culture by choice, and the Corporation's ability to carry through on this commitment is a key area of oversight for the Board of Directors. Indeed, along with a focused and effective long-term growth strategy, Cascades' ability to provide its customers with sustainable solutions will be an important driver of lasting growth and value creation for the Corporation, its employees, its customers, the communities in which it operates, and its shareholders.

Environmental stewardship and the successful implementation of long-term growth initiatives are not short-term endeavours. Rather, they are enduring commitments that require a continuity of corporate culture that remains flexible enough to adapt when needed. In this regard, succession planning is both key to renewing the Company's future roadmap and an integral part of good corporate governance. To this end, I would like to express our appreciation for the work accomplished by our two retiring directors, George Kobrynsky and Laurence Sellyn. In addition to the benefits that their experience and expertise in management and finance brought to the Board, Mr. Kobrynsky and Mr. Sellyn played a key role in the recruitment and appointment of the directors who will be replacing them. As part of the succession plan implemented by the Board in 2019, their departures were timed to ensure an orderly transition of responsibilities. Accordingly, the Company is pleased to have recently added Mélanie Dunn, Elif Lévesque and Nelson Gentiletti to the Board of Directors. Their combined experience, expertise, values and vision will play key roles as the Company implements its long-term strategic vision.

Cascades remains true to its roots in sustainable development, successfully combining environmental advocacy with value creation. The Board of Directors looks forward to helping ensure that the Corporation continues to follow this path and, in doing so, builds long-term sustainable value for all our partners.

Thank you for your continued interest, support and trust.

Alain Lemaire
Executive Chairman of the Board of Directors

Mario Plourde

President and Chief Executive Officer

Progress Through Innovation

Dear Shareholders and Business Partners,

Cascades has never defined itself by what other people think is possible. Throughout our 55-year history, we have always taken pride in our ability to find innovative new ways to turn possibilities into realities. This culture has been a driving factor in our past successes, remains an integral part of who we are today, and will continue to be an important catalyst behind future growth.

We have implemented significant and often large-scale changes over the past five years within the Corporation. Some were strategic – as in the repositioning of our operational focus on packaging and tissue and our exit from business segments with less sustainable future growth potential. Others focused on optimizing productivity, efficiency and profitability levels – such as the extensive investment projects undertaken to modernize our operations and IT platforms and redesign all our supporting functions. Others still were focused squarely on building future growth – including the Orchids Paper, Barcelona Cartonboard and U.S. moulded pulp asset acquisitions, and greenfield build projects like our state-of-the-art box plant in New Jersey and the Greenpac Mill in Niagara Falls, NY.

These actions varied in scope, strategic rationale, and financial and operational significance. The common thread underlying them all, however, is the pivotal and durable contribution that each brings to our future potential.

Cascades' origin stems from the belief that by reusing and transforming recycled material into useful products for companies and people, we could unlock untapped benefits for the Corporation, our employees, our shareholders, the environment and the communities in which we operate. What was true then remains true today, and this sustainably focused foundation and our fundamental belief that innovation is driven by possibility will continue to drive Cascades' path forward.

The Corporation's commitment to the environment has always encompassed not only procurement but also our entire production process. This is reflected in the fact that Cascades uses an average of 83% less water than the Canadian[1] paper industry average, and 72% less than the American[2] paper industry average, and 62% less energy than the national[1] average. In addition, all of Cascades' raw fibre material used in production is FSC® certified, and at the end of the production cycle 77% of our residual materials are repurposed for other uses such as biomass boilers, agricultural applications, and restoration of damaged sites, to name a few.

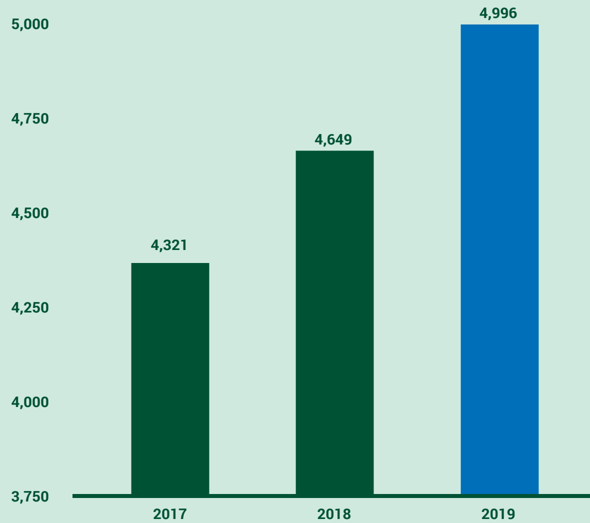
1 Source : Forest Products Association of Canada.
2 Source : American Forest and Paper Association.

Merging our proactive engagement with the planned, strategic steps and investments we are carrying out to optimize our operations and market offerings has put us firmly on the path to fulfilling what we know to be our full potential. The record sales and profitability levels that we generated in 2019 are testament to these efforts, and predictive barometers of things to come. Harvesting the full benefit from all these actions will remain our priority, will allow us to build growth momentum going forward, and will be a significant source of possibilities for the Corporation and all our stakeholders.

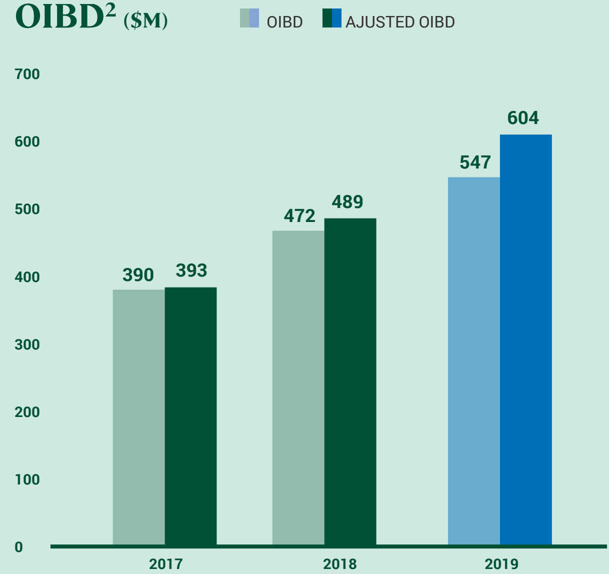
Thank you for your continued support.

Mario Plourde
President and Chief Executive Officer

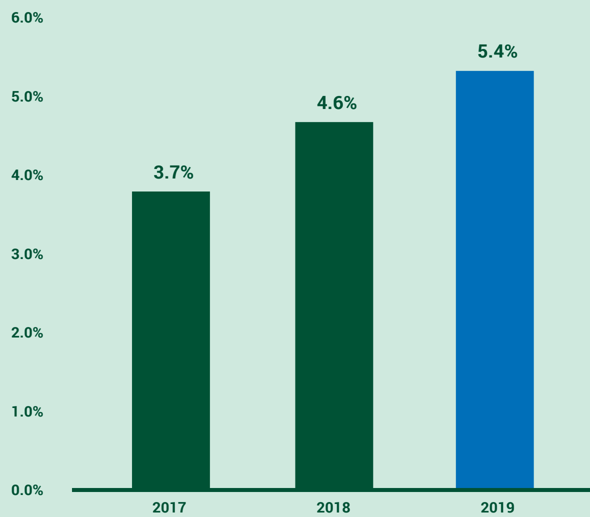
Sales ($M)



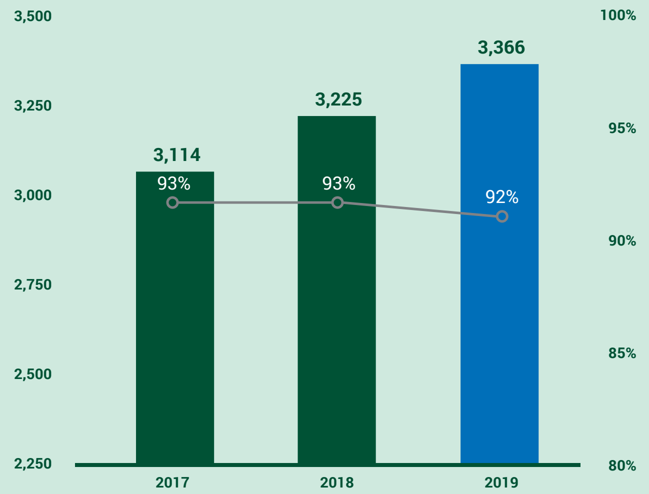
OIBD[2] ($M)



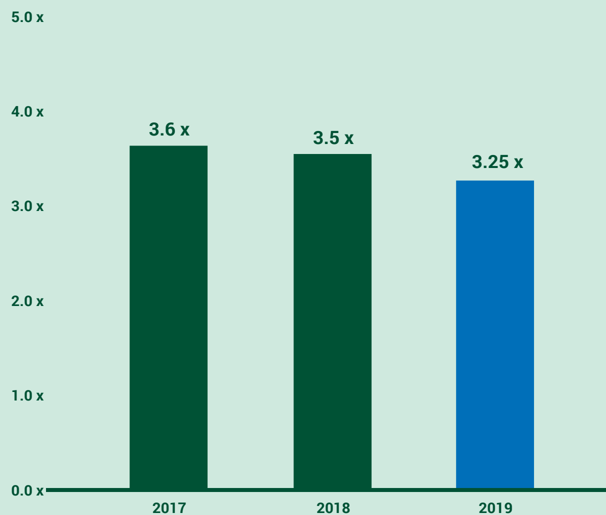
Return on capital employed[1]



Total shipments and manufacturing capacity utilization rate ('000 s.t. and %)



Net debt / Adjusted OIBD[2, 3]



1 2018 results have been adjusted to reflect retrospective adjustments of purchase price allocation. Please refer to Note 5 of the 2019 audited consolidated financial statements for more details.

2 Please refer to the "Supplemental Information on Non-IFRS Measures" section for reconciliation of these figures.

3 Pro-forma up to 2018 to include business acquisitions on a last twelve months basis.

Financial Information

12 Management's Discussion and Analysis

66 Management's Report to the Shareholders of Cascades Inc.

67 Independent Auditor's Report to the Shareholders of Cascades Inc.

69 Consolidated Financial Statements

74 Segmented Information

76 Notes to Consolidated Financial Statements

127 Board of Directors

128 Historical Financial Information — 10 Years

Cascades

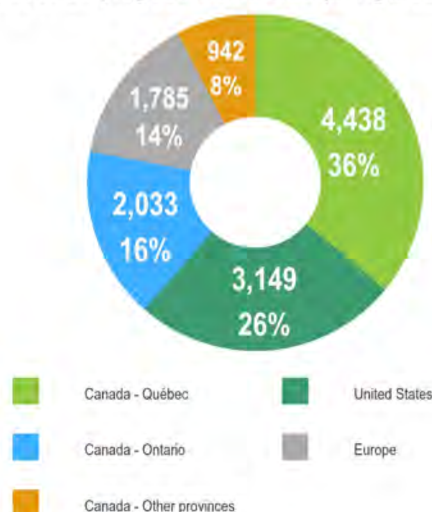
OUR BUSINESS

Cascades Inc. is a paper and packaging company that produces, converts and sells packaging and tissue products composed primarily of recycled fibres. Established in 1964 in Kingsey Falls, Québec, the Corporation was founded by the Lemaire brothers, who saw the economic and social potential of building a company focused primarily on the sustainable development principles of reusing, recovering and recycling. More than 55 years later, Cascades is a multinational business with more than 90 operating facilities[1] and 12,300 employees across Canada, the United States and Europe. The Corporation currently operates four business segments:

(Business segments)	Number of Facilities[1]	2019 Sales[2] (in $M)	2019 Operating Income Before Depreciation and Amortization (OIBD)[2] (in $M)	2019 Adjusted OIBD[2,4] (in $M)	2019 Adjusted OIBD Margin (%)
PACKAGING PRODUCTS					
Containerboard	26	1,827	443	441	24.1 %
Boxboard Europe[3]	7	1,048	92	108	10.3 %
Specialty Products	18	492	52	55	11.2 %
TISSUE PAPERS	21	1,509	64	86	5.7 %

1 Including associates and joint ventures. The Corporation also has 19 Recovery and Recycling facilities which are included in Corporate Activities.

The location of our plants[4] and employees around the world are as follows:



CHANGE IN SEGMENTED INFORMATION

In 2019, the Corporation modified its internal reporting in accordance with CODM requirements and business analysis. As a result, the Corporation modified its segmented information disclosure and restated prior periods. The Corporation's recovery and recycling activities, previously included in the Specialty Products segment, are now included in the Corporate Activities since they support our North American packaging and tissue papers segments and are analyzed separately.

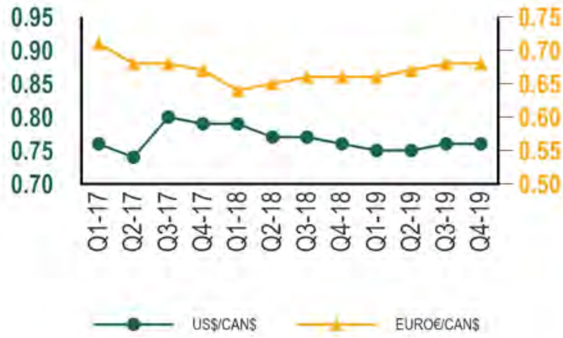
2 Excluding associates and joint ventures not included in consolidated results. Refer to Note 8 of the 2019 audited consolidated financial statements for more information on associates and joint ventures.
3 Via our equity ownership in Reno de Medici S.p.A., a public Italien company.
4 Excluding sales offices, distribution and transportation hubs and corporate offices. Including main associates and joint ventures.
5 Please refer to the "Supplemental Information on Non-IFRS Measures" section for a complete reconciliation.

BUSINESS DRIVERS

Cascades' results may be impacted by fluctuations in the following areas:

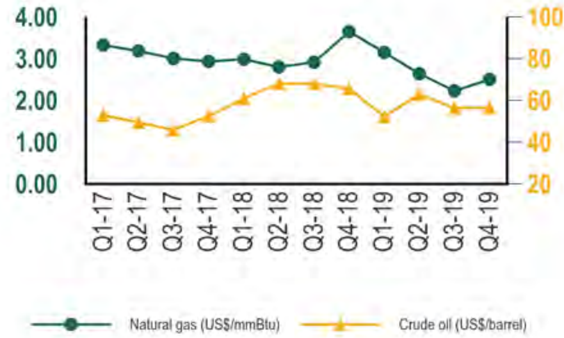
EXCHANGE RATES

On a year-over-year basis, the average value of the Canadian dollar in 2019 decreased by 2% when compared to the US dollar and increased by 3% compared to the euro.



ENERGY COSTS

The average price of natural gas decreased by 15% in 2019 compared to the previous year. In the case of crude oil, the average 2019 price was 13% lower than in 2018.



	2017					2018					**2019**
	YEAR	Q1	Q2	Q3	Q4	YEAR	**Q1**	**Q2**	**Q3**	**Q4**	**YEAR**
US$/CAN$ - Average rate	$ 0.77	$ 0.79	$ 0.77	$ 0.77	$ 0.76	$ 0.77	**$ 0.75**	**$ 0.75**	**$ 0.76**	**$ 0.76**	**$ 0.75**
US$/CAN$ End of period rate	$ 0.80	$ 0.78	$ 0.76	$ 0.77	$ 0.73	$ 0.73	**$ 0.75**	**$ 0.76**	**$ 0.76**	**$ 0.77**	**$ 0.77**
EURO€/CAN$ - Average rate	$ 0.68	$ 0.64	$ 0.65	$ 0.66	$ 0.66	$ 0.65	**$ 0.66**	**$ 0.67**	**$ 0.68**	**$ 0.68**	**$ 0.67**
EURO€/CAN$ End of period rate	$ 0.66	$ 0.63	$ 0.65	$ 0.67	$ 0.64	$ 0.64	**$ 0.67**	**$ 0.67**	**$ 0.69**	**$ 0.69**	**$ 0.69**
Natural Gas Henry Hub - US$/mmBtu	$ 3.11	$ 2.98	$ 2.80	$ 2.91	$ 3.64	$ 3.09	**$ 3.15**	**$ 2.64**	**$ 2.23**	**$ 2.50**	**$ 2.63**

Source: Bloomberg

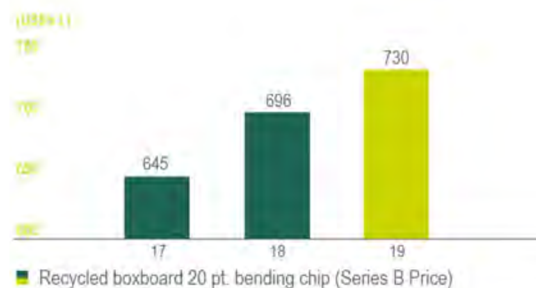
RAW MATERIALS

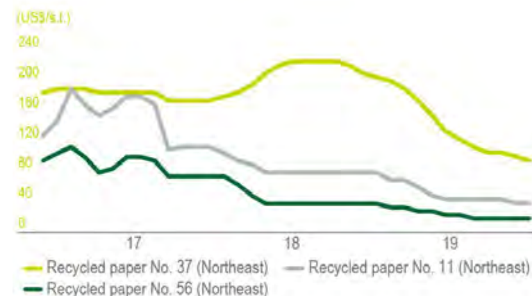
Reference prices - uncoated recycled boxboard [1]

The reference price for uncoated recycled boxboard increased by 5% in 2019 compared to 2018 due to better market conditions. The reference price remained stable throughout the year at $730.

Reference prices - fibre costs in North America [1]

The brown grade recycled paper No. 11 (old corrugated containers, OCC) and the recycled paper No. 56 (sorted residential papers, SRP) index prices decreased by 45% and 58%, respectively, in 2019 compared to 2018. The white grade recycled paper No. 37 (sorted office papers, SOP) decreased by 34% in 2019 compared to 2018. Following China's ban on recovered paper import permits in the last quarter of 2017, the old corrugated containers index price gradually declined from US$100 at the end of 2017 to US$68 at the end of 2018, and to US$28 at the end of 2019.





1 Source: RISI, excluding mixed papers

HISTORICAL MARKET PRICES OF MAIN PRODUCTS AND RAW MATERIALS

	2017	2018					2019					2019 vs 2018	
These indexes should only be used as trend indicators; they may differ from our actual selling prices and purchasing costs.	Year	Q1	Q2	Q3	Q4	Year	**Q1**	**Q2**	**Q3**	**Q4**	**Year**	**Change**	**%**
Selling prices (average)													
PACKAGING PRODUCTS													
Containerboard (US$/short ton)													
Linerboard 42-lb. unbleached kraft, Eastern US (open market)	693	722	755	755	755	747	**752**	**735**	**725**	**725**	**734**	**(13)**	**(2)%**
Corrugating medium 26-lb. semichemical, Eastern US (open market)	592	637	670	670	670	662	**650**	**640**	**630**	**630**	**638**	**(24)**	**(4)%**
Boxboard Europe (euro/metric ton)													
Recycled white-lined chipboard (WLC) index[1]	672	678	673	673	673	674	**672**	**672**	**672**	**669**	**671**	**(3)**	**—**
Virgin coated duplex boxboard (FBB) index[2]	1,031	1,072	1,072	1,072	1,072	1,072	**1,117**	**1,117**	**1,117**	**1,115**	**1,117**	**45**	**4 %**
Specialty Products (US$/short ton)													
Uncoated recycled boxboard - 20-pt. bending chip (series B)	645	643	680	730	730	696	**730**	**730**	**730**	**730**	**730**	**34**	**5 %**
TISSUE PAPERS (US$/short ton)													
Parent rolls, recycled fibres (transaction)	1,043	1,072	1,087	1,102	1,112	1,093	**1,151**	**1,164**	**1,143**	**1,109**	**1,142**	**49**	**4 %**
Parent rolls, virgin fibres (transaction)	1,323	1,366	1,388	1,404	1,422	1,395	**1,441**	**1,444**	**1,420**	**1,411**	**1,429**	**34**	**2 %**
Raw materials prices (average)													
RECYCLED PAPER													
North America (US$/short ton)													
Sorted residential papers, No. 56 (SRP - Northeast average)	79	59	31	28	28	36	**24**	**16**	**10**	**8**	**15**	**(21)**	**(58)%**
Old corrugated containers, No. 11 (OCC - Northeast average)	138	92	71	68	68	74	**61**	**40**	**33**	**30**	**41**	**(33)**	**(45)%**
Sorted office papers, No. 37 (SOP - Northeast average)	169	165	193	210	203	193	**183**	**140**	**101**	**88**	**128**	**(65)**	**(34)%**
Europe (euro/metric ton)													
Recovered paper index[3]	142	111	99	103	107	105	**96**	**87**	**71**	**49**	**76**	**(29)**	**(28)%**
VIRGIN PULP (US$/metric ton)													
Northern bleached softwood kraft, Canada	1,105	1,233	1,310	1,377	1,428	1,342	**1,380**	**1,292**	**1,170**	**1,115**	**1,239**	**(103)**	**(8)%**
Bleached hardwood kraft, mixed, Canada/US	958	1,077	1,125	1,192	1,213	1,152	**1,180**	**1,100**	**970**	**893**	**1,036**	**(116)**	**(10)%**

Source: RISI and Cascades.

1 The Cascades Recycled White-Lined Chipboard Selling Price Index is based on published indexes and represents an approximation of Cascades' recycled-grade selling prices in Europe. It is weighted by country and has been rebalanced as at January 1, 2018.

2 The Cascades Virgin Coated Duplex Boxboard Selling Price Index is based on published indexes and represents an approximation of Cascades' virgin-grade selling prices in Europe. It is weighted by country and has been rebalanced as at January 1, 2018.

3 The Cascades Recovered Paper Index is based on published indexes and represents an approximation of Cascades' recovered paper purchase prices in Europe. It is weighted by country, based on the recycled fibre supply mix, and has been rebalanced as at January 1, 2018.

SENSITIVITY TABLE[1]

The following table provides a quantitative estimate of the impact that potential changes in the prices of our main products, the costs of certain raw materials, energy and the exchange rates may have on Cascades' annual OIBD, assuming, for each price change, that all other variables remain constant. Estimates are based on Cascades' 2019 manufacturing and converting external shipments and consumption quantities. It is important to note that this table does not consider the Corporation's use of hedging instruments for risk management. These hedging policies and portfolios (see the "Risk Factors" section) should also be considered in order to fully analyze the Corporation's sensitivity to the highlighted factors.

Potential indirect sensitivity to the CAN$/US$ exchange rate is not considered in this table. Some of Cascades' selling prices and raw material costs in Canada are based on US dollar reference prices and costs that are then converted into Canadian dollars. Consequently, fluctuations in the exchange rate may have a direct impact on the value of sales and purchases of Canadian facilities in Canada. However, because it is difficult to measure the precise impact of this fluctuation, we do not take it into consideration in the following table. The impact of the exchange rate on the working capital items and cash positions denominated in currencies other than CAN$ at the Corporation's Canadian units is also excluded. Fluctuations in foreign exchange rates may also impact the translation of the results of our non-Canadian units into CAN$.

	SHIPMENTS/CONSUMPTION ('000 SHORT TONS, '000 MMBTU FOR NATURAL GAS)	INCREASE	OIBD IMPACT (IN MILLIONS OF CAN$)
SELLING PRICE (MANUFACTURING AND CONVERTING)[2]			
North America			
Containerboard Packaging			
Linerboard 42-lb. unbleached kraft, Eastern US	350	US$25/s.t.	**11**
Corrugating medium 26-lb. semichemical, Eastern US	350	US$25/s.t.	**11**
Converting products	740	US$25/s.t.	**24**
	1,440		**46**
Tissue Papers	680	US$25/s.t.	**22**
	2,120		**68**
Europe			
Boxboard	1,290	€25/s.t.	**47**
RAW MATERIALS[2]			
Recycled Papers			
North America			
Brown grades (OCC and others)	1,540	US$15/s.t.	**(30)**
Groundwood grades (SRP and others)	130	US$15/s.t.	**(3)**
White grades (SOP and others)	510	US$15/s.t.	**(10)**
	2,180		**(43)**
Europe			
Brown grades (OCC and others)	1,000	€15/s.t.	**(22)**
Groundwood grades (SRP and others)	170	€15/s.t.	**(4)**
White grades (SOP and others)	130	€15/s.t.	**(3)**
	1,300		**(29)**
	3,480		**(72)**
Virgin pulp			
North America	160	US$30/s.t.	**(6)**
Europe	80	€30/s.t.	**(3)**
	240		**(9)**
Natural gas			
North America	8,900	US1.00/mmBtu	**(12)**
Europe	5,100	€1.00/mmBtu	**(7)**
	14,000		**(19)**
Exchange rate[3]			
Sales less purchases in US$ from Canadian operations		CAN$/US$ 0.01 change	**—**
U.S. subsidiaries translation		CAN$/US$ 0.01 change	**2**
European subsidiaries translation		CAN$/€ 0.01 change	**1**

1 Sensitivity calculated according to 2019 volumes or consumption with year-end closing exchange rate of CAN$/US$ 1.30 and CAN$/€ 1.46, excluding hedging programs and the impact of related expenses such as discounts, commissions on sales and profit-sharing. Adjusted for the business acquisition of Orchids.

2 Based on 2019 external manufacturing and converting shipments, as well as fibre and pulp consumption. Including purchases sourced internally from our recovery and recycling operations. Adjusted to reflect acquisitions, disposals and closures, if needed.

3 As an example, from CAN$/US$ 1.30 to CAN$/US$ 1.31 and from CAN$/€ 1.46 to CAN$/€ 1.47.

SUPPLEMENTAL INFORMATION ON NON-IFRS MEASURES

SPECIFIC ITEMS

The Corporation incurs some specific items that adversely or positively affect its operating results. We believe it is useful for readers to be aware of these items, as they provide additional information to measure performance, compare the Corporation's results between periods, and assess operating results and liquidity, notwithstanding these specific items. Management believes these specific items are not necessarily reflective of the Corporation's underlying business operations in measuring and comparing its performance and analyzing future trends. Our definition of specific items may differ from those of other corporations, and some of them may arise in the future and may reduce the Corporation's available cash.

They include, but are not limited to, charges for (reversals of) impairment of assets, restructuring gains or costs, loss on refinancing and repurchase of long-term debt, some deferred tax asset provisions or reversals, premiums paid on long-term debt refinancing, gains or losses on the acquisition or sale of a business unit, gains or losses on the share of results of associates and joint ventures, unrealized gains or losses on derivative financial instruments that do not qualify for hedge accounting, unrealized gains or losses on interest rate swaps, foreign exchange gains or losses on long-term debt and financial instruments, specific items of discontinued operations and other significant items of an unusual, non-cash or non-recurring nature.

SPECIFIC ITEMS INCLUDED IN OPERATING INCOME BEFORE DEPRECIATION AND AMORTIZATION AND NET EARNINGS

The Corporation incurred the following specific items in 2019 and 2018:

LOSS (GAIN) ON ACQUISITIONS, DISPOSALS AND OTHERS

2019

The Containerboard packaging segment recorded a $2 million gain from the sale of a building and piece of land of a closed plant. As well, the lease on our Bear Island facility in Virginia was terminated by the lessee. As such, the Containerboard segment recorded a gain of $10 million following the reversal of liabilities related to lease incentives to the lessee and to accrued carrying costs. In the wake of the lease termination, the Containerboard segment recorded a loss of $4 million following the sale of some assets.

The Specialty Products segment concluded the sale of its two plants in France which converts cardboard into packaging for the paper industry and recorded a loss of $1 million.

The Tissue Papers segment recorded a $22 million gain following the acquisition of Orchids Paper Products Company activities ("Orchids") (please refer to the "Business Highlights" section). The Corporation also incurred, in Corporate Activities, transaction fees totaling $9 million related to the acquisition.

The Corporate Activities segment recorded a $4 million increase in an environmental provision related to a plant closed in a previous year. The segment also recorded a $5 million gain related to a litigation settlement from a prior-year event.

2018

The Containerboard segment completed the sale of the building and land of its Maspeth, NY plant and recorded a gain of $66 million, net of asset retirement obligations of $2 million. The closure was completed during the year and the segment recorded a $1 million gain following the sale of some equipment.

The Boxboard Europe segment, in 2019, retroactively recorded a gain of $2 million in 2018 related to the acquisition of Barcelona Cartonboard S.A.U. (see Note 5 of the Audited Consolidated Financial Statements for more details).

INVENTORY ADJUSTMENT RESULTING FROM BUSINESS COMBINATION

2019

During the year, operating results in the Tissue Papers segment were negatively impacted by $2 million. This was the result of the inventory acquired at the acquisition of Orchids being recognized at fair value, with no profit recorded on its subsequent sale.

IMPAIRMENT CHARGES AND RESTRUCTURING COSTS

2019

As a result of the lease termination on our Bear Island facility, as described above, the Containerboard segment recorded a $5 million impairment charge on some assets that will not be used in the future. The segment also recorded $1 million in restructuring costs in its U.S. operations.

The Boxboard Europe segment recorded a $14 million impairment charge related to its virgin assets and other assets.

The Specialty products segment recorded $1 million of restructuring costs and a $1 million impairment charge stemming from the closure during the third quarter of its Trois-Rivières, Québec, plant that manufactured felt backing for flooring.

The Tissue Papers segment recorded a $35 million impairment charge and $2 million of restructuring costs mostly related to underperforming assets and the announced closure of two U.S. based plants (please refer to the"Business Highlights" section for more details). The segment also recorded restructuring costs of $5 million related to the closure of two tissue paper machines in Ontario and changes in the segment's senior management.

The Corporate Activities recorded an impairment charge of $14 million on the goodwill and intangible assets of its recovery and recycling activities. The recoverable amount was established based on the fair market value of the property, plant and equipment.

2018

In connection with the closure of the Maspeth, NY plant, mentioned above, the Containerboard Packaging segment recorded a $3 million charge related to closure provisions and severances, and incurred a $1 million charge related to severances for the closure of two sheet plants in Ontario announced on August 28, 2018.

The Specialty Products segment recorded a gain of $2 million following the dismantling of a building related to a plant closure in a prior year.

The Tissue Papers segment reviewed the recoverable value of a few plants and recorded impairment charges of $75 million on assets following sustained production inefficiencies.

DERIVATIVE FINANCIAL INSTRUMENTS

In 2019, the Corporation recorded an unrealized gain of $2 million, compared to an unrealized loss of $9 million in 2018, on certain derivative financial instruments not designated for hedge accounting.

LOSS ON REPURCHASE OF LONG-TERM DEBT

In 2019, the Corporation redeemed US$400 million and $250 million of its unsecured senior notes and recorded early repurchase premiums of $11 million and wrote off $3 million of unamortized financing costs related to these notes.

INTEREST RATE SWAPS AND OPTION FAIR VALUE REVALUATION

In 2019, the Corporation recorded in "Interest expense on employee future benefits and other liabilities" an unrealized loss of $1 million on the fair value revaluation of a one-time option granted to White Birch to purchase an interest of up to 10% in the Bear Island containerboard mill conversion project.

In 2019, the Corporation recorded an unrealized gain of $1 million, compared to an unrealized gain of $1 million in 2018, on interest rate swaps, that are included in financing expenses.

FOREIGN EXCHANGE GAIN ON LONG-TERM DEBT AND FINANCIAL INSTRUMENTS

In 2019, the Corporation recorded a gain of $6 million on its US$-denominated debt and related financial instruments, compared to a loss of $4 million in 2018. This is composed of a gain of $6 million in 2019, compared to a loss of $5 million in 2018, on foreign exchange forward contracts not designated for hedge accounting. It also included a gain of $1 million in 2018 on our US$-denominated long-term debt, net of our net investment hedges in the U.S. and Europe and forward exchange contracts designated as hedging instruments.

FAIR VALUE REVALUATION GAIN ON INVESTMENTS

2018

The Boxboard Europe segment completed the acquisition of PAC Service S.p.A. and recorded a revaluation gain of $5 million on its previously held interest. This item is presented in line item "Fair value revaluation gain on investments" in the consolidated statement of earnings.

PROVISION FOR INCOME TAXES

2019
The Corporation reassessed the probability of recovering unrealized capital losses following the redemption of its US$ denominated debts, which resulted in the recognition of tax assets totalling $12 million, of which $11 million was recorded in results.

2018
The Corporation reassessed the probability of recovering unrealized capital losses which resulted in the derecognition of tax assets totalling $6 million.

RECONCILIATION OF NON-IFRS MEASURES

To provide more information for evaluating the Corporation's performance, the financial information included in this analysis contains certain data that are not performance measures under IFRS ("non-IFRS measures"), which are also calculated on an adjusted basis to exclude specific items. We believe that providing certain key performance measures and non-IFRS measures is useful to both Management and investors, as they provide additional information to measure the performance and financial position of the Corporation. This also increases the transparency and clarity of the financial information. The following non-IFRS measures are used in our financial disclosures:

- Operating income before depreciation and amortization (OIBD): Used to assess operating performance and the contribution of each segment when excluding depreciation and amortization. OIBD is widely used by investors as a measure of a corporation's ability to incur and service debt and as an evaluation metric.
- Adjusted OIBD: Used to assess operating performance and the contribution of each segment on a comparable basis.
- Adjusted operating income: Used to assess operating performance of each segment on a comparable basis.
- Adjusted net earnings: Used to assess the Corporation's consolidated financial performance on a comparable basis.
- Adjusted free cash flow: Used to assess the Corporation's capacity to generate cash flows to meet financial obligations and/or discretionary items such as share repurchase, dividend increase and strategic investments.
- Net debt to adjusted OIBD ratio: Used to measure the Corporation's credit performance and evaluate financial leverage.
- Net debt to adjusted OIBD ratio on a pro-forma basis: Used to measure the Corporation's credit performance and evaluate the financial leverage on a comparable basis, including significant business acquisitions and excluding significant business disposals, if any.

Non-IFRS measures are mainly derived from the consolidated financial statements, but do not have meanings prescribed by IFRS. These measures have limitations as an analytical tool and should not be considered on their own or as a substitute for an analysis of our results as reported under IFRS. In addition, our definitions of non-IFRS measures may differ from those of other corporations. Any such modification or reformulation may be significant.

The reconciliation of operating income (loss) to OIBD, to adjusted operating income (loss) and to adjusted OIBD by business segment is as follows:

						2019
(in millions of Canadian dollars)	**Containerboard**	**Boxboard Europe**	**Specialty Products**	**Tissue Papers**	**Corporate Activities**	**Consolidated**
Operating income (loss)	**328**	**45**	**36**	**3**	**(154)**	**258**
Depreciation and amortization	**115**	**47**	**16**	**61**	**50**	**289**
Operating income (loss) before depreciation and amortization	**443**	**92**	**52**	**64**	**(104)**	**547**
Specific items:						
Loss (gain) on acquisitions, disposals and others	**(8)**	**—**	**1**	**(22)**	**8**	**(21)**
Inventory adjustment resulting from business acquisition	**—**	**—**	**—**	**2**	**—**	**2**
Impairment charges	**5**	**14**	**1**	**35**	**14**	**69**
Restructuring costs	**1**	**—**	**1**	**7**	**—**	**9**
Unrealized loss (gain) on derivative financial instruments	**—**	**2**	**—**	**—**	**(4)**	**(2)**
	(2)	**16**	**3**	**22**	**18**	**57**
Adjusted operating income (loss) before depreciation and amortization	**441**	**108**	**55**	**86**	**(86)**	**604**
Adjusted operating income (loss)	**326**	**61**	**39**	**25**	**(136)**	**315**

						2018[1]
(in millions of Canadian dollars)	Containerboard	Boxboard Europe	Specialty Products	Tissue Papers	Corporate Activities	Consolidated
Operating income (loss)	381	62	24	(122)	(117)	228
Depreciation and amortization	89	37	11	64	43	244
Operating income (loss) before depreciation and amortization	470	99	35	(58)	(74)	472
Specific items:						
Gain on acquisitions, disposals and others	(67)	(2)	—	—	—	(69)
Impairment charges	—	—	—	75	—	75
Restructuring costs (gain)	4	—	(2)	—	—	2
Unrealized loss on derivative financial instruments	3	—	—	—	6	9
	(60)	(2)	(2)	75	6	17
Adjusted operating income (loss) before depreciation and amortization	410	97	33	17	(68)	489
Adjusted operating income (loss)	321	60	22	(47)	(111)	245

1 2018 results have been adjusted to reflect retrospective adjustments of purchase price allocation. See Note 5 of the 2019 Audited Consolidated Financial Statements for more details.

On January 1, 2019, the Corporation applied IFRS 16 *Leases* retrospectively with no restatement of comparative information, including non-IFRS measures and tables, as allowed by the Standard (see Note 3 of the Audited Consolidated Financial Statements for more details).

Net earnings, as per IFRS, are reconciled below with operating income, adjusted operating income and adjusted operating income before depreciation and amortization:

(in millions of Canadian dollars)	2019	2018[2]
Net earnings attributable to Shareholders for the year	**69**	57
Net earnings attributable to non-controlling interests	**28**	36
Provision for income taxes	**19**	48
Fair value revaluation gain on investments	**—**	(5)
Share of results of associates and joint ventures	**(9)**	(11)
Foreign exchange loss (gain) on long-term debt and financial instruments	**(6)**	4
Financing expense, interest expense on employee future benefits and other liabilities and loss on repurchase of long-term debt	**157**	99
Operating income	**258**	228
Specific items:		
Gain on acquisitions, disposals and others	**(21)**	(69)
Inventory adjustment resulting from business combination	**2**	—
Impairment charges	**69**	75
Restructuring costs	**9**	2
Unrealized loss (gain) on derivative financial instruments	**(2)**	9
	57	17
Adjusted operating income	**315**	245
Depreciation and amortization	**289**	244
Adjusted operating income before depreciation and amortization	**604**	489

The following table reconciles net earnings and net earnings per share, as per IFRS, with adjusted net earnings and adjusted net earnings per share:

	NET EARNINGS		NET EARNINGS PER SHARE[1]	
(in millions of Canadian dollars, except amount per share)	2019	2018[2]	2019	2018[2]
As per IFRS	**69**	57	**$ 0.74**	$ 0.60
Specific items:				
Gain on acquisitions, disposals and others	**(21)**	(69)	**$ (0.25)**	$ (0.53)
Inventory adjustment resulting from business combination	**2**	—	**$ 0.02**	—
Impairment charges	**69**	75	**$ 0.53**	$ 0.60
Restructuring costs	**9**	2	**$ 0.07**	$ 0.02
Unrealized loss (gain) on derivative financial instruments	**(2)**	9	**$ (0.02)**	$ 0.07
Loss on repurchase of long-term debt	**14**	—	**$ 0.11**	—
Unrealized gain on interest rate swaps and option fair value	**—**	(1)	**—**	$ (0.01)
Foreign exchange loss (gain) on long-term debt and financial instruments	**(6)**	4	**$ (0.06)**	$ 0.03
Fair value revaluation gain on investments	**—**	(5)	**—**	$ (0.03)
Tax effect on specific items, other tax adjustments and attributable to non-controlling interests[1]	**(38)**	7	**$ (0.12)**	$ 0.08
	27	22	**$ 0.28**	$ 0.23
Adjusted	**96**	79	**$ 1.02**	$ 0.83

1 Specific amounts per share are calculated on an after-tax basis and are net of the portion attributable to non-controlling interests. Per share amounts in line item "Tax effect on specific items, other tax adjustments and attributable to non-controlling interests" only include the effect of tax adjustments. Please refer to "Provision for income taxes" above in this section for more details.

2 2018 results have been adjusted to reflect retrospective adjustments of purchase price allocation. See Note 5 of the 2019 Audited Consolidated Financial Statements for more details.

On January 1, 2019, the Corporation applied IFRS 16 *Leases* retrospectively with no restatement of comparative information, including non-IFRS measures and tables, as allowed by the Standard (see Note 3 of the Audited Consolidated Financial Statements for more details).

The following table reconciles cash flow from operating activities with operating income and operating income before depreciation and amortization:

(in millions of Canadian dollars)	2019	2018[1]
Cash flow from operating activities	**460**	373
Changes in non-cash working capital components	**(59)**	(12)
Depreciation and amortization	**(289)**	(244)
Net income taxes paid	**27**	11
Net financing expense paid	**133**	107
Premium paid on long-term debt refinancing	**11**	—
Gain on acquisitions, disposals and others	**24**	69
Impairment charges and restructuring costs	**(68)**	(77)
Unrealized gain (loss) on derivative financial instruments	**2**	(9)
Dividends received, employee future benefits and others	**17**	10
Operating income	**258**	228
Depreciation and amortization	**289**	244
Operating income before depreciation and amortization	**547**	472

The following table reconciles cash flow from operating activities with cash flow from operating activities (excluding changes in non-cash working capital components) and adjusted cash flow from operating activities. It also reconciles adjusted cash flow from operating activities to adjusted free cash flow, which is also calculated on a per share basis:

(in millions of Canadian dollars, except amount per share or as otherwise mentioned)	2019	2018
Cash flow from operating activities	**460**	373
Changes in non-cash working capital components	**(59)**	(12)
Cash flow from operating activities (excluding changes in non-cash working capital components)	**401**	361
Specific items, net of current income taxes if applicable	**24**	—
Adjusted cash flow from operating activities	**425**	361
Capital expenditures, other assets[2] and right-of-use assets payments, net of disposals of $27 million in 2019, compared to $85 million in 2018	**(278)**	(275)
Dividends paid to the Corporation's Shareholders and to non-controlling interests	**(40)**	(32)
Adjusted free cash flow	**107**	54
Adjusted free cash flow per share	**$ 1.14**	$ 0.57
Weighted average basic number of shares outstanding	**93,987,980**	94,570,924

The following table reconciles total debt and net debt with the ratio of net debt to adjusted operating income before depreciation and amortization (adjusted OIBD):

(in millions of Canadian dollars)	December 31, 2019	December 31, 2018
Long-term debt	**2,022**	1,821
Current portion of long-term debt	**85**	55
Bank loans and advances	**11**	16
Total debt	**2,118**	1,892
Less: Cash and cash equivalents	**155**	123
Net debt	**1,963**	1,769
Adjusted OIBD (last twelve months)	**604**	491
Net debt / Adjusted OIBD	**3.25x**	3.6x
Net debt / Adjusted OIBD ratio on a pro-forma basis[3]	**3.25x**	3.5x

1 2018 results have been adjusted to reflect retrospective adjustments of purchase price allocation. See Note 5 of the 2019 Audited Consolidated Financial Statements for more details.
2 Excluding increase in investments.
3 Pro-forma adjusted OIBD of $505 million for 2018 to include business acquisitions on a last twelve months basis.

On January 1, 2019, the Corporation applied IFRS 16 *Leases* retrospectively with no restatement of comparative information, including non-IFRS measures and tables, as allowed by the Standard (see Note 3 of the Audited Consolidated Financial Statements for more details).

MANAGEMENT'S DISCUSSION & ANALYSIS

FINANCIAL OVERVIEW - 2018

Results for 2018 reflected strong sales levels in the Containerboard Packaging, Tissue Papers and European Boxboard segments and consolidated sales totaled $4,649 million in 2018, compared to $4,321 million in 2017. Business acquisitions in the Boxboard Europe and Specialty Products segments and improvements in both sales mix and selling price in all segments had a positive impact on sales. Excluding acquisitions, volumes were below prior-year levels in all three packaging businesses. However, these were offset to a large degree by a notable volume increase generated by the Tissue segment. While a more favourable exchange rate contributed to stronger sales for the Boxboard Europe segment, recovery and recycling activities of the Corporate Activities segment generated lower sales as a result of the decrease in brown grade recycled fibre costs.

Operating income before depreciation and amortization (OIBD) reflected strong results in both the Containerboard Packaging and European Boxboard business segments. This was offset by lower results from the Tissue Papers segment, where performance was negatively impacted by elevated costs for virgin pulp and recycled white paper grades, newly added market capacity, and higher logistics and subcontracting costs, in addition to production inefficiencies in some units. Results in the Specialty Products segment were below prior-year levels largely due to the negative impact of lower brown recycled fibre pricing on the performance of the recovery sub-segment, in addition to higher production costs. Finally, Corporate Activities cost levels decreased year-over-year as efforts in 2018 were migrated toward optimizing the ERP and business process initiatives that were implemented in 2017.

FINANCIAL OVERVIEW - 2019

On a consolidated basis, 2019 performance reflected solid sales levels, business acquisitions completed at the end of 2018 and throughout 2019, lower average raw material costs, stronger Tissue Papers results, favourable foreign exchange rates for our North American operations, and strategic initiatives and investments across our platforms.

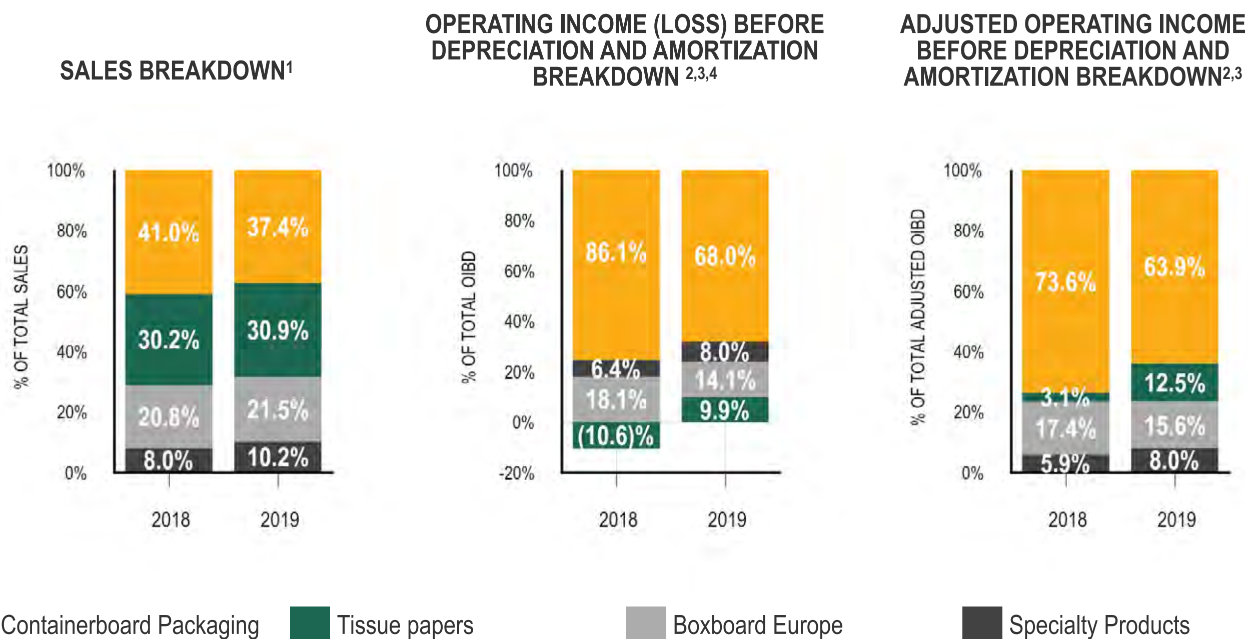
Annual consolidated sales totaled $4,996 million, an increase of $347 million or 7% compared to 2018 levels. This performance reflected business acquisitions and beneficial foreign exchange rates for the North American operations as noted above, in addition to more favourable average selling price and sales mix in the Tissue and Specialty Products business segments. These were partly offset by lower volumes in all business segments, with the exception of Specialty Products, and less advantageous sales pricing and mix in the Containerboard and European Boxboard segments, the latter of which also saw results impacted by unfavourable foreign exchange rates compared to the prior year.

Operating income before depreciation and amortization (OIBD) increased by $75 million or 16%, to $547 million in 2019. This largely reflects strong year-over-year improved results in the Tissue Papers segment that were driven by more favourable average selling price and sales mix, lower raw material and energy costs, and the acquisition of Orchids activities in September 2019. Results in the Containerboard Packaging segment benefited from lower raw material prices, beneficial exchange rates, and slightly lower energy costs, the benefits of which were partially mitigated by slightly lower volumes, higher production costs largely related to sales mix, and a slight negative impact related to sales pricing and mix. European Boxboard performance was supported by lower raw material and energy pricing and recent business acquisitions. Less favourable average selling price, sales mix and foreign exchange rate had a negative impact on annual results compared to the prior year. Results in the Specialty Products segment were above prior-year levels largely due to lower raw material pricing, benefits accrued from acquisitions, and more favourable selling price and sales mix. Slightly higher production costs partially offset these benefits.

CHANGE IN SEGMENTED INFORMATION

In 2019, the Corporation modified its internal reporting in accordance with CODM requirements and business analysis. As a result, the Corporation modified its segmented information disclosure and restated prior periods. The Corporation's recovery and recycling activities, previously included in the Specialty Products segment, are now included in the Corporate Activities since they support our North American packaging and tissue papers segments and are analyzed separately.

The following graphics show the breakdown of sales, before corporate activities and inter-segment eliminations, operating income (loss) before depreciation and amortization, and adjusted operating income before depreciation and amortization by business segment:



1 Excluding inter-segment sales and Corporate activities.
2 Excluding Corporate activities.
3 Please refer to the "Supplemental Information on Non-IFRS Measures" section for a complete reconciliation.

In 2019, the Corporation posted net earnings of $69 million, or $0.74 per share, compared to net earnings of $57 million[4], or $0.60 per share, in 2018. On an adjusted basis, discussed in detail in the "Supplemental Information on Non-IFRS Measures" section, the Corporation generated net earnings of $96 million during 2019, or $1.02 per share, compared to net earnings of $79 million, or $0.83 per share, in 2018. The Corporation recorded an operating income before depreciation and amortization of $547 million during the year, compared to $472 million[4] in 2018. On an adjusted basis, operating income before depreciation and amortization stood at $604 million during the year, compared to $489 million in 2018 (see the "Supplemental Information on Non-IFRS Measures" section for reconciliation of these amounts).

4 2018 results have been adjusted to reflect retrospective adjustments of purchase price allocation. See Note 5 of the 2019 Audited Consolidated Financial Statements for more details.

On January 1, 2019, the Corporation applied IFRS 16 *Leases* retrospectively with no restatement of comparative information, including non-IFRS measures and tables, as allowed by the Standard (see Note 3 of the Audited Consolidated Financial Statements for more details).

FORWARD-LOOKING STATEMENTS

The following document is the quarterly financial report and Management's Discussion and Analysis ("MD&A") of the operating results and financial position of Cascades Inc. ("Cascades" or "the Corporation"), and should be read in conjunction with the Corporation's consolidated financial statements and accompanying notes for the years ended December 31, 2019 and 2018. Information contained herein includes any significant developments as at February 26, 2020, the date on which the MD&A was approved by the Corporation's Board of Directors. For additional information, readers are referred to the Corporation's Annual Information Form ("AIF"), which is published separately. Additional information relating to the Corporation is also available on SEDAR at www.sedar.com.

The financial information contained herein, including tabular amounts, is expressed in Canadian dollars, unless otherwise specified, and is prepared in accordance with International Financial Reporting Standards (IFRS), unless otherwise specified. Unless otherwise specified or if required by context, the terms "we", "our" and "us" refer to Cascades Inc. and all of its subsidiaries, joint ventures and associates.

This MD&A is intended to provide readers with information that Management believes is necessary for an understanding of Cascades' current results and to assess the Corporation's future prospects. Consequently, certain statements herein, including statements regarding future results and performance, are forward-looking statements within the meaning of securities legislation, based on current expectations. The accuracy of such statements is subject to a number of risks, uncertainties and assumptions that may cause actual results to differ materially from those projected, including, but not limited to, the effect of general economic conditions, decreases in demand for the Corporation's products, prices and availability of raw material, changes in relative values of certain currencies, fluctuations in selling prices, and adverse changes in general market and industry conditions. Cascades disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required under applicable securities regulations. This MD&A also includes price indices, as well as variance and sensitivity analysis that are intended to provide the reader with a better understanding of the trends with respect to our business activities. These items are based on the best estimates available to the Corporation.

NEW IFRS STANDARD ADOPTED

The Corporation adopted IFRS 16 *Leases* on January 1, 2019. The new standard requires lessees to recognize a lease liability and a corresponding right-of-use asset at the date at which the leased asset is available for use. Subsequently, lease payments are allocated between the liability and finance cost. Right-of-use assets are depreciated over the shorter of the asset's useful life and the lease term on a straight-line basis. The Corporation applied IFRS 16 *Leases* retrospectively with no restatement of comparative information, including non-IFRS measures and tables, as allowed by the Standard.

The application of IFRS 16 *Leases* had the following impacts on the January 1, 2019 consolidated balance sheet:

(in millions of Canadian dollars)	Balance as of December 31, 2018[1]	IFRS16 adjustment	January 1, 2019 adjusted balance
Property, plant and equipment (including right-of-use assets)	**2,505**	**87**	**2,592**
Current portion of long-term debt	**55**	**16**	**71**
Long-term debt	**1,821**	**83**	**1,904**
Deferred income tax liabilities	**201**	**(3)**	**198**
Opening retained earnings	**998**	**(9)**	**989**

[1] Including business combination purchase price retrospective adjustment (see Note 5 of the Audited Consolidated Financial Statements for more details).

The impact of adoption of IFRS16 *Leases* on the 2019 fourth quarter and year-to-date consolidated statement of earnings is as follows:

(in millions of Canadian dollars)	For the 3-month period ended December 31, 2019	2019
Increase in operating income before depreciation and amortization (OIBD) by segment:		
Containerboard	**3**	**11**
Boxboard Europe	**1**	**4**
Specialty Products	**1**	**3**
Tissue Papers	**1**	**4**
Corporate activities	**1**	**7**
Consolidated	**7**	**29**
Increase in financing expense	**1**	**3**
Increase in depreciation and amortization	**7**	**27**

KEY PERFORMANCE INDICATORS

We use several key performance indicators to monitor our action plan and analyze the progress we are making toward achieving our long-term objectives. These include the following:

	2017					2018[8]					2019
	TOTAL	Q1	Q2	Q3	Q4	TOTAL	**Q1**	**Q2**	**Q3[8]**	**Q4**	**TOTAL**
OPERATIONAL											
Total shipments (in '000 s.t.)[1]											
Packaging Products											
Containerboard	1,401	352	385	370	368	1,475	**342**	**363**	**377**	**365**	**1,447**
Boxboard Europe	1,120	298	276	259	292	1,125	**333**	**331**	**321**	**305**	**1,290**
	2,521	650	661	629	660	2,600	**675**	**694**	**698**	**670**	**2,737**
Tissue Papers	593	149	163	164	149	625	**146**	**155**	**161**	**167**	**629**
Total	3,114	799	824	793	809	3,225	**821**	**849**	**859**	**837**	**3,366**
Integration rate[2]											
Containerboard	53%	56%	56%	56%	58%	57%	**59%**	**59%**	**58%**	**58%**	**58%**
Tissue Papers	68%	67%	68%	71%	75%	70%	**76%**	**77%**	**76%**	**75%**	**76%**
Manufacturing capacity utilization rate[3]											
Packaging Products											
Containerboard	93%	89%	100%	92%	93%	93%	**88%**	**91%**	**94%**	**92%**	**91%**
Boxboard Europe	97%	103%	96%	90%	90%	94%	**96%**	**95%**	**93%**	**88%**	**93%**
Tissue Papers	87%	88%	92%	92%	87%	90%	**87%**	**92%**	**93%**	**84%**	**88%**
Consolidated total	93%	94%	97%	91%	90%	93%	**91%**	**93%**	**93%**	**90%**	**92%**
FINANCIAL											
Return on assets[4]											
Packaging Products											
Containerboard	14%	14%	16%	18%	20%	20%	**20%**	**20%**	**20%**	**20%**	**20%**
Boxboard Europe	12%	14%	15%	16%	15%	15%	**15%**	**14%**	**14%**	**15%**	**15%**
Specialty Products	17%	15%	14%	15%	11%	11%	**13%**	**16%**	**21%**	**21%**	**21%**
Tissue Papers	10%	9%	6%	4%	2%	2%	**1%**	**2%**	**4%**	**7%**	**7%**
Consolidated return on assets	9.2%	9.5%	10.2%	10.7%	10.6%	10.6%	**11.0%**	**11.2%**	**11.4%**	**12.0%**	**12.0%**
Return on capital employed[5]	3.7%	3.9%	4.4%	4.7%	4.6%	4.6%	**4.8%**	**4.9%**	**4.9%**	**5.4%**	**5.4%**
Working capital[6]											
In millions of $, at end of period	442	513	506	464	455	455	**500**	**525**	**502**	**416**	**416**
As a percentage of sales[7]	10.1%	10.5%	10.8%	10.7%	10.6%	10.6%	**10.4%**	**10.3%**	**10.3%**	**10.1%**	**10.1%**

1 *Shipments do not take into account the elimination of business sector inter-segment shipments. Starting in Q2 2017, including Greenpac. Shipments from our Specialty Products segment are not presented as they use different units of measure.*

2 *Defined as: Percentage of manufacturing shipments transferred to our converting operations. Starting in Q2 2017, including Greenpac and its sales to its partners which are mostly under contractual agreements.*

3 *Defined as: Manufacturing internal and external shipments/practical capacity. Excluding Specialty Products segment manufacturing activities. Starting in Q2 2017, including Greenpac.*

4 *Return on assets is a non-IFRS measure defined as the last twelve months' ("LTM") adjusted OIBD/LTM quarterly average of total assets less cash and cash equivalents. Including Greenpac on a consolidated basis starting in Q2 2017. Specialty Products numbers were restated to reflect the reclassification of the Recovery and Recycling activities to the Corporate activities segment.*

5 *Return on capital employed is a non-IFRS measure and is defined as the after-tax amount of the LTM adjusted operating income, including our share of core associates and joint ventures, divided by the LTM quarterly average of capital employed. Capital employed is defined as the quarterly total average assets less trade and other payables and cash and cash equivalents. Including Greenpac as an associate up to Q1 2017 and on a consolidated basis starting in Q2 2017. Including Recovery and Recycling activities in the Specialty Products segment.*

6 *Working capital includes accounts receivable (excluding the short-term portion of other assets) plus inventories less trade and other payables. Starting in Q2 2017, including Greenpac.*

7 *Percentage of sales = Average LTM working capital/LTM sales. It includes or excludes significant business acquisitions and disposals. Starting in Q2 2017, including Greenpac.*

8 *2018 fourth quarter and 2019 third quarter results have been adjusted to reflect retrospective adjustments of purchase price allocation. Please refer to Note 5 of the Audited Consolidated Financial Statements for more details.*

On January 1, 2019, the Corporation applied IFRS 16 *Leases* retrospectively with no restatement of comparative information, including non-IFRS measures and tables, as allowed by the Standard (see Note 3 of the Audited Consolidated Financial Statements for more details).

HISTORICAL FINANCIAL INFORMATION

(in millions of Canadian dollars, unless otherwise noted)	2017[2] TOTAL	2018[3] T1	T2	T3	T4	TOTAL	2019 T1	T2	T3[3]	T4	TOTAL
Sales											
Packaging Products											
Containerboard	1,652	421	475	472	472	1,840	**441**	**462**	**473**	**451**	**1,827**
Boxboard Europe	838	246	232	210	245	933	**279**	**270**	**256**	**243**	**1,048**
Specialty Products[4]	339	84	88	89	97	358	**129**	**135**	**123**	**105**	**492**
Inter-segment sales	(11)	(3)	(4)	(4)	(3)	(14)	**(4)**	**(3)**	**(4)**	**(3)**	**(14)**
	2,818	748	791	767	811	3,117	**845**	**864**	**848**	**796**	**3,353**
Tissue Papers	1,268	305	343	364	340	1,352	**348**	**377**	**387**	**397**	**1,509**
Inter-segment sales and Corporate Activities[4]	235	45	46	44	45	180	**37**	**34**	**29**	**34**	**134**
Total	4,321	1,098	1,180	1,175	1,196	4,649	**1,230**	**1,275**	**1,264**	**1,227**	**4,996**
Operating income (loss)											
Packaging Products											
Containerboard	164	121	82	94	84	381	**84**	**84**	**91**	**69**	**328**
Boxboard Europe	34	19	22	10	11	62	**18**	**19**	**14**	**(6)**	**45**
Specialty Products[4]	24	6	4	8	6	24	**9**	**12**	**10**	**5**	**36**
	222	146	108	112	101	467	**111**	**115**	**115**	**68**	**409**
Tissue Papers	28	(2)	(9)	(11)	(100)	(122)	**(8)**	**1**	**31**	**(21)**	**3**
Corporate Activities[4]	(75)	(32)	(26)	(23)	(36)	(117)	**(31)**	**(34)**	**(41)**	**(48)**	**(154)**
Total	175	112	73	78	(35)	228	**72**	**82**	**105**	**(1)**	**258**
Adjusted OIBD[1]											
Packaging Products											
Containerboard	247	77	105	117	111	410	**104**	**113**	**118**	**106**	**441**
Boxboard Europe	68	28	30	19	20	97	**29**	**30**	**25**	**24**	**108**
Specialty Products[4]	34	8	9	10	8	33	**14**	**16**	**16**	**9**	**55**
	349	113	144	146	139	540	**147**	**159**	**159**	**139**	**604**
Tissue Papers	94	13	7	5	(8)	17	**9**	**18**	**24**	**35**	**86**
Corporate Activities[4]	(50)	(21)	(15)	(14)	(18)	(68)	**(21)**	**(21)**	**(22)**	**(22)**	**(86)**
Total	393	105	136	137	113	489	**135**	**156**	**161**	**152**	**604**
Net earnings (loss)	507	61	27	36	(67)	57	**24**	**31**	**40**	**(26)**	**69**
Adjusted[1]	68	12	31	38	—	79	**13**	**26**	**28**	**29**	**96**
Net earnings (loss) per share (in dollars)											
Basic	$ 5.35	$ 0.65	$ 0.28	$ 0.38	$ (0.71)	$ 0.60	**$ 0.26**	**$ 0.33**	**$ 0.42**	**$ (0.27)**	**$ 0.74**
Diluted	$ 5.19	$ 0.63	$ 0.27	$ 0.37	$ (0.71)	$ 0.56	**$ 0.26**	**$ 0.32**	**$ 0.42**	**$ (0.27)**	**$ 0.73**
Basic, adjusted[1]	$ 0.72	$ 0.13	$ 0.30	$ 0.40	—	$ 0.83	**$ 0.14**	**$ 0.28**	**$ 0.30**	**$ 0.30**	**$ 1.02**
Cash flow from operating activities (excluding changes in non-cash working capital components)	260	69	111	92	89	361	**82**	**124**	**104**	**91**	**401**
Net debt[1]	1,522	1,534	1,586	1,573	1,769	1,769	**1,878**	**1,861**	**2,070**	**1,963**	**1,963**

1 *Please refer to the "Supplemental Information on Non-IFRS Measures" section for reconciliation of these figures.*

2 *Including Greenpac on a consolidated basis starting in Q2 2017.*

3 *2018 fourth quarter and 2019 third quarter results have been adjusted to reflect retrospective adjustments of purchase price allocation. Please refer to Note 5 of the Audited Consolidated Financial Statements for more details.*

4 *In 2019, the Recovery activities sales, OIBD and adjusted OIBD figures were reclassified from the Specialty Products segment to Corporate activities. Prior years and quarterly figures were adjusted to reflect the current presentation.*

On January 1, 2019, the Corporation applied IFRS 16 *Leases* retrospectively with no restatement of comparative information, including non-IFRS measures and tables, as allowed by the Standard (see Note 3 of the Audited Consolidated Financial Statements for more details).

BUSINESS HIGHLIGHTS

From time to time, the Corporation enters into transactions to optimize its asset base and streamline its cost structure. The following transactions should be taken into consideration when reviewing the overall and segmented analysis of the Corporation's 2019 and 2018 results.

BUSINESS START-UP, ACQUISITION, DISPOSAL AND CLOSURE

CONTAINERBOARD PACKAGING

- On August 28, 2018, the Corporation announced plans to close two corrugated sheet plants located in Barrie and Peterborough, Ontario, Canada, as part of its ongoing efforts to reorganize and optimize its corrugated packaging platform in Ontario. The two plants were closed on November 30, 2018.

- In May 2018, the Corporation started operating its new containerboard converting plant located in Piscataway, NJ, USA. The facility is ramping up as planned while we continue the consolidation of our packaging activities in the northeastern United States.

BOXBOARD EUROPE

- On October 31, 2018, the Corporation's subsidiary, Reno de Medici, announced the acquisition of Barcelona Cartonboard S.A.U., a Spanish company ranked seventh in Europe for coated cartonboard production.

SPECIALTY PRODUCTS

- On September 30, 2019, the Corporation concluded the sale of its two facilities in France that convert cardboard into packaging for the paper industry.

- On March 27, 2019, the Corporation announced that it would close its plant that manufactures felt backing for flooring, located in Trois-Rivières, Québec. The closure occurred in early July 2019.

- On December 6, 2018, the Corporation acquired the Urban Forest Products and Clarion Packaging plants, respectively located in Brook, Indiana, and Clarion, Iowa, two of the top three egg-producing states in the US. This acquisition doubled the Corporation's production capacity of ecological packaging manufactured in moulded pulp. The Corporation also acquired a majority interest in Falcon Packaging, a leader in the distribution of egg packaging.

TISSUE PAPERS

- On September 13, 2019, the Corporation announced the completion of the acquisition of Orchids activities. The assets include the Barnwell, South Carolina and Pryor, Oklahoma operations. As part of the transaction, the Corporation acquired all of the outstanding units of OPP Acquisition Mexico S. de R.L. de C.V., designated as assets held-for-sale at acquisition date, which were resold the same day for US$14 million ($19 million).

- On February 28, 2019, the Corporation announced the definitive closure of its tissue paper machines located in Whitby and Scarborough, Ontario. The leases for these two plants expired on August 27, 2019 and were not renewed. Production ended during the second quarter.

SIGNIFICANT FACTS AND DEVELOPMENTS

2019

The Corporation exercised its option to purchase the 20.2% interest in Greenpac Holding LLC ("Greenpac") held by the Caisse de dépôt et placement du Québec on November 30, 2019 for an exercise price of US$93 million ($122 million). The transaction closed January 3, 2020 and increased the Corporation's, direct and indirect, ownership interest in Greenpac to 86.3%.

On November 26, 2019, the Corporation announced that it had completed its private offering of US$350 million aggregate principal amount of 5.125% senior notes due 2026, US$300 million aggregate principal amount of 5.375% senior notes due 2028 and $175 million aggregate principal amount of 5.125% senior notes due 2025. The net proceeds from the Notes offering were used by the Corporation to redeem all of its outstanding $250 million aggregate principal amount of 5.50% senior notes due 2021 and US$400 million aggregate principal amount of 5.50% senior notes due 2022 and repay certain amounts outstanding under its revolving credit facility. The Corporation also paid $11 million of premiums, and wrote off $3 million of unamortized financing costs related to these notes.

On October 30, 2019, the Corporation announced the closure of its Waterford, New York and Kingman, Arizona tissue converting facilities, which produce a combined total volume of 9 million cases of tissue products. This volume will be transferred to the Corporation's other Tissue Papers facilities with available capacity and the newly acquired Orchids activities (see Note 5 of the Audited Consolidated Financial Statements for more details). The closures are expected before the end of the first quarter in 2020.

On August 9, 2019, the Corporation announced an increase of its quarterly dividend from $0.04 to $0.08 per share.

On May 31, 2019, the Corporation entered into an agreement with its lenders to extend and amend its existing $750 million revolving credit facility. The amendment extends the term of the facility to July 2023. The financial conditions remain unchanged.

2018

On December 21, 2018, the Corporation announced that it had increased its authorized credit facility to approximately CAN$1 billion to incorporate the addition of a US$175 million seven-year term loan. The term loan provides the Corporation with increased financial flexibility and will reduce financing costs.

On July 26, 2018, the Corporation announced the acquisition of the White Birch Bear Island manufacturing facility in Virginia, U.S. for a cash consideration of US$34 million ($45 million). The newsprint paper machine presently located on the site will be reconfigured to produce high-quality recycled lightweight linerboard and medium for the North American market, subject to the approval of the board of directors. The new machine is expected to have an annual production capacity of 400,000 tons.

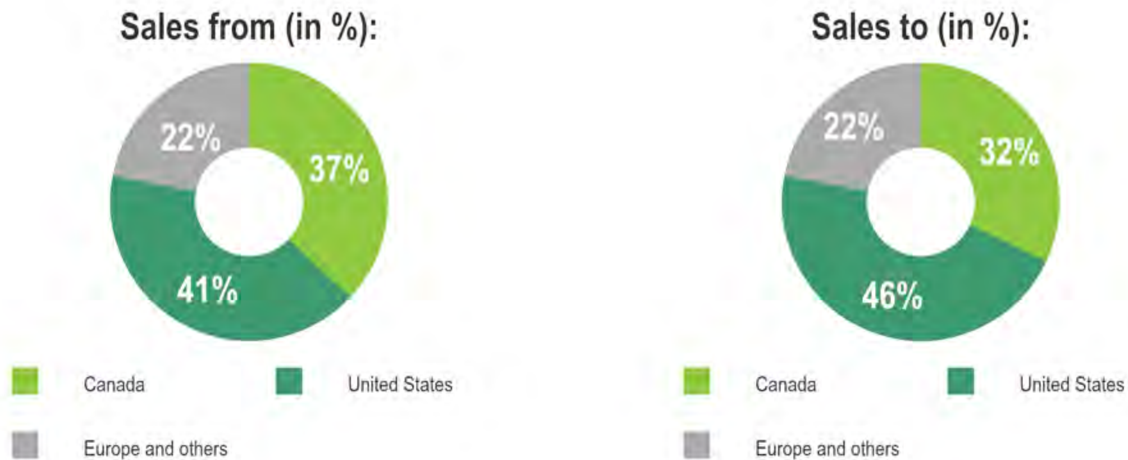
On January 31, 2018, the Corporation completed the sale of the building and land of its Maspeth plant in New York, U.S. for US$69 million ($86 million), net of transaction fees.

FINANCIAL RESULTS FOR THE YEAR ENDED DECEMBER 31, 2019, COMPARED TO THE YEAR ENDED DECEMBER 31, 2018

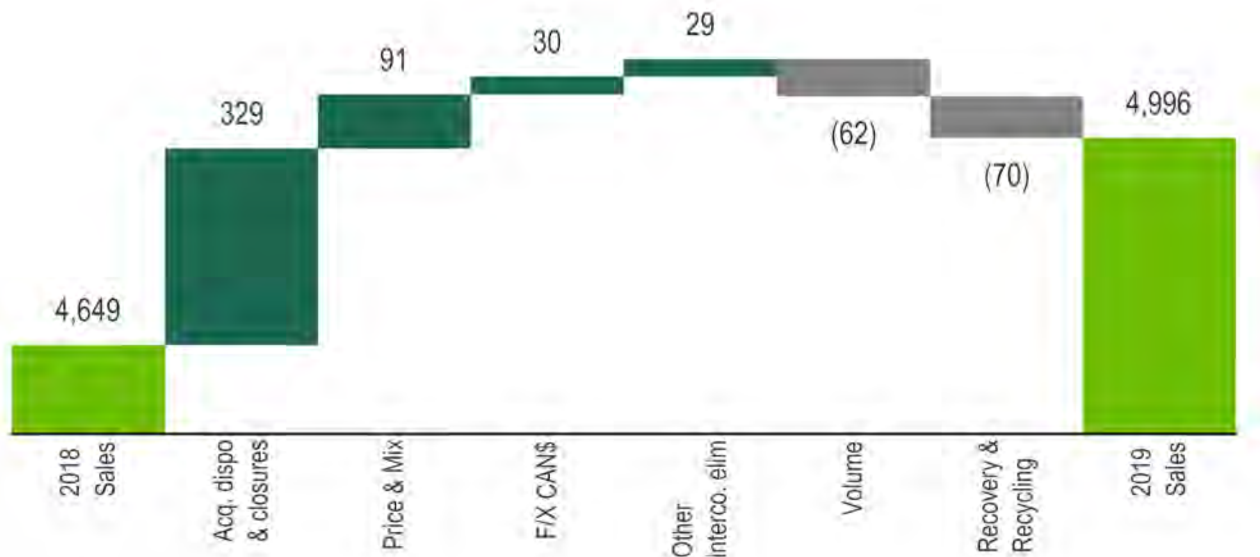
SALES

Sales increased by $347 million, or 7%, to $4,996 million in 2019, compared with $4,649 million in 2018. This reflects business acquisitions during the period and in the fourth quarter of 2018 and higher selling prices mostly in the Tissue Papers segment. However, on a same plant basis, lower volumes had a negative impact on sales. The 2% average depreciation of the Canadian dollar compared to the US dollar benefited sales levels during the year, but these benefits were partly offset by the 3% appreciation of the Canadian dollar compared to the euro. Recovery and Recycling activities generated lower sales as a result of the decrease in recycled fibre prices.

Sales by geographic segment are as follows:



The main variances in sales in 2019, compared to 2018, are shown below (in $M):

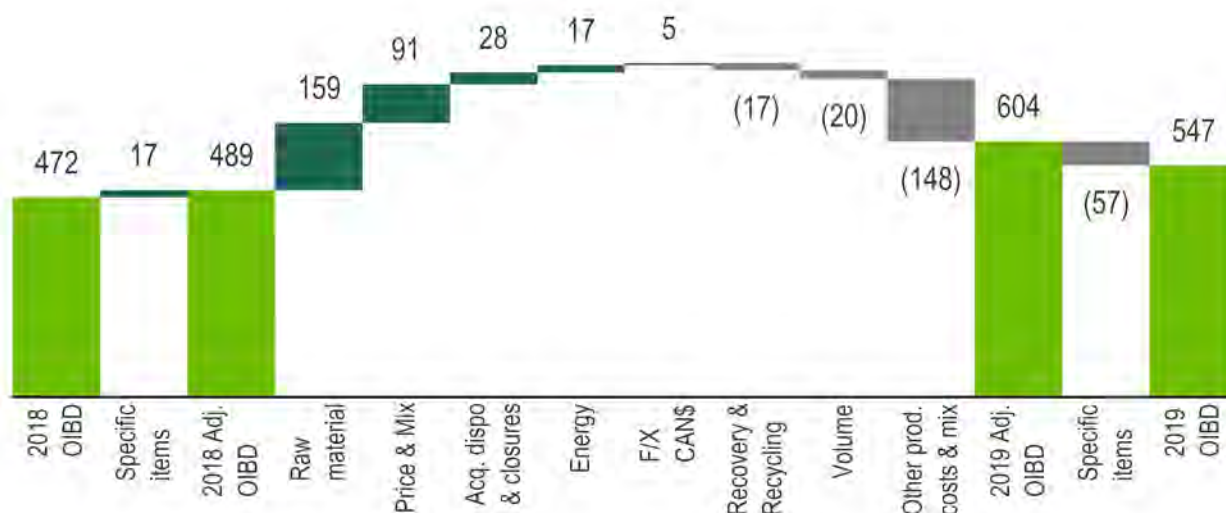


OPERATING INCOME BEFORE DEPRECIATION AND AMORTIZATION (OIBD)

The Corporation generated an OIBD of $547 million in 2019, compared with $472 million[1] in 2018, an increase of $75 million. Specific items[2] recorded in both periods negatively impacted the OIBD variance by $40 million. Excluding specific items, the $115 million adjusted OIBD increase is mainly explained by higher average selling prices mostly in the Tissue Papers segment, lower raw material costs, and business acquisitions in 2019 and at the end of 2018. On the other hand, lower contribution from the Recovery and Recycling activities and lower volumes in almost all segments had a negative impact on OIBD. The Tissue Papers and Containerboard segments benefited from higher selling prices and a favourable mix of products sold as a higher proportion of converted products sold contributed positively to OIBD. Conversely, the greater proportion of converted products sold in both segments had a negative variance impact on operating costs. While more expensive to produce, these products are sold at a higher selling price and margin. Higher other operating costs also had a negative impact during 2019, partly due to mix of products sold. Operating results for 2019 also include the beneficial impact of IFRS 16 accounting for leases, which increased 2019 OIBD by $29 million compared to 2018.

Adjusted OIBD[2] was $604 million in 2019, compared with $489 million in 2018.

The main variances in OIBD in 2019, compared to 2018, are shown below (in $M):



Adjusted OIBD	*Please refer to the "Supplemental Information on Non-IFRS Measures" section for reconciliation of these figures.*
Raw materials (OIBD)	*The impacts of these estimated costs are based on production costs per unit shipped externally or inter-segment, which are affected by yield, product mix changes, inbound freight costs and purchase and transfer prices. In addition to market pulp and recycled fibre, these costs include purchases of external boards and parent rolls for the converting sector, and other raw materials such as plastic and wood chips.*
F/X CAN$ (OIBD)	*The estimated impact of the exchange rate is based on the Corporation's Canadian export sales less purchases, denominated in US$, that are impacted by exchange rate fluctuations and by the translation of our non-Canadian subsidiaries OIBD into CAN$. It also includes the impact of exchange rate fluctuations on the Corporation's Canadian units in currency other than the CAN$ working capital items and cash positions, as well as our hedging transactions. It excludes indirect sensitivity (please refer to the "Sensitivity Table" section for further details).*
Other production costs and mix (OIBD)	*These costs include the impact of variable and fixed costs based on production costs per unit shipped externally, which are affected by downtime, efficiency and product mix changes.*
Recovery and Recycling activities (Sales and OIBD)	*While this sub-segment is integrated within the other segments of the Corporation, any variation in the results of Recovery and Recycling activities are presented separately and on a global basis in the charts.*

The analysis of variances in segment operating income before depreciation and amortization appears within each business segment review (please refer to the "Business Segment Review" section for more details).

1 2018 results have been adjusted to reflect retrospective adjustments of purchase price allocation. Please refer to Note 5 of the 2019 Audited Consolidated Financial Statements for more details.

2 Please refer to the "Supplemental Information on Non-IFRS Measures" section for reconciliation of these figures.

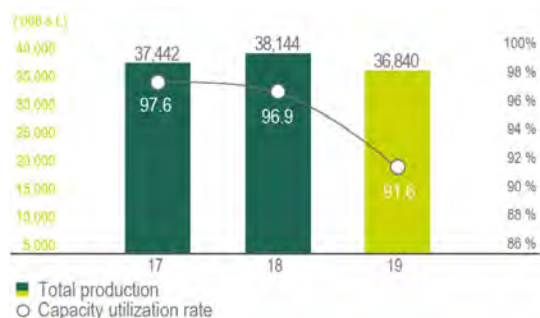
On January 1, 2019, the Corporation applied IFRS 16 *Leases* retrospectively with no restatement of comparative information, including non-IFRS measures and tables, as allowed by the Standard (see Note 3 of the Audited Consolidated Financial Statements for more details).

PACKAGING PRODUCTS - CONTAINERBOARD

Our Industry

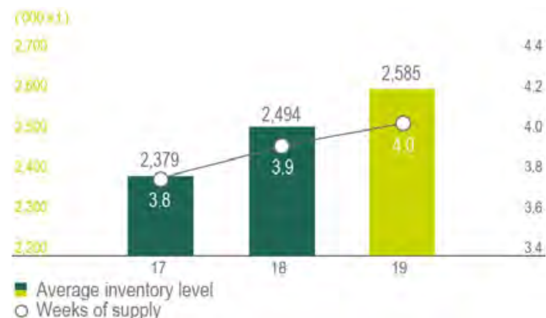
U.S. containerboard industry production and capacity utilization rate [1]

Total U.S.containerboard production decreased by 3% in 2019, a reflection of softer market conditions due in part to lower export demand. As a result, the industry's capacity utilization rate decreased to 91.6% in 2019 from 96.9% in 2018.



U.S. containerboard inventories at box plants and mills [2]

The average inventory level increased by 4% in 2019, as sales to export markets experienced some downward pressure in the second half of the year, leading to higher domestic inventory levels. The number of weeks of supply in inventory averaged 4.0 for the year.



U.S corrugated box industry shipments [2]

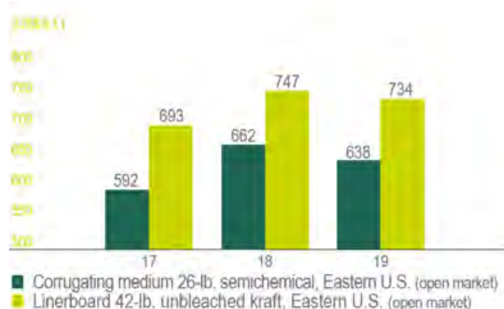
Total U.S. corrugated box shipments remained stable in 2019 compared to 2018. This reflects continued strength in the economic environment and manufacturing activity, including e-commerce, the benefits of which were partially offset by lower export demand levels and trade disputes.

Canadian corrugated box industry shipments [3]

Canadian corrugated box shipments remained stable in 2019 after five consecutive years of growth. This reflects the benefits of continued economic strength, combined with negative impacts related to global trade insecurities.

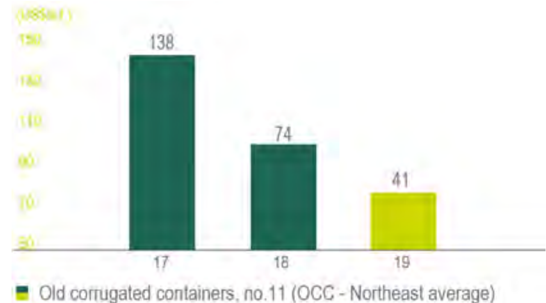
Reference prices - containerboard [1]

2019 reference prices for linerboard and corrugating medium decreased by 2% and 4%, respectively, compared to 2018. This was largely driven by softer market demand related to lower export levels, as discussed above. The increase in the available supply of products that subsequently arose led to downward pressure on pricing.



Reference prices - recovered papers (brown grade) [1]

The average reference price of old corrugated containers no.11 ("OCC") decreased by 45% in 2019 compared to 2018. This was largely due to China's restriction on recovered paper import permits, which led to an increase in domestic supply, and resulted in a decline in prices throughout the year.

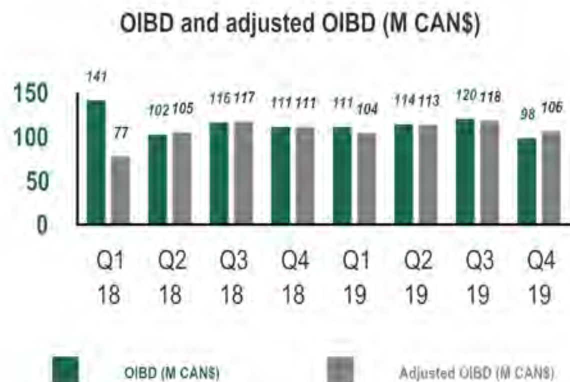


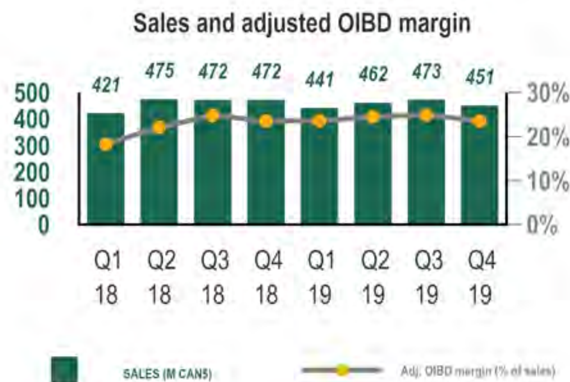
1 Source: RISI

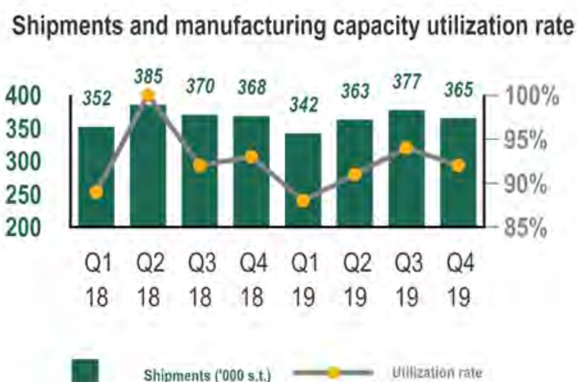
2 Source: Fibre Box Association

3 Source: Canadian Corrugated and Containerboard Association

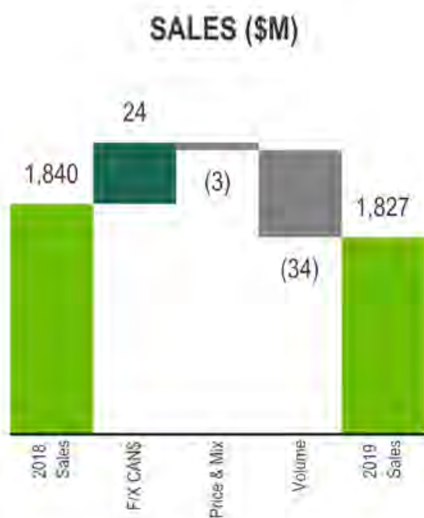
Our Performance

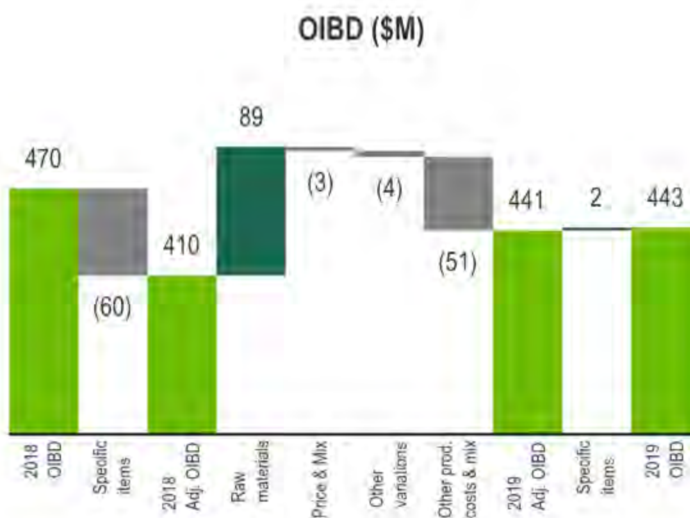






The main variances[1] in sales and operating income before depreciation and amortization for the Containerboard Packaging segment in 2019, compared to 2018, are shown below:





1 For definitions of certain sales and operating income before depreciation and amortization (OIBD) variation categories, please refer to the "Financial results for the year ended December 31, 2019, compared to the year ended December 31, 2018" section for more details.

The Corporation incurred certain specific items in 2019 and 2018 that adversely or positively affected its operating results. Please refer to the "Supplemental Information for Non-IFRS Measures" section for reconciliations and details.

On January 1, 2019, the Corporation applied IFRS 16 *Leases* retrospectively with no restatement of comparative information, including non-IFRS measures and tables, as allowed by the Standard (see Note 3 of the Audited Consolidated Financial Statements for more details).

	2018	2019	Change in %
Shipments[2] ('000 s.t.)	1,475	1,447	-2%
Average Selling Price (CAN$/unit)	1,247	1,262	1%
Sales ($M)	1,840	1,827	-1%
OIBD[1] ($M) (as reported)	470	443	-6%
% of sales	26%	24%	
(adjusted)[1]	410	441	8%
% of sales	22%	24%	
Operating income ($M) (as reported)	381	328	-14%
(adjusted)[1]	321	326	2%

1 *Please refer to the "Supplemental Information on Non-IFRS Measures" section for reconciliation of these figures.*

2 *Shipments do not take into account the elimination of business sector inter-segment shipments. Including 13.1 billion square feet in 2019 compared to 12.9 billion square feet in 2018.*

3 *Including sales to other partners in Greenpac.*

On January 1, 2019, the Corporation applied IFRS 16 *Leases* retrospectively with no restatement of comparative information, including non-IFRS measures and tables, as allowed by the Standard (see Note 3 of the Audited Consolidated Financial Statements for more details).

Shipments decreased by 28,000 s.t., or 2%, in 2019 compared to 2018. This reflects a 37,000 s.t. decrease in external shipments from our containerboard mills driven by a higher mill integration rate of 58% in 2019, compared with 57% in 2018, lower market demand, and a 2% decrease in the capacity utilization rate. Including sales to associates[3], the integration rate was 71% in 2019, compared with 72% last year. On the converting side, shipments increased by 1%. This outperformed the Canadian and US markets, both of which remained stable compared to last year.

The average selling price denominated in Canadian dollars decreased by 2% for parent rolls, and increased by 2% for converted products. The 2% average depreciation of the Canadian dollar compared to the US dollar favourably impacted average selling prices.

Sales decreased by $13 million, or 1%, compared to 2018. The 2% average depreciation of the Canadian dollar added $24 million to sales, and the favourable mix of products sold added another $8 million. These benefits were offset by the lower average selling price, which subtracted $11 million from sales, and lower volume, which negatively impacted sales by $34 million.

Operating income before depreciation and amortization (OIBD) decreased by $27 million, or 6% in 2019, compared to 2018. Excluding specific items[1] in both years, the $31 million increase in adjusted OIBD reflects lower costs of brown recycled fibre grades, which increased results by $89 million. The 2% average depreciation of the Canadian dollar benefited results by $6 million, while lower energy costs added another $4 million to results. These were partly offset by a net negative impact of $3 million related to average selling price and sales mix, and lower volume and higher freight costs, which subtracted $14 million and $3 million, respectively, from OIBD. In addition, higher operational costs, specifically chemicals, repair & maintenance, labour and warehousing reduced OIBD by another $48 million. A greater proportion of converted products sold also had a negative variance impact on operating costs per ton.

The segment incurred some specific items[1] in 2019 and 2018 that affected OIBD. Adjusted OIBD[1] was $441 million in 2019, compared with $410 million in 2018.

Our Industry

European industry order inflow of coated boxboard [1]

In Europe, order inflows of white-lined chipboard (WLC) increased by 1% compared to 2018, reflecting ongoing solid demand throughout 2019. Specifically, industry orders were approximately 3.2 million tonnes in 2019. The folding boxboard (FBB) industry similarly experienced a strong year, with order inflows of approximately 2.3 million tonnes in 2019. This represented an increase of 4%, compared to 2018.

Coated recycled boxboard industry's order inflow from Europe
(White-lined chipboard (WLC) - 5-week weekly moving average)

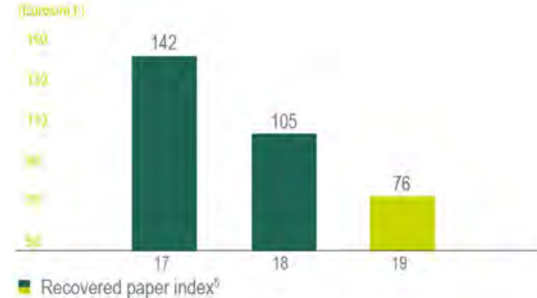
Coated virgin boxboard industry's order inflow from Europe
(Folding boxboard (FBB) - 5-week weekly moving average)

Reference prices - boxboard in Europe [2]

White-lined chipboard prices remained stable in Western European countries in 2019 compared to 2018. Folding boxboard prices increased by 4% throughout the year.

Reference prices - recovered papers in Europe [2]

Recovered paper prices decreased significantly in 2019 compared to 2018, following China's restriction on recovered paper import permits. As a result, the recovered paper reference index in Europe decreased 28% in 2019 compared to 2018, with all recycled grades decreasing significantly.



[1] Source: CEPI Cartonboard

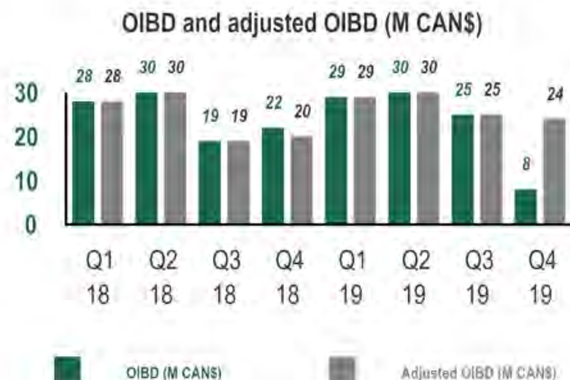
[2] Source: RISI

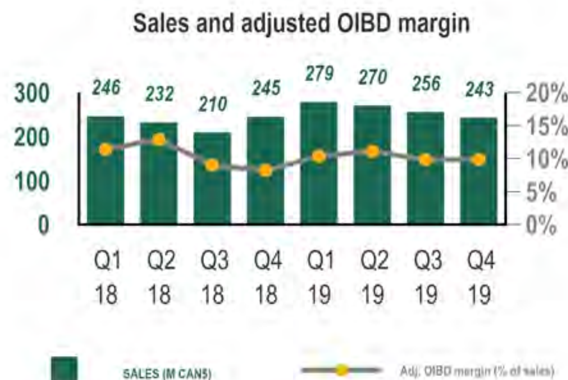
[3] The Cascades recycled white-lined chipboard selling prices index represents an approximation of Cascades' recycled grade selling prices in Europe. It is weighted by country. For each country, we use an average of PPI Europe prices for white-lined chipboard.

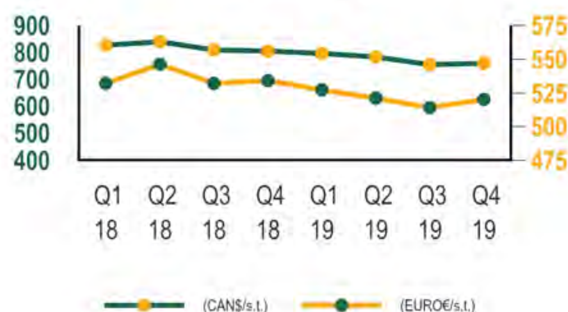
[4] The Cascades virgin coated duplex boxboard selling prices index represents an approximation of Cascades' virgin grade selling prices in Europe. It is weighted by country. For each country, we use an average of PPI Europe prices for coated duplex boxboard.

[5] The recovered paper index represents an approximation of Cascades' recovered paper purchase prices in Europe. It is weighted by country. For each country, we use an average of PPI Europe prices for recovered papers. This index should only be used as a trend indicator and may differ from our actual purchasing costs and our purchase mix.

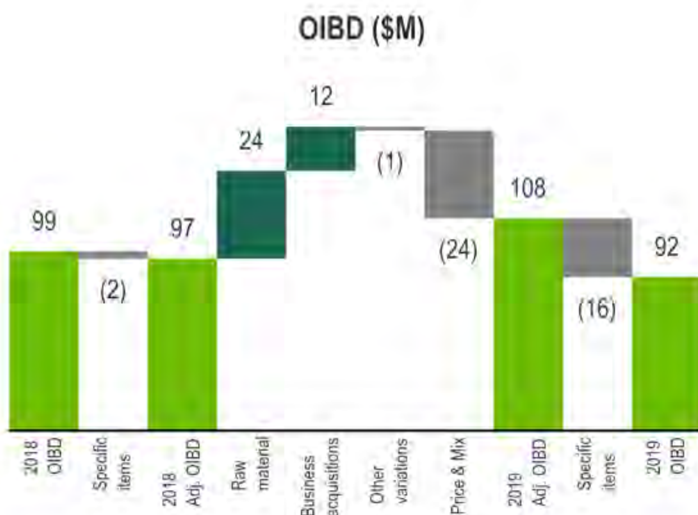
Our Performance[2]







The main variances[1] in sales and operating income before depreciation and amortization for the Boxboard Europe segment in 2019, compared to 2018, are shown below:



1 For definitions of certain sales and operating income before depreciation and amortization (OIBD) variation categories, please refer to the "Financial results for the year ended December 31, 2019, compared to the year ended December 31, 2018" section for more details.

2 2018 results and have been adjusted to reflect retrospective adjustments of purchase price allocation. Please refer to Note 5 of the 2019 Audited Consolidated Financial Statements for more details.

The Corporation incurred certain specific items in 2019 and 2018 that adversely or positively affected its operating results. Please refer to the "Supplemental Information for Non-IFRS Measures" section for reconciliations and details.

On January 1, 2019, the Corporation applied IFRS 16 *Leases* retrospectively with no restatement of comparative information, including non-IFRS measures and tables, as allowed by the Standard (see Note 3 of the Audited Consolidated Financial Statements for more details).

	2018	2019	Change in %
Shipments[2] ('000 s.t.)	1,125	1,290	15%
Average Selling Price[3] (CAN$/unit)	820	773	-6%
(euro€/unit)	536	521	-3%
Sales ($M)	933	1,048	12%
OIBD[1,4] ($M) (as reported)	99	92	-7%
% of sales	11%	9%	
(adjusted)[1]	97	108	11%
% of sales	10%	10%	
Operating income[4] ($M) (as reported)	62	45	-27%
(adjusted)[1]	60	61	2%

1 Please refer to the "Supplemental Information on Non-IFRS Measures" section for reconciliation of these figures.
2 Shipments do not take into account the elimination of business sector inter-segment shipments.
3 Average selling price is a weighted average of virgin, recycled and converted boxboard shipments.
4 2018 results have been adjusted to reflect retrospective adjustments of purchase price allocation. Please refer to Note 5 of the 2019 Audited Financial Statements for more details.

On January 1, 2019, the Corporation applied IFRS 16 *Leases* retrospectively with no restatement of comparative information, including non-IFRS measures and tables, as allowed by the Standard (see Note 3 of the Audited Consolidated Financial Statements for more details).

External recycled boxboard shipments increased by 175,000 s.t., or 18%, in 2019 compared to 2018. This reflects the acquisition of Barcelona Cartonboard (please refer to the "Business Highlights" section for more details) which totalled 175,000 s.t. reflecting stable shipments form other recycled mills. Shipments of virgin boxboard decreased by 10,000 s.t., or 6%, while converted products shipments remained stable.

The average selling price decreased in both euros and Canadian dollars year-over-year. This reflects the 3% average year-over-year appreciation of the Canadian dollar compared to the euro and the higher portion of recycled products sold following the acquisition of Barcelona Cartonboard at the end of 2018, in addition to a less favourable geographical mix of products sold. Compared with the prior year period, the average selling price of recycled boxboard decreased by €21, or 4%, in 2019, while the average selling price of virgin boxboard increased by €26, or 4%, compared to 2018.

The $115 million year-over-year increase in sales in 2019 reflects the acquisition of Barcelona Cartonboard, which contributed $169 million. This was offset by the 3% average year-over-year appreciation of the Canadian dollar compared to the euro, which reduced sales by $26 million. The lower average selling price and lower volume, on a same plant basis, also negatively impacted sales by $24 million and $4 million, respectively.

Operating income before depreciation and amortization decreased by $7 million in 2019. Excluding specific items[1], the $11 million increase reflects lower raw materials prices, which added $24 million, and the $12 million contribution from Barcelona Cartonboard. Conversely, the lower average selling price reduced OIBD by $24 million and the 3% average appreciation of the Canadian dollar further reduced OIBD by $3 million.

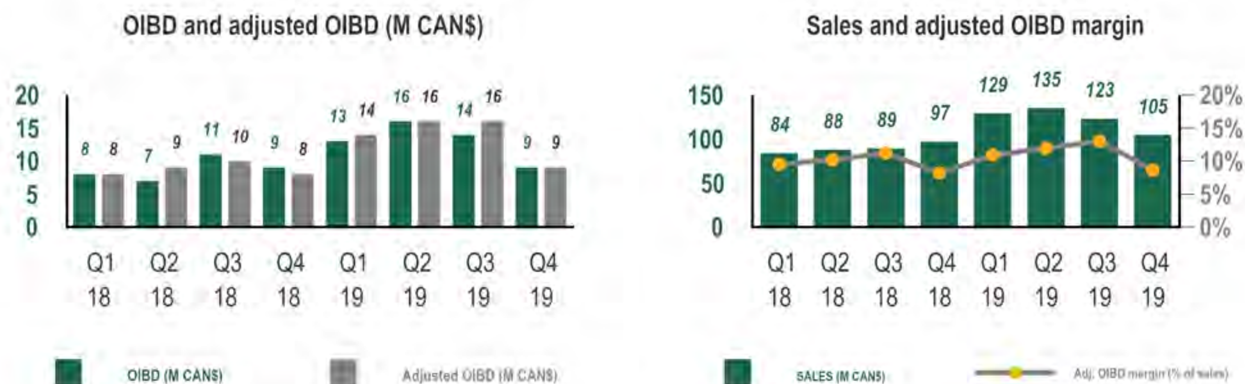
The segment incurred some specific items[1] in 2019 and 2018 that affected OIBD. Adjusted OIBD[1] was $108 million in 2019, compared with $97 million in 2018.

PACKAGING PRODUCTS - SPECIALTY PRODUCTS

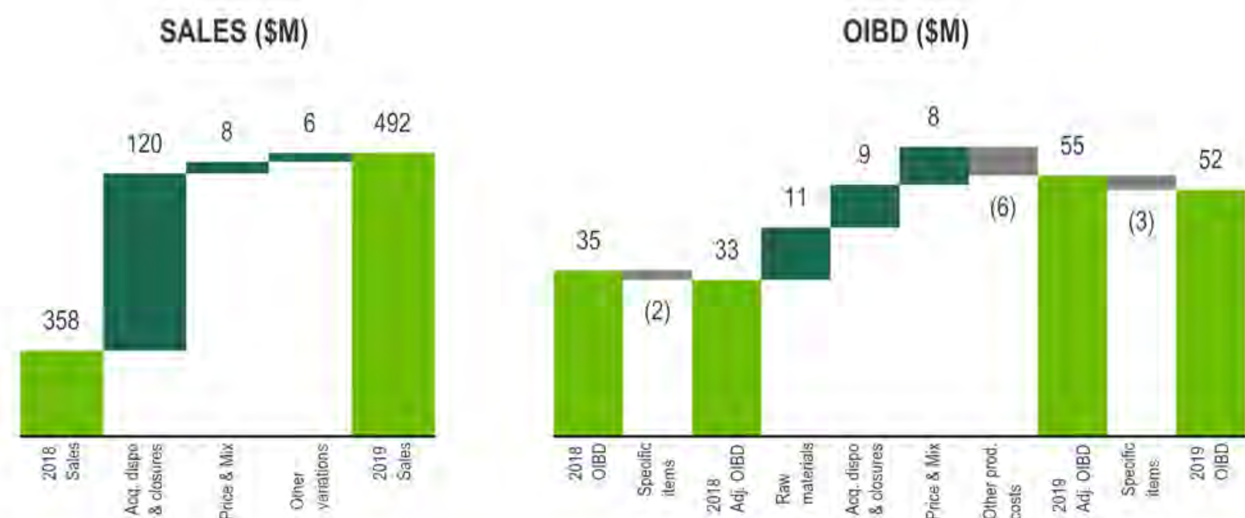
CHANGE IN SEGMENTED INFORMATION

In 2019, the Corporation modified its internal reporting in accordance with CODM requirements and business analysis. As a result, the Corporation modified its segmented information disclosure and restated prior periods. The Corporation's recovery and recycling activities, previously included in the Specialty Products segment, are now included in the Corporate Activities since they support our North American packaging and tissue papers segments and are analyzed separately.

Our Performance[2]



The main variances[1] in sales and operating income before depreciation and amortization for the Specialty Products segment in 2019, compared to 2018, are shown below:



1 For definitions of certain sales and operating income before depreciation and amortization (OIBD) variation categories, please refer to the "Financial results for the year ended December 31, 2019, compared to the year ended December 31, 2018" section for more details.

2 2018 results and have been adjusted to reflect retrospective adjustments of purchase price allocation. Please refer to Note 5 of the 2019 Audited Consolidated Financial Statements.

The Corporation incurred certain specific items in 2019 and 2018 that adversely or positively affected its operating results. Please refer to the "Supplemental Information for Non-IFRS Measures" section for reconciliations and details.

On January 1, 2019, the Corporation applied IFRS 16 *Leases* retrospectively with no restatement of comparative information, including non-IFRS measures and tables, as allowed by the Standard (see Note 3 of the Audited Consolidated Financial Statements for more details).

	2018	2019	Change in %
Sales ($M)	358	492	37%
OIBD[1,2] ($M) (as reported)	35	52	49%
% of sales	10%	11%	
(adjusted)[1]	33	55	67%
% of sales	9%	11%	
Operating income ($M)[2] (as reported)	24	36	50%
(adjusted)[1]	22	39	77%

1 Please refer to the "Supplemental Information on Non-IFRS Measures" section for reconciliation of these figures.

2 2018 results have been adjusted to reflect retrospective adjustments of purchase price allocation. Please refer to Note 5 of the 2019 audited consolidated financial statements for more details.

On January 1, 2019, the Corporation applied IFRS 16 *Leases* retrospectively with no restatement of comparative information, including non-IFRS measures and tables, as allowed by the Standard (see Note 3 of the Audited Consolidated Financial Statements for more details).

Shipments were positively impacted by the business acquisition of moulded pulp assets completed in the fourth quarter of 2018. However, European activity shipments decreased following the sale of these activities during the year. Shipments in Consumer Product Packaging, on a same plant basis, were also below prior year levels.

Sales increased by $134 million, or 37%, compared with 2018. This reflects the $120 million net contribution resulting from the recently acquired moulded pulp activities in the US, offset by the divestiture of European activities and the closure of our vinyl backing felt mill. Higher average selling prices in almost all sub-sectors, greater volume in Industrial Packaging and a favourable exchange rate all contributed to top-line growth. Volumes were slightly lower in the Consumer Product Packaging sub-sector compared to 2018.

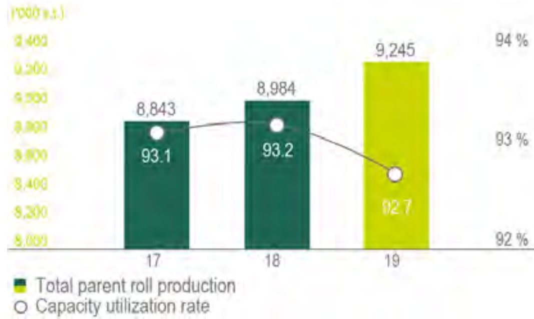
Operating income before depreciation and amortization (OIBD) increased by $17 million in 2019. Higher realized spreads in almost all sub-sectors and the acquisition of US moulded pulp activities in the fourth quarter of 2018 positively contributed to results year-over-year. These benefits were partly offset by higher operating and maintenance costs.

The segment incurred some specific items[1] in 2019 and 2018 that affected OIBD. Adjusted OIBD[1] reached $55 million in 2019, compared with $33 million in 2018.

Our Industry

U.S. tissue paper industry production (parent rolls) and capacity utilization rate [1]

Total parent roll production increased by 3% in 2019, the tenth consecutive year of growth. The average capacity utilization rate of 93% in 2019 remained stable with the 2018 level. New capacity additions in the market were important underlying contributors to these metrics.

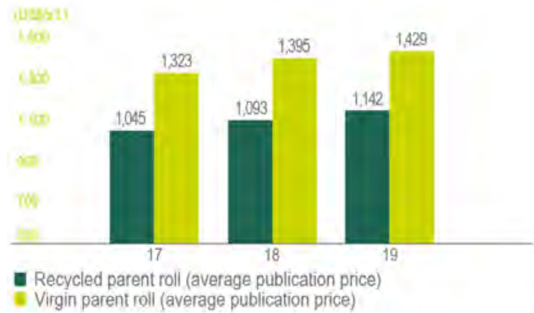


U.S. tissue paper industry converted product shipments [1]

In 2019, shipments for the retail and the away-from-home markets increased by 2% and 4%, respectively, compared to 2018.

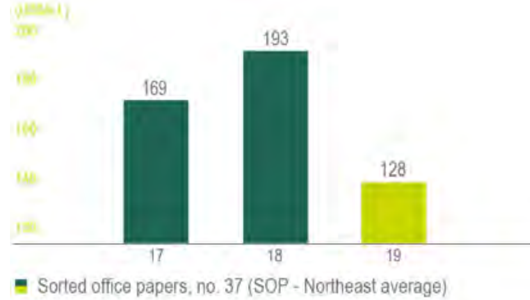
Reference prices - parent rolls [1]

In 2019, the reference price for recycled and virgin parent rolls increased by 4% and 2%, respectively, compared to 2018. This reflected the successful implementation of selective price increases in the market, largely driven by rising input costs in recent years.



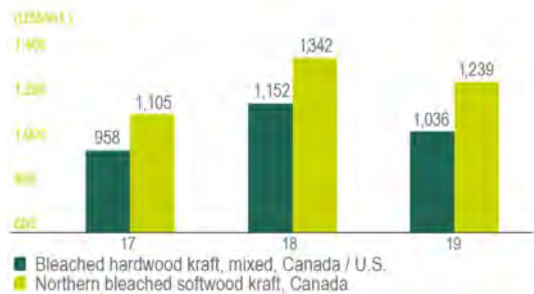
Reference prices - recovered papers (white grade) [1]

The reference price of sorted office papers No.37 ("SOP") decreased significantly by 34% in 2019 compared to 2018.



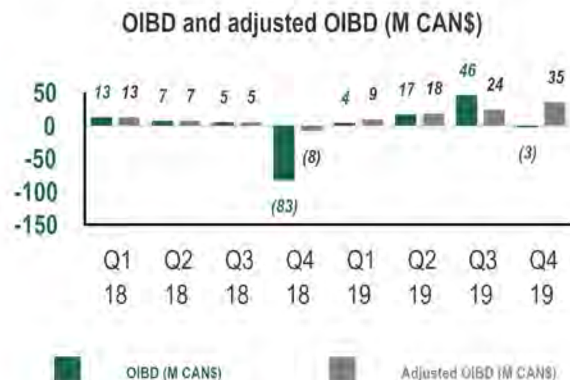
Reference prices - market pulp [1]

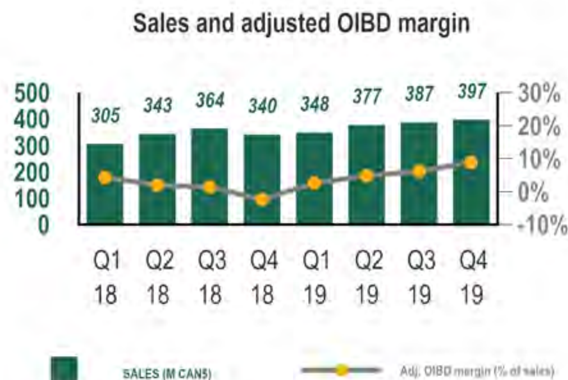
In 2019, the reference price for NBSK and NBHK decreased by 8% and 10%, respectively, compared to 2018, reflecting global demand supply dynamics.

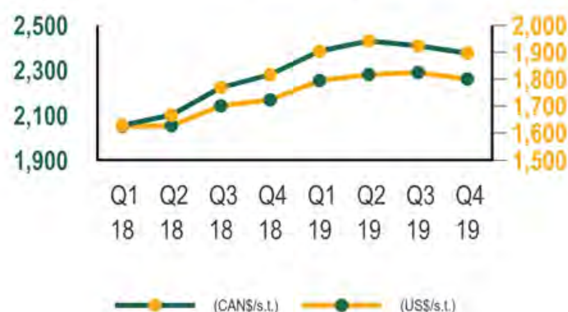


1 *Source: RISI*

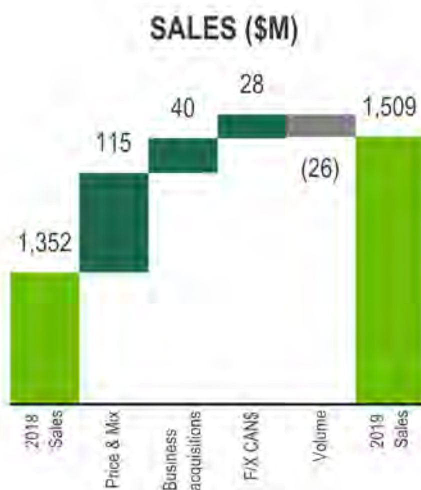
Our Performance[2]

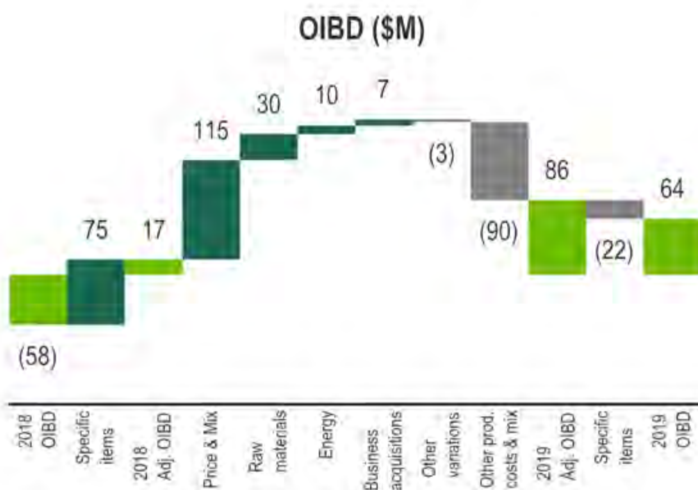






The main variances[1] in sales and operating income before depreciation and amortization for the Tissue Papers segment in 2019, compared to 2018, are shown below:





1 For definitions of certain sales and operating income before depreciation and amortization (OIBD) variation categories, please refer to the "Financial results for the year ended December 31, 2019, compared to the year ended December 31, 2018" section for more details.

2 2019 third quarter results have been adjusted to reflect retrospective adjustments of purchase price allocation. Please refer to Note 5 of the 2019 Audited Consolidated Financial Statements for more details.

The Corporation incurred certain specific items in 2019 and 2018 that adversely or positively affected its operating results. Please refer to the "Supplemental Information for Non-IFRS Measures" section for reconciliations and details.

On January 1, 2019, the Corporation applied IFRS 16 *Leases* retrospectively with no restatement of comparative information, including non-IFRS measures and tables, as allowed by the Standard (see Note 3 of the Audited Consolidated Financial Statements for more details).

	2018	2019	Change in %
Shipments[2] ('000 s.t.)	625	629	1%
Average Selling Price (CAN$/unit)	2,165	2,400	11%
Sales ($M)	1,352	1,509	12%
OIBD[1] ($M) (as reported)	(58)	64	210%
% of sales	(4)%	4%	
(adjusted)[1]	17	86	406%
% of sales	1%	6%	
Operating income (loss) ($M) (as reported)	(122)	3	102%
(adjusted)[1]	(47)	25	153%

1 Please refer to the "Supplemental Information on Non-IFRS Measures" section for reconciliation of these figures.

2 Shipments do not take into account the elimination of business sector inter-segment shipments.

On January 1, 2019, the Corporation applied IFRS 16 *Leases* retrospectively with no restatement of comparative information, including non-IFRS measures and tables, as allowed by the Standard (see Note 3 of the Audited Consolidated Financial Statements for more details).

External manufacturing shipments decreased by 44,000 s.t., or 25%, year-over-year in 2019. This is largely a reflection of the higher integration rate of 76% in 2019, up notably from 70% in 2018, helped by the closure of two paper machines in Toronto in the first half of the year. External converting shipments increased by 30,000 s.t., or 7%, over 2018 levels, mainly driven by new volume with key strategic customers. The acquisition of Orchids added 18,000 s.t. to shipment levels at the end of 2019.

The increase of 11% in the average selling price was mainly due to the 2% average depreciation of the Canadian dollar compared to the U.S. dollar, and a more favourable sales mix of converted products. The price increases announced in 2018 and at the beginning of 2019, in both the Away-From-Home and Consumer Products sectors, positively impacted the average selling price in 2019, compared to 2018.

Despite a decrease in volume in the manufacturing sector, total sales levels increased by 12% compared to 2018. This was largely driven by a higher average selling price and a favourable sales mix, which added $115 million to sales on a combined basis. The 2% average depreciation of the Canadian dollar compared to the U.S. dollar also added $28 million to sales, while the newly acquired Orchids activities added an additional $40 million of sales. These benefits were partially offset by lower external volume in the manufacturing sector, which negatively impacted sales levels by $26 million.

The significant increase in operating income before depreciation and amortization (OIBD), is due in part to the $22 million gain recorded on the Orchids' acquisition (see "Business Highlights" section for more details). In addition, lower raw materials and energy costs added $30 million and $10 million, respectively, to OIBD levels. These were partially offset by higher outsourcing and production costs. In addition, production costs per ton were higher year-over-year as a result of the greater proportion of sales from converting activities. While more expensive to produce, these products are sold at a higher selling price and margin. The Orchids acquisition also contributed $7 million in the last four months of the year.

The acquisition of Orchids, which was concluded on September 13, 2019, will accelerate the modernization of the Tissue platform and improve geographic positioning and supply chain logistics.

The Oregon converting activities are generating positive trends in terms of sales and OIBD, but have still not attained the targeted level. In 2018, operational difficulties at the St. Helens mill negatively impacted the ramp-up of the Oregon converting plant, as these facilities are highly integrated. The ongoing action plan in place at the St. Helens paper mill in Oregon is bearing fruit as it is now positively contributing to OIBD.

The segment incurred some specific items[1] in 2019 and 2018 that affected OIBD. Adjusted OIBD[1] reached $86 million in 2019, compared with $17 million in 2018.

CORPORATE ACTIVITIES[1]

Corporate Activities included some specific items[1] in 2019 and 2018 that affected OIBD. Adjusted OIBD[1] was a loss of $86 million in 2019, compared with a loss of $68 million in 2018. The decrease mainly comes from the $17 million decrease in OIBD coming from our Recovery and Recycling activities, following lower recycled fibres prices.

Adjusted OIBD, excluding Recovery and Recycling activities, remained fairly stable compared to last year despite lower capitalized costs with the end of our ERP implementation during 2018. Ongoing business process optimization initiatives are slowing down and focus is now on stabilizing and optimizing our systems and processes.

Sales and OIBD from our recovery operations were lower in 2019 compared to last year due to the lower prices of recycled fiber materials. Due to this situation we reviewed the carrying value of these activities and we recorded an impairment charge $14 million on the goodwill and intangible assets as its recoverable amount was lower than its carrying amount.

STOCK-BASED COMPENSATION EXPENSE

Stock-based compensation expense recognized in the Corporate Activities amounted to $3 million in 2019, compared with $5 million in 2018. For more details on stock-based compensation, see Note 21 of the 2019 Audited Consolidated Financial Statements.

1 In 2019, the Recovery activities sales, OIBD and adjusted OIBD figures were reclassified from the Specialty Products segment to Corporate activities. Prior years and quarterly figures were adjusted to reflect the current presentation.

OTHER ITEMS ANALYSIS

DEPRECIATION AND AMORTIZATION

The depreciation and amortization expense increased by $45 million to $289 million in 2019, compared with $244 million in 2018. The increase is mainly attributable to business acquisitions completed at the end of 2018 and in 2019, capital expenditure investments completed during the last twelve months, and the adoption of *IFRS 16 Leases* (see Note 3 of the Audited Consolidated Financial Statements for more details). Impairment charges recorded in 2018 partly offset this increase.

FINANCING EXPENSE AND INTEREST ON EMPLOYEE FUTURE BENEFITS AND OTHER LIABILITIES

The financing expense and interest on employee future benefits and other liabilities amounted to $143 million in 2019, compared with $99 million in the same period of 2018, a $44 million increase. The variance is mainly attributable to the fair value revaluation recognized on the CDPQ put option on the Corporation investment in Greenpac, which increased by $26 million compared with last year as a result of Greenpac's improving financial performance. The adoption of *IFRS 16 Leases* (see Note 3 of the Audited Consolidated Financial Statements for more details), as well as business acquisitions and capital expenditures made in 2018 increased debt levels which increased financing expense and interest on employee future benefits and other liabilities.

The Corporation also recorded an unrealized loss of $1 million, compared with nil in 2018, on the fair value revaluation of a one-time option granted to White Birch to purchase an interest of up to 10% in the Bear Island containerboard mill project, offset by an unrealized gain of $1 million in 2019, compared to $1 million in 2018, on interest rate swaps, included in financing expense.

On July 12, 2019, S&P Global Ratings revised the Corporation’s outlook to “stable” from “positive” on higher leverage; the corporate rating of BB- was reaffirmed. During 2018, S&P Global Ratings revised the Corporation's outlook to “positive” from “stable” on improving credit measures; our corporate rating of BB- was affirmed.

LOSS ON REPURCHASE OF LONG-TERM DEBT

In 2019, the Corporation redeemed US$400 million and $250 million of its unsecured senior notes and recorded early repurchase premiums of $11 million and wrote off $3 million of unamortized financing costs related to these notes.

PROVISION FOR INCOME TAXES

In 2019, the Corporation recorded an income tax provision of $19 million. This compares to an income tax provision of $48 million in 2018.

(in millions of Canadian dollars)	2019	2018
		Adjusted, Note 5
Provision for income taxes based on the combined basic Canadian and provincial income tax rate	31	37
Adjustment for income taxes arising from the following:		
Difference in statutory income tax rate of foreign operations	(2)	(1)
Prior years reassessment	3	2
Reversal of deferred tax assets on tax losses	—	3
Permanent differences	(3)	(1)
Change in deferred income tax assets relating to capital tax losses	(11)	8
Change in temporary differences	3	—
Other	(2)	—
	(12)	11
Provision for income taxes	19	48

Greenpac is a limited liability company (LLC) and partners agreed to account for it as a disregarded entity for tax purposes. Consequently, income taxes associated with Greenpac net earnings are proportionately recorded by each partner based on its respective share in the LLC and no income tax provision is included in Greenpac's net earnings. As such, although Greenpac has been fully consolidated in the Corporation's results since the third quarter of 2017, only 71.8% of pre-tax book income is considered for tax provision purposes. Following the acquisition of the 20.2% participation of the CDPQ in Greenpac in January 2020, 92% of pre-tax book income of Greenpac will be considered for tax provision purposes.

The Corporation reassessed the probability of recovering unrealized capital losses following the redemption of its US$ denominated debts in 2019, which resulted in the recognition of tax assets totalling $12 million of which $11 million was recorded in the Consolidated statement of earnings.

The effective tax rate and income taxes are affected by the results of certain subsidiaries and joint ventures located in countries where the income tax rates are different from those in Canada, notably the United States, France and Italy. The normal effective tax rate is expected to be in the range of 26% to 28%. The weighted-average applicable tax rate was 25.5% in 2019.

SHARE OF RESULTS OF ASSOCIATES AND JOINT VENTURES

Share of results of associates and joint ventures amounted to $9 million in 2019, compared to $11 million in 2018. Please refer to Note 8 of the 2019 Audited Consolidated Financial Statements for more information on associates and joint ventures.

On January 1, 2019, the Corporation applied IFRS 16 *Leases* retrospectively with no restatement of comparative information, including non-IFRS measures and tables, as allowed by the Standard (see Note 3 of the Audited Consolidated Financial Statements for more details).

LIQUIDITY AND CAPITAL RESOURCES

CASH FLOWS FROM OPERATING ACTIVITIES

Cash flows from operating activities generated $460 million of liquidity in 2019, compared with $373 million generated in 2018. Changes in non-cash working capital components generated $59 million of liquidity in 2019 versus $12 million generated in 2018 as accounts receivable were lower at the end of 2019. As at December 31, 2019, average LTM working capital as a percentage of LTM sales stood at 10.1%, compared with 10.6% as at December 31, 2018.

Cash flow from operating activities, excluding changes in non-cash working capital components, stood at $401 million in 2019, compared with $361 million in 2018. This cash flow measurement is relevant to the Corporation's ability to pursue its capital expenditure program and reduce its indebtedness.

Following the redemption of our senior notes, an interest payment normally planned for January 2020, was done in December 2019 in the amount of $23 million.

INVESTING ACTIVITIES

Investing activities used $540 million in 2019 compared with $370 million used in 2018.

INVESTMENTS IN ASSOCIATES & JOINT VENTURES AND CHANGE IN INTANGIBLE AND OTHER ASSETS

The main items were as follows:

2019

In 2019, the Corporation invested $11 million in its ERP information technology system and other software development needed to support our business and received $3 million from notes receivable included in other assets. The Corporation also received $1 million following the sale of shares of one of its joint ventures.

2018

During the year, the Corporation invested $15 million for its ERP technology system and other softwares. Also during the period, the Corporation paid a $2 million purchase price adjustment related to the acquisition of a joint-venture participation in 2017 and invested $2 million in the development of new products. Finally, we received $3 million related to a notes receivable for a plant sold in previous years.

PAYMENTS FOR PROPERTY, PLANT AND EQUIPMENT

(in millions of Canadian dollars)	2019	2018
Total acquisitions	317	417
Variation of acquisitions for property, plant and equipment included in "Trade and other payables"	(9)	(9)
Right-of-use assets and included in other debts and liabilities	(50)	(70)
Payments for property, plant and equipment	**258**	338
Proceeds from disposals of property, plant and equipment [1]	**(27)**	(85)
Payments for property, plant and equipment net of proceeds from disposals	**231**	253

1 See "Business Highlights" section for more details

New capital expenditure projects, excluding right-of-use assets, by segment in 2019 were as follows (in $M):

The major capital projects that were initiated, are in progress or were completed in 2019 are as follows:

CONTAINERBOARD PACKAGING

- Investments in converting equipment at our plants in St. Mary's, Ontario, Canada, and Piscataway, NJ, USA, to improve productivity and quality.
- Bear Island assets in Virginia, USA for site preparation before conversion of equipment to containerboard manufacturing (please refer to the "Business Highlights" section for more details).

BOXBOARD EUROPE

- Investments to improve the gas turbine and a winder at the Barcelona plant, a new paper cutter part of a new sheeting center and a waste washing machine at the Santa Giustina plant.

TISSUE PAPERS

- Investment in new converting lines at our Wagram facility in North Carolina, USA, and down payments made on the acquisition of other converting equipment to be installed in 2020.
- New warehouse in Candiac, Québec, allowing better inventory management to increase the service level and reduce warehousing costs.

As part of the Orchids acquisition, the Corporation acquired all of the outstanding units of OPP Acquisition Mexico S. de R.L. de C.V., designated as assets held-for-sale. These were then resold on the day of the transaction for US$14 million ($19 million), all of which has been received as at December 31, 2019. The Corporation also sold for $5 million a piece of land from a previously closed plant of the Containerboard segment.

NET CASH ACQUIRED (PAID) IN BUSINESS COMBINATIONS

2019
On September 13, 2019, the Corporation acquired the assets of Orchids Paper Products Company ("Orchids") for a total consideration of $307 million, which consisted of US$235 million ($311 million) in cash, less $2 million for a purchase price adjustment and the settlement of a net liability of $2 million with the acquiree prior to the transaction.

2018
During the year, the Corporation paid $54 million for the acquisition of Barcelona Cartonboard S.A.U., in the Boxboard Europe segment, and $51 million for the acquisition of Urban Forest Products and Clarion Packaging, two moulded pulp plants, in the Specialty products segment. As well, the Corporation acquired $4 million in cash through the business combination of PAC Service and $2 million from the acquisition of Barcelona Cartonboard S.A.U., as described in Note 5 of the Audited Consolidated Financial Statements of 2019. The Corporation also paid $1 million for the working capital purchase price adjustment related to the acquisition of the Coyle containerboard plants, completed in 2017. In all, net cash consideration amounted to $100 million and the Corporation also assumed $27 million of debt related to these acquisitions.

PROCEEDS ON DISPOSALS OF A SUBSIDIARY, NET OF CASH DISPOSED

2019
The Corporation sold its participation of 90% in Cascades Europe S.A.S., which owns Cascades Rollpack, a packaging manufacturer located in France for a total cash consideration of €7 million ($10 million) received at closing less cash disposed of €1 million ($1 million), for net proceeds of €6 million ($9 million).

FINANCING ACTIVITIES

Financing activities, including $23 million of dividend payments to Shareholders, debt repayment and the change in our revolving facility, generated $121 million in 2019, compared with $25 million generated in 2018. The Corporation purchased 966,654 shares for cancellation at an average price of $9.52 for an amount of $9 million in 2019. Dividends paid to non-controlling interests amounted to $17 million in 2019, compared with $17 million in 2018. These payments are the result of dividends paid to the non-controlling shareholders of Greenpac and Reno de Medici. Non-controlling interest contributed $1 million to the capital of Greenpac in 2018, representing the reinvestment of investment tax credits received by the partners. In 2018, the Corporation also paid $1 million for the settlement of derivative financial instruments. Finally, the Corporation received $5 million from the issuance of shares upon exercise of stock options, compared to $5 million in 2018.

On November 26, 2019, the Corporation announced that it had completed its private offering of US$350 million aggregate principal amount of 5.125% senior notes due 2026, US$300 million aggregate principal amount of 5.375% senior notes due 2028 and $175 million aggregate principal amount of 5.125% senior notes due 2025. The net proceeds from the Notes offering were used by the Corporation to redeem all of its outstanding $250 million aggregate principal amount of 5.50% senior notes due 2021 and US$400 million aggregate principal amount of 5.50% senior notes due 2022 and repay certain amounts outstanding under its revolving credit facility. The Corporation also paid $11 million of premiums, and wrote off $3 million of unamortized financing costs related to these notes.

CONSOLIDATED FINANCIAL POSITION

AS AT DECEMBER 31, 2019, 2018 AND 2017

The Corporation's financial position and ratios are as follows:

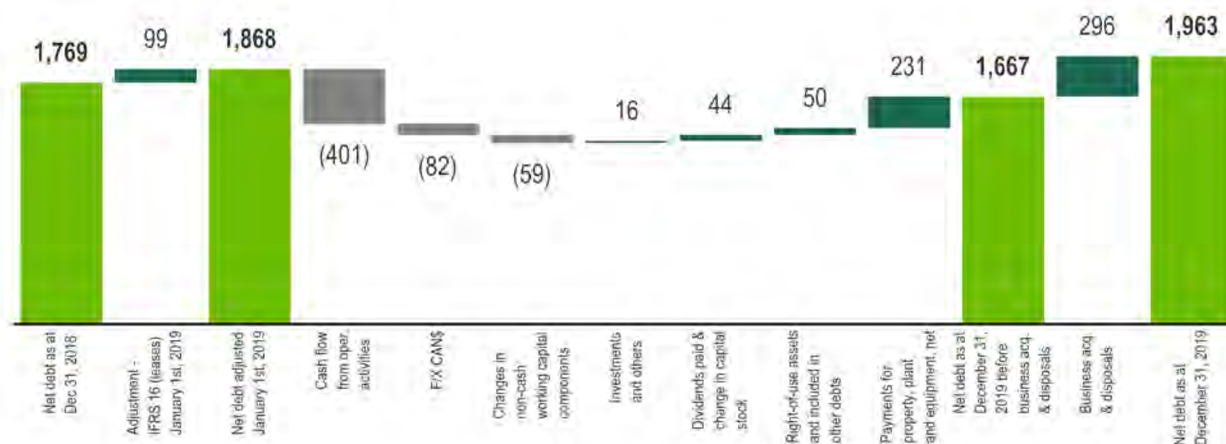
(in millions of Canadian dollars, unless otherwise noted)	**December 31, 2019**	December 31, 2018 [3]	December 31, 2017
Cash and cash equivalents	**155**	123	89
Working capital[1]	**416**	455	442
As a percentage of sales[2]	**10.1%**	10.6%	10.1%
Total assets	**5,180**	4,948	4,427
Total debt[4]	**2,118**	1,892	1,611
Net debt[4] (total debt less cash and cash equivalents)	**1,963**	1,769	1,522
Equity attributable to Shareholders	**1,489**	1,506	1,455
Non-controlling interests	**177**	180	146
Total equity	**1,666**	1,686	1,601
Total equity and net debt	**3,629**	3,455	3,123
Ratio of net debt/(total equity and net debt)	**54.1%**	51.2%	48.7%
Shareholders' equity per share (in dollars)	**$ 15.81**	$ 15.99	$ 15.32

1 *Working capital includes accounts receivable (excluding the short-term portion of other assets) plus inventories less trade and other payables.*
2 *Percentage of sales = Average LTM working capital/LTM sales. It includes or excludes significant business acquisitions and disposals, respectively, of the last twelve months.*
3 *2018 results have been adjusted to reflect retrospective adjustments of purchase price allocation. See Note 5 of the 2019 Audited Consolidated Financial Statements for more details.*
4 *Please refer to the "Supplemental Information on Non-IFRS Measures" section for reconciliation of these figures.*

On January 1, 2019, the Corporation applied IFRS 16 *Leases* retrospectively with no restatement of comparative information, including non-IFRS measures and tables, as allowed by the Standard (see Note 3 of the Audited Consolidated Financial Statements for more details).

NET DEBT[1] RECONCILIATION

The variances in the net debt (total debt less cash and cash equivalents) in 2019 are shown below (in millions of dollars), with the applicable financial ratios included.



489	Adjusted OIBD[1] (last twelve months)	**604**
3.5x	Net debt/Adjusted OIBD[1,2]	**3.25x**

1 Please refer to the "Supplemental Information on Non-IFRS Measures" section for reconciliation of these figures.
2 Pro-forma in 2018 to include business acquisitions on a last twelve months basis.

Liquidity available via the Corporation's credit facilities and the anticipated cash flow generated by its operating activities are expected to provide sufficient funds to meet our financial obligations and to fulfill our capital expenditure program for at least the next twelve months. Net capital expenditures are expected to be around $250 million, excluding the Bear Island project, in 2020. This amount is subject to change, depending on the Corporation's operating results and on general economic conditions. As at December 31, 2019, the Corporation had $613 million (net of letters of credit in the amount of $14 million) available on its $750 million credit facility (excluding the credit facilities of our subsidiaries Greenpac and Reno de Medici). Cash and cash equivalents as at December 31, 2019, are comprised as follows: $50 million in the parent company and restricted subsidiaries (as defined in the credit agreement) and $105 million in unrestricted subsidiaries, mainly Greenpac and Reno de Medici. On January 3, 2020 the Corporation paid US$93 million ($122 million) to purchase the 20.2% interest in Greenpac Holding LLC ("Greenpac") held by the Caisse de dépôt et placement du Québec.

EMPLOYEE FUTURE BENEFITS

The Corporation's employee future benefits assets and liabilities amounted to $474 million and $616 million respectively as at December 31, 2019, including an amount of $103 million for post-retirement benefits other than pension plans. The pension plans include an amount of $67 million, which does not require any funding by the Corporation until it is paid to the employees. This amount is not expected to increase, as the Corporation has reviewed its benefits program to phase out some of them for future retirees.

With regard to pension plans, the Corporation's risk is limited, since all defined benefit pension plans are closed to new employees and less than 10% of its active employees are subject to those pension plans, while the remaining employees are part of the Corporation's defined-contribution plans, such as group RRSPs or 401(k). Based on their liabilities balances as at December 31, 2019, 23% of the Corporation pension plans have been evaluated on December 31, 2018 (49% in 2017).

Considering the assumptions used and the asset ceiling limit, the deficit status for accounting purposes of its pension plans amounted to $47 million as at December 31, 2019, compared to $55 million in 2018. The 2019 pension plan expense was $7 million and the cash outflow was $8 million. Due to the investment returns in 2019 and the change in the assumptions, the expected expense for these pension plans is $7 million in 2020. As for the cash flow requirements, these pension plans are expected to require a net contribution of approximately $8 million in 2020. Finally, on a consolidated basis, the solvency ratio of the Corporation's pension plans has remained stable at approximately 100%.

COMMENTS ON THE FOURTH QUARTER OF 2019

Sales of $1,227 million increased by $31 million, or 3%, compared with the same period last year. Specifically, Tissue sales increased by $57 million, or 17%, a reflection of increased volumes, higher average selling price, more favourable sales mix, and the addition of Orchids Paper assets. European Boxboard sales decreased by $2 million, or 1%, compared with the previous year, largely driven by less favourable average selling price and mix and Canadian dollar - euro exchange rate, and slightly lower volumes, the effects of which were largely mitigated by the business acquisition in Spain at the end of 2018. The Specialty Products segment generated an 8% or $8 million sales improvement year-over-year, reflecting 2018 acquisitions and slightly higher volumes, the benefits of which outweighed slightly less favourable pricing and sales mix. Lastly, sales in the Containerboard Packaging segment decreased by $21 million year-over-year due to slightly lower volume and less favourable average selling price and sales mix year-over-year.

The Corporation generated an operating income before depreciation and amortization (OIBD) of $76 million in the fourth quarter of 2019. This compares with the $35 million[1] generated in the same period last year. This reflects impairments charges of $75 million and $34 million recorded in the Tissue segment in the fourth quarters of 2018 and 2019, respectively, and additional impairment charges of $14 million related to goodwill that were recorded in our Recovery operations in 2019. On a year-over-year basis, operating results benefited from more favourable raw material prices across all four businesses, lower energy costs in all segments with the exception of Specialty Products, and business acquisitions completed in the last twelve months. Offsetting these benefits were less favourable selling prices and mix in all segments except Tissue, and higher production costs per ton sold in all segments largely attributable to the higher proportion of sales coming from converting activities. Results generated by Recovery activities, accounted for in Corporate Activities, negatively impacted results in the current period following year-over-year decreases in recycled fibre pricing. Operating results for 2019 also include the beneficial impact of IFRS 16 accounting for leases, which increased fourth quarter 2019 OIBD by approximately $7 million.

On an adjusted basis[2], fourth quarter 2019 OIBD stood at $152 million, versus $113 million in the previous year.

The main specific items, before income taxes, that impacted our fourth quarter 2019 results were:

- $64 million impairment charge mainly related to certain assets in our Tissue and Boxboard Europe segments and the goodwill in Recovery operations
- $10 million loss related to the sale of certain equipment, restructuring costs and other charges following facility closures and the Orchids acquisition
- $2 million unrealized loss on financial instruments
- $14 million charge on repurchase of long-term debt

For the 3-month period ended December 31, 2019, the Corporation posted a net loss of $26 million, or $0.27 per share, compared with a net loss of $67 million[1], or $0.71[1] per share, for the same period in 2018. On an adjusted basis[1], the Corporation generated net earnings of $29 million in the fourth quarter of 2019, or $0.30 per share, compared with a break even net earnings of $0 million, or $0.00 per share, for the same period in 2018.

1 2018 results have been adjusted to reflect retrospective adjustments of purchase price allocation. See Note 5 of the 2019 Audited Consolidated Financial Statements for more details.

2 Please refer to the "Supplemental Information on Non-IFRS Measures" section for a complete reconciliation.

On January 1, 2019, the Corporation applied IFRS 16 *Leases* retrospectively with no restatement of comparative information, including non-IFRS measures and tables, as allowed by the Standard (see Note 3 of the Audited Consolidated Financial Statements for more details).

The following table reconciles net earnings (loss) and net earnings (loss) per share, as per IFRS, with adjusted net earnings and adjusted net earnings per share:

(in millions of Canadian dollars, except amount per share)	NET EARNINGS		NET EARNINGS PER SHARE[1]	
	Q4 2019	Q4 2018[2]	**Q4 2019**	Q4 2018[2]
As per IFRS	**(26)**	(67)	**$ (0.27)**	$ (0.71)
Specific items:				
Loss (gain) on acquisitions, disposals and others	**5**	(3)	**$ 0.04**	$ (0.02)
Inventory adjustment resulting from business combination	**2**	—	**$ 0.02**	—
Impairment charges	**64**	75	**$ 0.49**	$ 0.60
Restructuring costs	**3**	2	**$ 0.02**	$ 0.02
Unrealized loss on derivative financial instruments	**2**	4	**$ 0.01**	$ 0.03
Loss on repurchase of long-term debt	**14**	—	**$ 0.11**	—
Unrealized gain on interest rate swaps and option fair value	**(1)**	—	**$ (0.01)**	—
Foreign exchange loss (gain) on long-term debt and financial instruments	**1**	8	**$ 0.01**	$ 0.06
Tax effect on specific items, other tax adjustments and attributable to non-controlling interests[1]	**(35)**	(19)	**$ (0.12)**	$ 0.02
	55	67	**$ 0.57**	$ 0.71
Adjusted	**29**	—	**$ 0.30**	—

[1] Specific amounts per share are calculated on an after-tax basis and are net of the portion attributable to non-controlling interests. Per share amounts in line item "Tax effect on specific items, other tax adjustments and attributable to non-controlling interests" only include the effect of tax adjustments. Please refer to "Provision for income taxes" on the "Supplemental Information on Non-IFRS Measures" section for more details.

The reconciliation of operating income (loss) to OIBD, to adjusted operating income (loss) and to adjusted OIBD by business segment is as follows:

(in millions of Canadian dollars)	For the 3-month period ended December 31, 2019					
	Containerboard	Boxboard Europe	Specialty Products	Tissue Papers	Corporate Activities	Consolidated
Operating income (loss)	69	(6)	5	(21)	(48)	(1)
Depreciation and amortization	29	14	4	18	12	77
Operating income (loss) before depreciation and amortization	98	8	9	(3)	(36)	76
Specific items:						
Loss on acquisitions, disposals and others	4	—	—	—	1	5
Inventory adjustment resulting from business acquisition	—	—	—	2	—	2
Impairment charges	2	14	—	34	14	64
Restructuring costs	1	—	—	2	—	3
Unrealized loss (gain) on derivative financial instruments	1	2	—	—	(1)	2
	8	16	—	38	14	76
Adjusted operating income (loss) before depreciation and amortization	106	24	9	35	(22)	152
Adjusted operating income (loss)	77	10	5	17	(34)	75

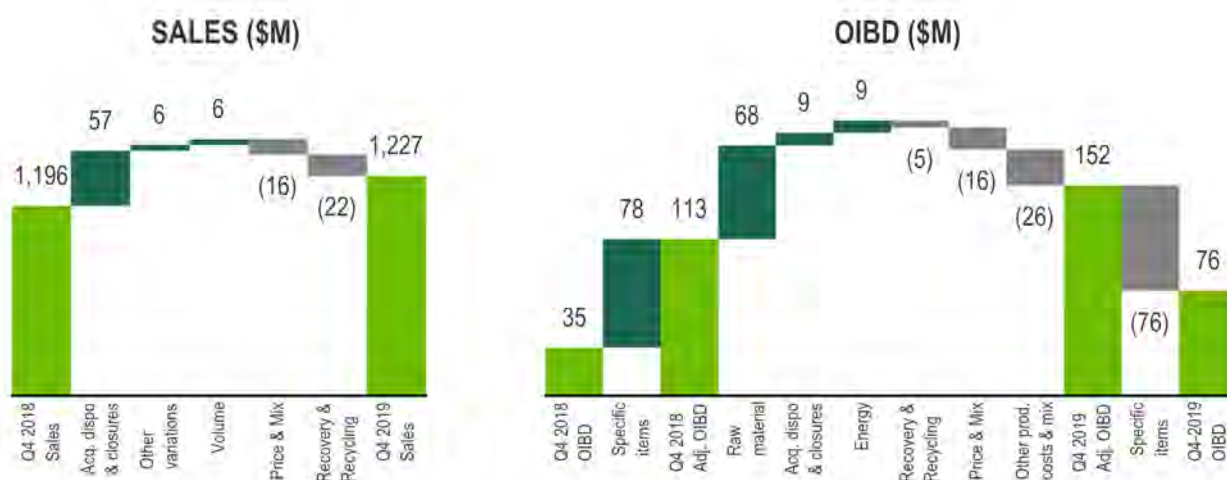
2 2018 results have been adjusted to reflect retrospective adjustments of purchase price allocation. See Note 5 of the 2019 Audited Consolidated Financial Statements for more details.

On January 1, 2019, the Corporation applied IFRS 16 *Leases* retrospectively with no restatement of comparative information, including non-IFRS measures and tables, as allowed by the Standard (see Note 3 of the Audited Consolidated Financial Statements for more details).

For the 3-month period ended December 31, 2018[2]

(in millions of Canadian dollars)	Containerboard	Boxboard Europe	Specialty Products	Tissue Papers	Corporate Activities	Consolidated
Operating income (loss)	84	11	6	(100)	(36)	(35)
Depreciation and amortization	27	11	3	17	12	70
Operating income (loss) before depreciation and amortization	111	22	9	(83)	(24)	35
Specific items:						
Gain on acquisitions, disposals and others	(1)	(2)	—	—	—	(3)
Impairment charges	—	—	—	75	—	75
Restructuring costs (reversals)	3	—	(1)	—	—	2
Unrealized loss (gain) on derivative financial instruments	(2)	—	—	—	6	4
	—	(2)	(1)	75	6	78
Adjusted operating income (loss) before depreciation and amortization	111	20	8	(8)	(18)	113
Adjusted operating income (loss)	84	9	5	(25)	(30)	43

The main variances[1] in sales and operating income before depreciation and amortization in the fourth quarter of 2019, compared to the same period of 2018[2], are shown below:



1 For definitions of certain sales and operating income before depreciation and amortization (OIBD) variation categories, please refer to the "Financial results for the year ended December 31, 2019, compared to the year ended December 31, 2018" for more details.

2 2018 results have been adjusted to reflect retrospective adjustments of purchase price allocation. See Note 5 of the 2019 Audited Consolidated Financial Statements for more details.

On January 1, 2019, the Corporation applied IFRS 16 *Leases* retrospectively with no restatement of comparative information, including non-IFRS measures and tables, as allowed by the Standard (see Note 3 of the Audited Consolidated Financial Statements for more details).

NEAR-TERM OUTLOOK

First quarter performance is projected to improve year-over-year, largely driven by improvements in the Tissue segment as a result of our strategic repositioning and ongoing integration of the Orchids activities. Results in our other three segments are expected to be stable, with pricing headwinds for these businesses expected to be offset by improved volumes and favourable raw material pricing in containerboard and Boxboard Europe.

The Corporation is closely monitoring the global situation surrounding COVID-19, and taking proactive steps to ensure the well-being and safety of our employees, and the continuity of our operations and businesses. Given the dynamic nature of the situation, it is not possible to ascertain what impact, if any, there may be on our financial performance. We are taking the necessary steps to mitigate the potential consequences that this situation may have on our manufacturing operations, supply chain and service to our customers.

CAPITAL STOCK INFORMATION

SHARE TRADING

Cascades' stock is traded on the Toronto Stock Exchange under the ticker symbol "CAS". From January 1, 2019 to December 31, 2019, Cascades' share price fluctuated between $7.84 and $13.33. During the same period, 47.1 million Cascades shares were traded on the Toronto Stock Exchange. On December 31, 2019, Cascades shares closed at $11.21. This compares with a closing price of $10.23 on the same closing day last year.

SHARES OUTSTANDING

As at December 31, 2019, the Corporation's issued and outstanding capital stock consisted of 94,245,295 shares (94,163,515 as at December 31, 2018) and 3,476,296 issued and outstanding stock options (4,409,358 as at December 31, 2018). In 2019, the Corporation purchased 966,654 shares for cancellation, while 1,048,434 stock options were exercised, 200,354 options were granted and 84,982 stock options were forfeited. As at February 26, 2020, issued and outstanding capital stock consisted of 94,329,849 shares and 3,530,629 stock options.

NORMAL COURSE ISSUER BID PROGRAM

The normal course issuer bid announced on March 15, 2018 enabled the Corporation to purchase for cancellation up to 1,903,282 shares between March 19, 2018 and March 18, 2019. During that period, the Corporation purchased 1,903,200 shares for cancellation. The current normal course issuer bid announced on March 14, 2019 enables the Corporation to purchase for cancellation up to 1,878,456 shares between March 19, 2019 and March 18, 2020. During the period between March 19, 2019 and February 26, 2020, the Corporation purchased 424,454 shares for cancellation.

DIVIDEND POLICY

On February 26, 2020, Cascades' Board of Directors declared a quarterly dividend of $0.08 per share to be paid on March 26, 2020, to shareholders of record at the close of business on March 12, 2020. The quarterly dividend was increased to $0.08 per share in the second quarter of 2019. On February 26, 2020, dividend yield was 2.9%.

	2017				2018				**2019**
TSX Ticker: CAS	Q4	Q1	Q2	Q3	Q4	**Q1**	**Q2**	**Q3**	**Q4**
Shares outstanding (in millions) [1]	95.0	95.0	94.6	94.2	94.2	**93.6**	**93.6**	**94.2**	**94.2**
Closing price [1]	$ 13.62	$ 13.33	$ 11.77	$ 12.61	$ 10.23	**$ 8.34**	**$ 10.54**	**$ 11.58**	**$ 11.21**
Average daily volume [2]	208,984	246,940	201,563	215,882	218,696	**238,606**	**202,448**	**164,371**	**146,157**
Dividend yield [1]	1.2%	1.2%	1.4%	1.3%	1.6%	**1.9%**	**1.5%**	**2.8%**	**2.9%**

1 On the last day of the quarter.
2 Average daily volume on the Toronto Stock Exchange.

CASCADES' SHARE PRICE FOR THE PERIOD FROM JANUARY 1, 2018 TO DECEMBER 31, 2019

CONTRACTUAL OBLIGATIONS AND OTHER COMMITMENTS

The Corporation's principal contractual obligations and commercial commitments relate to outstanding debt, operating leases and obligations for its pension and post-employment benefit plans. The following table summarizes these obligations as at December 31, 2019:

CONTRACTUAL OBLIGATIONS

Payment due by period (in millions of Canadian dollars)	TOTAL	LESS THAN A YEAR	BETWEEN 1-5 YEARS	OVER 5 YEARS
Long-term debt, including capital and interest	2,727	187	1,090	1,450
Operating leases	72	61	9	2
Pension plans and other post-employment benefits[1]	954	38	157	759
Total contractual obligations	**3,753**	**286**	**1,256**	**2,211**

[1] These amounts represent all the benefits payable to current members during the following years and thereafter without limitations. The majority of benefit payments are payable from trustee-administered funds. The difference will come from future investment returns expected on plan assets and future contributions that will be made by the Corporation for services rendered after December 31, 2019.

FACTORING OF ACCOUNTS RECEIVABLE

The Corporation sells its accounts receivable from one of its European subsidiaries through a factoring contract with a financial institution. The Corporation uses factoring of accounts receivable as a source of financing by reducing its working capital requirements. When the accounts receivable are sold, the Corporation removes them from the balance sheet, recognizes the amount received as the consideration for the transfer and records a loss on factoring, which is included in "Financing expense". As at December 31, 2019, the off-balance sheet impact of the factoring of accounts receivable amounted to $42 million (€29 million). The Corporation expects to continue to sell accounts receivable on an ongoing basis. Should it decide to discontinue this contract, its working capital and bank debt requirements would increase.

TRANSACTIONS WITH RELATED PARTIES

The Corporation has also entered into various agreements with its joint-venture partners, significantly influenced companies and entities that are affiliated with one or more of its directors for the supply of raw material including recycled paper, virgin pulp and energy, as well as the supply of unconverted and converted products, and other agreements entered into in the normal course of business. Aggregate sales by the Corporation to its joint-venture partners and other affiliates totaled $248 million and $322 million for 2019 and 2018 respectively. Aggregate sales to the Corporation from its joint-venture partners and other affiliates came to $87 million and $82 million for 2019 and 2018 respectively.

CHANGES IN ACCOUNTING POLICY AND DISCLOSURES

A) NEW IFRS ADOPTED

IFRS 16 *LEASES*

In January 2016, the IASB released IFRS 16 *Leases*, which supersedes IAS 17 *Leases,* and the related interpretations on leases: IFRIC 4 *Determining Whether an Arrangement Contains a Lease*, SIC 15 *Operating Leases - Incentives* and SIC 27 *Evaluating the Substance of Transactions in the Legal Form of a Lease*. The standard is effective for annual periods beginning on or after January 1, 2019.

Impact of adoption

The Corporation applied IFRS 16 *Leases* retrospectively with no restatement of comparative information as allowed by the Standard. At the date of initial application, lease liability for leases previously classified as operating leases under IAS 17 *Leases* equals the present value of the remaining lease payments, discounted using the interest rate implicit in the lease or the Corporation's incremental borrowing rate, as described above. As for the underlying right-of-use asset, the Corporation elected to measure it at an amount equal to the lease liability.

The Corporation also used the following practical expedients allowed by IFRS 16:

- account for leases ending in 2019 as short-term leases;
- exclude initial direct costs from the measurement of the right-of-use asset;
- use hindsight in determining the lease term where the contract includes extension or termination options; and
- rely on previous assessment of whether a lease is onerous.

Adjustment to the consolidated opening retained earnings is related to an impairment charge of $12 million, net of a deferred income tax recovery of $3 million, that the Corporation recorded on the right-of-use assets of CGUs whose assets are valued at fair market value.

The application of IFRS 16 *Leases* had the following impacts on the January 1, 2019 consolidated balance sheet:

(in millions of Canadian dollars)	Balance as of December 31, 2018[1]	IFRS16 adjustment	January 1, 2019 adjusted balance
Property, plant and equipment (including right-of-use assets)	2,505	87	2,592
Current portion of long-term debt	55	16	71
Long-term debt	1,821	83	1,904
Deferred income tax liabilities	201	(3)	198
Retained earnings	998	(9)	989

[1] Including business combination purchase price retrospective adjustment (see Note 5 of the Audited Consolidated Financial Statements for more details).

The reconciliation between operating lease commitments disclosed under IAS 17 at the end of 2018 and the initial impact of IFRS 16 on January 1, 2019 consolidated balance sheet is the following:

(in millions of Canadian dollars)	January 1, 2019
Commitments disclosed as at December 31, 2018 (adjusted)	121
Discount	(14)
Discounted using weighted average Cascades' incremental borrowing rate of 3.46%	107
Finance lease obligations recognized as at December 31, 2018	95
Low value and short-term exemptions	(1)
Contracts reassessed as service agreement	(7)
Change in treatment of extension and termination options	8
Leases with an effective date later than December 31, 2018	(6)
Other	(2)
Lease obligations recognized as at January 1, 2019	**194**

The impact of adoption of IFRS16 *Leases* on the consolidated statement of earnings is as follows:

(in millions of Canadian dollars)	For the year ended December 31, 2019
Increase in financing expense	3
Increase in depreciation and amortization	27
Increase in operating income before depreciation and amortization	29

CRITICAL ACCOUNTING ESTIMATES AND JUDGMENTS

Estimates and judgments are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

CRITICAL ACCOUNTING ESTIMATES AND ASSUMPTIONS

The preparation of financial statements in conformity with IFRS requires the use of estimates and assumptions that affect the reported amounts of assets and liabilities in the financial statements and disclosure of contingencies at the balance sheet date, and the reported amounts of revenues and expenses during the reporting period. On a regular basis and with the information available, Management reviews its estimates, including those related to environmental costs, employee future benefits, collectability of accounts receivable, financial instruments, contingencies, income taxes, useful life and residual value of property, plant and equipment and impairment of property, plant and equipment and intangible assets. Actual results could differ from those estimates. When adjustments become necessary, they are reported in earnings in the period in which they occur.

A. IMPAIRMENT OF LONG-LIVED ASSETS, INTANGIBLE ASSETS AND GOODWILL

In determining the recoverable amount of an asset or a cash generating unit (CGU), the Corporation uses several key assumptions based on external information on the industry when available, including estimated production levels, selling prices, volume, raw material costs, foreign exchange rates, growth rates, discounting rates and capital spending.

The Corporation believes its assumptions are reasonable. Based on available information at the assessment date, however, these assumptions involve a high degree of judgment and complexity. Management believes that the following assumptions are the most susceptible to change and therefore could impact the valuation of the assets in the next year.

DESCRIPTION OF SIGNIFICANT IMPAIRMENT TESTING ASSUMPTIONS (see Note 27 of consolidated financial statements)

REVENUES, OPERATING INCOME BEFORE DEPRECIATION (OIBD) MARGINS, CASH FLOWS AND GROWTH RATES

The assumptions used were based on the Corporation's internal budget. Revenues, OIBD margins and cash flows were projected for a period of five years and a perpetual long-term growth rate was applied thereafter. In arriving at its forecasts, the Corporation considers past experience, economic trends such as gross domestic product growth and inflation, as well as industry and market trends.

DISCOUNT RATES

The Corporation assumed a discount rate in order to calculate the present value of its projected cash flows. The discount rate represents a weighted average cost of capital (WACC) for comparable companies operating in similar industries of the applicable CGU, group of CGUs or reportable segment based on publicly available information.

FOREIGN EXCHANGE RATES

When estimating the fair value less cost of disposal, foreign exchange rates are determined using the financial institution's average forecast for the first two years of forecasting. For the following three years, the Corporation uses the last five years' historical average of the foreign exchange rate. Terminal rate is based on historical data of the last twenty years and adjusted to reflect Management's best estimate.

SHIPMENTS

The assumptions used are based on the Corporation's internal budget for the next year and are usually held constant for the forecast period. In arriving at its budgeted shipments, the Corporation considers past experience, economic trends as well as industry and market trends.

Considering the sensitivity of the key assumptions used, there is measurement uncertainty since adverse changes in one or a combination of the Corporation's key assumptions could cause a significant change in the carrying amounts of these assets.

B. INCOME TAXES

The Corporation is required to estimate the income taxes in each jurisdiction in which it operates. This includes estimating a value for existing tax losses based on the Corporation's assessment of its ability to use them against future taxable income before they expire. If the Corporation's assessment of its ability to use the tax losses proves inaccurate in the future, more or less of the tax losses might be recognized as assets, which would increase or decrease the income tax expense and, consequently, affect the Corporation's results in the relevant year.

C. EMPLOYEE BENEFITS

The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using 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 cost of pensions and other retirement benefits earned by employees is actuarially determined using the projected benefit method pro-rated on years of service and Management's best estimate of expected plan investment performance, salary escalations, retirement ages of employees and expected health care costs. The accrued benefit obligation is evaluated using the market interest rate at the evaluation date. Due to the long-term nature of these plans, such estimates are subject to significant uncertainty. All assumptions are reviewed annually.

D. GOODWILL, INTANGIBLE ASSETS AND BUSINESS COMBINATIONS

Goodwill and client lists have arisen as a result of business combinations. The acquisition method, which also requires significant estimates and judgments, is used to account for these business combinations. As part of the allocation process in a business combination, estimated fair values are assigned to the net assets acquired. These estimates are based on forecasts of future cash flows, estimates of economic fluctuations and an estimated discount rate. The excess of the purchase price over the estimated fair value of the net assets acquired is then assigned to goodwill. In the event that actual net assets fair values are different from estimates, the amounts allocated to the net assets could differ from what is currently reported. This would then have a direct impact on the carrying value of goodwill. Differences in estimated fair values would also have an impact on the amortization of definite life intangibles.

E. FAIR VALUE OF BUSINESS COMBINATION

The Corporation makes a number of estimates when allocating fair values to the assets and liabilities acquired in a business acquisition. Fair values are estimated using valuation techniques that take into account several assumptions such as production, amount and timing of earnings and expenses, revenue growth, discount rate and capital expenditures.

CRITICAL JUDGMENTS IN APPLYING THE CORPORATION'S ACCOUNTING POLICIES

LEASES

Significant judgments are applied in assessing whether or not a contract is or contains a lease. The Corporation assessment of its right to obtain substantially all of the economic benefits from the use of the leased asset or of its ability to direct the use of the asset will determine if an agreement contains a lease.

CONTROLS AND PROCEDURES

EVALUATION OF THE EFFECTIVENESS OF DISCLOSURE CONTROLS AND PROCEDURES, AND INTERNAL CONTROL OVER FINANCIAL REPORTING

The Corporation's President and Chief Executive Officer, and its Vice-President and Chief Financial Officer have designed, or caused to be designed under their supervision, disclosure controls and procedures (DC&P), and internal controls over financial reporting (ICFR), as defined in National Instrument 52-109, "Certification of Disclosure in Issuer's Annual and Interim Filings".

The DC&P have been designed to provide reasonable assurance that important information relevant to the Corporation is communicated to the President and Chief Executive Officer and to the Vice-President and Chief Financial Officer by other people and that information required to be disclosed by the Corporation in its annual filings, interim filings or other reports filed or submitted by the Corporation under securities legislation is recorded, processed, summarized and reported within the time periods specified in securities legislation. They have limited the scope of their design of DC&P and ICFR to exclude controls, policies and procedures of the Corporation's 2018 and 2019 business combinations. The design and evaluation of the operating effectiveness of the 2018 and 2019 business combinations' DC&P and ICFR will be completed within 365 days from the date of acquisition. The President and Chief Executive Officer and the Vice-President and Chief Financial Officer have concluded, based on their evaluation, that the DC&P of the Corporation were effective as at December 31, 2019.

The ICFR have been designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements in accordance with IFRS. The President and Chief Executive Officer, and the Vice-President and Chief Financial Officer have assessed the effectiveness of the ICFR as at December 31, 2019, based on the control framework issued by the Committee of Sponsoring Organizations of the Treadway Commission (2013 COSO Framework).

They have limited the scope of their design of DC&P and ICFR to exclude controls, policies and procedures of the Orchids Paper Products Company ("Orchids") business combinations. The design and evaluation of the operating effectiveness of Orchids' DC&P and ICFR will be completed within 365 days from the date of acquisition. Business combinations' balance sheet and results are included in our consolidated financial statements since the acquisition date. They constituted approximately 11.0% of total consolidated assets as of December 31, 2019, while they represented approximately 8.5% of consolidated sales and approximately 6.8% of consolidated net earnings attributable to Shareholders for the period ended December 31, 2019. Further details on these business combinations are disclosed in Note 5 of the Corporation's Audited Consolidated Financial Statements.

During the three-month period ended December 31, 2019, there were no changes in the Corporation's ICFR that materially affected or are reasonably likely to materially affect, the Corporation's ICFR.

RISK FACTORS

As part of its ongoing business operations, the Corporation is exposed to certain market risks, including risks ensuing from changes in selling prices for its principal products, costs of raw material, interest rates and foreign currency exchange rates, all of which impact the Corporation's financial position, operating results and cash flows. The Corporation manages its exposure to these and other market risks through regular operating and financing activities and, on a limited basis, through the use of derivative financial instruments. We use these derivative financial instruments as risk management tools, not for speculative investment purposes. The following is a discussion of key areas of business risks and uncertainties that we have identified, and our mitigating strategies. The risk areas below are listed in no particular order, as risks are evaluated based on both severity and probability. Readers are cautioned that the following is not an exhaustive list of all the risks we are exposed to, nor will our mitigation strategies eliminate all risks listed.

a) The markets for some of the Corporation's products tend to be cyclical in nature and prices for some of its products, as well as raw material and energy costs, may fluctuate significantly, which can adversely affect its business, operating results, profitability and financial position

The markets for some of the Corporation's products, particularly containerboard and boxboard, are cyclical. As a result, prices for these types of products and for its two principal raw material, recycled paper and virgin fibre, have fluctuated significantly in the past and will likely continue to fluctuate significantly in the future, principally due to market imbalances between supply and demand. Demand is heavily influenced by the strength of the global economy and the countries or regions in which Cascades does business, particularly Canada and the United States, the Corporation's two primary markets. Demand is also influenced by fluctuations in inventory levels held by customers and consumer preferences. Supply depends primarily on industry capacity and capacity utilization rates. In periods of economic weakness, reduced spending by consumers and businesses results in decreased demand, which can potentially cause downward price pressure. Industry participants may also, at times, add new capacity or increase capacity utilization rates, potentially causing supply to exceed demand and exerting downward price pressure. Depending on market conditions and related demand, Cascades may have to take market-related downtime. In addition, the Corporation may not be able to maintain current prices or implement additional price increases in the future. If Cascades is unable to do so, its revenues, profitability and cash flows could be adversely affected. In addition, other participants may introduce new capacity or increase capacity utilization rates, which could also adversely affect the Corporation's business, operating results and financial position. Prices for recycled and virgin fibre also fluctuate considerably. The costs of these materials present a potential risk to the Corporation's profit margins, in the event that it is unable to pass along price increases to its customers on a timely basis. Although changes in the price of recycled fibre generally correlate with changes in the price of products made from recycled paper, this may not always be the case. If Cascades were unable to implement increases in the selling prices for its products to compensate for increases in the price of recycled or virgin fibre, the Corporation's profitability and cash flows would be adversely affected. In addition, Cascades uses energy, mainly natural gas and fuel oil, to generate steam, which it then uses in the production process and to operate machinery. Energy prices, particularly for natural gas and fuel oil, have continued to remain very volatile. Cascades continues to evaluate its energy costs and consider ways to factor energy costs into its pricing. However, should energy prices increase, the Corporation's production costs, competitive position and operating results would be adversely affected. A substantial increase in energy costs would adversely affect the Corporation's operating results and could have broader market implications that could further adversely affect the Corporation's business or financial results.

To mitigate price risk, our strategies include the use of various derivative financial instrument transactions, whereby it sets the price for notional quantities of old corrugated containers, electricity and natural gas.

Additional information on our North American electricity and natural gas hedging programs as at December 31, 2019 is set out below:

NORTH AMERICAN ELECTRICITY HEDGING

	UNITED STATES	CANADA
Electricity consumption	49%	51%
Electricity consumption in a regulated market	46%	69%
% of consumption hedged in a de-regulated market (2020)	9%	1%
Average prices (2020-2021) (in US$ in the US and in CAD$ in Canada), per KWh)	$ 0.03	$ 0.06
Fair value as at December 31, 2019 (in millions of CAN$)	$ 0.16	—

NORTH AMERICAN NATURAL GAS HEDGING

	UNITED STATES	CANADA
Natural gas consumption	58%	42%
% of consumption hedged (2019)	35%	—
Average prices (2020 - 2024) (in US$, per mmBTU) (in CAN$, per GJ)	$ 2.75	—
Fair value as at December 31, 2019 (in millions of CAN$)	$ (1.9)	—

b) Cascades faces significant competition and some of its competitors may have greater cost advantages or be able to achieve greater economies of scale or better withstand periods of declining prices and adverse operating conditions, which could negatively affect the Corporation's market share and profitability

The markets for the Corporation's products are highly competitive. In some of the markets in which Cascades competes, such as tissue papers, it competes with a small number of other producers. In some businesses, such as the containerboard industry, competition tends to be global. In others, such as the tissue industry, competition tends to be regional. In the Corporation's packaging products segment, it also faces competition from alternative packaging materials, such as, plastic and Styrofoam, which can lead to excess capacity, decreased demand and pricing pressures. Competition in the Corporation's markets is primarily based on price, as well as customer service and the quality,

breadth and performance characteristics of its products. The Corporation's ability to compete successfully depends on a variety of factors, including:

- its ability to maintain high plant efficiency, operating rates and lower manufacturing costs
- the availability, quality and cost of raw material, particularly recycled and virgin fibre, as well as labour
- the cost of energy.

Some of the Corporation's competitors may, at times, have lower fibre, energy and labour costs, and less restrictive environmental and governmental regulations to comply with than Cascades. For example, fully integrated manufacturers, or those whose requirements for pulp or other fibre are met fully from their internal sources, may have some competitive advantages over manufacturers that are not fully integrated, such as Cascades, in periods of relatively high raw material pricing, in that the former are able to ensure a steady source of these raw material at costs that may be lower than prices in the prevailing market. In contrast, competitors that are less integrated than Cascades may have cost advantages in periods of relatively low pulp or fibre prices because they may be able to purchase pulp or fibre at prices lower than the costs the Corporation incurs in the production process. Other competitors may be larger in size or scope than Cascades, which may allow them to achieve greater economies of scale on a global basis or to better withstand periods of declining prices and adverse operating conditions. In addition, there has been an increasing trend among the Corporation's customers towards consolidation. With fewer customers in the market for the Corporation's products, the strength of its negotiating position with these customers could be weakened, which could have an adverse effect on its pricing, margins and profitability.

To mitigate competition risk, Cascades' targets are to offer quality products that meet customers' needs at competitive prices and to provide good customer service.

c) Because of the Corporation's international operations, it faces political, social and exchange rate risks that can negatively affect its supply chain, manufacturing capabilities, distribution activities, operating results, net earnings and financial condition

The Corporation's international operations present it with a number of risks and challenges, including:

- effective product marketing in other countries
- tariffs and other trade barriers
- different regulatory schemes and political environments applicable to the Corporation's operations in areas such as environmental and health and safety compliance
- exposure to health epidemics and pandemics such as the ongoing coronavirus outbreak and other highly communicable diseases or viruses

Cascades has customers and operations located outside Canada. In 2019, sales outside Canada, in Canadian dollars, represented approximately 68% of the Corporation's consolidated sales, including 46% in the United States. In 2019, 20% of sales from Canadian operations were made to the United States.

In addition, the Corporation's consolidated financial statements are reported in Canadian dollars, while a portion of its sales is made in other currencies, primarily the US dollar and the euro. The variation of the Canadian dollar against the US dollar may adversely or positively affect the Corporation's reported operating results and financial condition. This has a direct impact on export prices and also contributes to the impact on Canadian dollar prices in Canada, because several of the Corporation's product lines are priced in US dollars. As well, a substantial portion of the Corporation's debt is also denominated in currencies other than the Canadian dollar. The Corporation has senior notes outstanding and also some borrowings under its credit facility that are denominated in US dollars and in euros, in the amounts of US$1,237 million and €89 million, respectively, as at December 31, 2019.

Moreover, in some cases, the currency of the Corporation's sales does not match the currency in which it incurs costs, which can negatively affect the Corporation's profitability. Fluctuations in exchange rates can also affect the relative competitive position of a particular facility, where the facility faces competition from non-local producers, as well as the Corporation's ability to successfully market its products in export markets. As a result, if the Canadian dollar were to remain permanently strong compared to the US dollar and the euro, it could affect the profitability of the Corporation's facilities, which could lead Cascades to shut down facilities either temporarily or permanently, all of which could adversely affect its business or financial results. To mitigate the risk of currency rises from future commercial transactions, recognized assets and liabilities, and net investments in foreign operations, which are partially covered by purchases and debt, Management has implemented a policy for managing foreign exchange risk against the relevant functional currency.

The Corporation uses various foreign exchange forward contracts and related currency option instruments to anticipate sales net of purchases, interest expenses and debt repayment. Gains or losses from the derivative financial instruments designated as hedges are recorded under "Other comprehensive income (loss)" and are reclassified under earnings in accordance with the hedge items.

Additional information on our North American foreign exchange hedging program is set out below:

NORTH AMERICAN FOREIGN EXCHANGE HEDGING [1]

Sell contracts and currency options on net exposure to US$:	2020	2021	2022
Total amount (in millions of US$)	$ 30 to 53	$ 5 to 10	—
Estimated % of sales, net of expenses from Canadian operations (excluding subsidiaries with non-controlling interests)	24% to 42%	4% to 8%	—
Average rate (US$/CAN$)	0.75	0.75	—
Fair value as at December 31, 2019 (in millions of CAN$)	—	—	—

1 See Note 16 of the Audited Consolidated Financial Statements for more details on financial instruments.

d) The Corporation's operations are subject to comprehensive environmental regulations and involve expenditures that may be material in relation to its operating cash flow

The Corporation is subject to environmental laws and regulations imposed by the various governments and regulatory authorities in all countries in which it operates. These environmental laws and regulations impose stringent standards on the Corporation regarding, among other things:

- air emissions
- water discharges
- use and handling of hazardous materials
- use, handling and disposal of waste
- remediation of environmental contamination

The Corporation is also subject to the U.S. Federal Comprehensive Environmental Response, Compensation and Liability Act ("CERCLA") as well as to other applicable legislation in the United States, Canada and Europe that holds companies accountable for the investigation and remediation of hazardous substances. The Corporation's European subsidiaries and some of our Québec plants are also subject to an emissions market, aimed at reducing worldwide CO_2 emissions. Each unit has been allocated emission rights ("CO_2 quota"). On a calendar-year basis, the Corporation must buy the necessary credits to cover its deficit, on the open market, if its emissions are higher than quota.

The Corporation's failure to comply with applicable environmental laws, regulations or permit requirements may result in civil or criminal fines, penalties or enforcement actions. These may include regulatory or judicial orders enjoining or curtailing operations, or requiring corrective measures, the installation of pollution control equipment or remedial actions, any of which could entail significant expenditures. It is difficult to predict the future development of such laws and regulations, or their impact on future earnings and operations, but these laws and regulations may require capital expenditures to ensure compliance. In addition, amendments to, or more stringent implementation of, current laws and regulations governing the Corporation's operations could have a material adverse effect on its business, operating results or financial position. Furthermore, although Cascades generally tries to plan for capital expenditures relating to environmental and health and safety compliance on an annual basis, actual capital expenditures may exceed those estimates. In such an event, Cascades may be forced to curtail other capital expenditures or other activities. In addition, the enforcement of existing environmental laws and regulations has become increasingly strict. The Corporation may discover currently unknown environmental problems or conditions in relation to its past or present operations, or may face unforeseen environmental liabilities in the future.

These conditions and liabilities may:

- require site remediation or other costs to maintain compliance or correct violations of environmental laws and regulations
- result in governmental or private claims for damage to persons, property or the environment

Either of these possibilities could have a material adverse effect on the Corporation's financial condition or operating results.

Cascades may be subject to strict liability and, under specific circumstances, joint and several (solidary) liability for the investigation and remediation of soil, surface and groundwater contamination, including contamination caused by other parties on properties that it owns or operates and on properties where the Corporation or its predecessors have arranged for the disposal of regulated materials. As a result, the Corporation is involved from time to time in administrative and judicial proceedings and inquiries relating to environmental matters. The Corporation may become involved in additional proceedings in the future, the total amount of future costs and other environmental liabilities of which could be material.

To date, the Corporation is in compliance, in all material respects, with all applicable environmental legislation or regulations. However, we expect to incur ongoing capital and operating expenses in order to achieve and maintain compliance with applicable environmental requirements.

EMISSIONS MARKET

The Corporation is exposed to the emissions trading market and has to hold carbon credits equivalent to its emissions. Depending on circumstances, the Corporation may have to buy credits on the market or could sell some in the future. In the short or medium term, these transactions would have no significant effect on the financial position of the Corporation and it is not anticipated that this will change in the future.

e) Cascades may be subject to losses that might not be covered in whole or in part by its insurance coverage

Cascades carries comprehensive liability, fire and extended coverage insurance on most of its facilities, with policy specifications and insured limits customarily carried in its industry for similar properties. In addition, some types of losses, such as losses resulting from wars, acts of terrorism or natural disasters, are generally not insured because they are either uninsurable or not economically practical. Moreover, insurers have recently become more reluctant to insure against these types of events. Should an uninsured loss or a loss in excess of insured limits occur, Cascades could lose capital invested in that property, as well as the anticipated future revenues derived from the manufacturing activities conducted on that property, while remaining obligated for any mortgage indebtedness or other financial obligations related to the property. Any such loss could adversely affect its business, operating results or financial condition.

To mitigate the risk subject to insurance coverage, the Corporation reviews its strategy annually with the Board of Directors and is seeking different alternatives to achieve more efficient forms of insurance coverage at the lowest costs possible.

f) Labour disputes could have a material adverse effect on the Corporation's cost structure and ability to run its mills and plants

As at December 31, 2019, the Corporation employed approximately 12,300 employees, of whom roughly 10,600 were employees of its Canadian and United States operations. Approximately 29% of the Corporation's Canadian and United States workforce is unionized under 32 separate collective bargaining agreements. In addition, in Europe, some of the Corporation's operations are subject to national industry collective bargaining agreements that are renewed on an annual basis. The Corporation's inability to negotiate acceptable contracts with these unions upon expiration of an existing contract could result in strikes or work stoppages by the affected workers, and increased operating costs as a result of higher wages or benefits paid to union members. If the unionized workers were to engage in a strike or another form of work stoppage, Cascades could experience a significant disruption in operations or higher labour costs, which could have a material adverse effect on its business, financial condition, operating results and cash flow. Of the 32 collective bargaining agreements in North America, 3 have expired and are currently under negotiation, 4 will expire in 2020 and 5 will expire in 2021.

The Corporation generally begins the negotiation process several months before agreements are due to expire and is currently in the process of negotiating with the unions where the agreements have expired or will soon expire. However, Cascades may not be successful in negotiating new agreements on satisfactory terms, if at all.

Cascades's success depends in part upon its ability to continue to attract and retain qualified management, regulatory, technical, and sales and marketing executives and personnel in various geographical locations. The failure to attract, integrate, motivate, and retain skilled and qualified personnel could have a material adverse effect on the business. The Corporation competes for such personnel against numerous companies. There can be no assurance that it will be successful in attracting or retaining such personnel and the failure to do so could have a material adverse effect on our financial condition and results of operations.

g) Cascades may make investments in entities that it does not control and may not receive dividends or returns from those investments in a timely fashion or at all

Cascades has established joint ventures, made investments in associates and acquired significant participation in subsidiaries in order to increase its vertical integration, enhance customer service and increase efficiency in its marketing and distribution in the United States and other markets. The Corporation's principal joint ventures, associates and significant participations in subsidiaries are:

- two 50%-owned joint ventures with Sonoco Products Corporation, of which one is in Canada (two plants) and one in the United States (two plants), that produce specialty paper packaging products such as headers, rolls and wrappers
- a 57.95%-owned subsidiary, Reno de Medici S.p.A. (RDM), a European manufacturer of recycled boxboard;
- a 59.7%-owned subsidiary, Greenpac Holding LLC, a North American manufacturer of linerboard. For accounting purposes, the percentage of ownership, including indirect ownership, stands at 86.35% (see Note 8 of the Audited Consolidated Financial Statements for more details).

Apart from RDM and Greenpac, Cascades does not have effective control over these entities. The Corporation's inability to control entities in which it invests may affect its ability to receive distributions from these entities or to fully implement its business plan. The incurrence of debt or entrance into other agreements by an entity not under the Corporation's control may result in restrictions or prohibitions on that entity's ability to pay distributions to the Corporation. Even where these entities are not restricted by contract or by law from paying dividends or

making distributions to Cascades, the Corporation may not be able to influence the payout or timing of these dividends or distributions. In addition, if any of the other investors in a non-controlled entity fail to observe their commitments, the entity may not be able to operate according to its business plan or Cascades may be required to increase its level of commitment. If any of these events were to transpire, the Corporation's business, operating results, financial condition and ability to make payments on the notes could be adversely affected.

In addition, the Corporation has entered into various shareholder agreements relating to its joint ventures and equity investments. Some of these agreements contain "shotgun" provisions, which provide that if one Shareholder offers to buy all the shares owned by the other parties to the agreement, the other parties must either accept the offer or purchase all the shares owned by the offering Shareholder at the same price and conditions. Some of the agreements also stipulate that, in the event that a Shareholder is subject to bankruptcy proceedings or otherwise defaults on any indebtedness, the non-defaulting parties to that agreement are entitled to invoke the "shotgun" provision or sell their shares to a third party. The Corporation's ability to purchase the other Shareholders' interests in these joint ventures if they were to exercise these "shotgun" provisions could be limited by the covenants in the Corporation's credit facility and the indenture. In addition, Cascades may not have sufficient funds to accept the offer or the ability to raise adequate financing should the need arise, which could result in the Corporation having to sell its interests in these entities or otherwise alter its business plan.

h) Acquisitions have been, and are expected to continue to be a substantial part of the Corporation's growth strategy, which could expose the Corporation to difficulties in integrating the acquired operation, diversion of management time and resources, and unforeseen liabilities, among other business risks

Acquisitions have been a significant part of the Corporation's growth strategy. Cascades expects to continue to selectively seek strategic acquisitions in the future. The Corporation's ability to consummate and to effectively integrate any future acquisitions on terms that are favourable to it may be limited by the number of attractive acquisition targets, internal demands on its resources and, to the extent necessary, its ability to obtain financing on satisfactory terms, if at all. Acquisitions may expose the Corporation to additional risks, including:

- difficulty in integrating and managing newly acquired operations and in improving their operating efficiency
- difficulty in maintaining uniform standards, controls, procedures and policies across all of the Corporation's businesses
- entry into markets in which Cascades has little or no direct prior experience
- the Corporation's ability to retain key employees of the acquired corporation
- disruptions to the Corporation's ongoing business
- diversion of Management's time and resources

In addition, future acquisitions could result in Cascades' incurring additional debt to finance the acquisition or possibly assuming additional debt as part of it, as well as costs, contingent liabilities and amortization expenses. The Corporation may also incur costs and divert Management's attention from potential acquisitions that are never consummated. For acquisitions Cascades does consummate, expected synergies may not materialize. The Corporation's failure to effectively address any of these issues could adversely affect its operating results, financial condition and ability to service debt, including its outstanding senior notes.

Although Cascades generally performs a due diligence investigation of the businesses or assets that it acquires and anticipates continuing to do so for future acquisitions, the acquired business or assets may have liabilities that Cascades fails or is unable to uncover during its due diligence investigation and for which the Corporation, as a successor owner, may be responsible. When feasible, the Corporation seeks to minimize the impact of these types of potential liabilities by obtaining indemnities and warranties from the seller, which may in some instances be supported by deferring payment of a portion of the purchase price. However, these indemnities and warranties, if obtained, may not fully cover the liabilities because of their limited scope, amount or duration, or the financial resources of the indemnitor or warrantor, or for other reasons.

i) The Corporation undertakes impairment tests, which could result in a write-down of the value of assets and, as a result, have a material adverse effect

IFRS requires that Cascades regularly undertake impairment tests of long-lived assets and goodwill to determine whether a write-down of such assets is required. A write-down of asset value as a result of impairment tests would result in a non-cash charge that reduces the Corporation's reported earnings. Furthermore, a reduction in the Corporation's asset value could have a material adverse effect on the Corporation's compliance with total debt-to-capitalization tests under its current credit facilities and, as a result, limit its ability to access further debt capital.

j) Certain Cascades insiders collectively own a substantial percentage of the Corporation's shares

Messrs. Bernard, Laurent and Alain Lemaire ("the Lemaires") collectively own a substantive percentage of the shares of the Corporation, and there may be situations in which their interests and the interests of other holders of shares do not align. Because the Corporation's remaining shares are widely held, the Lemaires may be effectively able to:

- elect all of the Corporation's directors and, as a result, control matters requiring Board approval
- control matters submitted to a Shareholder vote, including mergers, acquisitions and consolidations with third parties, and the sale of all or substantially all of the Corporation's assets
- otherwise control or influence the Corporation's business direction and policies

In addition, the Lemaires may have an interest in pursuing acquisitions, divestitures or other transactions that, in their judgment, could enhance the value of their equity investment, even though the transactions might involve increased risk to the holders of the shares.

k) If Cascades is not successful in retaining or replacing its key personnel, including its Chief Executive Officer, its Vice-President and Chief Financial Officer, its Chief Legal Officer and Corporate Secretary and its Executive Chairman of the Board and co-founder Alain Lemaire, the Corporation's business, financial condition or operating results could be adversely affected

Although Cascades believes that its key personnel will remain active in the business and that Cascades will continue to be able to attract and retain other talented personnel and replace key personnel should the need arise, competition in recruiting replacement personnel could be significant. Cascades does not carry key-man insurance on the members of its senior management.

l) Risks relating to the Corporation's indebtedness and liquidity

The significant amount of the Corporation's debt could adversely affect its financial health and prevent it from fulfilling its obligations under its outstanding indebtedness. The Corporation has a significant amount of debt. As at December 31, 2019, it had $1,963 million in outstanding total net debt on a consolidated basis, including capital-lease obligations. The Corporation also had $613 million available under its revolving credit facility. On the same basis, its consolidated ratio of net debt to total equity as of December 31, 2019 was 54.1%. The Corporation's actual financing expense, including interest on employees' future benefits and loss on repurchase of long-term debt, was $157 million. Cascades also has significant obligations under operating leases, as described in its audited consolidated financial statements that are incorporated by reference herein.

On November 26, 2019 the Corporation issued $175 million aggregate principal amount of 5.125% due in 2025, US$350 million aggregate principal amount of 5.125% due in 2026 and US$300 million aggregate principal amount of 5.375% due in 2028, totaling $1,026 million, net of transaction fees of $13 million. The Corporation used the proceeds from this offering to fund the redemption of its US$400 million of its 5.50% unsecured senior notes due in 2022 for an amount of US$405 million ($533 million) and its $250 million of its 5.50% unsecured senior notes due in 2021 for an amount of $254 million, including premiums of US$5 million ($7 million) and $4 million. The Corporation also wrote off $3 million of unamortized financing costs related to these notes.

The Corporation has outstanding senior notes rated by Moody's Investor Service ("Moody's") and Standard & Poor's ("S&P").

The following table reflects the Corporation's secured debt rating/corporate rating/unsecured debt rating as at the date on which this MD&A was approved by the Board of Directors, and the evolution of these ratings compared to past years:

Credit rating (outlook)	MOODY'S	STANDARD & POOR'S
2004	Ba1/Ba2/Ba3 (stable)	BBB-/BB+/BB+ (negative)
2005 - 2006	Ba1/Ba2/Ba3 (stable)	BB+/BB/BB- (negative)
2007	Baa3/Ba2/Ba3 (stable)	BBB-/BB/BB- (stable)
2008	Baa3/Ba2/Ba3 (negative)	BB+/BB-/B+ (negative)
2009 - 2010	Baa3/Ba2/Ba3 (stable)	BB+/BB-/B+ (stable)
2011	Baa3/Ba2/Ba3 (stable)	BB+/BB-/B+ (positive)
2012	Baa3/Ba2/Ba3 (stable)	BB+/BB-/B+ (negative)
2013	Baa3/Ba2/Ba3 (stable)	BB/B+/B (stable)
2014	Baa3/Ba2/Ba3 (stable)	BB/B+/B+ (stable)
2015	Baa3/Ba2/Ba3 (stable)	BB/B+/B+ (stable)
2016	Baa3/Ba2/Ba3 (stable)	BB+/BB-/BB- (stable)
2017	Baa3/Ba2/Ba3 (stable)	BB+/BB-/BB- (stable)
2018	Baa3/Ba2/Ba3 (stable)	BB+/BB-/BB- (positive)
2019	**Baa3/Ba2/Ba3 (stable)**	**BB+/BB-/BB- (stable)**

In 2019, S&P Global Ratings revised the Corporation's outlook to “stable” from “positive” on higher leverage; corporate rating of BB- was affirmed.

During 2018, S&P Global Ratings revised the Corporation's outlook to “positive” from “stable” on improving credit measures.

This facility is in place with a core group of highly rated international banks. The Corporation may decide to enter into certain derivative instruments to reduce interest rates and foreign exchange exposure.

The Corporation’s leverage could have major consequences for holders of its shares. For example, it could:

- make it more difficult for the Corporation to satisfy its obligations with respect to its indebtedness
- increase the Corporation’s vulnerability to competitive pressures and to general adverse economic or market conditions and require it to dedicate a substantial portion of its cash flow from operations to servicing debt, reducing the availability of its cash flow to fund working capital, capital expenditures, acquisitions and other general corporate purposes
- limit its flexibility in planning for, or reacting to, changes in its business and industry
- limit its ability to obtain additional sources of financing

Cascades may incur additional debt in the future, which would intensify the risks it now faces as a result of its leverage as described above. Even though we are substantially leveraged, we and our subsidiaries will be able to incur substantial additional indebtedness in the future. Although our credit facility and the indentures governing the notes restrict us and our restricted subsidiaries from incurring additional debt, these restrictions are subject to important exceptions and qualifications. If we or our subsidiaries incur additional debt, the risks that we and they now face as a result of our leverage could intensify.

The Corporation’s operations are substantially restricted by the terms of its debt, which could limit its ability to plan for or react to market conditions, or to meet its capital needs. The Corporation’s credit facilities and the indenture governing its senior notes include a number of significant restrictive covenants. These covenants restrict, among other things, the Corporation’s ability to:

- borrow money
- pay dividends on stock or redeem stock or subordinated debt
- make investments
- sell assets, including capital stock in subsidiaries
- guarantee other indebtedness
- enter into agreements that restrict dividends or other distributions from restricted subsidiaries
- enter into transactions with affiliates
- create or assume liens
- enter into sale and leaseback transactions
- engage in mergers or consolidations
- enter into a sale of all or substantially all of our assets

These covenants could limit the Corporation’s ability to plan for or react to market conditions or to meet its capital needs. The Corporation’s current credit facility contains other, more restrictive covenants, including financial covenants that require it to achieve certain financial and operating results, and maintain compliance with specified financial ratios. The Corporation’s ability to comply with these covenants and requirements may be affected by events beyond its control, and it may have to curtail some of its operations and growth plans to maintain compliance. The restrictive covenants contained in the Corporation’s senior note indenture, along with the Corporation’s credit facility, do not apply to its subsidiaries with non-controlling interests.

The Corporation’s failure to comply with the covenants contained in its credit facility or its senior note indenture, including as a result of events beyond its control or due to other factors, could result in an event of default that could cause accelerated repayment of the debt. If Cascades is not able to comply with the covenants and other requirements contained in the indenture, its credit facility or its other debt instruments, an event of default under the relevant debt instrument could occur. If an event of default does occur, it could trigger a default under its other debt instruments, Cascades could be prohibited from accessing additional borrowings and the holders of the defaulted debt could declare amounts outstanding with respect to that debt, which would then be immediately due and payable. The Corporation’s assets and cash flow may not be sufficient to fully repay borrowings under its outstanding debt instruments. In addition, the Corporation may not be able to re-finance or re-structure the payments on the applicable debt. Even if the Corporation were able to secure additional financing, it might not be available on favourable terms. A significant or prolonged downtime in general business and difficult economic conditions may affect the Corporation’s ability to comply with its covenants, and could require it to take actions to reduce its debt or to act in a manner contrary to its current business objectives.

m) Cascades is a holding corporation and depends on its subsidiaries to generate sufficient cash flow to meet its debt service obligations

Cascades is structured as a holding corporation and its only significant assets are the capital stock or other equity interests in its subsidiaries, joint ventures and minority investments. As a holding corporation, Cascades conducts substantially all of its business through these entities. Consequently, the Corporation's cash flow and ability to service its debt obligations are dependent on the earnings of its subsidiaries, joint ventures and minority investments, and the distribution of those earnings to Cascades, or on loans, advances or other payments made by these entities to Cascades. The ability of these entities to pay dividends or make other payments or advances to Cascades will depend on their operating results and will be subject to applicable laws and contractual restrictions contained in the instruments governing their debt. In the case of the Corporation's joint ventures, associates and minority investments, Cascades may not exercise sufficient control to cause distributions to itself. Although its credit facility and the indenture, respectively, limit the ability of its restricted subsidiaries to enter into consensual restrictions on their ability to pay dividends and make other payments to the Corporation, these limitations do not apply to its joint ventures, associates or minority investments. The limitations are also subject to important exceptions and qualifications.

The ability of the Corporation's subsidiaries to generate cash flow from operations that is sufficient to allow the Corporation to make scheduled payments on its debt obligations will depend on their future financial performance, which will be affected by a range of economic, competitive and business factors, many of which are outside of the Corporation's control. If the Corporation's subsidiaries do not generate sufficient cash flow from operations to satisfy the Corporation's debt obligations, Cascades may have to undertake alternative financing plans, such as re-financing or re-structuring its debt, selling assets, reducing or delaying capital investments, or seeking to raise additional capital. Re-financing may not be possible, and assets may not be able to be sold, or, if they are sold, Cascades may not realize sufficient amounts from those sales. Additional financing may not be available on acceptable terms, if at all, or the Corporation may be prohibited from incurring it, if available, under the terms of its various debt instruments in effect at the time. The Corporation's inability to generate sufficient cash flow to satisfy its debt obligations, or to re-finance its obligations on commercially reasonable terms, would have an adverse effect on its business, financial condition and operating results. The earnings of the Corporation's operating subsidiaries and the amount that they are able to distribute to the Corporation as dividends or otherwise may not be adequate for the Corporation to service its debt obligations.

n) Risks related to the shares

The market price of the shares may fluctuate and purchasers may not be able to re-sell the shares at or above the purchase price. The market price of the shares may fluctuate due to a variety of factors relative to the Corporation's business, including announcements of new developments, fluctuations in the Corporation's operating results, sales of the shares in the marketplace, failure to meet analysts' expectations, general conditions in all of our segments or the worldwide economy. In recent years, the shares, the stock of other companies operating in the same sectors and the stock market in general have experienced significant price fluctuations, which have been unrelated to the operating performance of the affected companies. There can be no assurance that the market price of the shares will not continue to experience significant fluctuations in the future, including fluctuations that are unrelated to the Corporation's performance.

o) Cash-flow and fair-value interest rate risks

As the Corporation has no significant interest-bearing assets, its earnings and operating cash flows are substantially independent of changes in market interest rates.

The Corporation's interest rate risk arises from long-term borrowings. Borrowings issued at variable rates expose the Corporation to a cash-flow interest rate risk. Borrowings issued at a fixed rate expose the Corporation to a fair-value interest rate risk.

p) Credit risk

Credit risk arises from cash and cash equivalents, derivative financial instruments and deposits with banks and financial institutions. The Corporation reduces this risk by dealing with credit-worthy financial institutions.

The Corporation is exposed to credit risk on accounts receivable from its customers. In order to reduce this risk, the Corporation's credit policies include the analysis of a customer's financial position and a regular review of its credit limits. The Corporation also believes that no particular concentration of credit risks exists due to the geographic diversity of its customers and the procedures in place for managing commercial risks. Derivative financial instruments include an element of credit risk, should the counterparty be unable to meet its obligations.

q) Cyber security

The Corporation relies on information technology, other computer resources and our employees to process, transmit and store electronic data in our daily business activities and to carry out important operational and marketing activities. Despite the implementation of security measures, our technology systems, and those of third parties on which the Corporation relies are vulnerable to damage, disability or failure due to

computer viruses, malware or other harmful circumstances, intentional penetration or disruption of our information technology resources by a third party, a natural disaster, hardware or software corruption or failure or error (including a failure of security controls incorporated into or applied to such hardware or software), telecommunications system failure, service provider error or failure, intentional or unintentional personnel actions (including the failure to follow our security protocols), or lost connectivity to our networked resources. A significant and extended disruption in the functioning of these resources would result in an interruption of our operations and could damage our reputation and cause us to lose customers, sales and revenue.

In addition, security breaches involving the systems in place or third party providers may occur, such as unauthorized access, denial of service, computer viruses and other disruptive problems caused by hackers. This could result in the unintended public disclosure or the misappropriation of proprietary, personal and confidential information, or in the inability to access company data (including due to ransomware), and require us to incur significant expense to address and resolve these kinds of issues. The release of confidential information may also lead to identity theft and related fraud, litigation or other proceedings against us by affected individuals and/or business partners and/or by regulators, and the outcome of such proceedings, which could include penalties or fines, could have a material adverse effect on Corporation's business activities, intellectual property, operating results and financial condition. The occurrence of any of these incidents could result in adverse publicity, loss of consumer confidence or employees, and reduced sales and profits. In addition, the costs of maintaining adequate protection against such threats, including potentially higher insurance costs, as they develop rapidly in the future (or as legal requirements related to data security increase) could be material. Cyber security represents a company-wide challenge and the related risks are part of the enterprise risk management program that is presented to our audit and finance committee.

As a result of the foregoing, the Corporation may have to modify the business systems and practices with the goal of further improving data security, which would result in increased expenditures and operating complexity. Although to date we have not experienced of any material losses relating to cyber-attacks or other information security breaches, there can be no assurance that such losses will not be incurred in the future. The risk and exposure to these matters cannot be fully mitigated because of, among other things, the evolving nature of these threats. As cyber threats continue to evolve, the Corporation may be required to expend additional resources to continue to modify or enhance protective measures or to investigate and remediate any security vulnerabilities.

r) Climate change

The Corporation operates plants and delivers products to clients in locations that may be subject to climate stress events such as sea-level rise and increased storm frequency or intensity. Caused by climate change or not, the occurrence of one or more natural disasters, such as hurricanes, fires or floods, could cause considerable damage to our buildings, disrupt operations, increase operating costs such as freight and energy and have a negative impact on sales. Climate changes could require higher remediation and insurance costs for the Corporation.

Concern over climate change may result in new or increased regional, federal and/or global legal and regulatory requirements to reduce or mitigate the effects of greenhouse gases, or to limit or impose additional costs on commercial water use due to local water scarcity concerns. In the event that such regulation is more stringent than current regulatory obligations or the measures that we are currently undertaking to monitor and improve our energy efficiency and water conservation, we may experience disruptions in or significant increases in our costs of operation and delivery and we may be required to make additional investments in facilities and equipment or relocate our facilities. In particular, increasing regulation of fuel emissions could substantially increase the cost of energy, including fuel, required to operate our facilities or transport and distribute our products, thereby substantially increasing the distribution and supply chain costs associated with our products. As a result, the effects of climate change could negatively affect our business and operations.

There is also increased focus, including by governmental and non-governmental organizations, investors, customers and consumers on environmental sustainability matters, including deforestation, land use, climate impact, water use and recyclability or recoverability of packaging, including plastic. Our reputation could be damaged if we or others in our industry do not act, or are perceived not to act, responsibly with respect to our impact on the environment.

MANAGEMENT'S REPORT
TO THE SHAREHOLDERS OF CASCADES INC.

February 26, 2020

The accompanying consolidated financial statements are the responsibility of the Management of Cascades Inc. and have been reviewed by the Audit and Finance Committee and approved by the Board of Directors.

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board and include certain estimates that reflect Management's best judgment.

The Management of the Corporation is also responsible for all other information included in this Annual Report and for ensuring that this information is consistent with the Corporation's consolidated financial statements and business activities.

The Management of the Corporation is responsible for the design, establishment and maintenance of appropriate internal controls and procedures for financial reporting, to ensure that financial statements for external purposes are fairly presented in conformity with IFRS. Such internal control systems are designed to provide reasonable assurance on the reliability of the financial information and the safeguarding of assets.

Independent auditor and internal auditors have free and independent access to the Audit and Finance Committee, which comprises outside independent directors. The Audit and Finance Committee, which meets regularly throughout the year with members of Management and the external and internal auditors, reviews the consolidated financial statements and recommends their approval to the Board of Directors.

The consolidated financial statements have been audited by PricewaterhouseCoopers LLP, whose report is provided below.

/s/ Mario Plourde
MARIO PLOURDE

PRESIDENT AND CHIEF EXECUTIVE OFFICER
KINGSEY FALLS, CANADA

/s/ Allan Hogg
ALLAN HOGG

VICE-PRESIDENT AND CHIEF FINANCIAL OFFICER
KINGSEY FALLS, CANADA

INDEPENDENT AUDITOR'S REPORT
TO THE SHAREHOLDERS OF CASCADES INC.

Our opinion

In our opinion, the accompanying consolidated financial statements present fairly, in all material respects, the financial position of Cascades Inc. and its subsidiaries, (together, the Corporation) as at December 31, 2019 and 2018, and its financial performance and its cash flows for the years then ended in accordance with International Financial Reporting Standards as issued by the International Accounting Standards Board (IFRS).

What we have audited

The Corporation's consolidated financial statements comprise:

- the consolidated balance sheets as at December 31, 2019 and 2018;
- the consolidated statements of earnings for the years then ended;
- the consolidated statements of comprehensive income for the years then ended;
- the consolidated statements of equity for the years then ended;
- the consolidated statements of cash flows for the years then ended; and
- the notes to the consolidated financial statements, which include a summary of significant accounting policies.

Basis for opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the *Auditor’s responsibilities for the audit of the consolidated financial statements* section of our report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Independence

We are independent of the Corporation in accordance with the ethical requirements that are relevant to our audit of the consolidated financial statements in Canada. We have fulfilled our other ethical responsibilities in accordance with these requirements.

Other information

Management is responsible for the other information. The other information comprises the Management's Discussion and Analysis, which we obtained prior to the date of this auditor's report and the information, other than the consolidated financial statements and our auditor's report thereon, included in the annual report, which is expected to be made available to us after that date.

Our opinion on the consolidated financial statements does not cover the other information and we do not and will not express an opinion or any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

If, based on the work we have performed on the other information that we obtained prior to the date of this auditor’s report, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard. When we read the information, other than the consolidated financial statements and our auditor's report thereon, included in the annual report, if we conclude that there is a material misstatement therein, we are required to communicate the matter to those charged with governance.

Responsibilities of management and those charged with governance for the consolidated financial statements

Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with IFRS, and for such internal control as Management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, Management is responsible for assessing the Corporation's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the Corporation or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the Corporation’s financial reporting process.

Auditor's responsibilities for the audit of the consolidated financial statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Corporation's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by Management.
- Conclude on the appropriateness of Management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Corporation's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Corporation to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Corporation to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide those charged with governance with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

The engagement partner on the audit resulting in this independent auditor's report is Jean-François Lecours.

/s/ PricewaterhouseCoopers LLP[1]

Montréal, Québec
February 28, 2020

1 CPA auditor, CA, public accountancy permit No. A126402

CONSOLIDATED BALANCE SHEETS

(in millions of Canadian dollars)	NOTE	December 31, 2019	December 31, 2018
			Adjusted, Note 5
Assets			
Current assets			
Cash and cash equivalents		**155**	123
Accounts receivable	6 and 13	**605**	635
Current income tax assets		**32**	29
Inventories	7 and 13	**598**	606
Current portion of financial assets	16	**10**	10
		1,400	1,403
Long-term assets			
Investments in associates and joint ventures	8	**80**	81
Property, plant and equipment	3, 9, 13 and 14	**2,767**	2,505
Intangible assets with finite useful life	10	**182**	208
Financial assets	16	**16**	20
Other assets	11	**55**	42
Deferred income tax assets	19	**153**	134
Goodwill and other intangible assets with indefinite useful life	10	**527**	555
		5,180	4,948
Liabilities and Equity			
Current liabilities			
Bank loans and advances	28	**11**	16
Trade and other payables	12	**788**	781
Current income tax liabilities		**17**	23
Current portion of long-term debt	3, 13, 16 and 28	**85**	55
Current portion of provisions for contingencies and charges	15	**5**	6
Current portion of financial liabilities and other liabilities	16 and 17	**137**	101
		1,043	982
Long-term liabilities			
Long-term debt	3, 13, 16 and 28	**2,022**	1,821
Provisions for contingencies and charges	15	**49**	42
Financial liabilities	16	**5**	14
Other liabilities	17	**198**	202
Deferred income tax liabilities	19	**197**	201
		3,514	3,262
Equity			
Capital stock	20	**491**	490
Contributed surplus	21	**15**	16
Retained earnings	3 and 8	**1,000**	998
Accumulated other comprehensive income (loss)	22	**(17)**	2
Equity attributable to Shareholders		**1,489**	1,506
Non-controlling interests	8	**177**	180
Total equity		**1,666**	1,686
		5,180	4,948

The accompanying notes are an integral part of these audited consolidated financial statements.

Approved by the Board of Directors

/s/ Alain Lemaire
Alain Lemaire - DIRECTOR

/s/ Georges Kobrynsky
Georges Kobrynsky - DIRECTOR

CONSOLIDATED STATEMENTS OF EARNINGS

For the years ended December 31 (in millions of Canadian dollars, except per common share amounts and number of common shares)	NOTE	2019	2018
			Adjusted, Note 5
Sales	23	**4,996**	4,649
Cost of sales and expenses			
Cost of sales (including depreciation and amortization of $289 million (2018 — $244 million))	14 and 24	**4,232**	3,997
Selling and administrative expenses	24	**453**	410
Gain on acquisitions, disposals and others	5 and 26	**(21)**	(69)
Impairment charges and restructuring costs	27	**78**	77
Foreign exchange gain		**(2)**	(2)
Loss (gain) on derivative financial instruments	16	**(2)**	8
		4,738	4,421
Operating income		**258**	228
Financing expense	14 and 28	**101**	84
Interest expense on employee future benefits and other liabilities	28	**42**	15
Loss on repurchase of long-term debt	13	**14**	—
Foreign exchange loss (gain) on long-term debt and financial instruments		**(6)**	4
Fair value revaluation gain on investments	5	**—**	(5)
Share of results of associates and joint ventures	8	**(9)**	(11)
Earnings before income taxes		**116**	141
Provision for income taxes	19	**19**	48
Net earnings including non-controlling interests for the year		**97**	93
Net earnings attributable to non-controlling interests	8	**28**	36
Net earnings attributable to Shareholders for the year		**69**	57
Net earnings per common share			
Basic		**$ 0.74**	$ 0.60
Diluted		**$ 0.73**	$ 0.56
Weighted average basic number of common shares outstanding		**93,987,980**	94,570,924
Weighted average number of diluted common shares		**95,515,822**	96,933,681

The accompanying notes are an integral part of these audited consolidated financial statements.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

For the years ended December 31 (in millions of Canadian dollars)	NOTE	2019	2018
			Adjusted, Note 5
Net earnings including non-controlling interests for the year		**97**	93
Other comprehensive income (loss)			
Items that may be reclassified subsequently to earnings			
Translation adjustments	22		
Change in foreign currency translation of foreign subsidiaries		**(75)**	96
Change in foreign currency translation related to net investment hedging activities		**45**	(58)
Cash flow hedges	22		
Change in fair value of foreign exchange forward contracts		**1**	(2)
Change in fair value of interest rate swaps		**(1)**	1
Change in fair value of commodity derivative financial instruments		**(2)**	6
Recovery of income taxes		**1**	2
		(31)	45
Items that are not released to earnings			
Actuarial loss on employee future benefits	18	**(3)**	(16)
Recovery of income taxes	19	**1**	4
		(2)	(12)
Other comprehensive income (loss)		**(33)**	33
Comprehensive income including non-controlling interests for the year		**64**	126
Comprehensive income attributable to non-controlling interests for the year		**14**	46
Comprehensive income attributable to Shareholders for the year		**50**	80

The accompanying notes are an integral part of these audited consolidated financial statements.

CONSOLIDATED STATEMENTS OF EQUITY

For the year ended December 31, 2019

(in millions of Canadian dollars)	NOTE	CAPITAL STOCK	CONTRIBUTED SURPLUS	RETAINED EARNINGS	ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)	TOTAL EQUITY ATTRIBUTABLE TO SHAREHOLDERS	NON-CONTROLLING INTERESTS	TOTAL EQUITY
Balance - End of previous year, as reported		**490**	**16**	**1,000**	**2**	**1,508**	**180**	**1,688**
Business combinations	5	**—**	**—**	**(2)**	**—**	**(2)**	**—**	**(2)**
Adjusted balance - End of previous year		**490**	**16**	**998**	**2**	**1,506**	**180**	**1,686**
New IFRS adoption	3	**—**	**—**	**(9)**	**—**	**(9)**	**—**	**(9)**
Adjusted balance - Beginning of year		**490**	**16**	**989**	**2**	**1,497**	**180**	**1,677**
Comprehensive income (loss)								
Net earnings		**—**	**—**	**69**	**—**	**69**	**28**	**97**
Other comprehensive loss		**—**	**—**	**—**	**(19)**	**(19)**	**(14)**	**(33)**
		—	**—**	**69**	**(19)**	**50**	**14**	**64**
Dividends		**—**	**—**	**(23)**	**—**	**(23)**	**(17)**	**(40)**
Issuance of common shares upon exercise of stock options		**6**	**(1)**	**—**	**—**	**5**	**—**	**5**
Redemption of common shares		**(5)**	**—**	**(4)**	**—**	**(9)**	**—**	**(9)**
Disposal of a subsidiary	5	**—**	**—**	**—**	**—**	**—**	**(1)**	**(1)**
Acquisition of non-controlling interests	8 and 17	**—**	**—**	**(31)**	**—**	**(31)**	**1**	**(30)**
Balance - End of year		**491**	**15**	**1,000**	**(17)**	**1,489**	**177**	**1,666**

For the year ended December 31, 2018

Adjusted, Note 5

(in millions of Canadian dollars)	NOTE	CAPITAL STOCK	CONTRIBUTED SURPLUS	RETAINED EARNINGS	ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)	TOTAL EQUITY ATTRIBUTABLE TO SHAREHOLDERS	NON-CONTROLLING INTERESTS	TOTAL EQUITY
Balance - End of previous year, as reported		492	16	982	(35)	1,455	146	1,601
New IFRS adoption	3	—	—	(2)	2	—	—	—
Adjusted Balance - Beginning of year		492	16	980	(33)	1,455	146	1,601
Comprehensive income (loss)								
Net earnings		—	—	57	—	57	36	93
Other comprehensive income (loss)		—	—	(12)	35	23	10	33
		—	—	45	35	80	46	126
Business combinations	5	—	—	—	—	—	4	4
Dividends		—	—	(15)	—	(15)	(16)	(31)
Stock options expense		—	1	—	—	1	—	1
Issuance of common shares upon exercise of stock options		6	(1)	—	—	5	—	5
Redemption of common shares		(8)	—	(12)	—	(20)	—	(20)
Capital contribution from a non-controlling interest		—	—	—	—	—	1	1
Acquisition of non-controlling interests		—	—	—	—	—	(1)	(1)
Balance - End of year		490	16	998	2	1,506	180	1,686

The accompanying notes are an integral part of these audited consolidated financial statements.

CONSOLIDATED STATEMENTS OF CASH FLOWS

For the years ended December 31 (in millions of Canadian dollars)	NOTE	2019	2018
			Adjusted, Note 5
Operating activities			
Net earnings attributable to Shareholders for the year		**69**	57
Adjustments for:			
Financing expense and interest expense on employee future benefits and other liabilities	14 and 28	**143**	99
Loss on repurchase of long-term debt	13	**14**	—
Depreciation and amortization		**289**	244
Gain on acquisitions, disposals and others	5 and 26	**(24)**	(69)
Impairment charges and restructuring costs	27	**68**	77
Unrealized loss (gain) on derivative financial instruments		**(2)**	9
Foreign exchange loss (gain) on long-term debt and financial instruments		**(6)**	4
Provision for income taxes	19	**19**	48
Fair value revaluation gain on investments	5	**—**	(5)
Share of results of associates and joint ventures		**(9)**	(11)
Net earnings attributable to non-controlling interests	8	**28**	36
Net financing expense paid		**(133)**	(107)
Premium paid on long-term debt repurchase	13	**(11)**	—
Net income taxes paid		**(27)**	(11)
Dividends received	8	**9**	6
Employee future benefits and others		**(26)**	(16)
		401	361
Changes in non-cash working capital components	28	**59**	12
		460	373
Investing activities			
Investments in associates and joint ventures	8	**1**	(2)
Payments for property, plant and equipment	5	**(258)**	(338)
Proceeds from disposals of property, plant and equipment	26	**27**	85
Change in intangible and other assets		**(8)**	(15)
Cash paid for business combinations, net of cash acquired	5	**(311)**	(100)
Proceeds on disposals of a subsidiary, net of cash disposed	5	**9**	—
		(540)	(370)
Financing activities			
Bank loans and advances	28	**(5)**	(22)
Change in credit facilities	13 and 28	**39**	(126)
Increase in term loan	13 and 28	**—**	235
Issuance of unsecured senior notes, net of related expenses	13 and 28	**1,026**	—
Repurchase of unsecured senior notes	13 and 28	**(776)**	—
Increase in other long-term debt	13 and 28	**6**	66
Payments of other long-term debt	13 and 28	**(125)**	(81)
Settlement of derivative financial instruments		**—**	(1)
Issuance of common shares upon exercise of stock options	20	**5**	5
Redemption of common shares	20	**(9)**	(20)
Dividends paid to non-controlling interests and acquisition of non-controlling interests	5 and 8	**(17)**	(17)
Capital contribution from non-controlling interests		**—**	1
Dividends paid to the Corporation's Shareholders		**(23)**	(15)
		121	25
Change in cash and cash equivalents during the year		**41**	28
Currency translation on cash and cash equivalents		**(9)**	6
Cash and cash equivalents - Beginning of the year		**123**	89
Cash and cash equivalents - End of the year		**155**	123

The accompanying notes are an integral part of these audited consolidated financial statements.

SEGMENTED INFORMATION

The Corporation analyzes the performance of its operating segments based on their operating income before depreciation and amortization, which is not a measure of performance under International Financial Reporting Standards (IFRS); however, the chief operating decision-maker (CODM) uses this performance measure to assess the operating performance of each reportable segment. Earnings for each segment are prepared on the same basis as those of the Corporation. Intersegment operations are recorded on the same basis as sales to third parties, which are at fair market value. The accounting policies of the reportable segments are the same as the Corporation's accounting policies described in Note 2.

The Corporation's operating segments are reported in a manner consistent with the internal reporting provided to the CODM. The Chief Executive Officer has authority for resource allocation and management of the Corporation's performance, and is therefore the CODM. In 2019, the Corporation modified its internal reporting in accordance with CODM requirements and business analysis. As a result, the Corporation modified its segmented information disclosure and restated prior periods. The Corporation's recovery and recycling activities, previously included in the Specialty Products segment, are now included in the Corporate Activities since they support our North American packaging and tissue papers segments and are analyzed separately.

The Corporation's operations are managed in four segments: Containerboard, Boxboard Europe and Specialty Products (which constitutes the Corporation’s Packaging Products) and Tissue Papers.

	SALES	
For the years ended December 31 (in millions of Canadian dollars)	**2019**	2018
Packaging Products		
Containerboard	**1,827**	1,840
Boxboard Europe	**1,048**	933
Specialty Products	**492**	358
Intersegment sales	**(14)**	(14)
	3,353	3,117
Tissue Papers	**1,509**	1,352
Intersegment sales and Corporate Activities	**134**	180
	4,996	4,649

	OPERATING INCOME BEFORE DEPRECIATION AND AMORTIZATION	
For the years ended December 31 (in millions of Canadian dollars)	**2019**	2018
		Adjusted, Note 5
Packaging Products		
Containerboard	**443**	470
Boxboard Europe	**92**	99
Specialty Products	**52**	35
	587	604
Tissue Papers	**64**	(58)
Corporate Activities	**(104)**	(74)
Operating income before depreciation and amortization	**547**	472
Depreciation and amortization	**(289)**	(244)
Financing expense and interest expense on employee future benefits and other liabilities	**(143)**	(99)
Loss on repurchase of long-term debt	**(14)**	—
Foreign exchange gain (loss) on long-term debt and financial instruments	**6**	(4)
Fair value revaluation gain on investments	**—**	5
Share of results of associates and joint ventures	**9**	11
Earnings before income taxes	**116**	141

For the years ended December 31 (in millions of Canadian dollars)	PAYMENTS FOR PROPERTY, PLANT AND EQUIPMENT 2019	2018
Packaging Products		
Containerboard	**83**	243
Boxboard Europe	**56**	35
Specialty Products	**20**	20
	159	298
Tissue Papers	**110**	88
Corporate Activities	**48**	31
Total acquisitions	**317**	417
Proceeds from disposals of property, plant and equipment	**(27)**	(85)
Right-of-use assets and included in other debts and liabilities	**(50)**	(70)
	240	262
Acquisitions for property, plant and equipment included in “Trade and other payables”		
Beginning of year	**37**	28
End of year	**(46)**	(37)
Payments for property, plant and equipment net of proceeds from disposals	**231**	253

(in millions of Canadian dollars)	TOTAL ASSETS December 31, 2019	December 31, 2018
		Adjusted, Note 5
Packaging Products		
Containerboard	**2,148**	2,253
Boxboard Europe	**748**	789
Specialty Products	**270**	295
	3,166	3,337
Tissue Papers	**1,321**	982
Corporate Activities	**656**	596
Intersegment eliminations	**(47)**	(52)
	5,096	4,863
Investments in associates and joint ventures	**80**	81
Other investments	**4**	4
	5,180	4,948

Information by geographic segment is as follows:

(in millions of Canadian dollars)	PROPERTY, PLANT AND EQUIPMENT December 31, 2019	December 31, 2018
		Adjusted, Note 5
Canada	**931**	835
United States	**1,482**	1,278
Italy	**192**	197
Other countries	**162**	195
	2,767	2,505

(in millions of Canadian dollars)	GOODWILL, CUSTOMER RELATIONSHIPS AND CLIENT LISTS, AND OTHER FINITE AND INDEFINITE USEFUL LIFE INTANGIBLE ASSETS December 31, 2019	December 31, 2018
		Adjusted, Note 5
Canada	**394**	430
United States	**285**	302
Italy	**27**	27
Other countries	**3**	4
	709	763

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(Tabular amounts are in millions of Canadian dollars, except per common share and option amounts and number of common shares and options.)

NOTE 1
GENERAL INFORMATION

Cascades Inc. and its subsidiaries (together "Cascades" or the "Corporation") produce, convert and market packaging and tissue products composed mainly of recycled fibres. Cascades Inc. is incorporated and domiciled in Québec, Canada. The address of its registered office is 404, Marie-Victorin Boulevard, Kingsey Falls. Its shares are listed on the Toronto Stock Exchange.

The Board of Directors approved the consolidated financial statements on February 26, 2020.

NOTE 2
SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

BASIS OF PRESENTATION

The Corporation prepares its financial statements in accordance with Canadian generally accepted accounting principles (GAAP) as set forth in Part I of the *Chartered Professional Accountants of Canada* (CPA Canada) Handbook – *Accounting*, which incorporates IFRS as issued by the *International Accounting Standards Board*. 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 except as described in Note 3.

BASIS OF MEASUREMENT

The consolidated financial statements have been prepared under the historical cost convention, except for the revaluation of certain financial assets and liabilities, including derivative instruments, which are measured at fair value.

BASIS OF CONSOLIDATION

These consolidated financial statements include the accounts of the Corporation, which include:

A. SUBSIDIARIES

Subsidiaries are all entities over which the Corporation has control, where control is defined as the power to direct decisions about relevant activities. The Corporation does not have any interest in a structured entity. The existence and effect of potential voting rights that are exercisable or convertible are considered when assessing whether the Corporation controls another entity. Subsidiaries are fully consolidated from the date on which control is transferred to the Corporation. They are deconsolidated from the date on which control ceases. Accounting policies of subsidiaries have been changed, where necessary, to ensure consistency with the policies adopted by the Corporation. The purchase method of accounting is used to account for the acquisition of subsidiaries by the Corporation. Results of operations are consolidated commencing on the date of acquisition. The purchase consideration is measured as the fair value of the assets given, equity instruments issued and liabilities incurred or assumed at the date of exchange. The transaction costs directly attributable to the acquisition are expensed. Identifiable assets acquired, as well as liabilities and contingent liabilities assumed in a business combination, are measured initially at their fair values at the acquisition date, irrespective of the extent of any non-controlling interests. The excess of the purchase consideration over the fair value of the Corporation's share of the identifiable net assets acquired is recorded as goodwill. If the purchase consideration is less than the fair value of the net assets of the subsidiary acquired, the difference is recognized directly in the consolidated statement of earnings. Intercompany transactions, balances and unrealized gains on transactions between subsidiaries are eliminated.

The following are the principal subsidiaries of the Corporation:

	PERCENTAGE OWNED (%)	JURISDICTION
Cascades Canada ULC	100	Canada
Cascades USA Inc.	100	Delaware
Greenpac Holding LLC [1]	59.7	Delaware
Reno de Medici S.p.A. (RDM)	57.95	Italy

1 For accounting purposes, percentage stands at 86.35%, including indirect ownership. See Note 8 for more details.

B. TRANSACTIONS AND CHANGE IN OWNERSHIP

Acquisitions or disposals of equity interests in subsidiaries that do not result in the Corporation obtaining or losing control are treated as equity transactions. When the Corporation obtains or loses control, the revaluation of the previously held interest or the non-controlling interests that results in gains or losses for the Corporation is recognized in the consolidated statement of earnings.

C. ASSOCIATES

Associates are all entities over which the Corporation has significant influence but not control, generally accompanying a shareholding of between 20% and 50% of the voting rights. Investments in associates are accounted for using the equity method and are initially recognized at cost.

Unrealized gains on transactions between the Corporation and its associates are eliminated to the extent of the Corporation's interest in the associates. Accounting policies of associates have been adjusted where necessary to ensure consistency with the policies adopted by the Corporation. Dilution gains and losses arising from changes in the level of investments in associates are recognized in the consolidated statement of earnings.

The Corporation assesses, at each year-end, whether there is any objective evidence that its interest in associates is impaired. If impaired, the carrying value of the Corporation's investment is written down to its estimated recoverable amount (being the higher of fair value less cost of disposal or value in use) and charged to the consolidated statement of earnings.

D. JOINT VENTURES

A joint venture is an entity in which the Corporation holds a long-term interest and for which it shares joint control over decisions regarding relevant activities. The Corporation reports its interests in joint ventures using the equity method. Accounting policies of joint ventures have been adjusted where necessary to ensure consistency with the policies adopted by the Corporation.

REVENUE FROM CONTRACT WITH CUSTOMERS

The revenues of the Corporation come mainly from sales of packaging and tissue products that are recognized at a point in time. Sales of goods in the consolidated statement of earnings are recognized by the Corporation when control of the goods has been transferred, being when the goods are delivered to customers and when all performance obligations have been fulfilled.

The amounts recognized as sales of goods represent the fair values of the considerations received or receivable from third parties on the sales of goods to customers, net of returns, volume rebates and discounts, at which time there are no conditions for the payment to become due other than the passage of time. Accumulated experience is used to estimate and provide for discounts and returns (expected value method), whereas volume discounts are assessed based on anticipated annual sales (most likely amount method). The transaction price is not adjusted for the time value of money since all sales are due within twelve months.

FINANCIAL INSTRUMENTS AND HEDGING RELATIONSHIPS

Financial assets and financial liabilities are recognized when the Corporation becomes a party to the contractual provisions of the instrument. Financial assets and financial liabilities are offset and the net amount is reported in the consolidated balance sheet when there is a legally enforceable right to offset the recognized amounts and there is an intention to settle on a net basis or to realize the asset and settle the liability simultaneously.

CLASSIFICATION

On initial recognition, the Corporation determines the financial instruments classification as per the following categories:

- instruments measured at amortized cost;
- instruments measured at fair value through other comprehensive income (FVOCI) or through net income (FVTPL).

The financial instruments' classification under IFRS 9 is based on the business model in which a financial asset is managed and on its contractual cash flow characteristics. Derivatives embedded in contracts where the host is a financial instrument in the scope of the standard are never separated. Instead, the hybrid financial instrument as a whole is assessed for classification.

A financial asset is measured at amortized cost if it meets both of the following conditions and is not designated at FVTPL:

- it is held within a business model whose objective is to hold assets to collect contractual cash flows; and
- its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.

Equity investments not subject to significant influence and held for trading are classified as FVTPL. The Corporation, on initial recognition, may irrevocably elect to present subsequent changes in the investment's fair value in other comprehensive income (OCI). This election is made on an investment-by-investment basis.

Financial liabilities are measured at amortized cost unless they must be measured at FVTPL (such as derivatives) or if the Corporation elects to measure them at FVTPL.

EVALUATION

Financial instruments at amortized cost

Financial instruments at amortized cost are initially measured at fair value, and subsequently at amortized cost, using the effective interest method, less any impairment loss. Interest income, foreign exchange gains and losses and impairment are recognized in the consolidated statement of earnings.

Financial instruments at fair value

Financial instruments are initially and subsequently measured at fair value and transaction costs are accounted for in the consolidated statement of earnings. When the Corporation elects to measure a financial liability at FVTPL, gains or losses related to the Corporation's own credit risk are accounted for in the consolidated statement of earnings.

IMPAIRMENT

Since January 1, 2018, the Corporation prospectively estimates the expected credit losses associated with the debt instruments accounted for at amortized cost or FVOCI. The impairment methodology used depends on whether there is a significant increase in the credit risk or not. For trade receivables, the Corporation measures loss allowances at an amount equal to lifetime expected credit loss (ECL) as allowed by IFRS 9 under the simplified method.

DERECOGNITION

Financial assets

The Corporation derecognizes a financial asset when, and only when, the contractual rights to the cash flows from the financial asset have expired or when contractual rights to the cash flows have been transferred.

Financial liabilities

The Corporation derecognizes a financial liability when, and only when, it is extinguished, meaning when the obligation specified in the contract is discharged, canceled or expired. The difference between the carrying amount of the extinguished financial liability and the consideration paid or payable, including non-cash assets transferred or liabilities assumed, is recognized in the consolidated statement of earnings.

DERIVATIVE FINANCIAL INSTRUMENTS AND HEDGING ACTIVITIES

Derivative financial instruments are initially recognized at fair value on the date a derivative contract is entered into and are subsequently remeasured at their fair value. The method of recognizing the resulting gain or loss depends on whether the derivative is designated as a hedging instrument, and, if so, the nature of the item being hedged. The Corporation designates certain derivative financial instruments as either:

i) hedges of the fair value of recognized assets or liabilities or a firm commitment (fair value hedge);
ii) hedges of a particular risk associated with a recognized asset or liability or a highly probable forecast transaction (cash flow hedge); or
iii) hedges of a net investment in a foreign operation (net investment hedge).

The Corporation formally documents, at the inception of the transaction, the relationship between hedging instruments and hedged items, as well as its risk management objectives and strategy for undertaking various hedging transactions. The Corporation also documents its assessment, both at hedge inception and on an ongoing basis, of whether the derivatives that are used in hedging transactions are highly effective in offsetting changes in fair values or cash flows of hedged items.

The full fair value of a hedging derivative is classified as a long-term asset or liability when the remaining maturity of the hedged item is more than twelve months and as a current asset or liability when the remaining maturity of the hedged item is less than twelve months. Trading derivatives are classified as current assets or liabilities.

A. FAIR VALUE HEDGE

The periodic change in fair value of the hedging derivative is recorded in net earnings. The periodic change in the cumulative gain or loss on the hedged item is recorded as an adjustment to its carrying amount on the balance sheet and is also recorded in net earnings. Hedging ineffectiveness is automatically recorded to net earnings as the difference between the above amounts recorded in net earnings. Realized gains and losses on the hedging item, resulting from the difference between the payments on the receive leg and the pay leg of the hedging derivative, are recorded on an accrual basis in net earnings.

If the hedge no longer meets the criteria for hedge accounting, the adjustment to the carrying amount of a hedged item for which the effective interest method is used is amortized to profit or loss over the period to maturity using a recalculated effective interest rate.

B. CASH FLOW HEDGE

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges is recognized in the consolidated statement of other comprehensive income. The gain or loss relating to the ineffective portion is recognized immediately in the consolidated statement of earnings.

Amounts accumulated in equity are reclassified to earnings against the gain (loss) on the hedged item when the latter is realized (for example, when the forecasted sale that is hedged takes place).

When a hedging instrument expires or is sold or when a hedge no longer meets the criteria for hedge accounting, any cumulative gain or loss existing in equity at that time remains in equity and is recognized when the forecast transaction is ultimately recognized in the consolidated statement of earnings. When a forecasted transaction is no longer expected to occur, the cumulative gain or loss that was reported in equity is immediately transferred to the consolidated statement of earnings.

C. NET INVESTMENT HEDGE

Hedges of net investments in foreign operations are accounted for similarly to cash flow hedges. Any gain or loss on the hedging instrument relating to the effective portion of the hedge is recognized in the consolidated statement of other comprehensive income. The gain or loss relating to the ineffective portion is recognized immediately in the consolidated statement of earnings. Gains and losses accumulated in equity are included in the consolidated statement of earnings when the foreign operation is partially disposed of or sold.

The Corporation also uses cross-currency interest rate swaps to manage the currency fluctuations risk associated with forecasted cash flows in foreign currency. These cross-currency interest rate swaps are designated as a foreign exchange hedge of its net investment in foreign operations. The portion of the gains and losses arising from the translation of those derivatives that are determined to be an effective hedge is recognized in other comprehensive income, counterbalancing gains and losses arising from the translation of the Corporation's net investment in its foreign operations.

CASH AND CASH EQUIVALENTS

Cash and cash equivalents consist of cash on hand, bank balances and short-term liquid investments with original maturities of three months or less.

ACCOUNTS RECEIVABLE

Accounts receivable are initially recognized at fair value and subsequently measured at amortized cost using the effective interest method, less a loss allowance that is based on expected collectability.

INVENTORIES

Inventories of finished goods are valued at the lower of cost, which is established using the average production cost, and net realizable value. Inventories of raw materials as well as supplies and spare parts are valued at the lower of cost and replacement value, which is the best available measure of their net realizable value. Cost for both raw materials and supplies and spare parts is determined using the average cost. Net realizable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and the estimated costs necessary to make the sale.

PROPERTY, PLANT AND EQUIPMENT AND DEPRECIATION

Property, plant and equipment are recorded at cost less accumulated depreciation and net impairment losses, including capitalized interest incurred during the construction period of qualifying property, plant and equipment. Repairs and maintenance costs are charged to the consolidated statement of earnings during the period in which they are incurred. Residual values, method of depreciation and useful lives of the assets are reviewed annually and adjusted if appropriate.

Depreciation is calculated on a straight-line basis as follows:

Buildings	Between 10 and 33 years
Machinery and equipment	Between 3 and 30 years
Automotive equipment	Between 5 and 10 years
Other property, plant and equipment	Between 3 and 10 years
Right-of-use assets	Lease term

GRANTS AND INVESTMENT TAX CREDITS

Grants and investment tax credits for property, plant and equipment are accounted for using the cost reduction method and are amortized to earnings as a reduction of depreciation using the same basis as that used to depreciate the related property, plant and equipment.

BORROWING COSTS

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use, are added to the cost of those assets until all the activities necessary to prepare the asset for its intended use are complete. All other borrowing costs are recognized in the consolidated statement of earnings in the period in which they are incurred.

INTANGIBLE ASSETS

Intangible assets consist primarily of customer relationships and client lists as well as application software. They are recorded at cost less accumulated amortization and impairment losses and amortized on a straight-line basis over the estimated useful lives as follows:

Application software	Between 3 and 10 years
Enterprise Resource Planning (ERP)	7 years
Customer relationships and client lists	Between 2 and 20 years
Other intangible assets with finite useful life	Between 2 and 20 years

Expenditure on research activities is recognized as an expense in the period in which it is incurred.

IMPAIRMENT

A. PROPERTY, PLANT AND EQUIPMENT AND INTANGIBLE ASSETS WITH FINITE USEFUL LIFE

At the end of each reporting period, the Corporation assesses whether there is an indicator that the carrying amount of an asset or a group of assets may be higher than its recoverable amount which is described in section C hereunder. For that purpose, assets are grouped at the lowest levels for which there are separately identifiable cash inflows (cash generating units (CGUs)). If there is any indication that an individual asset may be impaired, the recoverable amount shall be estimated for the individual asset.

When the recoverable amount is lower than the carrying amount, the carrying amount is reduced to the recoverable amount. Impairment losses are recorded immediately in the consolidated statement of earnings in the line item “Impairment charges and restructuring costs”. Impairment losses are evaluated for potential reversals when events or changes in circumstances warrant such consideration. The revalued carrying value is the lower of the estimated recoverable amount and the carrying amount that would have been determined had no impairment loss been recognized and depreciation had been taken previously on the asset or CGU. A reversal of impairment loss is recorded directly in the consolidated statement of earnings in the line item “Impairment charges and restructuring costs”.

B. GOODWILL AND OTHER INTANGIBLE ASSETS WITH INDEFINITE USEFUL LIFE

Goodwill and other intangible assets with an indefinite useful life are recognized at cost less any accumulated impairment losses. They have an indefinite useful life due to their permanent nature since they are acquired rights or not subject to wear and tear. They are reviewed for impairment annually on December 31 or when an event or a circumstance occurs and indicates that the value could be permanently impaired. Goodwill is allocated to CGUs for the purpose of impairment testing based on the level at which Management monitors it, which is not higher than an operating segment. The allocation is made to CGUs that are expected to benefit from the business combination in which the goodwill and other intangible assets with an indefinite useful life arose. Impairment loss on goodwill is not reversed.

C. RECOVERABLE AMOUNTS

A recoverable amount is the higher of fair value less cost of disposal and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a discount rate that reflects current market assessment of the time value of money and the risks specific to the asset or CGU. When determining fair value less cost of disposal, the Corporation considers if there is a market price for the asset being evaluated. Otherwise, the Corporation uses the income approach.

LONG-TERM DEBT

Long-term debt is recognized initially at fair value, net of financing costs incurred. Long-term debt is subsequently carried at amortized cost; any difference between the proceeds (net of transaction costs) and the redemption value is recognized in the consolidated statement of earnings over the period of the term of the debt using the effective interest method.

Financing costs paid on establishment of the revolving credit facility are recognized as deferred financing costs in the consolidated balance sheet under intangible assets with finite useful life and are amortized on a straight-line basis over the anticipated period of the credit facility.

LEASES

The Corporation recognize, in the consolidated balance sheet, a lease liability and a corresponding right-of-use asset at the date at which the leased asset is available for use. Subsequently, lease payments are allocated between the liability and finance cost. Right-of-use assets are depreciated over the lease term on a straight-line basis.

The lease liability equals the net present value of the lease payments discounted using the interest rate implicit in the lease or the Corporation's incremental borrowing rate which is determined for each lease.

Right-of-use assets are measured at cost which includes the initial lease liability amount, lease payments made at or before the lease commencement date less lease incentives, initial direct costs and restoration costs.

The Corporation uses the low-value exception as well as the short-term exception on all categories of assets, except buildings.

The Corporation do not apply IFRS 16 to leases of intangibles assets.

In 2018, the Corporation was applying IAS 17 *Leases* and therefore, leases in which a significant portion of the risks and rewards of ownership were retained by the lessor were classified as operating leases. Payments made under operating leases were charged to the consolidated statement of earnings on a straight-line basis over the term of the lease. On the other hand, leases in which the Corporation retained substantially all the risks and reward of ownership were classified as finance leases. Finance leases were capitalized at the lower of the fair value of the leased property or the present value of the minimum lease payments. Property, plant and equipment acquired under a finance lease were depreciated over the shorter of the estimated useful life of the asset or the lease term using the straight-line method.

PROVISIONS FOR CONTINGENCIES AND CHARGES

Provisions for contingencies include mainly legal and other claims. A provision is recognized when the Corporation has a legal or constructive obligation as a result of a past event and it is probable that settlement of the obligation will require a financial payment or cause a financial loss, and a reliable estimate of the amount of the obligation can be made.

If some or all of the expenditure required to settle a provision is expected to be reimbursed by another party, the reimbursement is recorded in the consolidated balance sheet as a separate asset, but only if it is virtually certain that the reimbursement will be received.

Provisions are measured at the present value of the expenditures expected to be required to settle the obligation using a discount 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 the passage of time is recognized as a financing expense in the consolidated statement of earnings.

ENVIRONMENTAL RESTORATION OBLIGATIONS AND ENVIRONMENTAL COSTS

An obligation to incur restoration and environmental costs arises when environmental disturbance is caused by the development or ongoing production of a plant or landfill site. Such costs arising from the installation of a plant and other site preparation work are provided for and capitalized at the start of each project, or as soon as the obligation to incur such costs arises. Decommissioning costs are recorded at the estimated amount at which the obligation could be settled at the consolidated balance sheet date and are charged against earnings over the life of the operation through the depreciation of the asset and the unwinding of the discount on the provision. The discount rate is the pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability. Costs for restoring subsequent site damage that is created on an ongoing basis during production are provided for at their present values and charged against earnings as the obligation arises.

Changes in the measurement of a liability relating to the decommissioning of a plant or other site preparation work resulting from changes in the estimated timing or amount of the cash flow or a change in the discount rate are added to or deducted from the cost of the related asset in the current year. If a decrease in the liability exceeds the carrying amount of the asset, the excess is recognized immediately in the consolidated statement of earnings. If the asset value is increased and there is an indication that the revised carrying value is not recoverable, an impairment test is performed in accordance with the accounting policy for impairment testing.

EMPLOYEE BENEFITS

The Corporation offers funded and unfunded defined benefit pension plans, defined contribution pension plans and group registered retirement savings plans (RRSPs) that provide retirement benefit payments for most of its employees. The defined benefit pension plans are usually contributory and are based on the number of years of service and, in most cases, the average salaries or compensation at the end of a career. Retirement benefits are not adjusted based on inflation. The Corporation also offers its employees some post-employment benefit plans, such as a retirement allowance, group life insurance and medical and dental plans. However, these benefits, other than pension plans, are not funded. Furthermore, the medical and dental plans upon retirement are being phased out and are no longer offered to the majority of new retirees and the retirement allowance is not offered to those who do not meet certain criteria.

The liability recognized in the consolidated balance sheet in respect of defined benefit pension plans is the present value of the defined benefit obligation at the end of the reporting period less the fair value of plan assets. The defined benefit obligation is calculated at least every three years by independent actuaries using the projected unit credit method and updated regularly by Management for any material transactions and changes in circumstances, including changes in market prices and interest rates up to the end of the reporting period.

As well, when an asset is recorded for a pension plan, its carrying value cannot be greater than the future economic benefit that the Corporation will get from the asset. The future economic benefit includes the suspension of contribution if the pension plan provisions allow for it under the minimum funding requirements. When there is a minimum funding requirement, it can increase the liability recorded. All special contributions legally required to fund a plan deficit are considered. For plans for which an actuarial evaluation is required as at December 31, 2019, a schedule of contributions is estimated to establish the minimum funding requirement. For other plans, we have used contributions from the most recent actuarial report.

Actuarial gains and losses that arise in calculating the present value of the defined benefit obligation and the fair value of plan assets are recorded in the consolidated statement of other comprehensive income and recognized immediately in retained earnings without recycling to the consolidated statement of earnings. Past service costs are recognized immediately in the consolidated statement of earnings.

When restructuring a plan results in a curtailment and settlement occurring at the same time, the curtailment is accounted for before the settlement.

Interest costs on pension and other post-employment benefits are recognized in the consolidated statement of earnings as “Interest expense on employee future benefits”. The measurement date of employee future benefit plans is December 31 of each year. An actuarial evaluation is performed at least every three years. Based on their balances as at December 31, 2019, 23% of the plans were evaluated on December 31, 2018 (43% in 2017).

INCOME TAXES

The Corporation uses the liability method to recognize deferred income taxes. According to this method, deferred income taxes are determined using the difference between the accounting and tax bases of assets and liabilities. Deferred income tax assets and liabilities are measured using enacted or substantively enacted tax rates at the consolidated balance sheet date that are expected to apply when the deferred income taxes are expected to be recovered or settled. Deferred income tax assets are recognized when it is probable that the asset will be realized.

Deferred income tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities and when the deferred income tax assets and liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities where there is an intention to settle the balances on a net basis.

FOREIGN CURRENCY TRANSLATION

Items included in the financial statements of each of the Corporation's entities are measured using the currency of the primary economic environment in which the business unit operates (the “functional currency”). The consolidated financial statements are presented in Canadian dollars, which is Cascades' functional currency.

A. FOREIGN CURRENCY TRANSACTIONS

Transactions denominated in currencies other than the business unit's functional currency are recorded at the rate of exchange prevailing at the transaction date. Monetary assets and liabilities denominated in foreign currencies are translated at the rate of exchange prevailing at the consolidated balance sheet date. Unrealized gains and losses on translation of monetary assets and liabilities are reflected in the consolidated statement of earnings.

B. FOREIGN OPERATIONS

The assets and liabilities of foreign operations are translated into Canadian dollars at the exchange rate prevailing at the consolidated balance sheet date. Revenues and expenses are translated at the average monthly exchange rate. Translation gains or losses are deferred and included in “Accumulated other comprehensive income”.

SHARE-BASED PAYMENTS

The Corporation uses the fair value method of accounting for stock-based compensation awards granted to officers and key employees. This method consists in recording expenses to earnings based on the vesting period of each tranche of options granted. The fair value of each tranche is calculated based on the Black-Scholes option pricing model. This model was developed for use in estimating the fair value of traded options that have no vesting restrictions and are fully transferable. When stock options are exercised, any considerations paid by employees, as well as the related stock-based compensation, are credited to capital stock.

DIVIDEND DISTRIBUTION

Dividend distribution to the Corporation's Shareholders is recognized as a liability in the consolidated financial statements in the period in which the dividends are approved by the Corporation's Board of Directors.

EARNINGS PER COMMON SHARE

Basic earnings per common share are determined using the weighted average number of common shares outstanding during the period. Diluted earnings per common share are determined by adjusting the weighted average number of common shares outstanding for dilutive instruments, which are primarily stock options, using the treasury stock method to evaluate the dilutive effect of stock options. Under this method, instruments with a dilutive effect, which is when the average market price of a share for the period exceeds the exercise price, are considered to have been exercised at the beginning of the period and the proceeds received are considered to have been used to redeem common shares of the Corporation at the average market price for the period.

NOTE 3
CHANGES IN ACCOUNTING POLICY AND DISCLOSURES

A) NEW IFRS ADOPTED

IFRS 16 *LEASES*

In January 2016, the IASB released IFRS 16 *Leases*, which supersedes IAS 17 *Leases,* and the related interpretations on leases: IFRIC 4 *Determining Whether an Arrangement Contains a Lease*, SIC 15 *Operating Leases - Incentives* and SIC 27 *Evaluating the Substance of Transactions in the Legal Form of a Lease*. The standard is effective for annual periods beginning on or after January 1, 2019.

Impact of adoption

The Corporation applied IFRS 16 *Leases* retrospectively with no restatement of comparative information as allowed by the Standard. At the date of initial application, lease liability for leases previously classified as operating leases under IAS 17 *Leases* equals the present value of the remaining lease payments, discounted using the interest rate implicit in the lease or the Corporation's incremental borrowing rate, as described above. As for the underlying right-of-use asset, the Corporation elected to measure it at an amount equal to the lease liability.

The Corporation also used the following practical expedients allowed by IFRS 16:

- account for leases ending in 2019 as short-term leases;
- exclude initial direct costs from the measurement of the right-of-use asset;
- use hindsight in determining the lease term where the contract includes extension or termination options; and
- rely on previous assessment of whether a lease is onerous.

Adjustment to the consolidated opening retained earnings is related to an impairment charge of $12 million, net of a deferred income tax recovery of $3 million, that the Corporation recorded on the right-of-use assets of CGUs whose assets are valued at fair market value.

The application of IFRS 16 *Leases* had the following impacts on the January 1, 2019 consolidated balance sheet:

(in millions of Canadian dollars)	Balance as of December 31, 2018[1]	IFRS16 adjustment	January 1, 2019 adjusted balance
Property, plant and equipment (including right-of-use assets)	2,505	87	2,592
Current portion of long-term debt	55	16	71
Long-term debt	1,821	83	1,904
Deferred income tax liabilities	201	(3)	198
Retained earnings	998	(9)	989

[1] Including business combination purchase price retrospective adjustment (see Note 5 for more details).

The reconciliation between operating lease commitments disclosed under IAS 17 at the end of 2018 and the initial impact of IFRS 16 on January 1, 2019 consolidated balance sheet is the following:

(in millions of Canadian dollars)	January 1, 2019
Commitments disclosed as at December 31, 2018 (adjusted)	121
Discount	(14)
Discounted using weighted average Cascades' incremental borrowing rate of 3.46%	107
Finance lease obligations recognized as at December 31, 2018	95
Low value and short-term exemptions	(1)
Contracts reassessed as service agreement	(7)
Change in treatment of extension and termination options	8
Leases with an effective date later than December 31, 2018	(6)
Other	(2)
Lease obligations recognized as at January 1, 2019	**194**

The impact of adoption of IFRS16 *Leases* on the consolidated statement of earnings is as follows:

(in millions of Canadian dollars)	For the year ended December 31, 2019
Increase in financing expense	3
Increase in depreciation and amortization	27
Increase in operating income before depreciation and amortization	29

NOTE 4
CRITICAL ACCOUNTING ESTIMATES AND JUDGMENTS

Estimates and judgments are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances.

CRITICAL ACCOUNTING ESTIMATES AND ASSUMPTIONS

The preparation of financial statements in conformity with IFRS requires the use of estimates and assumptions that affect the reported amounts of assets and liabilities in the financial statements and disclosure of contingencies at the balance sheet date, and the reported amounts of revenues and expenses during the reporting period. On a regular basis and with the information available, Management reviews its estimates, including those related to environmental costs, employee future benefits, collectability of accounts receivable, financial instruments, contingencies, income taxes, useful life and residual value of property, plant and equipment and impairment of property, plant and equipment and intangible assets. Actual results could differ from those estimates. When adjustments become necessary, they are reported in earnings in the period in which they occur.

A. IMPAIRMENT OF LONG-LIVED ASSETS, INTANGIBLE ASSETS AND GOODWILL

In determining the recoverable amount of an asset or a cash generating unit (CGU), the Corporation uses several key assumptions based on external information on the industry when available, including estimated production levels, selling prices, volume, raw material costs, foreign exchange rates, growth rates, discounting rates and capital spending.

The Corporation believes its assumptions are reasonable. Based on available information at the assessment date, however, these assumptions involve a high degree of judgment and complexity. Management believes that the following assumptions are the most susceptible to change and therefore could impact the valuation of the assets in the next year.

DESCRIPTION OF SIGNIFICANT IMPAIRMENT TESTING ASSUMPTIONS (see Note 27 of consolidated financial statements)

REVENUES, OPERATING INCOME BEFORE DEPRECIATION (OIBD) MARGINS, CASH FLOWS AND GROWTH RATES

The assumptions used were based on the Corporation's internal budget. Revenues, OIBD margins and cash flows were projected for a period of five years and a perpetual long-term growth rate was applied thereafter. In arriving at its forecasts, the Corporation considers past experience, economic trends such as gross domestic product growth and inflation, as well as industry and market trends.

DISCOUNT RATES

The Corporation assumed a discount rate in order to calculate the present value of its projected cash flows. The discount rate represents a weighted average cost of capital (WACC) for comparable companies operating in similar industries of the applicable CGU, group of CGUs or reportable segment based on publicly available information.

FOREIGN EXCHANGE RATES

When estimating the fair value less cost of disposal, foreign exchange rates are determined using the financial institution's average forecast for the first two years of forecasting. For the following three years, the Corporation uses the last five years' historical average of the foreign exchange rate. Terminal rate is based on historical data of the last twenty years and adjusted to reflect Management's best estimate.

SHIPMENTS

The assumptions used are based on the Corporation's internal budget for the next year and are usually held constant for the forecast period. In arriving at its budgeted shipments, the Corporation considers past experience, economic trends as well as industry and market trends.

Considering the sensitivity of the key assumptions used, there is measurement uncertainty since adverse changes in one or a combination of the Corporation's key assumptions could cause a significant change in the carrying amounts of these assets.

B. INCOME TAXES

The Corporation is required to estimate the income taxes in each jurisdiction in which it operates. This includes estimating a value for existing tax losses based on the Corporation's assessment of its ability to use them against future taxable income before they expire. If the Corporation's assessment of its ability to use the tax losses proves inaccurate in the future, more or less of the tax losses might be recognized as assets, which would increase or decrease the income tax expense and, consequently, affect the Corporation's results in the relevant year.

C. EMPLOYEE BENEFITS

The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using 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 cost of pensions and other retirement benefits earned by employees is actuarially determined using the projected benefit method pro-rated on years of service and Management's best estimate of expected plan investment performance, salary escalations, retirement ages of employees and expected health care costs. The accrued benefit obligation is evaluated using the market interest rate at the evaluation date. Due to the long-term nature of these plans, such estimates are subject to significant uncertainty. All assumptions are reviewed annually.

D. GOODWILL, INTANGIBLE ASSETS AND BUSINESS COMBINATIONS

Goodwill and client lists have arisen as a result of business combinations. The acquisition method, which also requires significant estimates and judgments, is used to account for these business combinations. As part of the allocation process in a business combination, estimated fair values are assigned to the net assets acquired. These estimates are based on forecasts of future cash flows, estimates of economic fluctuations and an estimated discount rate. The excess of the purchase price over the estimated fair value of the net assets acquired is then assigned to goodwill. In the event that actual net assets fair values are different from estimates, the amounts allocated to the net assets could differ from what is currently reported. This would then have a direct impact on the carrying value of goodwill. Differences in estimated fair values would also have an impact on the amortization of definite life intangibles.

E. FAIR VALUE OF BUSINESS COMBINATION

The Corporation makes a number of estimates when allocating fair values to the assets and liabilities acquired in a business acquisition. Fair values are estimated using valuation techniques that take into account several assumptions such as production, amount and timing of earnings and expenses, revenue growth, discount rate and capital expenditures.

CRITICAL JUDGMENTS IN APPLYING THE CORPORATION'S ACCOUNTING POLICIES

LEASES

Significant judgments are applied in assessing whether or not a contract is or contains a lease. The Corporation assessment of its right to obtain substantially all of the economic benefits from the use of the leased asset or of its ability to direct the use of the asset will determine if an agreement contains a lease.

NOTE 5
BUSINESS COMBINATIONS

2019
Orchids Paper Products

On September 13, 2019, the Corporation acquired the assets of Orchids Paper Products Company ("Orchids") for a total consideration of $307 million, which consisted of US$235 million ($311 million) in cash, less $2 million for a purchase price adjustment and the settlement of a net liability of $2 million with the acquiree prior to the transaction. The Corporation recorded a bargain purchase gain on acquisition of the distressed assets of $22 million before transaction fees of $9 million.

The assets include the Barnwell, South Carolina and Pryor, Oklahoma Tissue plants. As part of the transaction, the Corporation acquired all of the outstanding units of OPP Acquisition Mexico S. de R.L. de C.V., designated as assets held-for-sale at acquisition date, which were resold the same day for US$14 million ($19 million).

This acquisition will accelerate the modernization of the Corporation's U.S. consumer product tissue platform by strengthening our operations and improving our geographic positioning.

The $14 million fair value of accounts receivables is equal to gross contractual cash flows, which were all expected to be collected at the time of the acquisition.

The purchase price allocation is preliminary as of December 31, 2019.

Assets acquired and liabilities assumed were as follows:

			2019
BUSINESS SEGMENT:			Tissue Papers
ACQUIRED COMPANIES:			Orchids
(in millions of Canadian dollars)	Initial allocation	Adjustments	Adjusted preliminary allocation
Fair values of identifiable assets acquired and liabilities assumed:			
Accounts receivable	14	—	14
Inventories	22	2	24
Assets held-for-sale	19	—	19
Property, plant and equipment	342	(52)	290
Other assets	1	—	1
Total assets	398	(50)	348
Trade and other payables	(13)	1	(12)
Long-term debt	(7)	7	—
Deferred income tax liabilities	(17)	10	(7)
Net assets acquired	361	(32)	329
Bargain purchase gain on acquisition	(52)	30	(22)
	309	(2)	307
Net cash paid	314	(3)	311
Purchase price adjustment	(3)	1	(2)
Settlement of liability with acquiree before the transaction	(2)	—	(2)
Total consideration	309	(2)	307

The acquired business, since the date of acquisition, represents sales amounting to $60 million on a stand-alone basis ($38 million on a consolidated basis) and the contribution to net earnings attributable to Shareholders is $1 million on a stand-alone basis ($19 million on a consolidated basis, including the gain on business combination).

2018

Urban Forest Products LLC, Clarion Packaging LLC and Falcon Packaging LLC

On December 6, 2018, the Corporation acquired all the assets of Urban Forest Products LLC (UFP) and Clarion Packaging LLC (Clarion), respectively located in Brook, Indiana, and Clarion, Iowa. Both plants manufacture molded pulp protective packaging that primarily serves the egg and quick service restaurant industries. Concurrently, the Specialty Products segment also acquired 75% of the membership units of Falcon Packaging LLC, a leader in the distribution of egg and other packaging located in Ohio, Iowa and Georgia. These acquisitions are in line with the Corporation's objective to expand molded pulp activities, which produce a recycled, recyclable, compostable and biodegradable packaging product that offers highly interesting opportunities against a backdrop of expanding interest in the circular economy. Total consideration for the business acquisition was a cash consideration of US$38 million ($51 million). These acquisitions were treated as a single business combination since the substance of the transaction was the acquisition of integrated businesses.

The $10 million fair value of accounts receivables is equal to gross contractual cash flows, which were all expected to be collected at the time of the acquisition.

The purchase price allocation was finalized in 2019.

Assets acquired and liabilities assumed were as follows:

			2018
BUSINESS SEGMENT:			Specialty Products
ACQUIRED COMPANIES:			UFP, Clarion & Falcon Packaging
(in millions of Canadian dollars)	Preliminary allocation	Adjustments	Final allocation
Fair values of identifiable assets acquired and liabilities assumed:			
Accounts receivable	10	—	10
Inventories	8	1	9
Property, plant and equipment	48	(1)	47
Client list	10	(7)	3
Trademark	—	1	1
Total assets	76	(6)	70
Bank loans and advances	(2)	—	(2)
Trade and other payables	(9)	—	(9)
Long-term debt	(4)	—	(4)
Deferred income tax liabilities	(1)	1	—
Net assets acquired	60	(5)	55
Non-controlling interests	(5)	1	(4)
Gain on acquisition	(3)	3	—
	52	(1)	51
Cash paid	51	—	51
Non-cash provision for working capital adjustment	1	(1)	—
Total consideration	52	(1)	51

PAC Service S.p.A.

On January 1, 2018, the Corporation acquired PAC Service S.p.A., a boxboard converter for the packaging, publishing, cosmetics and food industries that has been fully consolidated since then. The Corporation already had a 33.33% equity participation through its majority equity ownership in Reno de Medici S.p.A. in the Boxboard Europe segment. The consideration for the acquisition of the remaining 66.67% shares consisted of cash totaling €10 million ($15 million) and was deposited on December 19, 2017. The excess of consideration over the net fair value of the assets acquired and the liabilities assumed resulted in a non-deductible goodwill of $7 million and has been allocated to the Boxboard Europe segment cash generating unit (CGU). The transaction is expected to create synergies, since Reno de Medici is already a strategic supplier of PAC Service.

Barcelona Cartonboard S.A.U.

On October 31, 2018, the Corporation acquired Barcelona Cartonboard S.A.U., a paperboard manufacturer on the Iberian Peninsula. The consideration for the acquisition consisted of cash totaling €36 million ($54 million) and €10 million ($14 million) of net debt assumed. The Corporation recorded a bargain purchase gain of $2 million. The acquisition will allow Reno de Medici to strengthen its presence in a well-known market, to optimize its products portfolio and to further improve the level of service to current customers and new ones, as the Barcelona plant is located near some of the major European converters.

The $37 million fair value of total accounts receivables acquired is equal to the gross contractual cash flows, which were all expected to be collected at the time of the acquisition.

The purchase price allocation was finalized in 2018 for Pac Service S.p.A. and in 2019 for Barcelona Cartonboard S.A.U..

Assets acquired and liabilities assumed were as follows:

					2018
BUSINESS SEGMENT:	Boxboard Europe				
ACQUIRED COMPANIES:	Barcelona Cartonboard S.A.U.			Pac Service S.p.A.	Total
(in millions of Canadian dollars)	Preliminary allocation	Adjustments	Final allocation	Final allocation	Final allocation
Fair values of identifiable assets acquired and liabilities assumed:					
Cash and cash equivalents	2	—	2	4	6
Accounts receivable	25	—	25	12	37
Inventories	21	—	21	7	28
Property, plant and equipment	72	—	72	9	81
Other intangible assets with finite useful life	2	4	6	—	6
Other assets	1	—	1	—	1
Goodwill	1	(1)	—	7	7
Total assets	124	3	127	39	166
Trade and other payables	(50)	—	(50)	(9)	(59)
Current portion of long-term debt	(4)	—	(4)	(3)	(7)
Long-term debt	(12)	—	(12)	(2)	(14)
Provision for contingencies and charges	(1)	—	(1)	—	(1)
Employee future benefits	—	—	—	(1)	(1)
Deferred income tax liabilities	(3)	(1)	(4)	(1)	(5)
Net assets acquired	54	2	56	23	79
Bargain purchase gain on acquisition	—	(2)	(2)	—	(2)
	54	—	54	23	77
Cash paid in 2018	54	—	54	—	54
Cash paid in 2017 (included in other assets as at December 31,2017)	—	—	—	15	15
Previously held interest	—	—	—	3	3
Revaluation gain on previously held interest on January 1, 2018	—	—	—	5	5
Total consideration	54	—	54	23	77

ASSET ACQUISITION

2018

Bear Island

On July 26, 2018, the Containerboard Packaging segment acquired White Birch's Bear Island manufacturing facility in Virginia, USA for a cash consideration of US$35 million ($46 million) (including transaction fees). Upon the approval of the Corporation's Board, the newsprint paper machine presently located on the site will be reconfigured to produce high-quality recycled lightweight linerboard and medium for the North American market. Production is expected to begin in 2022. During the period prior to conversion, it was planned that White Birch would temporarily operate the site as a newsprint mill under a twenty seven months free net lease having an estimated value of $8 million and accounted for as deferred revenues and added to the consideration. However, in 2019, White Birch terminated the lease. See Note 26 for details.

As part of the agreement, the Corporation granted to White Birch a one-time option to purchase an interest of up to 10% in the Bear Island containerboard mill project provided that the mill conversion project is approved by the Corporation's Board of Directors and can be exercised in the twelve month period beginning July 26, 2020. The option at the time of acquisition had an estimated value of $13 million and is added to the assets' purchase price.

The transaction is accounted for as an asset acquisition as it does not meet the definition of a business combination. The acquired facility includes landfills for which the Corporation recorded an asset retirement obligation amounting to $5 million. Finally, as part of the agreement, the Corporation committed to pay White Birch US$4 million ($5 million) in the next twenty seven months to cover property and building maintenance costs. This liability was reversed in the course of 2019 when White Birch terminated the lease. See Note 26 for details.

Assets acquired and liabilities assumed were as follows:

	2018
BUSINESS SEGMENT:	Containerboard
(in millions of Canadian dollars) ACQUIRED ASSETS:	Bear Island
Fair values of identifiable assets acquired and liabilities assumed:	
Property, plant and equipment	77
Total assets	77
Environmental restoration obligation	(5)
Net assets acquired	72
Cash paid	46
Purchase option fair value issued to White Birch	13
Favourable lease fair value	8
Carrying costs commitment	5
Total consideration	72

DISPOSAL

2019

Cascades Europe S.A.S.

On September 30, 2019, the Corporation sold its participation of 90% in Cascades Europe S.A.S. which owns Cascades Rollpack, a cardboard packaging converter for the paper industry, for a total consideration of €10 million ($15 million), including €7 million ($10 million) of cash received as well as €4 million ($6 million) of long-term debt assumed and €1 million ($1 million) of cash balance disposed. A loss on disposal of $1 million was recorded.

Assets and liabilities at the time of disposal were as follows:

(in millions of Canadian dollars)		2019
	BUSINESS SEGMENT:	Specialty Products
	DISPOSAL COMPANIES:	Cascades Europe S.A.S.
Assets and liabilities disposed:		
Cash and cash equivalents		**1**
Accounts receivable		**7**
Inventories		**9**
Property, plant and equipment		**9**
Total assets		**26**
Trade and other payables		**(8)**
Long-term debt		**(6)**
Net assets disposed		**12**
Non-controlling interests		**(1)**
Loss on disposal		**(1)**
Total consideration received		**10**

NOTE 6
ACCOUNTS RECEIVABLE

(in millions of Canadian dollars)	NOTE	2019	2018
Accounts receivable - Trade		**543**	570
Receivables from related parties	30	**27**	34
Less: loss allowance		**(16)**	(15)
Trade receivables - net		**554**	589
Other		**51**	46
		605	635

As at December 31, 2019, trade receivables of $127 million (December 31, 2018 - $145 million) were past due but not impaired.

The aging of these trade receivables at each reporting period is as follows:

(in millions of Canadian dollars)	2019	2018
Past due 1-30 days	**61**	79
Past due 31-60 days	**21**	20
Past due 61-90 days	**13**	12
Past due 91 days and over	**32**	34
	127	145

Movements in the Corporation's loss allowance are as follows:

(in millions of Canadian dollars)	2019	2018
Balance at beginning of year	**15**	7
Provision for doubtful accounts, net of unused beginning balance	**6**	5
Receivables written off during the year as uncollectable	**(4)**	(1)
Other	**—**	4
Exchange differences	**(1)**	—
Balance at end of year	**16**	15

The change in the credit loss provision has been included in “Selling and administrative expenses” in the consolidated statement of earnings.

The maximum exposure to credit risk at the reporting period approximates the carrying value of each class of receivable mentioned above.

NOTE 7
INVENTORIES

(in millions of Canadian dollars)	**2019**	2018
		Adjusted, Note 5
Finished goods	**302**	295
Raw materials	**105**	132
Supplies and spare parts	**191**	179
	598	606

As at December 31, 2019, finished goods, raw materials and supplies and spare parts were adjusted to net realizable value (NRV) by $14 million, $2 million and $1 million, respectively (December 31, 2018 - $12 million, nil, and nil).

The Corporation has sold all the goods that were written down in 2018. No reversal of previously written-down inventory occurred in 2019 or 2018. The cost of raw materials and supplies and spare parts included in “Cost of sales” amounted to $1,682 million (2018 - $1,713 million).

NOTE 8
INVESTMENTS IN ASSOCIATES AND JOINT VENTURES

A. INVESTMENTS IN ASSOCIATES AND JOINT VENTURES ARE DETAILED AS FOLLOWS:

(in millions of Canadian dollars)	**2019**	2018
Investments in associates	**13**	12
Investments in joint ventures	**67**	69
	80	81

B. INVESTMENTS IN ASSOCIATES

The Corporation did not hold any significant participation in associates in 2019 and 2018.

C. INVESTMENT IN JOINT VENTURES

The following are the principal joint ventures of the Corporation and the Corporation's percentage of equity owned:

	2019-2018 PERCENTAGE EQUITY OWNED (%)	PRINCIPAL ESTABLISHMENT
Cascades Sonoco US Inc.[1]	50	Birmingham, Alabama and Tacoma, Washington, United States
Cascades Sonoco inc.[1]	50	Kingsey Falls and Berthierville, Québec, Canada
Maritime Paper Products Limited Partnership (MPPLP) [2]	40	Dartmouth, Nova Scotia, Canada
Tencorr Holdings Corporation [3]	33.3	Brampton, Ontario, Canada

1 Joint ventures producing specialty paper packaging products such as headers, rolls and wrappers.
2 MPPLP is a Canadian corporation converting containerboard.
3 Tencorr Holdings Corporation operates as a supplier of corrugated sheet stock.

The Corporation's joint ventures information (100%), translated in millions of Canadian dollars if required, is as follows:

(in millions of Canadian dollars)	CASCADES SONOCO US INC.	CASCADES SONOCO INC.	MARITIME PAPER PRODUCTS LIMITED PARTNERSHIP	TENCORR HOLDINGS CORPORATION
				2019
Condensed balance sheet				
Cash and cash equivalents	**2**	**—**	**3**	**—**
Current assets (other than cash and cash equivalents and current financial assets)	**26**	**26**	**23**	**18**
Long-term assets (other than long-term financial assets)	**43**	**16**	**28**	**10**
Current liabilities (other than current financial liabilities)	**10**	**7**	**4**	**15**
Current financial liabilities	**5**	**1**	**1**	**1**
Long-term liabilities (other than long-term financial liabilities)	**6**	**2**	**1**	**3**
Long-term financial liabilities	**12**	**1**	**2**	**—**
Condensed statement of earnings				
Sales	**110**	**91**	**97**	**132**
Depreciation and amortization	**5**	**2**	**3**	**1**
Financing expense	**2**	**—**	**1**	**—**
Provision for income taxes	**1**	**2**	**—**	**—**
Net earnings	**4**	**5**	**2**	**1**
Other comprehensive income (loss)				
Translation adjustment	**(2)**	**—**	**—**	**—**
Total comprehensive income	**2**	**5**	**2**	**1**
Dividends received from joint ventures	**2**	**5**	**—**	**—**

(in millions of Canadian dollars)	CASCADES SONOCO US INC.	CASCADES SONOCO INC.	MARITIME PAPER PRODUCTS LIMITED PARTNERSHIP	TENCORR HOLDINGS CORPORATION
				2018
Condensed balance sheet				
Cash and cash equivalents	1	1	—	—
Current assets (other than cash and cash equivalents and current financial assets)	32	32	26	20
Long-term assets (other than long-term financial assets)	38	15	29	10
Current liabilities (other than current financial liabilities)	10	10	5	15
Current financial liabilities	4	1	1	3
Long-term liabilities (other than long-term financial liabilities)	6	3	—	3
Long-term financial liabilities	14	—	3	—
Condensed statement of earnings				
Sales	119	97	108	137
Depreciation and amortization	2	2	2	1
Financing expense	1	—	—	—
Provision for income taxes	2	2	—	1
Net earnings	6	6	3	1
Other comprehensive income				
Translation adjustment	3	—	—	—
Total comprehensive income	9	6	3	1
Dividends received from joint ventures	2	2	—	—

There is about $1 million in commitments in the joint ventures ($1 million in 2018).

D. SUBSIDIARIES WITH NON-CONTROLLING INTERESTS

The Corporation's information for its subsidiaries with significant non-controlling interests is as follows:

(in millions of Canadian dollars, unless otherwise noted)	2019		2018	
	RENO DE MEDICI S.p.A.	GREENPAC HOLDING LLC	RENO DE MEDICI S.p.A.	GREENPAC HOLDING LLC
			Adjusted, Note 5	
Principal establishment	Milan, Italy	New York, United States	Milan, Italy	New York, United States
Percentage of shares held by non-controlling interests (accounting basis)	**42.05%**	**13.65%**	42.05%	17.17%
Net earnings attributable to non-controlling interests	**11**	**17**	18	18
Non-controlling interests accumulated at the end of the year	**125**	**48**	128	50
Dividends paid to non-controlling interests	**2**	**15**	1	15
Condensed balance sheet				
Cash and cash equivalents	**59**	**36**	49	37
Current assets (other than cash and cash equivalents and current financial assets)	**295**	**105**	315	109
Current financial assets	**—**	**3**	—	3
Long-term assets (other than long-term financial assets)	**397**	**569**	428	589
Long-term financial assets	**—**	**11**	—	13
Current liabilities (other than current financial liabilities)	**246**	**37**	257	33
Current financial liabilities	**39**	**9**	32	77
Long-term liabilities (other than long-term financial liabilities)	**72**	**—**	76	—
Long-term financial liabilities	**94**	**167**	119	208
Condensed statement of earnings				
Sales	**1,048**	**438**	933	429
Depreciation and amortization	**47**	**38**	36	30
Provision for income taxes	**14**	**—**	20	—
Net earnings	**23**	**100**	43	105
Condensed cash flow				
Cash flows from operating activities	**95**	**136**	80	123
Cash flows used for investing activities	**(42)**	**(5)**	(85)	(3)
Cash flows from (used) for financing activities	**(39)**	**(131)**	26	(123)

In November 2019, the Corporation exercised its call option and repurchased the CDPQ (Caisse de dépôt et placement du Québec) 20.20% participation in Greenpac for a consideration of $122 million. The consideration is due in January 2020 and is therefore accounted for in other liabilities. With this additional participation, the Corporation's direct ownership in Greenpac increased to 79.9% from 59.7% whereas indirect ownership, through our 53% participation in Containerboard Partners (Ontario) Inc., remained at 6.4%. For accounting purposes, the CDPQ participation was accounted for as a liability because of the put option associated with it. Indeed, the option gave the participation of CDPQ the characteristics of a liability more than equity under IFRS. With the exercise of the call option, the CDPQ put option became void and the 20.20% participation was treated as equity for accounting purposes. The combined effect of the participation buyout and designation of it as equity decreased the minority interest share to 13.65% from 17.11%.

E. NON-SIGNIFICANT ASSOCIATES AND JOINT VENTURES

The carrying value of investments in associates and joint ventures that do not have significant impact on the Corporation is as follows:

(in millions of Canadian dollars)	2019	2018
Non-significant associates	**13**	12
Non-significant joint ventures	**18**	18
	31	30

The shares of results of non-significant associates and joint ventures for the Corporation are as follows:

(in millions of Canadian dollars)	2019	2018
Non-significant associates	—	(1)
Non-significant joint ventures	3	3
	3	2

The Corporation received dividends of $2 million from these associates and joint ventures as at December 31, 2019 (December 31, 2018 - $2 million).

NOTE 9
PROPERTY, PLANT AND EQUIPMENT

(in millions of Canadian dollars)	NOTE	LAND	BUILDINGS	MACHINERY AND EQUIPMENT	AUTOMOTIVE EQUIPMENT	OTHERS	RIGHT-OF-USE ASSETS (Note 3 and 14)	TOTAL
As at January 1, 2018								
Cost		124	834	3,020	104	314	51	4,447
Accumulated depreciation and impairment		—	352	1,775	69	123	24	2,343
Net book amount		124	482	1,245	35	191	27	2,104
Year ended December 31, 2018 (Adjusted, Note 5)								
Opening net book amount		124	482	1,245	35	191	27	2,104
Additions and asset acquisition	5	11	36	90	9	235	67	448
Disposals		—	—	(1)	—	—	—	(1)
Depreciation		—	(33)	(150)	(9)	(9)	(11)	(212)
Business combinations	5	34	23	66	3	2	—	128
Impairment charges	27	—	(6)	(67)	(1)	—	—	(74)
Others		—	26	145	4	(167)	2	10
Exchange differences		6	21	64	—	8	3	102
Closing net book amount		175	549	1,392	41	260	88	2,505
As at December 31, 2018 (Adjusted, Note 5)								
Cost		175	950	3,389	115	389	123	5,141
Accumulated depreciation and impairment		—	401	1,997	74	129	35	2,636
Net book amount		175	549	1,392	41	260	88	2,505
Year ended December 31, 2019								
Opening net book amount		**175**	**549**	**1,392**	**41**	**260**	**88**	**2,505**
Additions		**—**	**35**	**52**	**10**	**174**	**46**	**317**
Disposals		**—**	**(1)**	**(24)**	**(1)**	**(3)**	**(3)**	**(32)**
Depreciation		**—**	**(36)**	**(153)**	**(11)**	**(14)**	**(42)**	**(256)**
Business disposal	5	**—**	**(6)**	**(3)**	**—**	**—**	**—**	**(9)**
Business combinations	5	**—**	**—**	**309**	**—**	**—**	**—**	**309**
IFRS 16 adjustment	3	**—**	**—**	**—**	**—**	**—**	**87**	**87**
Impairment charges	27	**—**	**(8)**	**(38)**	**—**	**(5)**	**—**	**(51)**
Others		**13**	**68**	**(23)**	**6**	**(75)**	**—**	**(11)**
Exchange differences		**(7)**	**(18)**	**(53)**	**(1)**	**(8)**	**(5)**	**(92)**
Closing net book amount		**181**	**583**	**1,459**	**44**	**329**	**171**	**2,767**
As at December 31, 2019								
Cost		**181**	**978**	**3,494**	**123**	**505**	**243**	**5,524**
Accumulated depreciation and impairment		**—**	**395**	**2,035**	**79**	**176**	**72**	**2,757**
Net book amount		**181**	**583**	**1,459**	**44**	**329**	**171**	**2,767**

Other property, plant and equipment include buildings and machinery and equipment in the process of construction or installation with a book value of $203 million (December 31, 2018 - $99 million) and deposits on purchases of machinery and equipment amounting to $2 million (December 31, 2018 - $34 million).

In 2019, $3 million (2018 - $3 million) of interest incurred on qualifying assets was capitalized. The weighted average capitalization rate on funds borrowed in 2019 was 5.56% (2018 - 5.52%).

NOTE 10
GOODWILL AND OTHER INTANGIBLE ASSETS WITH FINITE AND INDEFINITE USEFUL LIFE

(in millions of Canadian dollars)	NOTE	APPLICATION SOFTWARE AND ERP	CUSTOMER RELATIONSHIPS AND CLIENT LISTS	OTHER INTANGIBLE ASSETS WITH FINITE USEFUL LIFE	TOTAL INTANGIBLE ASSETS WITH FINITE USEFUL LIFE	GOODWILL	OTHER INTANGIBLE ASSETS WITH INDEFINITE USEFUL LIFE	TOTAL INTANGIBLE ASSETS WITH INDEFINITE USEFUL LIFE
As at January 1, 2018								
Cost		150	208	32	390	523	7	530
Accumulated amortization and impairment		56	92	30	178	2	—	2
Net book amount		94	116	2	212	521	7	528
Year ended December 31, 2018 (Adjusted, Note 5)								
Opening net book amount		94	116	2	212	521	7	528
Additions		12	—	—	12	—	—	—
Business combinations	5	2	7	—	9	7	1	8
Amortization		(16)	(13)	(3)	(32)	—	—	—
Others		—	—	3	3	—	(1)	(1)
Exchange differences		1	3	—	4	20	—	20
Closing net book amount		93	113	2	208	548	7	555
As at December 31, 2018 (Adjusted, Note 5)								
Cost		158	218	34	410	551	7	558
Accumulated amortization and impairment		65	105	32	202	3	—	3
Net book amount		93	113	2	208	548	7	555
Year ended December 31, 2019								
Opening net book amount		**93**	**113**	**2**	**208**	**548**	**7**	**555**
Additions		**8**	**—**	**2**	**10**	**—**	**—**	**—**
Impairment charges	27	**—**	**—**	**—**	**—**	**(14)**	**(1)**	**(15)**
Amortization		**(19)**	**(13)**	**(1)**	**(33)**	**—**	**—**	**—**
Exchange differences		**(1)**	**(2)**	**—**	**(3)**	**(13)**	**—**	**(13)**
Closing net book amount		**81**	**98**	**3**	**182**	**521**	**6**	**527**
As at December 31, 2019								
Cost		**165**	**216**	**36**	**417**	**538**	**7**	**545**
Accumulated amortization and impairment		**84**	**118**	**33**	**235**	**17**	**1**	**18**
Net book amount		**81**	**98**	**3**	**182**	**521**	**6**	**527**

NOTE 11
OTHER ASSETS

(in millions of Canadian dollars)	NOTE	2019	2018
			Adjusted, Note 5
Notes receivable from business disposals		**1**	3
Other investments		**4**	4
Other assets		**23**	21
Employee future benefits	18	**29**	16
		57	44
Less: Current portion, included in accounts receivables		**(2)**	(2)
		55	42

NOTE 12
TRADE AND OTHER PAYABLES

(in millions of Canadian dollars)	NOTE	2019	2018
			Adjusted, Note 5
Trade payables		**589**	565
Payables to related parties	30	**4**	4
Provisions for volume rebates		**66**	50
Accrued expenses		**129**	162
		788	781

Movements in the Corporation's provision for volume rebates are as follows:

(in millions of Canadian dollars)	NOTE	2019	2018
Balance at beginning of year		**50**	45
Provision for volume rebates, net of unused beginning balance		**120**	111
Business combinations	5	**1**	1
Volume rebates payments		**(103)**	(104)
Exchange differences		**(2)**	(3)
Balance at end of year		**66**	50

NOTE 13
LONG-TERM DEBT

(in millions of Canadian dollars)	NOTE	MATURITY	2019	2018
Revolving credit facility, weighted average interest rate of 3.78% as at December 31, 2019, consists of $108 million and US$11 million (December 31, 2018 - $4 million and US$60 million)	13(b)	2023	**123**	86
5.50% Unsecured senior notes of $250 million repurchased in 2019	13(a)	2021	**—**	250
5.50% Unsecured senior notes of US$400 million repurchased in 2019	13(a)	2022	**—**	545
5.75% Unsecured senior notes of US$200 million	13(a)	2023	**260**	273
5.125% Unsecured senior notes of $175 million	13(a)	2025	**175**	—
5.125% Unsecured senior notes of US$350 million	13(a)	2026	**455**	—
5.375% Unsecured senior notes of US$300 million	13(a)	2028	**390**	—
Term loan of US$175 million, interest rate of 3.90% as at December 31, 2019	13(d)	2025	**221**	239
Lease obligations of subsidiaries	13(c) and 14		**153**	93
Other debts of subsidiaries			**39**	36
Lease obligations without recourse to the Corporation	13(c) and 14		**35**	2
Other debts without recourse to the Corporation			**272**	362
			2,123	1,886
Less: Unamortized financing costs			**16**	10
Total long-term debt			**2,107**	1,876
Less:				
Current portion of debts of subsidiaries (including lease obligations of $28 million as at December 31, 2019)			**42**	22
Current portion of debts without recourse to the Corporation (including lease obligations of $11 million as at December 31, 2019)			**43**	33
			85	55
			2,022	1,821

a. On November 26, 2019 the Corporation issued $175 million aggregate principal amount of 5.125% due in 2025, US$350 million aggregate principal amount of 5.125% due in 2026 and US$300 million aggregate principal amount of 5.375% due in 2028, totaling $1,026 million, net of transaction fees of $13 million. The Corporation used the proceeds from this offering to fund the redemption of its US$400 million of its 5.50% unsecured senior notes due in 2022 for an amount of US$405 million ($533 million) and its $250 million of its 5.50% unsecured senior notes due in 2021 for an amount of $254 million, including premiums of US$5 million ($7 million) and $4 million. The Corporation also wrote off $3 million of unamortized financing costs related to these notes.

   Issuance proceeds were used as follows:

(in millions of Canadian dollars)	2019
Debt issuance	**1,039**
Offering fees	**(13)**
Repurchase of 2021 and 2022 Notes	**(776)**
Premium paid on refinanced debt	**(11)**
Decrease of credit facility	**239**

b. On May 31, 2019, the Corporation entered into an agreement with its lenders to extend and amend its existing $750 million revolving credit facility. The amendment extends the term of the facility to July 2023. The financial conditions remain unchanged.

c. The Corporation adopted IFRS 16 *Leases* on January 1, 2019. See Note 3 for more details.

d. On December 21, 2018, the Corporation secured a US$175 million seven-year variable interest term loan. The financial conditions and covenants of the Company's existing credit facility are unchanged, and no additional assets were required as security. The term loan, which can be repaid at any time, provides the Corporation with increased financial flexibility and reduces average financing costs. As such, the term loan proceeds have been used to repay certain of the Company's outstanding borrowings under its existing credit facility. Fees amounting to US$1 million ($1 million) were incurred to conclude the agreement.

e. As at December 31, 2019, accounts receivable and inventories totaling approximately $785 million (December 31, 2018 - $752 million) as well as property, plant and equipment totaling approximately $230 million (December 31, 2018 - $223 million) were pledged as collateral for the Corporation's revolving credit facility.

f. The Corporation has leases for various items of property, plant and equipment. Lease obligations are secured, as the rights to the leased asset revert to the lessor in the event of default. For more details on future payments, see Note 16.4 C.

NOTE 14
LEASES

a. The consolidated balance sheets include, in "Property, plant and equipment", the amounts hereunder as right-of-use assets relating to leases. 2018 amounts are IAS17 finance leases underlying assets which are now right-of-use assets under IFRS16 :

(in millions of Canadian dollars)	2019	2018 [1]
Buildings	109	61
Machinery and equipment	10	5
Automotive equipment	52	22
Net book amount	**171**	88

1 On January 1, 2019, the Corporation applied IFRS 16 Leases retrospectively with no restatement of comparative information. See Note 3 for more details.

Additions to the right-of-use assets during the 2019 financial year were $46 million.

b. The consolidated statements of earnings include the following amounts relating to leases:

(in millions of Canadian dollars)	2019	2018 [1]
Depreciation and amortization of right-of-use assets (included in "Cost of sales")		
Buildings	17	2
Machinery and equipment	2	—
Automotive equipment	23	8
Others	—	1
	42	11
Financing expense (included in "Financing expense")	9	4

1 On January 1, 2019, the Corporation applied IFRS 16 Leases retrospectively with no restatement of comparative information. See Note 3 for more details.

Expenses relating to short-term leases, low-value assets and variable lease payments not included in lease obligation amount to $3 million in 2019.

c. The total cash outflow for leases in 2019 was $51 million.

d. In determining the lease term, the Corporation use critical judgments considering all facts and circumstances. For more details, see Note 4.

e. Refer to Note 16.4 C for future contractual payments of lease obligations.

NOTE 15
PROVISIONS FOR CONTINGENCIES AND CHARGES

(in millions of Canadian dollars)	NOTE	ENVIRONMENTAL RESTORATION OBLIGATIONS	ENVIRONMENTAL COSTS	LEGAL CLAIMS	SEVERANCES	ONEROUS CONTRACT	OTHERS	TOTAL PROVISIONS
As at January 1, 2018		7	16	4	3	3	10	43
Additional provision		—	—	—	2	—	—	2
Payments		—	—	(1)	(3)	(2)	(2)	(8)
Revaluation		5	—	—	—	—	—	5
Business combinations and assets acquisition	5	5	—	—	—	—	1	6
As at December 31, 2018		17	16	3	2	1	9	48
Additional provision		**—**	**1**	**—**	**8**	**—**	**1**	**10**
Payments		**—**	**(1)**	**(1)**	**(5)**	**—**	**(2)**	**(9)**
Revaluation		**1**	**4**	**—**	**—**	**—**	**—**	**5**
Unwinding of discount		**1**	**—**	**—**	**—**	**—**	**—**	**1**
Other		**—**	**—**	**—**	**1**	**(1)**	**—**	**—**
Exchange differences		**(1)**	**—**	**—**	**—**	**—**	**—**	**(1)**
As at December 31, 2019		**18**	**20**	**2**	**6**	**—**	**8**	**54**

Analysis of total provisions:

(in millions of Canadian dollars)	**2019**	2018
Long-term	**49**	42
Current	**5**	6
	54	48

ENVIRONMENTAL RESTORATION
The Corporation uses some landfill sites. A provision has been recognized at fair value for the costs to be incurred for the restoration of these sites.

ENVIRONMENTAL COSTS
An environmental provision is recorded when the Corporation has an obligation caused by its ongoing or abandoned operations.

LEGAL CLAIMS
In the normal course of operations, the Corporation is party to various legal actions and contingencies, mostly related to contract disputes, environmental and product warranty claims, and labour issues. While the final outcome with respect to legal actions outstanding or pending as at December 31, 2019 cannot be predicted with certainty, it is Management's opinion that the outcome will not have a material adverse effect on the Corporation's consolidated financial position, the results of its operations or its cash flows.

The Corporation is currently working with representatives of the Ontario Ministry of the Environment (MOE) - Northern Region and Environment Canada - Great Lakes Sustainability Fund in Toronto regarding its potential responsibility for an environmental impact identified at its former Thunder Bay facility. Both authorities have requested that the Corporation look into a site management plan relating to the sediment quality adjacent to Thunder Bay's lagoon. Several meetings have been held during the past years with the MOE and Environment Canada and a management plan based on sediment dredging has been proposed by a third party consultant. Both governments are looking at this proposal with stakeholders to agree on this remediation action plan that would likely be implemented in the coming years.

The Corporation has recorded an environmental reserve to address its estimated exposure for these matters.

NOTE 16
FINANCIAL INSTRUMENTS

16.1 FAIR VALUE OF FINANCIAL INSTRUMENTS

The classification of financial instruments as at December 31, 2019 and 2018, along with the respective carrying amounts and fair values, is as follows:

		2019		2018	
(in millions of Canadian dollars)	NOTE	CARRYING AMOUNT	FAIR VALUE	CARRYING AMOUNT	FAIR VALUE
Financial assets at fair value through profit or loss					
Derivatives	16.4	**22**	**22**	23	23
Equity investments		**—**	**—**	1	1
Financial liabilities at fair value through profit or loss					
Derivatives	16.4	**(3)**	**(3)**	(12)	(12)
Financial liabilities at amortized cost					
Long-term debt		**(2,107)**	**(2,159)**	(1,876)	(1,871)
Derivatives designated as hedge					
Asset derivatives		**4**	**4**	7	7
Liability derivatives		**(10)**	**(10)**	(24)	(24)

16.2 DETERMINING THE FAIR VALUE OF FINANCIAL INSTRUMENTS

The fair value of a financial instrument is the amount of consideration that would be received upon the sale of an asset or paid to transfer a liability in an orderly transaction between market participants as at the measurement date.

(i) The fair value of cash and cash equivalents, accounts receivable, notes receivable, bank loans and advances, trade and other payables and provisions approximate their carrying amounts due to their relatively short maturities.
(ii) The fair value of investment in shares is based on observable market data and is quoted on the Toronto Stock Exchange and classified as level 1.
(iii) The fair value of long-term debt and some other liabilities is based on observable market data and on the calculation of discounted cash flows. Discount rates were determined based on local government bond yields adjusted for the risks specific to each of the borrowings and for the credit market liquidity conditions and are classified as levels 1 and 3.

16.3 HIERARCHY OF FINANCIAL ASSETS AND LIABILITIES MEASURED AT FAIR VALUE

The following table presents information about the Corporation's financial assets and financial liabilities measured at fair value on a recurring basis as at December 31, 2019 and 2018 and indicates the fair value hierarchy of the Corporation's valuation techniques to determine such fair value. Three levels of inputs that may be used to measure fair value are:

Level 1 - Quoted prices in active markets for identical assets or liabilities
Level 2 - Observable inputs other than quoted prices in active markets for identical assets and liabilities, quoted prices for identical or similar assets or liabilities in inactive markets, or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities
Level 3 - Inputs that are generally unobservable and typically reflect Management's estimates of assumptions that market participants would use in pricing the asset or liability.

				2019
(in millions of Canadian dollars)	CARRYING AMOUNT	QUOTED PRICES IN ACTIVE MARKETS FOR IDENTICAL ASSETS (LEVEL1)	SIGNIFICANT OBSERVABLE INPUTS (LEVEL 2)	SIGNIFICANT UNOBSERVABLE INPUTS (LEVEL 3)
Financial assets				
Derivative financial assets	**26**	**—**	**26**	**—**
	26	**—**	**26**	**—**
Financial liabilities				
Derivative financial liabilities	**(13)**	**—**	**(13)**	**—**
	(13)	**—**	**(13)**	**—**

(in millions of Canadian dollars)	CARRYING AMOUNT	QUOTED PRICES IN ACTIVE MARKETS FOR IDENTICAL ASSETS (LEVEL1)	SIGNIFICANT OBSERVABLE INPUTS (LEVEL 2)	SIGNIFICANT UNOBSERVABLE INPUTS (LEVEL 3)
				2018
Financial assets				
Equity investments	1	1	—	—
Derivative financial assets	30	—	30	—
	31	1	30	—
Financial liabilities				
Derivative financial liabilities	(36)	—	(36)	—
	(36)	—	(36)	—

16.4 FINANCIAL RISK MANAGEMENT

The Corporation's activities expose it to a variety of financial risks: market risk (including currency risk, fair value interest rate risk, cash flow interest rate risk and price risk), credit risk and liquidity risk. The Corporation's overall risk management program focuses on the unpredictability of the financial market and seeks to minimize potential adverse effects on the Corporation's financial performance. The Corporation uses derivative financial instruments to hedge certain risk exposures.

Risk management is carried out by a central treasury department and a management committee acting under policies approved by the Board of Directors. They identify, evaluate and hedge financial risks in close cooperation with the business units. The Board provides guidance for overall risk management, covering specific areas, such as foreign exchange risk, interest rate risk and credit risk, use of derivative financial instruments and non-derivative financial instruments, and investment of excess liquidity.

Summary

(in millions of Canadian dollars)		ASSETS			LIABILITIES		**2019**
RISK	NOTE	SHORT-TERM	LONG-TERM	TOTAL	SHORT-TERM	LONG-TERM	TOTAL
Currency risk	16.4 A) (i)	**5**	**—**	**5**	**(2)**	**(3)**	**(5)**
Price risk	16.4 A) (ii)	**4**	**16**	**20**	**(3)**	**(1)**	**(4)**
Interest risk	16.4 A) (iii)	**1**	**—**	**1**	**(2)**	**(1)**	**(3)**
Other risk	16.4 iv)	**—**	**—**	**—**	**(1)**	**—**	**(1)**
		10	**16**	**26**	**(8)**	**(5)**	**(13)**

(in millions of Canadian dollars)		ASSETS			LIABILITIES		2018
RISK	NOTE	SHORT-TERM	LONG-TERM	TOTAL	SHORT-TERM	LONG-TERM	TOTAL
Currency risk	16.4 A) (i)	6	—	6	(18)	(12)	(30)
Price risk	16.4 A) (ii)	4	19	23	(2)	—	(2)
Interest risk	16.4 A) (iii)	—	1	1	(1)	(2)	(3)
Other risk	16.4 iv)	—	—	—	(1)	—	(1)
		10	20	30	(22)	(14)	(36)

A. MARKET RISK

(i) Currency risk

The Corporation operates internationally and is exposed to foreign exchange risks arising from various currencies as a result of its export of goods produced in Canada, the United States, France, Italy, Spain and Germany. Foreign exchange risk arises from future commercial transactions, recognized assets and liabilities, and net investments in foreign operations. These risks are partially covered by purchases and debt.

The Corporation manages the foreign exchange exposure by entering into various foreign exchange forward contracts and currency option instruments related to anticipated sales, purchases, interest expense and repayment of long-term debt. Management has implemented a policy for managing foreign exchange risk against its functional currency. The Corporation's risk management policy is to hedge 25% to 90% of anticipated cash flows in each major foreign currency for the next twelve months and to hedge 0% to 75% for the subsequent twenty-four months. The Corporation may designate these foreign exchange forward contracts as a cash flow hedge of future anticipated sales, cost of sales, interest expense and repayment of long-term debt denominated in foreign currencies. Gains or losses from these derivative financial instruments designated as hedges are recorded in "Accumulated other comprehensive income" net of related income taxes and are reclassified to earnings as adjustments to sales, cost of sales, interest expense or foreign exchange loss (gain) on long-term debt in the period in which the respective hedged item affected earnings.

In 2019, approximately 20% of sales from Canadian operations were made to the United States and 14% of sales from European operations were made in countries whose currencies were other than the euro.

The following table summarizes the Corporation's commitments to buy and sell foreign currencies as at December 31, 2019 and 2018:

					2019
	EXCHANGE RATE	MATURITY		NOTIONAL AMOUNT (IN MILLIONS)	FAIR VALUE (IN MILLIONS OF CANADIAN DOLLARS)
Repayment of long-term debt and Net Investment Hedge					
Derivatives at fair value through profit or loss and classified in Foreign exchange loss (gain) on long-term debt:					
Currency option to buy € for CAN$	**1.4740**	**December 2020**	**€**	**4 to 49**	**1**
Currency option instruments to sell US$ for CAN$	**1.3290**	**July 2023**	**US$**	**29 to 129**	**—**
Cross-currency swap US$ for CAN$	**1.3290**	**July 2023**	**US$**	**102**	**(4)**
					(3)
Net investment hedge					
Cross-currency swap CAN$ for €	**1.4740**	**December 2020**	**€**	**145**	**3**
Forecasted sales and purchases					
Derivatives at fair value through profit or loss and classified in Loss on derivative financial instruments:					
Foreign exchange forward contracts to buy € for US$	**1.1215**	**0 to 12 months**	**€**	**—**	**—**
Currency option instruments to sell US$ for CAN$	**1.3257**	**0 to 12 months**	**US$**	**30 to 53**	**—**
Currency option instruments to buy € for US$	**1.0985**	**0 to 12 months**	**€**	**2 to 3**	**—**
Currency option instruments to sell US$ for CAN$	**1.3375**	**13 to 36 months**	**US$**	**5 to 10**	**—**
					—
					—

				2018
	EXCHANGE RATE	MATURITY	NOTIONAL AMOUNT (IN MILLIONS)	FAIR VALUE (IN MILLIONS OF CANADIAN DOLLARS)
Repayment of long-term debt				
Derivatives at fair value through profit or loss and classified in Foreign exchange loss (gain) on long-term debt:				
Currency option sold to sell US$ for CAN$	1.0225	January 2020	US$ 200	—
Currency option instruments to sell US$ for CAN$	1.3290	July 2023	US$ 21 to 132	(6)
Cross-currency swap US$ for CAN$	1.3290	July 2023	US$ 102	(2)
				(8)
Net investment hedge				
Cross-currency swap CAN$ for €	1.4824	December 2019	€ 145	(11)
Forecasted sales and purchases				
Derivatives at fair value through profit or loss and classified in Loss on derivative financial instruments:				
Foreign exchange forward contracts to sell US$ for CAN$	1.3087	0 to 12 months	US$ 15	(1)
Foreign exchange forward contracts to buy € for US$	1.1653	0 to 12 months	€ 2	—
Foreign exchange forward contracts to sell US$ for CAN$	1.3188	13 to 36 months	US$ 15	—
Currency option instruments to sell US$ for CAN$	1.3395	0 to 12 months	US$ 33 to 50	(1)
Currency option instruments to buy € for US$	1.0985	0 to 12 months	€ 7	—
Currency option instruments to sell US$ for CAN$	1.3269	13 to 36 months	US$ 33 to 68	(3)
				(5)
				(24)

The fair values of foreign exchange forward contracts and currency options are determined using the discounted value of the difference between the value of the contract at expiry, calculated using the contracted exchange rate and the exchange rate the financial institution would use if it renegotiated the same contract under the same conditions as at the consolidated balance sheet date. The discount rates are adjusted for the credit risk of the Corporation or of the counterparty, as applicable. When determining credit risk adjustments, the Corporation considers master netting agreements, if applicable.

In 2019, if the Canadian dollar had strengthened by $0.01 against the US dollar on average for the year with all other variables held constant, operating income before depreciation and amortization for the year would have been approximately $2 million lower. This is based on the net exposure of total US sales less US purchases of the Corporation's Canadian operations and operating income before depreciation and amortization of the Corporation's US operations, but excludes the effect of this change on the denominated working capital components. The interest expense would have remained relatively stable.

In 2019, if the Canadian dollar had strengthened by $0.02 against the euro with all other variables held constant, operating income before depreciation and amortization for the year would have been approximately $1 million lower following the translation of operating income of the Corporation's European operations.

CURRENCY RISK ON TRANSLATION OF SELF-SUSTAINING FOREIGN SUBSIDIARIES

The Corporation has certain investments in foreign operations whose net assets are exposed to foreign currency translation risk. The Corporation may designate part of its long-term debt denominated in foreign currencies as a hedge of the net investment in self-sustaining foreign subsidiaries. Gains or losses resulting from the translation to Canadian dollars of long-term debt denominated in foreign currencies and designated as net investment hedges are recorded in “Accumulated other comprehensive income”, net of related income taxes.

The table below shows the effect on consolidated equity of a 10% change in the value of the Canadian dollar against the US dollar and the euro as at December 31, 2019 and 2018. The calculation includes the effect of currency hedges of net investment in US foreign entities and assumes that no changes occurred other than a single currency exchange rate movement.

The exposures used in the calculations are the foreign currency-denominated equity and the hedging level as at December 31, 2019 and 2018, with the hedging instruments being the long-term debt denominated in US dollars.

Consolidated Shareholders' equity: Currency effect before tax of a 10% change:

(in millions of Canadian dollars)			2019			2018
	BEFORE HEDGES	HEDGES	NET IMPACT	BEFORE HEDGES	HEDGES	NET IMPACT
10% change in the CAN$/US$ rate	**71**	**71**	**—**	82	82	—
10% change in the CAN$/euro rate	**17**	**15**	**2**	19	17	2

(ii) Price risk

The Corporation is exposed to commodity price risk on old corrugated containers, commercial pulp, electricity and natural gas. The Corporation uses derivative commodity contracts to help manage its production costs. The Corporation may designate these derivatives as cash flow hedges of anticipated purchases of raw material and energy. Gains or losses from these derivative financial instruments designated as hedges are recorded in "Accumulated other comprehensive income" net of related income taxes and are reclassified to earnings as adjustments to "Cost of sales" in the same period, as the respective hedged item affects earnings.

The fair value of these contracts is as follows:

			2019
	QUANTITY	MATURITY	FAIR VALUE (IN MILLIONS OF CANADIAN DOLLARS)
Forecasted purchases			
Derivatives designated as held for trading and reclassified in "Cost of sales"			
Electricity	**39 420 MW**	**2020**	**—**
Derivatives designated as cash flow hedges and reclassified in "Cost of sales" (effective portion)			
Natural gas:			
US portfolio	**1 805 600 mmBtu**	**2020 to 2024**	**(2)**
			(2)

			2018
	QUANTITY	MATURITY	FAIR VALUE (IN MILLIONS OF CANADIAN DOLLARS)
Forecasted purchases			
Derivatives designated as held for trading and reclassified in "Cost of sales"			
Electricity	39,420 MW	2019	—
Derivatives designated as cash flow hedges and reclassified in "Cost of sales" (effective portion)			
Natural gas:			
Canadian portfolio	364,800 GJ	2019	—
US portfolio	1,217,640 mmBtu	2019 to 2023	(1)
			(1)

In 2013, the Corporation entered into an agreement to purchase steam. The agreement includes an embedded derivative and the fair value as at December 31, 2019 was an asset of $7 million (2018 - $8 million). Greenpac also has an agreement to purchase steam that includes an embedded derivative with a positive fair value of $13 million as at December 31, 2019 (2018 - $15 million).

The fair value of derivative financial instruments other than options is established utilizing a discounted future expected cash flows method. Future expected cash flows are determined by reference to the forward price or rate prevailing on the assessment date of the underlying financial index (exchange or interest rate or commodity price) according to the contractual terms of the instrument. Future expected cash flows are discounted at an interest rate reflecting both the maturity of each flow and the credit risk of the party to the contract for which it represents a liability (subject to the application of relevant credit support enhancements). The fair value of derivative financial instruments that represent options is established utilizing similar methods that reflect the impact of the potential volatility of the financial index underlying the option on future expected cash flows.

The table below shows the effect of changes in the price of old corrugated containers, natural gas and electricity as at December 31, 2019 and 2018. The calculation includes the effect of price hedges of these commodities and assumes that no changes occurred other than a single change in price.

The exposures used in the calculations are the commodity consumption and the hedging level as at December 31, 2019 and 2018, with the hedging instruments being derivative commodity contracts.

Consolidated commodity consumption: Price change effect before tax:

(in millions of Canadian dollars[1])	2019 BEFORE HEDGES	2019 HEDGES	2019 NET IMPACT	2018 BEFORE HEDGES	2018 HEDGES	2018 NET IMPACT
US$15/s.t. change in brown grades recycled paper price	**50**	**—**	**50**	49	—	49
US$30/s.t. change in commercial pulp price	**9**	**—**	**9**	10	—	10
US$1/mmBTU. change in natural gas price	**12**	**2**	**10**	12	2	10
US$1/MWh change in electricity price	**2**	**—**	**2**	2	—	2

1 Sensitivity calculated with an exchange rate of 1.30 CAN$/US$ for 2019 and 1.36 CAN$/US$ for 2018.

(iii) Interest rate risk

The Corporation has no significant interest-bearing assets.

The Corporation's interest rate risk arises from long-term borrowings. Borrowings issued at variable rates expose the Corporation to cash flow interest rate risk. Borrowings issued at fixed rates expose the Corporation to fair value interest rate risk.

When appropriate, the Corporation analyzes its interest rate risk exposure. Various scenarios are simulated taking into consideration refinancing, renewal of existing positions, alternative financing and hedging. Based on these scenarios, the Corporation calculates the impact on earnings of a defined interest rate shift. For each simulation, the same interest rate shift is used for all currencies. The scenarios are run only for liabilities that represent the major interest-bearing positions. As at December 31, 2019, approximately 15% (2018 - 28%) of the Corporation's long-term debt was at variable rates.

Based on the outstanding long-term debt as at December 31, 2019, the impact on interest expense of a 1% change in rate would be approximately $3 million (impact on net earnings is approximately $2 million).

The Corporation holds interest rate swaps through RDM and Greenpac. RDM swaps are contracted to fix the interest rate on a notional amount of €59 million and are maturing from 2020 to 2024. Greenpac swaps are contracted to fix the interest rate on a notional amount of US$66 million maturing in 2020. Some of these swaps have decreasing notional amount to match expected debt level. Fair value of these agreements is a liability of $3 million as at December 31, 2019 (December 31, 2018 - $2 million).

(iv) Loss (gain) on derivative financial instruments is as follows:

(in millions of Canadian dollars)	**2019**	2018
Unrealized loss (gain) on derivative financial instruments	**(2)**	9
Realized gain on derivative financial instruments	**—**	(1)
	(2)	8

B. CREDIT RISK

Credit risk arises from cash and cash equivalents, derivative financial instruments and deposits with banks and financial institutions. The Corporation reduces this risk by dealing with credit-worthy financial institutions.

The Corporation is exposed to credit risk on the accounts receivable from its customers. In order to reduce this risk, the Corporation's credit policies include the analysis of the financial position of its customers and the regular review of their credit limits. In addition, the Corporation believes there is no particular concentration of credit risk due to the geographic diversity of customers and the procedures for the management of commercial risks. Derivative financial instruments include an element of credit risk should the counterparty be unable to meet its obligations.

Trade receivables are recognized initially at fair value and are subsequently measured at amortized cost using the effective interest method, less loss allowance. An allowance for doubtful accounts of trade receivables is established when there is objective evidence that the Corporation will not be able to collect all amounts due according to the original terms of the receivables. Significant financial difficulties of the debtor, probability that the debtor will enter into bankruptcy or financial reorganization, and default or delinquency in payments are considered indicators that the trade receivable is impaired. Each trade receivable balance is evaluated separately to identify impairment. The amount of the allowance for doubtful accounts represents the estimated credit loss. The carrying amount of the asset is reduced through the use of an allowance account and the amount of the loss is recorded in the consolidated statement of earnings in “Selling and administrative expenses”. When a trade receivable is not collectible, it is written off against the loss allowance. Subsequent recoveries of amounts previously written off are credited against “Selling and administrative expenses” in the consolidated statement of earnings.

Loans and notes receivables from business disposals are recognized at fair value. There is no past due amount as at December 31, 2019.

C. LIQUIDITY RISK

Liquidity risk is the risk that the Corporation will not be able to meet its obligations as they fall due. The following are the contractual maturities of financial liabilities as at December 31, 2019 and 2018:

						2019
(in millions of Canadian dollars)	CARRYING AMOUNT	CONTRACTUAL CASH FLOWS	LESS THAN ONE YEAR	BETWEEN ONE AND TWO YEARS	BETWEEN TWO AND FIVE YEARS	MORE THAN FIVE YEARS
Non-derivative financial liabilities:						
Bank loans and advances	**11**	**11**	**11**	**—**	**—**	**—**
Trade and other payables	**788**	**788**	**788**	**—**	**—**	**—**
Revolving credit facility	**123**	**139**	**5**	**5**	**129**	**—**
Term loan	**221**	**279**	**15**	**15**	**46**	**203**
Unsecured senior notes	**1,280**	**1,739**	**68**	**68**	**449**	**1,154**
Lease obligations of subsidiaries	**153**	**207**	**36**	**31**	**56**	**84**
Other debts of subsidiaries	**39**	**40**	**8**	**8**	**22**	**2**
Lease obligations without recourse to the Corporation	**35**	**37**	**12**	**10**	**9**	**6**
Other debts without recourse to the Corporation	**272**	**275**	**32**	**187**	**55**	**1**
Derivative financial liabilities	**13**	**13**	**8**	**2**	**3**	**—**
	2,935	**3,528**	**983**	**326**	**769**	**1,450**

						2018
						Adjusted, Note 5
(in millions of Canadian dollars)	CARRYING AMOUNT	CONTRACTUAL CASH FLOWS	LESS THAN ONE YEAR	BETWEEN ONE AND TWO YEARS	BETWEEN TWO AND FIVE YEARS	MORE THAN FIVE YEARS
Non-derivative financial liabilities:						
Bank loans and advances	16	16	16	—	—	—
Trade and other payables	781	781	781	—	—	—
Revolving credit facility	86	100	4	4	92	—
Term loan	239	305	18	18	55	214
Unsecured senior notes	1,068	1,244	59	60	1,125	—
Lease obligations of subsidiaries	93	143	15	12	27	89
Other debts of subsidiaries	36	43	6	8	22	7
Lease obligations without recourse to the Corporation	2	2	1	1	—	—
Other debts without recourse to the Corporation	362	363	37	34	273	19
Derivative financial liabilities	36	36	22	4	10	—
	2,719	3,033	959	141	1,604	329

As at December 31, 2019, the Corporation had unused credit facilities of $729 million (December 31, 2018 - $766 million), net of outstanding letters of credit of $27 million (December 31, 2018 - $23 million).

D. OTHER RISK

FACTORING OF ACCOUNTS RECEIVABLE

The Corporation sells its accounts receivable from one of its European subsidiaries through a factoring contract with a financial institution. The Corporation uses factoring of accounts receivable as a source of financing by reducing its working capital requirements. When the accounts receivable are sold, the Corporation removes them from the balance sheet, recognizes the amount received as the consideration for the transfer and records a loss on factoring, which is included in “Financing expense”. As at December 31, 2019, the off-balance sheet impact of the factoring of accounts receivable amounted to $42 million (€29 million). The Corporation expects to continue to sell accounts receivable on an ongoing basis. Should it decide to discontinue this contract, its working capital and bank debt requirements would increase.

STOCK-BASED COMPENSATION

In 2019, the Corporation entered into an agreement to hedge the share price volatility related to its Deferred Share Units and Performance Share Unit plans. As at December 31, 2019, the agreement's notional amount was 566,000 shares at a price of $12.44 (December 31, 2018 - notional amount : 566,000, shares price: $12.15). The fair value as at December 31, 2019 was a liability of $1 million (December 31, 2018 - liability: $1 million).

NOTE 17
OTHER LIABILITIES

(in millions of Canadian dollars)	NOTE	2019	2018
Employee future benefits	18	179	170
Greenpac equity holder put option		—	76
Consideration payable for the purchase of the CDPQ participation in Greenpac	8	120	—
Other		28	35
		327	281
Less: Current portion		(129)	(79)
		198	202

In 2019, the balance on the line "other" includes an amount of $3 million pertaining to a call option granted by the Corporation to one of the minority shareholder of Falcon Packaging LLC.

NOTE 18
EMPLOYEE FUTURE BENEFITS

The Corporation operates various post-employment plans, including both defined benefit and defined contribution pension plans and post-employment benefit plans, such as retirement allowance, group life insurance and medical and dental plans. The table below outlines where the Corporation's post-employment amounts and activity are included in the consolidated financial statements.

(in millions of Canadian dollars)	NOTE	2019	2018
Consolidated balance sheet obligations for			
Defined pension benefits	18(a)	47	55
Post-employment benefits other than defined benefit pension plans	18(b)	103	99
Net long-term liabilities on consolidated balance sheet		150	154
Expenses recorded in consolidated statement of earnings for			
Defined pension benefits		7	8
Defined contribution benefits		24	22
Post-employment benefits other than defined benefit pension plans		6	6
		37	36
Consolidated other comprehensive income remeasurements for			
Defined pension benefits	18(a)	(5)	19
Post-employment benefits other than defined benefit pension plans	18(b)	8	(3)
		3	16

A. DEFINED BENEFIT PENSION PLANS

The Corporation offers funded and unfunded defined benefit pension plans, defined contribution pension plans and group RRSPs that provide retirement benefit payments for most of its employees. The defined benefit pension plans are usually contributory and are based on the number of years of service and, in most cases, the average salaries or compensation at the end of a career. Retirement benefits are not partially adjusted based on inflation.

The majority of benefit payments are payable from trustee administered funds; however, for the unfunded plans, the Corporation meets the benefit payment obligation as it falls due. Plan assets held in trusts are governed by local regulations and practices in each country. Responsibility for governance of the plans - overseeing all aspects of the plans, including investment decisions and contribution schedules - lies with the Corporation. The Corporation has established Investment Committees to assist in the management of the plans and has also appointed experienced, independent professional experts such as investments managers, investment consultants, actuaries and custodians.

The movement in the net defined benefit obligation and fair value of plan assets of defined benefit pension plans over the year is as follows:

(in millions of Canadian dollars)	PRESENT VALUE OF OBLIGATION	FAIR VALUE OF PLAN ASSETS	TOTAL	IMPACT OF MINIMUM FUNDING REQUIREMENT (ASSET CEILING)	TOTAL
As at January 1, 2018	508	(472)	36	—	36
Current service cost	6	—	6	—	6
Interest expense (income)	16	(14)	2	—	2
Impact on consolidated profit or loss	22	(14)	8	—	8
Remeasurements					
Return on plan assets, excluding amounts included in interest expense	—	20	20	—	20
Gain from change in financial assumptions	(22)	—	(22)	—	(22)
Experience loss	1	—	1	—	1
Change in asset ceiling, excluding amounts included in interest expense	—	—	—	20	20
Impact of remeasurements on consolidated other comprehensive income (loss)	(21)	20	(1)	20	19
Exchange differences	1	(1)	—	—	—
Contributions					
Employers	—	(8)	(8)	—	(8)
Plan participants	1	(1)	—	—	—
Benefit payments	(31)	31	—	—	—
As at December 31, 2018	480	(445)	35	20	55
Current service cost	**5**	**—**	**5**	**—**	**5**
Interest expense (income)	**17**	**(16)**	**1**	**1**	**2**
Impact on consolidated profit or loss	**22**	**(16)**	**6**	**1**	**7**
Remeasurements					
Return on plan assets, excluding amounts included in interest income	**—**	**(35)**	**(35)**	**—**	**(35)**
Loss from change in financial assumptions	**42**	**—**	**42**	**—**	**42**
Experience loss	**1**	**—**	**1**	**—**	**1**
Change in asset ceiling, excluding amounts included in interest expense	**—**	**—**	**—**	**(13)**	**(13)**
Impact of remeasurements on consolidated other comprehensive income (loss)	**43**	**(35)**	**8**	**(13)**	**(5)**
Exchange differences	**(2)**	**—**	**(2)**	**—**	**(2)**
Contributions					
Employers	**—**	**(8)**	**(8)**	**—**	**(8)**
Plan participants	**1**	**(1)**	**—**	**—**	**—**
Benefit payments	**(31)**	**31**	**—**	**—**	**—**
As at December 31, 2019	**513**	**(474)**	**39**	**8**	**47**

The defined benefit obligation and plan assets are composed by country as follows:

				2019
(in millions of Canadian dollars)	CANADA	UNITED STATES	EUROPE	TOTAL
Present value of funded obligations	**435**	**10**	**—**	**445**
Fair value of plan assets	**466**	**7**	**—**	**473**
Deficit (surplus) of funded plans	**(31)**	**3**	**—**	**(28)**
Impact of minimum funding requirement (asset ceiling)	**8**	**—**	**—**	**8**
Present value of unfunded obligations	**36**	**—**	**31**	**67**
Liabilities on consolidated balance sheet	**13**	**3**	**31**	**47**

				2018
(in millions of Canadian dollars)	CANADA	UNITED STATES	EUROPE	TOTAL
Present value of funded obligations	408	9	—	417
Fair value of plan assets	438	7	—	445
Deficit (surplus) of funded plans	(30)	2	—	(28)
Impact of minimum funding requirement (asset ceiling)	20	—	—	20
Present value of unfunded obligations	35	—	28	63
Liabilities on consolidated balance sheet	25	2	28	55

The significant actuarial assumptions are as follows:

			2019			2018
	CANADA	UNITED STATES	EUROPE	CANADA	UNITED STATES	EUROPE
Discount rate obligation (ending period)	**3.10%**	**2.90%**	**0.90%**	3.80%	3.90%	1.90%
Discount rate obligation (beginning period)	**3.80%**	**3.90%**	**1.90%**	3.40%	3.30%	1.60%
Discount rate (current service cost)	**3.20%**	**2.90%**	**0.90%**	3.90%	3.90%	1.90%
Salary growth rate	**Between 2.25% and 2.75%**	**N/A**	**N/A**	Between 2.00% and 2.75%	N/A	N/A
Inflation rate	**2.25%**	**N/A**	**1.75%**	2.25%	N/A	1.75%

Assumptions regarding future mortality are set based on actuarial advice in accordance with published statistics and experience in each territory. For Canadian pension plans, which represent 92% of all pension plans, these assumptions translate into an average life expectancy in years for a pensioner retiring at age 65:

	2019	2018
Retiring at the end of the reporting period		
Male	**21.8**	21.8
Female	**24.2**	24.2
Retiring 20 years after the end of the reporting period		
Male	**22.9**	22.8
Female	**25.2**	25.1

The sensitivity of the Canadian defined benefit obligation to changes in assumptions is set out below. The effects on each plan of a change in an assumption are weighted proportionately to the total plan obligations to determine the total impact for each assumption presented.

			IMPACT ON DEFINED BENEFIT OBLIGATION
	CHANGE IN ASSUMPTION	INCREASE IN ASSUMPTION	DECREASE IN ASSUMPTION
Discount rate	**0.25%**	**(3.00)%**	**3.10 %**
Salary growth rate	**0.25%**	**0.40 %**	**(0.30)%**

	INCREASE / DECREASE BY ONE YEAR IN ASSUMPTION
Life expectancy	**3.00%**

Plan assets, which are funding the Corporation's defined pension plans, are comprised as follows:

(in millions of Canadian dollars)	LEVEL 1	LEVEL 2	LEVEL 3	TOTAL	2019 %
Cash and short-term investments	**4**	**—**	**—**	**4**	**0.8%**
Bonds					
Canadian bonds	**84**	**51**	**—**	**135**	**28.5%**
Shares					
Canadian shares	**28**	**—**	**—**	**28**	
Foreign shares	**5**	**—**	**—**	**5**	
	33	**—**	**—**	**33**	**7.0%**
Mutual funds					
Money market funds	**—**	**1**	**—**	**1**	
Foreign bond mutual funds	**—**	**7**	**—**	**7**	
Canadian equity mutual funds	**7**	**1**	**—**	**8**	
Foreign equity mutual funds	**—**	**42**	**—**	**42**	
Alternative investments funds	**—**	**25**	**—**	**25**	
	7	**76**	**—**	**83**	**17.5%**
Other					
Insured annuities	**—**	**219**	**—**	**219**	
	—	**219**	**—**	**219**	**46.2%**
	128	**346**	**—**	**474**	

(in millions of Canadian dollars)	LEVEL 1	LEVEL 2	LEVEL 3	TOTAL	2018 %
Cash and short-term investments	5	—	—	5	1.1%
Bonds					
Canadian bonds	70	52	—	122	27.4%
Shares					
Canadian shares	24	—	—	24	
Foreign shares	4	—	—	4	
	28	—	—	28	6.3%
Mutual funds					
Foreign bond mutual funds	—	6	—	6	
Canadian equity mutual funds	5	1	—	6	
Foreign equity mutual funds	—	35	—	35	
Alternative investments funds	—	24	—	24	
	5	66	—	71	16.0%
Other					
Insured annuities	—	219	—	219	
	—	219	—	219	49.2%
	108	337	—	445	

The plan assets include shares of the Corporation for an amount of less than $1 million. These shares were bought by one of the asset managers. Annual benefit annuities of an approximate value of $219 million are pledged by insurance contracts.

B. POST-EMPLOYMENT BENEFITS OTHER THAN DEFINED BENEFIT PENSION PLANS

The Corporation also offers its employees some post-employment benefit plans, such as retirement allowance, group life insurance and medical and dental plans. However, these benefits, other than pension plans, are not funded. Furthermore, the medical and dental plans upon retirement are being phased out and are no longer offered to the majority of new retirees and the retirement allowance is not offered to the majority of employees hired after 2002.

The amounts recognized in the consolidated balance sheet composed by country are determined as follows:

				2019
(in millions of Canadian dollars)	CANADA	UNITED STATES	EUROPE	TOTAL
Present value of unfunded obligations	**77**	**4**	**22**	**103**
Liabilities on consolidated balance sheet	**77**	**4**	**22**	**103**

				2018
(in millions of Canadian dollars)	CANADA	UNITED STATES	EUROPE	TOTAL
Present value of unfunded obligations	71	4	24	99
Liabilities on consolidated balance sheet	71	4	24	99

The movement in the net defined benefit obligation for post-employment benefits over the year is as follows:

(in millions of Canadian dollars)	PRESENT VALUE OF OBLIGATION	FAIR VALUE OF PLAN ASSET	TOTAL
As at January 1, 2018	101	—	101
Current service cost	2	—	2
Interest expense	3	—	3
Business acquisitions, disposals and closures	1	—	1
Impact on consolidated profit or loss	6	—	6
Remeasurements			
Gain from change in financial assumptions	(4)	—	(4)
Experience loss	1	—	1
Impact of remeasurements on consolidated other comprehensive income (loss)	(3)	—	(3)
Exchange differences	1	—	1
Benefit payments	(6)	—	(6)
As at December 31, 2018	99	—	99
Current service cost	**2**	**—**	**2**
Interest expense	**3**	**—**	**3**
Plan changes	**1**	**—**	**1**
Impact on consolidated profit or loss	**6**	**—**	**6**
Remeasurements			
Loss from change in financial assumptions	**6**	**—**	**6**
Experience loss	**2**	**—**	**2**
Impact of remeasurements on consolidated other comprehensive income (loss)	**8**	**—**	**8**
Exchange differences	**(2)**	**—**	**(2)**
Benefit payments	**(8)**	**—**	**(8)**
As at December 31, 2019	**103**	**—**	**103**

The method of accounting, assumptions relating to discount rate and life expectancy, and the frequency of valuations for post-employment benefits are similar to those used for defined benefit pension plans, with the addition of actuarial assumptions relating to the long-term increase in health care costs of 4.89% a year on average (2018 - 4.50%).

The sensitivity of the defined benefit obligation to changes in assumptions is set out below. The effects on each plan of a change in an assumption are weighted proportionately to the total plan obligations to determine the total impact for each assumption presented.

		IMPACT ON OBLIGATION FOR POST-EMPLOYMENT BENEFITS	
	CHANGE IN ASSUMPTION	INCREASE IN ASSUMPTION	DECREASE IN ASSUMPTION
Discount rate	**0.25%**	**(2.20)%**	**2.50 %**
Salary growth rate	**0.25%**	**0.60 %**	**0.60 %**
Health care cost increase	**1.00%**	**2.00 %**	**(1.70)%**

	INCREASE / DECREASE BY ONE YEAR IN ASSUMPTION
Life expectancy	**0.80%**

C. RISKS AND OTHER CONSIDERATIONS RELATIVE TO POST-EMPLOYMENT BENEFITS

Through its defined benefit plans, the Corporation is exposed to a number of risks, the most significant of which are detailed below.

Asset volatility

The plan liabilities are calculated using a discount rate set with reference to corporate bond yields and if plan assets underperform this yield, it will create an experience loss. Most of pension plans hold a proportion of equities, which are expected to outperform corporate bonds in the long term while contributing volatility and risk in the short term.

The Corporation intends to reduce the level of investment risk by investing more in assets that better match the liabilities when the financial situation of the plans improves and/or the rate of return on bonds used for solvency valuations increases.

As at December 31, 2019, 66% of the plan's invested assets are in bonds. As at December 31, 2019, the total value of insured annuities is $219 million.

However, the Corporation believes that due to the long-term nature of the plan liabilities and the strength of the supporting group, a level of continuing equity investment is an appropriate element of the Corporation’s long-term strategy to manage the plans efficiently. Plan assets are diversified, so the failure of an individual stock would not have a big impact on the plan assets taken as a whole. The pension plans do not face a significant currency risk.

Changes in bond yields

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, particularly for plans in a good financial position that have a greater proportion of bonds.

Inflation risk

The benefits paid are not indexed. Only future benefits for active members are based on salaries. Therefore, this risk is not significant.

Life expectancy

The majority of the plans’ obligations are to provide benefits for the member's lifetime, so increases in life expectancy will result in an increase in the plans’ liabilities.

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

As at December 31, 2019, the aggregate net surplus of the Corporation’s funded pension plans (mostly in Canada) amounted to $28 million (a surplus of $28 million as at December 31, 2018). Current agreed expected service contributions amount to $4 million and will be made in the normal course of business. As for the cash flow requirement, these pension plans are expected to require a net contribution of approximately $4 million in 2020.

The weighted average duration of the defined benefit obligation is 11 years (2018 - 12 years).

Expected maturity analysis of undiscounted pension and other post-employment benefits:

(in millions of Canadian dollars)	ONE YEAR	TWO YEARS	BETWEEN THREE AND FIVE YEARS	BETWEEN SIX AND TEN YEARS	TOTAL
Pension benefits	**32**	**33**	**97**	**675**	**837**
Post-employment benefits other than defined benefit pension plans	**6**	**6**	**21**	**84**	**117**
As at December 31, 2019	**38**	**39**	**118**	**759**	**954**

These amounts represent all the benefits payable to current members during the following years and thereafter without limitations. The majority of benefit payments are payable from trustee administered funds. The difference will come from future investment returns expected on plan assets and future contributions that will be made by the Corporation for services rendered after December 31, 2019.

NOTE 19
INCOME TAXES

a. The provision for income taxes is as follows:

(in millions of Canadian dollars)	**2019**	2018
		Adjusted, Note 5
Current taxes	**21**	22
Deferred taxes	**(2)**	26
	19	48

b. The provision for income taxes based on the effective income tax rate differs from the provision for income taxes based on the combined basic rate for the following reasons:

(in millions of Canadian dollars)	**2019**	2018
		Adjusted, Note 5
Provision for income taxes based on the combined basic Canadian and provincial income tax rate	**31**	37
Adjustment for income taxes arising from the following:		
Difference in statutory income tax rate of foreign operations	**(2)**	(1)
Prior years reassessment	**3**	2
Reversal of deferred tax assets on tax losses	**—**	3
Permanent differences	**(3)**	(1)
Change in deferred income tax assets relating to capital tax losses	**(11)**	8
Change in temporary differences	**3**	—
Other	**(2)**	—
	(12)	11
Provision for income taxes	**19**	48

Weighted average income tax rate for the year ended December 31, 2019 was 25.5% (2018 - 25.8%).

c. The provision for (recovery of) income taxes relating to components of consolidated other comprehensive income is as follows:

(in millions of Canadian dollars)	**2019**	2018
Foreign currency translation related to hedging activities	**(1)**	(4)
Cash flow hedge	**—**	2
Actuarial loss on post-employment benefit obligations	**(1)**	(4)
Recovery of income taxes	**(2)**	(6)

d. The analysis of deferred tax assets and deferred tax liabilities, without taking into consideration the offsetting of balances within the same tax jurisdiction, is as follows:

(in millions of Canadian dollars)	**2019**	2018
Deferred income tax assets:		
Deferred income tax assets to be recovered after more than twelve months	**312**	228
Deferred income tax liabilities:		
Deferred income tax liabilities to be used after more than twelve months	**356**	295
	(44)	(67)
Deferred income tax assets	**153**	134
Deferred income tax liabilities	**197**	201
Net deferred income tax on consolidated balance sheet	**(44)**	(67)

The movement of the deferred income tax account is as follows:

(in millions of Canadian dollars)	NOTE	**2019**	2018
			Adjusted, Note 5
Balance at beginning of year		**(67)**	(37)
Through consolidated statement of earnings		**2**	(27)
Variance of income tax credit, net of related income tax		**11**	5
Through consolidated statement of comprehensive income		**2**	6
Through business combinations	5	**(7)**	(5)
Acquisition of non controlling interest		**8**	—
IFRS 16 adjustment	3	**3**	—
Others		**(2)**	—
Exchange differences		**6**	(9)
Balance at end of year		**(44)**	(67)

The movement in deferred income tax assets and liabilities during the year, without taking into consideration the offsetting of balances within the same tax jurisdiction, is as follows:

DEFERRED INCOME TAX ASSET

(in millions of Canadian dollars)	NOTE	RECOGNIZED TAX BENEFIT ARISING FROM INCOME TAX LOSSES	EMPLOYEE FUTURE BENEFITS	EXPENSE ON RESEARCH	UNUSED TAX CREDITS	FINANCIAL INSTRUMENTS AND OTHER LIABILITIES	FOREIGN EXCHANGE LOSS ON LONG-TERM DEBT	LONG TERM DEBT FINANCE LEASES	OTHERS	TOTAL
As at January 1, 2018		134	21	5	39	1	2	—	21	223
Through consolidated statement of earnings		(29)	2	—	(2)	3	(6)	—	26	(6)
Variance of income tax credit		—	—	—	5	—	—	—	—	5
Through consolidated statement of comprehensive income		—	4	—	—	(2)	4	—	—	6
As at December 31, 2018		105	27	5	42	2	—	—	47	228
Through consolidated statement of earnings		**27**	**1**	**5**	**(1)**	**7**	**—**	**28**	**(2)**	**65**
Variance of income tax credit		**—**	**—**	**—**	**11**	**—**	**—**	**—**	**—**	**11**
Through consolidated statement of comprehensive income		**—**	**(1)**	**—**	**—**	**—**	**—**	**5**	**—**	**4**
Through business combinations	5	**—**	**—**	**—**	**—**	**—**	**—**	**(6)**	**—**	**(6)**
Acquisition of non-controlling interest		**—**	**—**	**—**	**—**	**(1)**	**—**	**9**	**—**	**8**
IFRS 16 adjustment	3	**—**	**—**	**—**	**—**	**—**	**—**	**3**		**3**
Others		**—**	**—**	**—**	**—**	**—**	**—**	**(1)**	**—**	**(1)**
As at December 31, 2019		**132**	**27**	**10**	**52**	**8**	**—**	**38**	**45**	**312**

DEFERRED INCOME TAX LIABILITIES

(in millions of Canadian dollars)	NOTE	PROPERTY, PLANT AND EQUIPMENT	FOREIGN EXCHANGE LOSS ON LONG-TERM DEBT	INTANGIBLE ASSETS	INVESTMENTS	OTHERS	TOTAL
As at January 1, 2018		205	—	51	3	1	260
Through consolidated statement of earnings		1	2	5	13	—	21
Through business combinations	5	5	—	—	—	—	5
Exchange differences		9	—	—	—	—	9
As at December 31, 2018		220	2	56	16	1	295
Through consolidated statement of earnings		**71**	**(2)**	**(7)**	**1**	**—**	**63**
Through consolidated statement of comprehensive income		**—**	**2**	**—**	**—**	**—**	**2**
Through business combinations	5	**1**	**—**	**—**	**—**	**—**	**1**
Others		**—**		**—**	**—**	**1**	**1**
Exchange differences		**(6)**	**—**	**—**	**—**	**—**	**(6)**
As at December 31, 2019		**286**	**2**	**49**	**17**	**2**	**356**

When taking into consideration the offsetting of balances within the same tax jurisdiction, the net deferred tax liability of $44 million is presented on the consolidated balance sheet as $153 million of "Deferred income tax asset" amounts and $197 million of "Deferred income tax liabilities".

e. The Corporation has recognized accumulated losses for income tax purposes amounting to approximately $477 million, which may be carried forward to reduce taxable income in future years. The future tax benefit of $132 million resulting from the deferral of these losses has been recognized in the accounts as a deferred income tax asset. Deferred income tax assets are recognized for tax loss carry forward to the extent that the realization of the related tax benefits through future taxable profits is probable.

NOTE 20
CAPITAL STOCK

A. CAPITAL MANAGEMENT

Capital is defined as long-term debt, bank loans and advances net of cash and cash equivalents and Shareholders' equity, which includes capital stock.

(in millions of Canadian dollars)	**2019**	2018
		Adjusted, Note 5
Cash and cash equivalents	**(155)**	(123)
Bank loans and advances	**11**	16
Long-term debt, including current portion	**2,107**	1,876
	1,963	1,769
Total equity	**1,666**	1,686
Total capital	**3,629**	3,455

The Corporation's objectives when managing capital are:

- to safeguard the Corporation's ability to continue as a going concern in order to provide returns to Shareholders;
- to maintain an optimal capital structure and reduce the cost of capital;
- to make proper capital investments that are significant to ensure that the Corporation remains competitive; and
- to redeem common shares based on an annual redemption program.

The Corporation sets the amount of capital in proportion to risk. The Corporation manages its capital structure and makes adjustments to it in light of changes in economic conditions and the risk characteristics of the underlying assets. In order to maintain or adjust the capital structure, the Corporation may adjust the amount of dividends paid to Shareholders, return capital to Shareholders, issue new shares and acquire or sell assets to improve its financial performance and flexibility.

The Corporation monitors capital on a monthly and quarterly basis based on different financial ratios and non-financial performance indicators. Also, the Corporation must conform to certain financial ratios under its various credit agreements. These ratios are calculated on an adjusted consolidated basis of restricted subsidiaries only. These are a maximum ratio of funded debt to capitalization of 65% and a minimum interest coverage ratio of 2.25x. The Corporation must also comply with a consolidated interest coverage ratio to incur additional debt. Funded debt is defined as liabilities as per the consolidated balance sheet, including guarantees and liens granted in respect of funded debt of another person but excluding other long-term liabilities, trade accounts payable, obligations under operating leases and other accrued obligations (2019 - $1,782 million; 2018 - $1,549 million). The capitalization ratio is calculated as "Shareholders' equity" as shown in the consolidated balance sheet plus the funded debt. Shareholders' equity is adjusted to add back the effect of IFRS adjustments as at December 31, 2010 in the amount of $208 million. The interest coverage ratio is defined as operating income before depreciation and amortization (OIBD) to financing expense. The OIBD is defined as net earnings of the last four quarters plus financing expense, income taxes, amortization and depreciation, expense for stock options and dividends received from a person who is not a credit party (2019 - $398 million; 2018 - $321 million). Excluded from net earnings are the share of results of equity investments and gains or losses from non-recurring items. Financing expense is calculated as interest and financial charges determined in accordance with IFRS plus any capitalized interest, but excluding the amortization of deferred financing costs, up-front and financing costs and unrealized gains or losses arising from hedging agreements. It also excludes any gains or losses on the translation of long-term debt denominated in a foreign currency. The consolidated interest coverage ratio to incur additional debt is calculated as defined in the Senior notes indentures dated May 19, 2015 and November 26, 2019.

As at December 31, 2019, the funded debt-to-capitalization ratio stood at 51.21% and the interest coverage ratio was 4.45x. The Corporation is in compliance with the ratio requirements of its lenders.

The Corporation's credit facility is subject to terms and conditions for loans of this nature, including limits on incurring additional indebtedness and granting liens or selling assets without the consent of the lenders.

The unsecured senior notes are subject to customary covenants restricting the Corporation's ability to, among other things, incur additional debt, pay dividends and make other restricted payments as defined in the Indentures dated May 19, 2015 and November 26, 2019.

The Corporation historically invests between $150 million and $250 million annually on purchases of property, plant and equipment, excluding major strategic projects. These amounts are carefully reviewed during the course of the year in relation to operating results and strategic actions approved by the Board of Directors. These investments, combined with annual maintenance, enhance the stability of the Corporation's business units and improve cost competitiveness through new technology and improved process procedures.

The Corporation has an annual share redemption program in place to redeem its outstanding common shares when the market price is judged appropriate by Management. In addition to limitations on the normal course issuer bid, the Corporation's ability to redeem common shares is limited by its senior notes indenture.

B. ISSUED AND OUTSTANDING

The authorized capital stock of the Corporation consists of an unlimited number of common shares without nominal value and an unlimited number of Class A and B shares issuable in series without nominal value. Over the past two years, the common shares have fluctuated as follows:

		2019		2018	
	NOTE	NUMBER OF COMMON SHARES	IN MILLIONS OF CANADIAN DOLLARS	NUMBER OF COMMON SHARES	IN MILLIONS OF CANADIAN DOLLARS
Balance at beginning of year		**94,163,515**	**490**	94,987,958	492
Common shares issued on exercise of stock options	20(d)	**1,048,434**	**6**	714,937	6
Redemption of common shares	20(c)	**(966,654)**	**(5)**	(1,539,380)	(8)
Balance at end of year		**94,245,295**	**491**	94,163,515	490

C. REDEMPTION OF COMMON SHARES

In 2019, in the normal course of business, the Corporation renewed its redemption program of a maximum of 1,878,456 common shares with the Toronto Stock Exchange, said shares representing approximately 2% of issued and outstanding common shares. The redemption authorization is valid from March 19, 2019 to March 18, 2020. In 2019, the Corporation redeemed 966,654 common shares under this program for an amount of $9 million (2018 - $20 million for 1,539,380 common shares).

D. COMMON SHARE ISSUANCE

The Corporation issued 1,048,434 common shares upon the exercise of options for an amount of $5 million (2018 - $5 million for 714,937 common shares issued).

E. NET EARNINGS PER COMMON SHARE

The basic and diluted net earnings per common share are calculated as follows:

	2019	2018
		Adjusted, Note 5
Net earnings available to common shareholders (in millions of Canadian dollars)	**69**	57
Weighted average number of basic common shares outstanding (in millions)	**94**	95
Weighted average number of diluted common shares outstanding (in millions)	**96**	97
Basic net earnings per common share (in Canadian dollars)	**$ 0.74**	$ 0.60
Diluted net earnings per common share (in Canadian dollars)	**$ 0.73**	$ 0.56

As at December 31, 2019, 543,676 stock options have an antidilutive effect (2018 - 400,691). As of February 26, 2020, no common share had been redeemed by the Corporation since the beginning of the 2020 financial year.

F. DETAILS OF DIVIDENDS DECLARED PER COMMON SHARE ARE AS FOLLOWS:

	2019	2018
Dividends declared per common share (in Canadian dollars)	**$ 0.24**	$ 0.16

NOTE 21
STOCK-BASED COMPENSATION

a. Under the terms of a share option plan adopted on December 15, 1998, amended on March 15, 2013, and approved by Shareholders on May 8, 2013, a remaining balance of 1,741,007 common shares is specifically reserved for issuance to officers and key employees of the Corporation. Each option will expire at a date not to exceed 10 years following the grant date of the option. The exercise price of an option shall not be lower than the market value of the share at the date of grant, determined as the average of the closing price of the share on the Toronto Stock Exchange on the five trading days preceding the date of grant. The terms for exercising the options are 25% of the number of shares under option within twelve months after the first anniversary date of grant, and up to an additional 25% every twelve months after the second, third and fourth anniversaries of grant date. Options cannot be exercised if the market value of the share at exercise date is lower than the book value at the date of grant. Options exercised are settled in shares. The stock-based compensation cost related to these options amounted to $1 million in 2019 (2018 - $1 million).

Changes in the number of options outstanding as at December 31, 2019 and 2018 are as follows:

	2019		2018	
	NUMBER OF OPTIONS	WEIGHTED AVERAGE EXERCISE PRICE ($)	NUMBER OF OPTIONS	WEIGHTED AVERAGE EXERCISE PRICE ($)
Balance at beginning of year	**4,409,358**	**6.45**	4,990,120	6.35
Granted	**200,354**	**11.97**	175,749	12.39
Exercised	**(1,048,434)**	**4.43**	(714,937)	7.00
Forfeited	**(84,982)**	**11.96**	(41,574)	10.79
Balance at end of year	**3,476,296**	**7.24**	4,409,358	6.45
Options vested - at end of year	**3,005,435**	**6.46**	3,807,511	5.66

The weighted average share price at the time of exercise of the options was $11.25 (2018 - $12.89).

The following options were outstanding as at December 31, 2019:

	OPTIONS OUTSTANDING		OPTIONS EXERCISABLE		
YEAR GRANTED	NUMBER OF OPTIONS	WEIGHTED AVERAGE EXERCISE PRICE ($)	NUMBER OF OPTIONS	WEIGHTED AVERAGE EXERCISE PRICE ($)	EXPIRATION DATE
2010	**346,795**	**6.43**	**346,795**	**6.43**	**2020**
2011	**415,563**	**6.26**	**415,563**	**6.26**	**2020 - 2021**
2012	**715,098**	**4.46**	**715,098**	**4.46**	**2020 - 2022**
2013	**407,818**	**5.18**	**407,818**	**5.18**	**2020 - 2023**
2014	**401,835**	**6.10**	**401,835**	**6.10**	**2020 - 2024**
2015	**356,091**	**7.66**	**356,091**	**7.66**	**2020 - 2025**
2016	**289,420**	**9.75**	**222,387**	**9.75**	**2020 - 2026**
2017	**199,652**	**14.28**	**102,245**	**14.28**	**2021 - 2027**
2018	**150,459**	**12.39**	**37,603**	**12.39**	**2028**
2019	**193,565**	**11.97**	**—**	**—**	**2029**
	3,476,296		**3,005,435**		

FAIR VALUE OF THE SHARE OPTIONS GRANTED

Options were priced using the Black-Scholes option pricing model. Expected volatility is based on the historical share price volatility over the past six years. The following weighted average assumptions were used to estimate the fair value of $3.17 (2018 - $3.91) as at the date of grant of each option issued to employees:

	2019	2018
Grant date share price	**$ 12.03**	$ 12.57
Exercise price	**$ 11.97**	$ 12.39
Risk-free interest rate	**1.5%**	2.3%
Expected dividend yield	**2.66%**	1.27%
Expected life of options	**6 years**	6 years
Expected volatility	**35%**	32%

b. The Corporation offers its Canadian employees a share purchase plan for its common shares. Employees can voluntarily contribute up to a maximum of 5% of their salary and, if certain conditions are met, the Corporation will contribute 25% of the employee's contribution to the plan.

The shares are purchased on the market on a predetermined date each month. For the year ended December 31, 2019, the Corporation's contribution to the plan amounted to $1 million (2018 - $1 million).

c. The Corporation has a Performance Share Unit (PSU) Plan for the benefit of officers and key employees, allowing them to receive a portion of their annual compensation in the form of PSUs. A PSU is a notional unit equivalent in value to the Corporation's common share. Periodically, the number of PSUs forming part of the award shall be adjusted depending upon the three-year average return on capital employed of the Corporation (ROCE). Such adjusted number shall be obtained by multiplying the number of PSUs forming part of the award by the applicable multiplier based on the ROCE level. Participants are entitled to receive the payment of their PSUs in the form of cash based on the average price of the Corporation's common shares as traded on the open market during the five days before the vesting date.

The PSUs vest over a period of two years starting on the award date. The expense and the related liability are recorded during the vesting period. The liability is adjusted periodically to reflect any variation in the market value of the common shares, the expected average ROCE and the passage of time. As at December 31, 2019, the Corporation had a total of 573,372 PSUs outstanding (2018 - 520,070 PSUs), for a fair value of less than $1 million (2018 - less than $1 million). In 2019, the Corporation made no payments in relation to PSUs (2018 - $2 million).

d. The Corporation has a Deferred Share Unit Plan for the benefit of its external directors, officers and key employees, allowing them to receive all or a portion of their annual compensation in the form of Deferred Share Units (DSUs). A DSU is a notional unit equivalent in value to the Corporation's common share. Upon resignation from the Board of Directors, participants are entitled to receive the payment of their cumulated DSUs in the form of cash based on the average price of the Corporation's common shares as traded on the open market during the five days before the date of the participant's resignation.

The DSU expense and the related liability are recorded at the grant date. The liability is adjusted periodically to reflect any variation in the market value of the common shares. As at December 31, 2019, the Corporation had a total of 607,193 DSUs outstanding (2018 - 409,757 DSUs), representing a liability of $9 million (2018 - $6 million). On January 15, 2020, the Corporation issued 78,777 DSUs.

NOTE 22
ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)

(in millions of Canadian dollars)	TRANSLATION ADJUSTMENTS	NET CHANGES IN CASH FLOW HEDGES	TOTAL
Year ended December 31, 2018			
Opening net book amount	(30)	(3)	(33)
Other comprehensive income	32	3	35
Closing net book amount	2	—	2
Year ended December 31, 2019			
Other comprehensive loss	**(17)**	**(2)**	**(19)**
Closing net book amount	**(15)**	**(2)**	**(17)**

NOTE 23
REVENUE

Information by geographic segment is as follows:

									SALES	
	Canada		United States		Italy		Other countries		Total	
(in millions of Canadian dollars)	**2019**	2018	**2019**	2018	**2019**	2018	**2019**	2018	**2019**	2018
Packaging Products										
Containerboard	**1,079**	1,118	**746**	720	**—**	—	**2**	2	**1,827**	1,840
Boxboard Europe	**—**	—	**—**	—	**309**	313	**739**	620	**1,048**	933
Specialty Products	**136**	125	**304**	164	**2**	2	**50**	67	**492**	358
Intersegment sales	**(13)**	(12)	**(1)**	(2)	**—**	—	**—**	—	**(14)**	(14)
	1,202	1,231	**1,049**	882	**311**	315	**791**	689	**3,353**	3,117
Tissue Papers	**257**	372	**1,242**	980	**—**	—	**10**	—	**1,509**	1,352
Intersegment sales and Corporate Activities	**129**	163	**5**	17	**—**	—	**—**	—	**134**	180
	1,588	1,766	**2,296**	1,879	**311**	315	**801**	689	**4,996**	4,649

NOTE 24
COST OF SALES BY NATURE

(in millions of Canadian dollars)	**2019**	2018
Raw materials	**1,682**	1,713
Wages and employee benefits expenses	**812**	754
Energy	**327**	302
Delivery	**525**	487
Depreciation and amortization	**289**	244
Other	**597**	497
	4,232	3,997

SELLING AND ADMINISTRATIVE EXPENSES BY NATURE

(in millions of Canadian dollars)	**2019**	2018
Wages and employee benefits expenses	**332**	314
Information technology	**34**	29
Publicity and marketing	**15**	17
Other	**72**	50
	453	410

NOTE 25
EMPLOYEE BENEFITS EXPENSES

(in millions of Canadian dollars)	NOTE	2019	2018
Wages and employee benefits expenses	24	**1,144**	1,068
Share options granted to directors and employees	21(a)	**1**	1
Pension costs - defined benefit plans	18	**7**	8
Pension costs - defined contribution plans	18	**24**	22
Post-employment benefits other than defined benefit pension plans	18	**6**	6
		1,182	1,105

KEY MANAGEMENT COMPENSATION

Key management includes the members of the Board of Directors, Presidents and Vice Presidents of the Corporation. The compensation paid or payable to key management for their services is shown below:

(in millions of Canadian dollars)	2019	2018
Salaries and other short-term benefits	**11**	9
Post-employment benefits	**1**	1
Share-based payments	**5**	4
	17	14

NOTE 26
GAIN ON ACQUISITIONS, DISPOSALS AND OTHERS

2019

		PACKAGING PRODUCTS						
(in millions of Canadian dollars)	NOTE	CONTAINER-BOARD	BOXBOARD EUROPE	SPECIALTY PRODUCTS	SUB-TOTAL	TISSUE PAPERS	CORPORATE ACTIVITIES	TOTAL
Loss (gain) on business acquisition and disposal	5	**—**	**—**	**1**	**1**	**(22)**	**9**	**(12)**
Additional liabilities and (gain) on liabilities settlement		**(10)**	**—**	**—**	**(10)**	**—**	**(1)**	**(11)**
Loss on disposal of assets		**2**	**—**	**—**	**2**	**—**	**—**	**2**
		(8)	**—**	**1**	**(7)**	**(22)**	**8**	**(21)**

2018

Adjusted, Note 5

		PACKAGING PRODUCTS						
(in millions of Canadian dollars)	NOTE	CONTAINER-BOARD	BOXBOARD EUROPE	SPECIALTY PRODUCTS	SUB-TOTAL	TISSUE PAPERS	CORPORATE ACTIVITIES	TOTAL
Gain on business acquisition	5	—	(2)	—	(2)	—	—	(2)
Gain on disposal of assets		(67)	—	—	(67)	—	—	(67)
		(67)	(2)	—	(69)	—	—	(69)

2019

The lease on our Bear Island facility in Virginia was terminated by the lessee. As such, the Containerboard segment recorded a gain of $10 million following the reversal of liabilities related to lease incentives to the lessee and to accrued carrying costs. In the wake of the lease termination, the Containerboard segment recorded a loss of $4 million following the sale of newsprint equipments no longer needed.

The Containerboard packaging segment recorded a gain of $2 million from the sale of a building and piece of land of a closed plant.

The Specialty Products segment concluded the sale of its France plant, which converts cardboard into packaging for the paper industry, and recorded a loss of $1 million. See Note 5 for more details.

The Tissue Papers segment recorded a gain of $22 million following the acquisition Orchids Paper Products Company activities. The Corporate Activities incurred $9 million in fees as part of the Orchids acquisition. See Note 5 for more details.

An environmental provision of $4 million related to a plant sold and for which the Corporation retained environmental responsibility was recorded by the Corporate Activities.

The Corporate Activities recorded a gain of $5 million on the settlement of litigation in compensation for a flooding that occurred years ago at our fine paper mill in St-Jérôme, Québec, which has since been sold.

2018
The Boxboard Europe segment generated a gain of $2 million on the business combination of Barcelona Cartonboard S.A.U.. See Note 5 for more details.

The Containerboard segment completed the sale of the building and land of its plant located in Maspeth, New York, USA for US$69 million ($86 million) net of transaction fees of US$3 million ($4 million). An amount of US$4 million ($5 million) was put in escrow and will be released to the Corporation in the third quarter of 2020 if certain conditions are met. Since the conditions are not under the Corporation's control, the gain on this amount is deferred until the conditions are met. The transaction resulted in a gain of $66 million, net of asset retirement obligation costs of $2 million. In the wake of the sale of the plant, the Containerboard segment also sold equipments for US$2 million ($2 million) which generated a gain of $1 million.

NOTE 27
IMPAIRMENT CHARGES AND RESTRUCTURING COSTS (GAINS)

IMPAIRMENT CHARGES ON PROPERTY, PLANT AND EQUIPMENT, INTANGIBLE ASSETS WITH FINITE USEFUL LIFE AND OTHER ASSETS

The Corporation recorded impairment charges totaling $69 million in 2019 and $75 million in 2018. The recoverable amount of CGUs was determined using a fair value less cost of disposal sell model based on the income approach, unless otherwise indicated. Level 2 inputs are used to measure fair value. Impairments are detailed as follows:

							2019
	PACKAGING PRODUCTS						
(in millions of Canadian dollars)	CONTAINER-BOARD	BOXBOARD EUROPE	SPECIALTY PRODUCTS	SUB-TOTAL	TISSUE PAPERS	CORPORATE ACTIVITIES	TOTAL
Property, plant and equipment	**5**	**13**	**—**	**18**	**33**	**—**	**51**
Spare parts	**—**	**—**	**1**	**1**	**2**	**—**	**3**
Goodwill and other intangible assets with indefinite useful life	**—**	**1**	**—**	**1**	**—**	**14**	**15**
	5	**14**	**1**	**20**	**35**	**14**	**69**

							2018
	PACKAGING PRODUCTS						
(in millions of Canadian dollars)	CONTAINER-BOARD	BOXBOARD EUROPE	SPECIALTY PRODUCTS	SUB-TOTAL	TISSUE PAPERS	CORPORATE ACTIVITIES	TOTAL
Property, plant and equipment	—	—	—	—	74	—	74
Intangible assets with finite useful life and other assets	—	—	—	—	1	—	1
	—	—	—	—	75	—	75

2019
As a result of the lease termination on our Bear Island facility, described in Note 26, the Containerboard segment recorded an impairment charge of $5 million on some assets that will not be used in the future.

The Boxboard Europe segment recorded an impairment charge of $13 million on the assets of its La Rochette mill, as their recoverable amount was lower than their carrying amount. Sustained production inefficiencies led to insufficient profitability to support the carrying value of the assets. Recoverable amount of the assets was based on their fair value less cost of disposal. The segment also recorded an impairment charge of $1 million on intangible assets.

The Specialty Products segment incurred an impairment charge of $1 million on spare parts stemming from the closure of its Trois-Rivières, Québec, plant manufacturing felt backing for flooring.

The Tissue Papers segment recorded an impairment charge of $5 million on unused assets following the reassessment of its recoverable amount based on estimated selling price.

The recoverable value of some equipment and spare parts of the Arizona and Waterford converting facilities, schedule to close in the first quarter of 2020, has been reviewed by the Tissue Papers segment triggering an impairment charge of $7 million.

The Tissue Papers segment recorded impairment charges totaling $23 million on the assets of two CGUs, as their recoverable amount was lower than their carrying amount. Sustained production inefficiencies led to insufficient profitability to support the carrying value of the assets. Recoverable amount of the assets was based on their fair value less cost of disposal.

2018

The Tissue Papers segment recorded an impairment charges totaling $75 million on the assets of four CGUs, as their recoverable amount was lower than their carrying amount. Sustained production inefficiencies led to insufficient profitability to support the carrying value of the assets. Recoverable amount of the assets was based on their fair value less cost of disposal.

GOODWILL AND OTHER INDEFINITE USEFUL LIFE INTANGIBLE ASSETS

Allocation of goodwill and other indefinite useful life intangible assets is as follows:

- Containerboard Packaging segment goodwill of $477 million is allocated to the Containerboard segment;
- Specialty Products segment goodwill is allocated to the partitioning activities sub-segment for $3 million;
- Tissue Papers segment goodwill of $36 million is allocated to the Tissue Papers segment;
- Boxboard Europe segment goodwill of $6 million is allocated to the segment;
- Boxboard Europe segment water rights of $5 million are allocated to the segment.

Annually, the Corporation must test all of its goodwill for impairment, except if the following three conditions are met:

- the assets and liabilities making up the unit have not changed significantly since the most recent recoverable amount calculation;
- the most recent recoverable amount calculation resulted in an amount that exceeded the carrying amount of the unit by a substantial margin; and
- based on an analysis of events that have occurred and circumstances that have changed since the most recent recoverable amount calculation, the likelihood that a current recoverable amount determination would be less than the current carrying amount of the unit is remote.

All three conditions were met for the Containerboard Packaging segment.

The Corporation tested its Tissue Papers segment goodwill for impairment. As a result of this impairment test, the Corporation concluded that the recoverable amount of the segment was in excess of $192 million over its carrying amount, thus no impairment charge was necessary. With all other variables held constant, a decrease in terminal OIBD margin of 2% would reduce the excess of $192 million to nil.

The Corporation applied the income approach in determining fair value less cost of disposal and used the following key assumptions (level 2 inputs):

	TISSUE PAPERS
Discounting rate	**10.5%**
Terminal exchange rate (CA$/US$)	**$ 1.23**
Terminal OIBD margin	**9.8%**

The Corporate Activities recorded an impairment charge of $14 million on the goodwill and intangible assets of its recovery and recycling activities. The recoverable amount was established based on the fair market value of the property, plant and equipment.

RESTRUCTURING COSTS (GAINS)

Restructuring costs (gains) are detailed as follows:

(in millions of Canadian dollars)	**2019**	2018
Containerboard	**1**	4
Specialty Products	**1**	(2)
Tissue Papers	**7**	—
	9	2

2019

The Containerboard segment recorded $1 million of severances costs relating to changes in some plants management team.

The Specialty Products segment recorded $1 million of restructuring costs stemming from the closure of its Trois-Rivières, Québec, plant manufacturing felt backing for flooring.

The Tissue Papers segment recorded a $5 million of restructuring costs related to the closure of two tissue paper machines in Ontario and changes in the segment's senior management. As well, restructuring costs of $2 million related to the forthcoming closure of the Arizona and Waterford converting facilities were recorded.

2018

The Containerboard Packaging segment ceased activities at its Maspeth plant. A withdrawal liability from the multi-employer pension plan of $2 million was recorded following the departure of the last employees. As well, costs totaling $1 million were incurred to remit the building to the new owner.

The Containerboard Packaging segment incurred a $1 million charge related to severances for the closure in December 2018 of two sheets plants in Ontario.

The Specialty Products segment recorded a gain of $2 million from the dismantling of a building of a plant closed in the previous years.

NOTE 28
ADDITIONAL INFORMATION

A. CHANGES IN NON-CASH WORKING CAPITAL COMPONENTS ARE DETAILED AS FOLLOWS:

(in millions of Canadian dollars)	2019	2018
Accounts receivable	81	46
Current income tax assets	(3)	(9)
Inventories	3	(26)
Trade and other payables	(24)	(5)
Current income tax liabilities	2	6
	59	12

B. FINANCING EXPENSE AND INTEREST EXPENSE ON EMPLOYEE FUTURE BENEFITS

(in millions of Canadian dollars)	NOTE	2019	2018
Interest on long-term debt (including lease obligations interests)	14(b)	91	77
Interest income		(1)	—
Amortization of financing costs		4	3
Other interest and banking fees		7	4
Interest expense on employee future benefits and other liabilities		42	15
		143	99

C. TOTAL NET DEBT FROM FINANCING ACTIVITIES

(in millions of Canadian dollars)	NOTE	CASH AND CASH EQUIVALENT	BANK LOANS AND ADVANCES	LONG-TERM DEBT	NET DEBT
As at January 1, 2018		(89)	35	1,576	1,522
Cash flow					
Change in cash and cash equivalents		(28)	—	—	(28)
Bank loans and advances		—	(22)	—	(22)
Change in credit facilities		—	—	(126)	(126)
Increase in term loan		—	—	235	235
Increase in other long-term debt		—	—	66	66
Payments of other long-term debt		—	—	(81)	(81)
Non-cash changes					
Business combinations	5	—	2	25	27
Foreign exchange loss on long-term debt and financial instruments		—	—	65	65
Capital lease acquisitions and included in other debts and liabilities		—	—	70	70
Amortization of financing costs		—	—	2	2
Exchange differences		(6)	1	44	39
As at December 31, 2018		(123)	16	1,876	1,769
Cash flow					
Change in cash and cash equivalents		**(41)**	**—**	**—**	**(41)**
Bank loans and advances		**—**	**(5)**	**—**	**(5)**
Change in credit facilities		**—**	**—**	**39**	**39**
Issuance of unsecured senior notes, net of related expenses	13	**—**	**—**	**1,026**	**1,026**
Repurchase of unsecured senior notes	13	**—**	**—**	**(776)**	**(776)**
Increase in other long-term debt		**—**	**—**	**6**	**6**
Payments of other long-term debt		**—**	**—**	**(125)**	**(125)**
Non-cash changes					
IFRS 16 adjustment	3	**—**	**—**	**99**	**99**
Business disposal	5	**—**	**—**	**(6)**	**(6)**
Foreign exchange loss on long-term debt and financial instruments		**—**	**—**	**(43)**	**(43)**
Right-of-use assets and included in other debts and liabilities		**—**	**—**	**50**	**50**
Amortization of financing costs		**—**	**—**	**4**	**4**
Write off of unamortized financing costs following repurchase of unsecured senior notes		**—**	**—**	**3**	**3**
Other		**—**	**—**	**2**	**2**
Exchange differences		**9**	**—**	**(48)**	**(39)**
As at December 31, 2019		**(155)**	**11**	**2,107**	**1,963**

NOTE 29
COMMITMENTS

Capital expenditures, intangible assets and service agreements contracted at the end of the reporting period but not yet incurred are presented in the following table. Year ended December 31, 2018 includes operating lease agreements for various properties, vehicles, equipment and others that are capitalized under IFRS 16 for year ended December 31, 2019.

			2019			2018
(in millions of Canadian dollars)	PROPERTY, PLANT AND EQUIPMENT	INTANGIBLE ASSETS	SERVICE AGREEMENTS AND EXEMPTED LEASES	PROPERTY, PLANT AND EQUIPMENT	INTANGIBLE ASSETS	OPERATING LEASE
No later than one year	**48**	**9**	**4**	84	8	35
Later than one year but no later than five years	**—**	**3**	**6**	8	6	74
More than five years	**—**	**—**	**2**	—	—	12
	48	**12**	**12**	92	14	121

NOTE 30
RELATED PARTY TRANSACTIONS

The Corporation entered into the following transactions with related parties:

(in millions of Canadian dollars)	JOINT VENTURES	ASSOCIATES
For the year ended December 31, 2019		
Sales to related parties	**176**	**72**
Purchases from related parties	**32**	**55**
For the year ended December 31, 2018		
Sales to related parties	245	77
Purchases from related parties	32	50

These transactions occurred in the normal course of operations and are measured at fair value.

The following balances were outstanding at the end of the reporting period:

(in millions of Canadian dollars)	**December 31, 2019**	December 31, 2018
Receivables from related parties		
Joint ventures	**8**	12
Associates	**19**	22
Payables to related parties		
Joint ventures	**3**	2
Associates	**1**	2

The receivables from related parties arise mainly from sale transactions. The receivables are unsecured in nature and bear no interest. There are no provision held against receivables from related parties. The payables to related parties arise mainly from purchase transactions. The payables bear no interest.

Board of Directors

Cascades' Board of Directors (BoD) and management believe that quality corporate governance helps ensure that the Corporation is run efficiently and that investor confidence is maintained. In order to stay the course in this regard, Cascades regularly reviews its governance practices to remain in compliance with applicable legislation and to improve efficiency.

The composition of the Board of Directors must be carefully determined since its responsibilities include ensuring good corporate governance, among other things. Cascades draws on the expertise of a highly experienced team of directors and recognizes the importance of independent directors. As of December 31, 2019, eleven of the fifteen Board members were independent. They meet at least once yearly without the presence of non-independent directors or senior managers. New Board members are also offered an orientation and training program, to familiarize themselves with Cascades' activities as well as the issues and challenges it faces.

1 Alain Lemaire
Executive Chairman of the Board
Kingsey Falls, Québec Canada
Director since 1967
Non-independent

2 Louis Garneau
President
Louis Garneau Sports Inc., Saint-Augustin-de-Desmaures, Québec Canada
Director since 1996
Independent

3 Sylvie Lemaire
Director of companies
Otterburn Park, Québec Canada
Director since 1999
Non-independent

4 Georges Kobrynsky
Director of companies
Outremont, Québec Canada
Director since 2010
Independent

5 Élise Pelletier
Director
Sutton, Québec Canada
Director since 2011
Independent

6 Sylvie Vachon
President and Chief Executive Officer, Montréal Port Authority
Longueuil, Québec Canada
Director since 2013
Independent

7 Laurence Sellyn
Business Advisor and Consultant, Corporate Director
Pointe-Claire, Québec Canada
Director since 2013
Independent

8 Mario Plourde
President and Chief Executive Officer, Cascades Inc.
Kingsey Falls, Québec Canada
Director since 2014
Non-independent

9 Michelle Cormier
Operating Partner, Wynnchurch Capital Canada
Montréal, Québec Canada
Director since 2016
Independent

10 Martin Couture
President and Chief Executive Officer, Sanimax Inc. (Canada)
Montréal, Québec Canada
Director since 2016
Independent

11 Patrick Lemaire
President and Chief Executive Officer, Boralex Inc.
Kingsey Falls, Québec Canada
Director since 2016
Non-independent

12 Hubert T. Lacroix
Strategic Counsel, Blake, Cassels & Graydon LLP
Westmount, Québec Canada
Director since 2019
Independent

13 Mélanie Dunn
President and CEO, Cossette
Montréal, Québec Canada
Director since 2019
Independent

14 Nelson Gentiletti
Chief Operating and Chief Financial Officer, Loop Industries Inc.
Kirkland, Québec Canada
Director since 2019
Independent

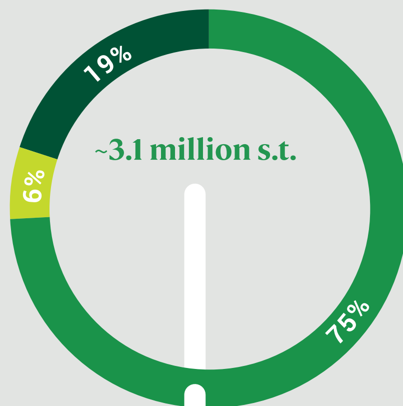
15 Elif Lévesque
Business Consultant
Montréal, Québec Canada
Director since 2019
Independent

HISTORICAL FINANCIAL INFORMATION - 10 YEARS

For the years ended December 31, (in millions of Canadian dollars, except per common share amounts and ratios) (unaudited) Financial information is not adjusted to reclassify the impact of discontinued operations, if any, and IFRS for year ended 2010.	IFRS **2019**	IFRS 2018
Highlights - Consolidated Results		
Sales	**4,996**	4,649
Cost of sales and expenses	**4,392**	4,160
Adjusted operating income before depreciation and amortization (OIBD adjusted)	**604**	489
Depreciation and amortization	**289**	244
Adjusted operating income	**315**	245
Financing expense and interest expense on employee future benefits	**143**	99
Foreign exchange loss (gain) on long-term debt and financial instruments	**(6)**	4
Specific items	**71**	12
	107	130
Provision for (recovery of) income taxes	**19**	48
Share of results of associates and joint ventures	**(9)**	(11)
Net earnings (loss) attributable to non-controlling interests	**28**	36
Net earnings (loss)	**69**	57
Net earnings (loss) per common share	**$ 0.74**	$ 0.60
Highlights - Consolidated Cash Flow		
Cash flow generated by operating activities	**460**	373
Cash flow from operations	**401**	361
per common share	**$ 4.27**	$ 3.82
Payments for property, plant and equipment net of proceeds from disposals	**231**	253
Business combinations and cash from a joint venture	**(311)**	(100)
Proceed from business disposals	**9**	—
Net change in long-term debt	**170**	94
Dividends on common shares	**23**	15
per common share	**$ 0.24**	$ 0.16
Dividend yield	**2.1%**	1.6%
Highlights - Consolidated Balance Sheet (As at December 31)		
Current assets less current liabilities	**357**	421
Property, plant & equipment	**2,767**	2,505
Total assets	**5,180**	4,948
Total long-term debt	**2,107**	1,876
Non-controlling interests	**177**	180
Shareholders' equity	**1,489**	1,506
per common share	**$ 15.81**	$ 15.99
Stock Market Highlights		
Shares issued and outstanding (in millions)	**94.2**	94.2
Trading volume (in millions)	**47.1**	54.9
Market capitalization	**1,056**	963
Closing price	**$ 11.21**	$ 10.23
High	**$ 13.33**	$ 16.55
Low	**$ 7.84**	$ 9.54
Key Financial Ratios		
Net earnings (loss)/sales	**1.4%**	1.2%
Sales/total assets	**1.0x**	0.9x
Total assets/average Shareholders' equity	**3.5x**	3.3x
Return on Shareholder's equity	**4.6%**	3.9%
Return on total assets (OIBD/average total assets)	**11.9%**	10.4%
OIBD/sales	**12.1%**	10.5%
OIBD/interest	**4.2x**	4.9x
Current assets less current liabilities/sales	**7.1%**	9.1%
Net debt/OIBD	**3.3x**	3.6x
Total debt/total debt + Shareholders' equity	**58.7%**	55.7%
Price to earnings	**15.1x**	17.1x
Price to book value	**0.7x**	0.6x

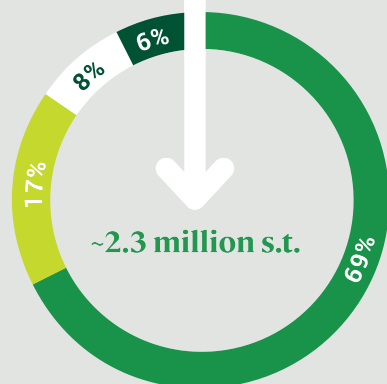
IFRS	IFRS	IFRS	IFRS	IFRS	IFRS	IFRS	
2017	2016	2015	2014	2013	2012	2011	2010
4,321	4,001	3,885	3,953	3,849	3,645	3,760	3,959
3,928	3,598	3,462	3,595	3,497	3,341	3,517	3,561
393	403	423	358	352	304	243	398
215	192	190	183	182	199	186	212
178	211	233	175	170	105	57	186
97	93	97	108	115	115	100	112
(23)	(22)	91	30	(2)	(8)	(4)	4
(298)	(10)	99	191	28	33	(148)	65
402	150	(54)	(154)	29	(35)	109	5
(81)	45	39	(11)	12	(4)	27	—
(39)	(32)	(37)	—	3	(2)	(14)	(15)
15	2	9	4	3	(7)	(3)	3
507	135	(65)	(147)	11	(22)	99	17
$ 5.35	$ 1.42	$ (0.69)	$ (1.57)	$ 0.11	$ (0.23)	$ 1.03	$ 0.18
173	372	270	250	232	199	115	228
260	316	307	251	226	154	121	246
$ 2.75	$ 3.34	$ 3.25	$ 2.67	$ 2.41	$ 1.64	$ 1.26	$ 2.54
178	177	156	172	136	141	110	131
9	16	—	—	—	14	60	3
—	—	(40)	(36)	—	—	(292)	—
179	153	100	88	(30)	(54)	143	30
15	15	15	15	15	15	15	16
$ 0.16	$ 0.16	$ 0.16	$ 0.16	$ 0.16	$ 0.16	$ 0.16	$ 0.16
1.2%	1.3%	1.3 %	2.3 %	2.3%	3.9 %	3.6%	2.4%
356	299	398	308	414	295	400	479
2,117	1,635	1,625	1,592	1,684	1,659	1,703	1,777
4,427	3,813	3,848	3,673	3,831	3,694	3,728	3,724
1,576	1,566	1,744	1,596	1,579	1,475	1,407	1,395
146	90	96	110	113	116	136	24
1,455	984	867	893	1,081	978	1,029	1,257
$ 15.32	$ 10.41	$ 9.10	$ 9.48	$ 11.52	$ 10.42	$ 10.87	$ 13.01
95.0	94.5	95.3	94.2	93.9	93.9	94.6	96.6
57.5	43.5	39.7	45.0	25.2	20.2	33.8	57.7
1,294	1,144	1,211	661	646	385	419	647
$ 13.62	$ 12.10	$ 12.71	$ 7.02	$ 6.88	$ 4.10	$ 4.43	$ 6.70
$ 18.20	$ 13.67	$ 13.00	$ 7.60	$ 6.92	$ 5.18	$ 7.75	$ 9.80
$ 11.43	$ 7.72	$ 6.49	$ 5.64	$ 4.07	$ 3.85	$ 3.51	$ 5.71
11.7%	3.4%	(1.7)%	(3.7)%	0.3%	(0.6)%	2.6%	0.4%
1.0x	1.0x	1.0x	1.1x	1.0x	1.0x	1.0x	1.1x
3.6x	4.1x	4.4x	3.7x	3.7x	3.7x	3.3x	2.9x
41.6%	14.6%	(7.4)%	(14.9)%	1.1%	(2.2)%	8.7%	1.3%
9.5%	10.5%	11.2 %	9.5 %	9.4%	8.2 %	6.5%	10.6%
9.1%	10.1%	10.9 %	9.1 %	9.1%	8.3 %	6.5%	10.1%
4.1x	4.3x	4.4x	3.3x	3.1x	2.6x	2.4x	3.6x
8.2%	7.5%	10.2 %	7.8 %	10.8%	8.1 %	10.6%	12.1%
3.9x	3.8x	4.1x	4.5x	4.6x	5.0x	6.1x	3.6x
52.5%	61.8%	67.3 %	64.8 %	60.2%	61.4 %	59.3%	53.7%
2.5x	8.5x	N/A	N/A	62.5x	N/A	4.3x	37.2x
0.9x	1.2x	1.4x	0.7x	0.6x	0.4x	0.4x	0.5x

Raw Materials



Fibre Consumed, Purchased or Brokered by Cascades in North America[1]

- Recycled fibre used by Cascades — 75%
- Pulp used by Cascades — 6%
- Fibre sold externally — 19%



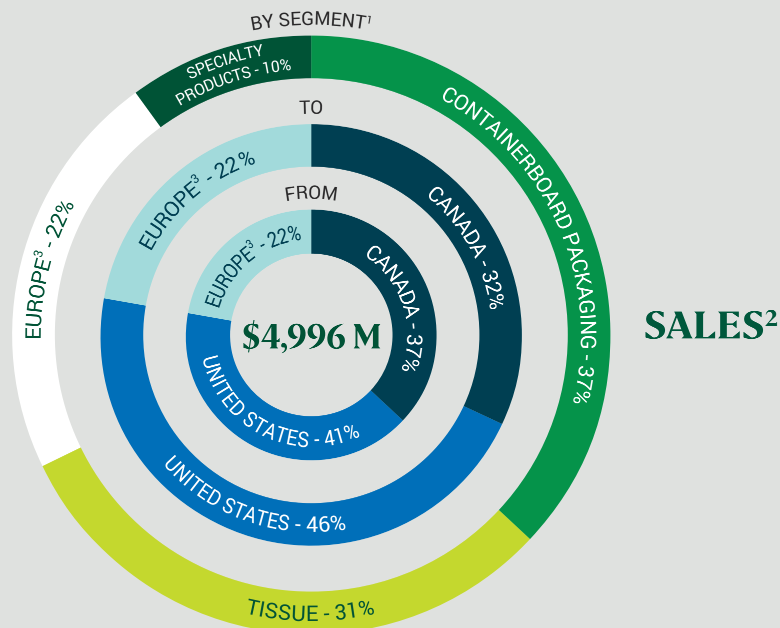
Fibre Consumed by Cascades in North America

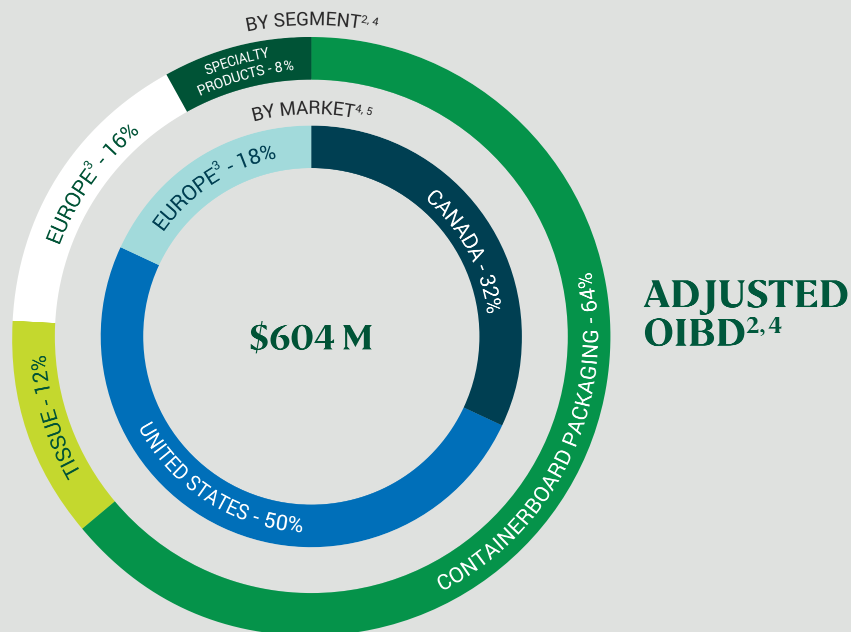
- Brown recycled fibre — 69%
- White recycled fibre — 17%
- Pulp — 8%
- Groundwood recycled fibre — 6%

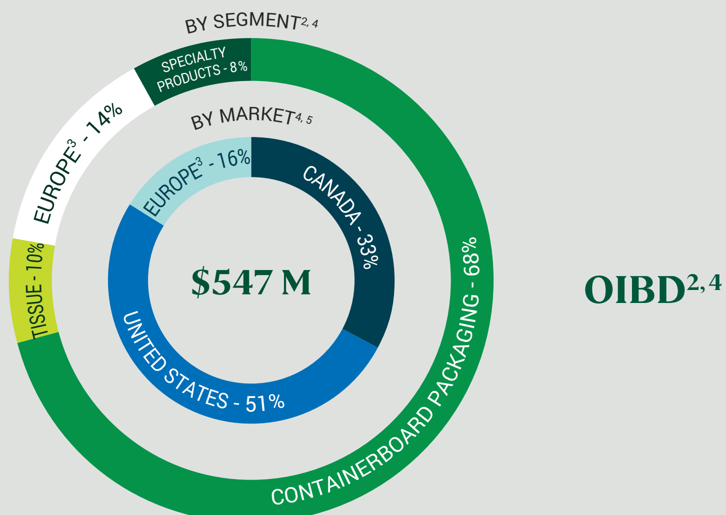
In Europe, Reno de Medici uses approximately 1.3 M s.t. of additional recycled and virgin fibres in its annual production of boxboard[2].

[1] Including associates and joint ventures.
[2] Via our 57.95 % equity position in Reno de Medici S.p.A.

Overview of our Results







1 Before inter-segment sales and corporate activities.
2 Percentage excluding corporate activities.
3 Via our 57.95% equity ownership in Reno de Medici S.p.A. (at December 31, 2019), a public Italian company.
4 Please refer to the "Forward-looking Statements" and "Supplemental Information on Non-IFRS Measures" sections for more details.
5 Including corporate activities.

Cascades Worldwide[1]

North America

Prince George, BC R
Edmonton, AB R
C
Calgary, AB R
Nanaimo, BC R
Vancouver, BC R
C Surrey, BC R
Victoria, BC R
Richmond, BC
Kelowna, BC R
C R Winnipeg, MB
Kingsey Falls, QC
Tacoma, WA C
St. Helens, OR M
Scappoose, OR C
Eau Claire, WI CM
Grand Rapids, MI C
Clarion, IA C
Aurora, IL C
Brook, IN C
Warrenton, MO C
Kingman, AZ C
Brownsville, TN C
Memphis, TN M
Rockingham, NC C M
Kinston, NC C
Wagram, NC C
Barnwell, SC CM
Pryor, OK CM
Birmingham, AL C
Grand Prairie, TX C

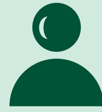
Legend

- Head Office
- Containerboard Packaging
- Boxboard Europe[2]
- Specialty Products
- Tissue Papers

M	Manufacturing facility
C	Converting facility
CM	Converting and manufacturing facility
R	Recovery facility

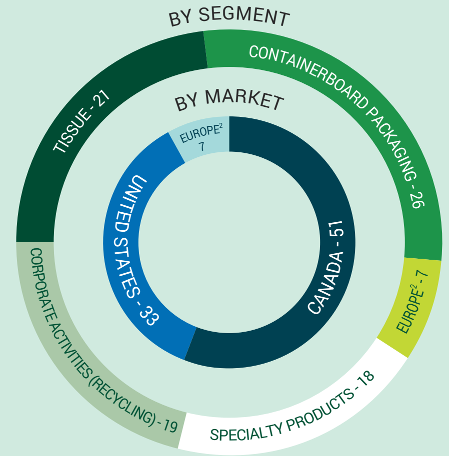
1 Including main associates and joint ventures.
2 Via our 57.95% equity ownership in Reno de Medici S.p.A., a public Italian company.

91[1]
facilities across Canada, the US and Europe



12,300
employees in 6 countries

Production Facilities[1]



1 Including associates and joint ventures.
2 Including our equity position in Reno de Medici S.p.A.

Cascades

Source of possibilities

cascades.com

Printed on **Rolland Enviro™ Satin**, 60 lb. Text and **Rolland Enviro™ Print**, 80 lb. The cover is certified Processed Chlorine Free and is made from 100% post-consumer fibre. All papers are certified FSC® and EcoLogo and are made using renewable biogas energy.

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