

Management's Discussion and Analysis

This Management's Discussion and Analysis (MD&A) dated April 27, 2020, relates to the consolidated financial position and results of operations of Canadian National Railway Company, together with its wholly-owned subsidiaries, collectively "CN" or the "Company," and should be read in conjunction with the Company's 2020 unaudited Interim Consolidated Financial Statements and Notes thereto. It should also be read in conjunction with the Company's 2019 audited Annual Consolidated Financial Statements and Notes thereto, and the 2019 Annual MD&A. All financial information reflected herein is expressed in Canadian dollars and prepared in accordance with United States generally accepted accounting principles (GAAP), unless otherwise noted.

CN's common shares are listed on the Toronto and New York stock exchanges. Additional information about CN filed with Canadian securities regulatory authorities and the United States Securities and Exchange Commission (SEC), including the Company's 2019 Annual Information Form and Form 40-F, may be found online on SEDAR at www.sedar.com, on the SEC's website at www.sec.gov through EDGAR, and on the Company's website at www.cn.ca in the Investors section. Printed copies of such documents may be obtained by contacting CN's Corporate Secretary's Office.

Business profile

CN is engaged in the rail and related transportation business. CN's network, of approximately 20,000 route miles of track spans Canada and mid-America, uniquely connecting three coasts: the Atlantic, the Pacific and the Gulf of Mexico. CN's extensive network and efficient connections to all Class I railroads provide CN customers access to Canada, the United States (U.S.) and Mexico. A true backbone of the economy, CN handles over \$250 billion worth of goods annually and carries over 300 million tons of cargo, serving exporters, importers, retailers, farmers and manufacturers.

CN's freight revenues are derived from seven commodity groups representing a diversified and balanced portfolio of goods transported between a wide range of origins and destinations. This product and geographic diversity better positions the Company to face economic fluctuations and enhances its potential for growth opportunities. For the year ended December 31, 2019, CN's largest commodity group accounted for 25% of total revenues. From a geographic standpoint, 16% of revenues relate to U.S. domestic traffic, 34% transborder traffic, 17% Canadian domestic traffic and 33% overseas traffic. The Company is the originating carrier for over 85%, and the originating and terminating carrier for over 65%, of traffic moving along its network, which allows it both to capitalize on service advantages and build on opportunities to efficiently use assets.

Strategy overview

A description of the Company's strategy is provided in the section entitled *Strategy overview* of the Company's 2019 Annual MD&A.

First quarter 2020 compared to first quarter 2019

- CN delivered a solid performance with higher first quarter net income, earnings per share and operating income, despite illegal blockades affecting the fluidity of the network.
- Net income increased by \$225 million, or 29%, to \$1,011 million and diluted earnings per share increased by 31% to \$1.42.
- Adjusted net income increased by \$22 million, or 3%, to \$870 million and adjusted diluted earnings per share increased by 4% to \$1.22. ⁽¹⁾
- Operating income was \$1,215 million, an increase of \$135 million or 13%, and an increase of \$51 million or 4% on an adjusted basis. ⁽¹⁾
- Operating ratio was 65.7%, an improvement of 3.8-points and an improvement of 1.5-points on an adjusted basis. ⁽¹⁾
- Revenues remained flat at \$3,545 million.
- Operating expenses decreased by \$134 million, or 5%, to \$2,330 million.
- Free cash flow was \$573 million, an increase of \$287 million. ⁽²⁾
- The Company repurchased 3.3 million common shares, returning \$379 million to its shareholders.
- CN paid a quarterly dividend of \$0.5750 per share, representing an increase of 7%, amounting to \$409 million.
- CN delivered a 6% improvement in fuel productivity, producing an all time record performance and supporting the Company's sustainability agenda.

(1) See the section of this MD&A entitled *Adjusted performance measures for an explanation of these non-GAAP measures*.

(2) See the section of this MD&A entitled *Liquidity and capital resources – Free cash flow for an explanation of this non-GAAP measure*.

Management's Discussion and Analysis

Acquisitions

On April 6, 2020, the Surface Transportation Board (STB) issued its decision conditionally approving the acquisition of the Massena rail line from CSX Corporation, which the Company announced its agreement to purchase on August 29, 2019. The STB decision will become effective on May 21, 2020, unless postponed by the STB. The transaction will close upon reaching standard agreements covering employee protective conditions. The acquisition represents more than 220 miles of track between Valleyfield, Quebec, and Woodard, New York, and will allow CN to continue to expand its network and foster additional supply chain solutions.

In the first quarter of 2020, the Company completed the purchase price allocation of the Manitoba based TransX Group of Companies ("TransX") which was acquired on March 20, 2019. The fair value of net assets acquired was adjusted to reflect the settlement of working capital and other adjustments in the fourth quarter of 2019, and the changes to current and deferred income tax balances. The acquisition positions CN to strengthen its intermodal business, and allows the Company to expand capacity and foster additional supply chain solutions.

On December 2, 2019, the Company acquired the intermodal temperature-controlled transportation division of the Alberta-based H&R Transport Limited ("H&R"). The acquisition positions CN to expand its presence in moving customer goods by offering more end to end rail supply chain solutions to a wider range of customers.

2020 Business outlook and assumptions - Prudent financial management in unprecedented economic uncertainty

The rapid development and fluidity of the COVID-19 pandemic has significantly increased uncertainty in CN's operating environment. Starting in late March 2020, the continued spread of the COVID-19 pandemic has resulted in significantly weaker demand for freight transportation services, which we expect to persist throughout the second quarter, and potentially beyond.

Widespread layoffs by our customers, government mandated self-quarantines and closures for non-essential businesses have significantly curbed customer demand. Negative effects on demand have occurred across many commodities that CN transports, including: automotive due to temporary closures of automotive plants, refined petroleum products (gasoline, diesel and jet fuel) due to travel restrictions, paper products due to work-from-home policies, industrial products due to a slowdown in North American manufacturing, and intermodal due to lower production overseas as a result of temporary closure of plants, reduced household incomes and consumer confidence.

While CN has been designated an essential service in the regions in which we operate and we have executed business continuity plans to continue to deliver for our customers, the Company is part of an integrated global supply chain. The impact of the COVID-19 pandemic on other aspects of the supply chain, including ocean carriers, ports, terminals, trucking firms, and other railroads, is having a consequent impact on CN's operations.

In response to the rapidly emerging economic backdrop, CN has undertaken actions to protect the safety of its employees, reduce costs, and protect the Company's liquidity.

The long-term impacts of the COVID-19 pandemic, including the extent of the impact on our business, financial position, results of operations or liquidity, remain unknown. With the continued global spread of the COVID-19 pandemic and the consequent unprecedented economic uncertainty, the Company is suspending its 2020 guidance provided in its 2019 year-end earnings press release on January 28, 2020. Investors should no longer rely on this guidance.

Management's Discussion and Analysis

Forward-looking statements

Certain statements included in this MD&A are "forward-looking statements" within the meaning of the *United States Private Securities Litigation Reform Act of 1995* and under Canadian securities laws. By their nature, forward-looking statements involve risks, uncertainties and assumptions. The Company cautions that its assumptions may not materialize and that current economic conditions render such assumptions, although reasonable at the time they were made, subject to greater uncertainty. Forward-looking statements by their nature address matters that are, to different degrees, uncertain, such as statements about the potential impacts of the COVID-19 pandemic on our business operations, financial results and financial position and on the global supply chain. Forward-looking statements may be identified by the use of terminology such as "believes," "expects," "anticipates," "assumes," "outlook," "plans," "targets" or other similar words.

Forward-looking statements include, but are not limited to, those set forth in the table below, which also presents key assumptions used in determining the forward-looking statements. See also the section of this MD&A entitled *Strategy overview - 2020 Business outlook and assumptions*.

Forward-looking statements	Key assumptions
Statements relating to the Company's ability to meet debt repayments and future obligations in the foreseeable future, including income tax payments, and capital spending	<ul style="list-style-type: none">• Adequate credit ratios• Investment-grade credit ratings• Access to capital markets• Adequate cash generated from operations and other sources of financing
Statements relating to pension contributions	<ul style="list-style-type: none">• Adequate cash generated from operations and other sources of financing• Adequate long-term return on investment on pension plan assets• Level of funding as determined by actuarial valuations, particularly influenced by discount rates for funding purposes

Forward-looking statements are not guarantees of future performance and involve risks, uncertainties and other factors which may cause the actual results or performance of the Company to be materially different from the outlook or any future results or performance implied by such statements. Accordingly, readers are advised not to place undue reliance on forward-looking statements. Important risk factors that could affect the forward-looking statements include, but are not limited to, the effects of a pandemic outbreak of a contagious illness; general economic and business conditions, particularly in the context of the COVID-19 pandemic; industry competition; inflation, currency and interest rate fluctuations; changes in fuel prices; legislative and/or regulatory developments; compliance with environmental laws and regulations; actions by regulators; increases in maintenance and operating costs; security threats; reliance on technology and related cybersecurity risk; trade restrictions or other changes to international trade arrangements; transportation of hazardous materials; various events which could disrupt operations, including illegal blockades of rail networks and natural events such as severe weather, droughts, fires, floods and earthquakes; climate change; labor negotiations and disruptions; environmental claims; uncertainties of investigations, proceedings or other types of claims and litigation; risks and liabilities arising from derailments; timing and completion of capital programs; and other risks detailed from time to time in reports filed by CN with securities regulators in Canada and the U.S., including its Annual Information Form and Form 40-F. See the section entitled *Business risks* of this MD&A and the Company's 2019 Annual MD&A for a description of major risk factors.

Forward-looking statements reflect information as of the date on which they are made. CN assumes no obligation to update or revise forward-looking statements to reflect future events, changes in circumstances, or changes in beliefs, unless required by applicable securities laws. In the event CN does update any forward-looking statement, no inference should be made that CN will make additional updates with respect to that statement, related matters, or any other forward-looking statement.

Management's Discussion and Analysis

Financial and operating highlights

In millions, except percentage and per share data	Three months ended March 31		
	2020	2019	% Change
Revenues	\$ 3,545	\$ 3,544	—%
Operating income	\$ 1,215	\$ 1,080	13%
Adjusted operating income ⁽¹⁾	\$ 1,215	\$ 1,164	4%
Net income	\$ 1,011	\$ 786	29%
Adjusted net income ⁽¹⁾	\$ 870	\$ 848	3%
Basic earnings per share	\$ 1.42	\$ 1.08	31%
Adjusted basic earnings per share ⁽¹⁾	\$ 1.22	\$ 1.17	4%
Diluted earnings per share	\$ 1.42	\$ 1.08	31%
Adjusted diluted earnings per share ⁽¹⁾	\$ 1.22	\$ 1.17	4%
Dividends declared per share	\$ 0.5750	\$ 0.5375	7%
Total assets	\$ 46,435	\$ 42,609	9%
Total long-term liabilities	\$ 22,863	\$ 21,065	9%
Operating ratio ⁽²⁾	65.7%	69.5%	3.8-pts
Adjusted operating ratio ⁽¹⁾	65.7%	67.2%	1.5-pts
Free cash flow ⁽³⁾	\$ 573	\$ 286	100%

(1) See the section of this MD&A entitled Adjusted performance measures for an explanation of these non-GAAP measures.

(2) Operating ratio is defined as operating expenses as a percentage of revenues.

(3) See the section of this MD&A entitled Liquidity and capital resources – Free cash flow for an explanation of this non-GAAP measure.

The following table lists key measures of the Company's operating performance, for the purpose of measuring the efficiency and effectiveness of train operations:

	Three months ended March 31		
	2020	2019	% Change
Gross ton miles (GTMs) (millions) ⁽¹⁾	113,979	115,859	(2)%
Train productivity (GTMs per train mile) ⁽²⁾	9,134	8,684	5 %
Through dwell (Entire railroad, hours) ⁽³⁾	8.3	8.7	5 %
Locomotive utilization (Trailing GTMs per total horsepower) ⁽⁴⁾	183	186	(2)%
Car velocity (Car miles per day) ⁽⁵⁾	181	173	5 %
Through network train speed (miles per hour) ⁽⁶⁾	18.2	17.1	6 %

(1) GTMs: The workload performed by system trains in hauling freight or equipment. GTMs are calculated by multiplying the trailing weight by the distance the train moved. A larger number is an indicator of more traffic (and thus more revenue) being moved.

(2) Train productivity: An efficiency measurement on how much tonnage each mainline train handles on average as it crosses the network. Calculated as the total of GTMs and divided by total train miles, this measure provides insight on how well each train was maximized in terms of its capacity to move traffic.

(3) Through dwell: The average time a car resides within terminal boundaries expressed in hours. The measurement begins with a customer release, received interchange, or train arrival event and ends with a customer placement (actual or constructive), delivered or offered in interchange, or train departure event. This excludes stored, bad ordered, maintenance of way cars, or cars with dwell greater than 10 days. This measure represents the efficiency of handling cars within the terminal, with a lower value indicating higher performance.

(4) Locomotive utilization: This measure represents the productivity of our active locomotive fleet. Calculated as the sum of the trailing GTMs divided by the total sum of horsepower (HP) of the active locomotives. It is a gauge on how much workload each active locomotive was able to perform, with a larger number implying that each locomotive did more work.

(5) Car velocity: The average miles per day traveled by loaded and empty cars (active system, foreign and private cars) on company lines. This measure represents the fluidity of cars on the network, calculated by the sum of miles each car travelled divided by the sum of all of the cars' active time, with a higher value indicating a smoother and more fluid operation.

(6) Through network train speed: A measure of the line-haul movement from origin to destination, including time at terminals. The average speed is calculated by dividing train miles by total hours operated, excluding yard and local trains, passenger trains, maintenance of way trains, and foreign trains. This measure represents the fluidity of trains on the network, with a higher value also indicating a more fluid network.

Operating performance improved in the first quarter of 2020 when compared to the same period in 2019. Train productivity, Through dwell, Car velocity and Through network train speed all improved due to prior year capacity investments and lower volumes on the network. The impact of the illegal blockades negatively impacted GTMs and Locomotive utilization.

Management's Discussion and Analysis

Financial results

First quarter of 2020 compared to corresponding period in 2019

Net income for the first quarter of 2020 was \$1,011 million, an increase of \$225 million, or 29%, and diluted earnings per share increased by 31% to \$1.42, when compared to the same period in 2019.

Operating income for the quarter ended March 31, 2020 increased by \$135 million, or 13%, to \$1,215 million when compared to the same period in 2019.

The operating ratio, defined as operating expenses as a percentage of revenues, was 65.7% in the first quarter of 2020, compared to 69.5% in the first quarter of 2019, a 3.8-point improvement.

Revenues for the first quarter of 2020 of \$3,545 million remained flat compared to the same period in 2019. The inclusion of TransX within the domestic market of the intermodal commodity group, freight rate increases, higher volumes of petroleum crude and increased shipments of Canadian grain, were offset by lower volumes across all other commodity groups mostly due to the impacts of the illegal blockades in February 2020 and the COVID-19 pandemic in late March.

Operating expenses for the first quarter of 2020 were \$2,330 million compared to \$2,464 million for the same period in 2019. The decrease of \$134 million, or 5%, was mainly driven by lower labor costs, depreciation expense and fuel expense.

Non-GAAP measures

This MD&A makes reference to non-GAAP measures, including adjusted performance measures, constant currency, free cash flow and adjusted debt-to-adjusted earnings before interest, income taxes, depreciation and amortization (EBITDA) multiple, that do not have any standardized meaning prescribed by GAAP and therefore, may not be comparable to similar measures presented by other companies. From management's perspective, these non-GAAP measures are useful measures of performance and provide investors with supplementary information to assess the Company's results of operations and liquidity. These non-GAAP measures should not be considered in isolation or as a substitute for financial measures prepared in accordance with GAAP.

For further details of these non-GAAP measures, including a reconciliation to the most directly comparable GAAP financial measures, refer to the sections entitled *Adjusted performance measures*, *Constant currency* and *Liquidity and capital resources*.

Adjusted performance measures

Management believes that adjusted net income, adjusted earnings per share, adjusted operating income and adjusted operating ratio are useful measures of performance that can facilitate period-to-period comparisons, as they exclude items that do not necessarily arise as part of CN's normal day-to-day operations and could distort the analysis of trends in business performance. Management uses adjusted performance measures, which exclude certain income and expense items in its results that management believes are not reflective of CN's underlying business operations, to set performance goals and as a means to measure CN's performance. The exclusion of such income and expense items in these measures does not, however, imply that these items are necessarily non-recurring. These measures do not have any standardized meaning prescribed by GAAP and therefore, may not be comparable to similar measures presented by other companies.

For the three months ended March 31, 2020, the Company's adjusted net income was \$870 million, or \$1.22 per diluted share, which excludes a current income tax recovery of \$141 million (\$0.20 per diluted share) resulting from the enactment of the Coronavirus Aid, Relief, and Economic Security (CARES) Act, a U.S. tax-and-spending package aimed at providing additional stimulus to address the economic impact of the COVID-19 pandemic.

For the three months ended March 31, 2019, the Company's adjusted net income was \$848 million, or \$1.17 per diluted share, which excludes a depreciation expense of \$84 million, or \$62 million after-tax (\$0.09 per diluted share), related to costs previously capitalized for a Positive Train Control (PTC) back office system, following the deployment of a replacement system.

Management's Discussion and Analysis

The following table provides a reconciliation of net income and earnings per share, as reported for the three months ended March 31, 2020 and 2019, to the adjusted performance measures presented herein:

<i>In millions, except per share data</i>	Three months ended March 31	
	2020	2019
Net income	\$ 1,011	\$ 786
<i>Adjustments:</i>		
Depreciation expense	–	84
Income tax recovery ⁽¹⁾	(141)	(22)
Adjusted net income	\$ 870	\$ 848
Basic earnings per share	\$ 1.42	\$ 1.08
<i>Impact of adjustments, per share</i>	(0.20)	0.09
Adjusted basic earnings per share	\$ 1.22	\$ 1.17
Diluted earnings per share	\$ 1.42	\$ 1.08
<i>Impact of adjustments, per share</i>	(0.20)	0.09
Adjusted diluted earnings per share	\$ 1.22	\$ 1.17

(1) The tax effect of adjustments reflects tax law and rate enactments, as well as tax rates in the applicable jurisdiction and the nature of the item for tax purposes.

The following table provides a reconciliation of operating income and operating ratio, as reported for the three months ended March 31, 2020 and 2019, to the adjusted performance measures presented herein:

<i>In millions, except percentage</i>	Three months ended March 31	
	2020	2019
Operating income	\$ 1,215	\$ 1,080
<i>Adjustment: Depreciation expense</i>	–	84
Adjusted operating income	\$ 1,215	\$ 1,164
Operating ratio	65.7%	69.5%
<i>Impact of adjustment</i>	–	(2.3)-pts
Adjusted operating ratio	65.7%	67.2%

Constant currency

Financial results at constant currency allow results to be viewed without the impact of fluctuations in foreign currency exchange rates, thereby facilitating period-to-period comparisons in the analysis of trends in business performance. Measures at constant currency are considered non-GAAP measures and do not have any standardized meaning prescribed by GAAP and therefore, may not be comparable to similar measures presented by other companies. Financial results at constant currency are obtained by translating the current period results denominated in US dollars at the foreign exchange rates of the comparable period in the prior year. The average foreign exchange rates were \$1.34 and \$1.33 per US\$1.00 for the three months ended March 31, 2020 and 2019, respectively.

On a constant currency basis, the Company's net income for the three months ended March 31, 2020 would have remained the same.

Management's Discussion and Analysis

Revenues

<i>In millions, unless otherwise indicated</i>	Three months ended March 31			
	2020	2019	% Change	% Change at constant currency
Freight revenues	\$ 3,424	\$ 3,413	—%	—%
Other revenues	121	131	(8%)	(8%)
Total revenues	\$ 3,545	\$ 3,544	—%	—%
Freight revenues				
Petroleum and chemicals	\$ 791	\$ 735	8%	7%
Metals and minerals	405	421	(4%)	(4%)
Forest products	433	456	(5%)	(6%)
Coal	143	163	(12%)	(12%)
Grain and fertilizers	610	577	6%	5%
Intermodal	849	850	—%	—%
Automotive	193	211	(9%)	(9%)
Total freight revenues	\$ 3,424	\$ 3,413	—%	—%
Revenue ton miles (RTMs) (<i>millions</i>)	58,370	59,067	(1%)	(1%)
Freight revenue/RTM (<i>cents</i>)	5.87	5.78	2%	1%
Carloads (<i>thousands</i>)	1,335	1,418	(6%)	(6%)
Freight revenue/carload (\$)	2,565	2,407	7%	6%

Revenues for the first quarter of 2020 of \$3,545 million remained flat when compared to the same period in 2019. The inclusion of TransX within the domestic market of the intermodal commodity group, freight rate increases, higher volumes of petroleum crude and increased shipments of Canadian grain, were offset by lower volumes across all other commodity groups mostly due to the impacts of the illegal blockades in February 2020 and the COVID-19 pandemic in late March.

Fuel surcharge revenues decreased by \$22 million in the first quarter of 2020 when compared to the same period in 2019, mainly as a result of lower volumes as well as lower applicable fuel surcharge rates.

RTMs, measuring the relative weight and distance of freight transported by the Company, declined by 1% in the first quarter of 2020 when compared to the same period in 2019. Freight revenue per RTM increased by 2% in the first quarter of 2020 when compared to the same period in 2019, mainly due to the inclusion of TransX in the intermodal commodity group and freight rate increases.

Petroleum and chemicals

	Three months ended March 31			
	2020	2019	% Change	% Change at constant currency
Revenues (<i>millions</i>)	\$ 791	\$ 735	8%	7%
RTMs (<i>millions</i>)	13,688	12,749	7%	7%
Revenue/RTM (<i>cents</i>)	5.78	5.77	—%	—%
Carloads (<i>thousands</i>)	173	168	3%	3%

Revenues for this commodity group increased by \$56 million, or 8%, in the first quarter of 2020 when compared to the same period in 2019. The increase was mainly due to higher volumes of petroleum crude and freight rate increases, partly offset by lower volumes of natural gas liquids and chemical and plastic products.

Revenue per RTM remained flat in the first quarter of 2020 when compared to the same period in 2019, mainly due to freight rate increases, offset by an increase in the average length of haul.

Management's Discussion and Analysis

Metals and minerals

	Three months ended March 31			
	2020	2019	% Change	% Change at constant currency
Revenues (<i>millions</i>)	\$ 405	\$ 421	(4%)	(4%)
RTMs (<i>millions</i>)	6,476	6,570	(1%)	(1%)
Revenue/RTM (<i>cents</i>)	6.25	6.41	(2%)	(3%)
Carloads (<i>thousands</i>)	241	235	3%	3%

Revenues for this commodity group decreased by \$16 million, or 4%, in the first quarter of 2020 when compared to the same period in 2019. The decrease was mainly due to lower volumes of semi-finished steel products and reduced shipments of frac sand.

Revenue per RTM decreased by 2% in the first quarter of 2020 when compared to the same period in 2019, mainly due to unfavorable changes in traffic mix, partly offset by a decrease in the average length of haul.

Forest products

	Three months ended March 31			
	2020	2019	% Change	% Change at constant currency
Revenues (<i>millions</i>)	\$ 433	\$ 456	(5%)	(6%)
RTMs (<i>millions</i>)	6,322	6,818	(7%)	(7%)
Revenue/RTM (<i>cents</i>)	6.85	6.69	2%	2%
Carloads (<i>thousands</i>)	88	96	(8%)	(8%)

Revenues for this commodity group decreased by \$23 million, or 5%, in the first quarter of 2020 when compared to the same period in 2019. The decrease was mainly due to lower volumes across a broad range of forest products, partly offset by freight rate increases.

Revenue per RTM increased by 2% in the first quarter of 2020 when compared to the same period in 2019, mainly due to freight rate increases.

Coal

	Three months ended March 31			
	2020	2019	% Change	% Change at constant currency
Revenues (<i>millions</i>)	\$ 143	\$ 163	(12%)	(12%)
RTMs (<i>millions</i>)	4,078	4,294	(5%)	(5%)
Revenue/RTM (<i>cents</i>)	3.51	3.80	(8%)	(8%)
Carloads (<i>thousands</i>)	77	80	(4%)	(4%)

Revenues for this commodity group decreased by \$20 million, or 12%, in the first quarter of 2020 when compared to the same period in 2019. The decrease was mainly due to lower U.S. thermal coal exports via the Gulf Coast due to competitive market pricing and reduced domestic shipments to U.S. utilities; partly offset by higher Canadian metallurgical and thermal coal exports via west coast ports.

Revenue per RTM decreased by 8% in the first quarter of 2020 when compared to the same period in 2019, mainly due to unfavorable changes in traffic mix.

Management's Discussion and Analysis

Grain and fertilizers

	Three months ended March 31			
	2020	2019	% Change	% Change at constant currency
Revenues (<i>millions</i>)	\$ 610	\$ 577	6%	5%
RTMs (<i>millions</i>)	14,199	13,867	2%	2%
Revenue/RTM (<i>cents</i>)	4.30	4.16	3%	3%
Carloads (<i>thousands</i>)	150	149	1%	1%

Revenues for this commodity group increased by \$33 million, or 6%, in the first quarter of 2020 when compared to the same period in 2019. The increase was mainly due to higher Canadian grain volumes and freight rate increases, partly offset by lower export volumes of Canadian wheat and lower volumes of phosphate rock.

Revenue per RTM increased by 3% in the first quarter of 2020 when compared to the same period in 2019, mainly due to freight rate increases.

Intermodal

	Three months ended March 31			
	2020	2019	% Change	% Change at constant currency
Revenues (<i>millions</i>)	\$ 849	\$ 850	—%	—%
RTMs (<i>millions</i>)	12,762	13,848	(8%)	(8%)
Revenue/RTM (<i>cents</i>)	6.65	6.14	8%	8%
Carloads (<i>thousands</i>)	548	624	(12%)	(12%)

Revenues for this commodity group remained flat, in the first quarter of 2020 when compared to the same period in 2019. The lower international container traffic via the ports of Vancouver and Halifax resulting from the impact of the COVID-19 pandemic and illegal blockades, respectively, were offset by the inclusion of TransX for the full quarter in 2020.

Revenue per RTM increased by 8% in the first quarter of 2020 when compared to the same period in 2019, mainly due to the inclusion of TransX.

Automotive

	Three months ended March 31			
	2020	2019	% Change	% Change at constant currency
Revenues (<i>millions</i>)	\$ 193	\$ 211	(9%)	(9%)
RTMs (<i>millions</i>)	845	921	(8%)	(8%)
Revenue/RTM (<i>cents</i>)	22.84	22.91	—%	(1%)
Carloads (<i>thousands</i>)	58	66	(12%)	(12%)

Revenues for this commodity group decreased by \$18 million, or 9%, in the first quarter of 2020 when compared to the same period in 2019. The decrease was mainly due to lower volumes of domestic finished vehicles and vehicle parts resulting from the illegal blockades and the shutdown of assembly plants and production facilities in the last two weeks of March 2020 due to the COVID-19 pandemic.

Revenue per RTM remained flat in the first quarter of 2020 when compared to the same period in 2019, mainly due to an increase in average length of haul, offset by favorable changes of traffic mix.

Management's Discussion and Analysis

Other revenues

	Three months ended March 31			
	2020	2019	% Change	% Change at constant currency
Revenues (millions)	\$ 121	\$ 131	(8%)	(8%)

Other revenues decreased by \$10 million, or 8%, in the first quarter of 2020 when compared to the same period in 2019. The decrease was mainly due to lower revenues from vessels and automotive logistics; partly offset by higher freight forwarding revenues.

Operating expenses

Operating expenses for the first quarter of 2020 were \$2,330 million compared to \$2,464 million in the same period of 2019. The decrease of \$134 million, or 5%, was mainly driven by lower labor costs, depreciation expense and fuel expense.

In millions	Three months ended March 31			
	2020	2019	% Change	% Change at constant currency
Labor and fringe benefits	\$ 743	\$ 798	7%	7%
Purchased services and material	578	558	(4%)	(3%)
Fuel	360	398	10%	10%
Depreciation and amortization	392	440	11%	11%
Equipment rents	105	114	8%	9%
Casualty and other	152	156	3%	3%
Total operating expenses	\$ 2,330	\$ 2,464	5%	6%

Labor and fringe benefits

Labor and fringe benefits expense decreased by \$55 million, or 7%, in the first quarter of 2020 when compared to the same period in 2019. The decrease was primarily driven by lower incentive compensation, average headcount and overtime costs.

Purchased services and material

Purchased services and material expense increased by \$20 million, or 4%, in the first quarter of 2020 when compared to the same period in 2019. The increase was mainly due to the inclusion of TransX, partly offset by lower material costs and contracted services.

Fuel

Fuel expense decreased by \$38 million, or 10%, in the first quarter of 2020 when compared to the same period in 2019. The decrease was mainly due to productivity gains and lower fuel prices.

Depreciation and amortization

Depreciation and amortization expense decreased by \$48 million, or 11%, in the first quarter of 2020 when compared to the same period in 2019. The decrease was mainly due to a 2019 expense of \$84 million related to costs previously capitalized for a PTC back office system following the deployment of a replacement system, partly offset by a higher depreciable asset base resulting from increased capital expenditures in recent years.

Equipment rents

Equipment rents expense decreased by \$9 million, or 8%, in the first quarter of 2020 when compared to the same period in 2019. The decrease was mainly due to lower locomotive and rail car lease expenses.

Casualty and other

Casualty and other expense decreased by \$4 million, or 3%, in the first quarter of 2020 when compared to the same period in 2019. The decrease was mainly due to lower incident costs.

Management's Discussion and Analysis

Other income and expenses

Interest expense

Interest expense was \$139 million for the three months ended March 31, 2020 compared to \$131 million for the same period in 2019. The increase was mainly due to a higher average level of debt; partly offset by a lower average interest rate.

Other components of net periodic benefit income

Other components of net periodic benefit income was \$78 million for the three months ended March 31, 2020 compared to \$80 million for the same period in 2019.

Other income

Other income was \$11 million for the three months ended March 31, 2020 compared to \$2 million for the same period in 2019.

Income tax expense

Income tax expense was \$154 million for the three months ended March 31, 2020 compared to \$245 million for the same period in 2019. Income tax expense for the three months ended March 31, 2020 included a current income tax recovery of \$141 million resulting from the enactment of the CARES Act.

On March 27, 2020, the U.S. government enacted the CARES Act, which included corporate income tax measures allowing U.S. federal net operating losses (NOLs) arising in tax years 2018, 2019, and 2020 to be fully carried back to each of the five tax years preceding the tax year of the NOL. As a result of the CARES Act, the Company reclassified its existing deferred income tax asset of \$213 million on the NOL that arose in 2019, to a current income tax receivable and recorded a current income tax recovery of \$141 million to reflect an amount recoverable at the higher U.S. federal corporate income tax rate of 35% applicable to pre-2018 tax years.

The effective tax rate for the three months ended March 31, 2020 was 13.2% compared to 23.8% for the same period in 2019. Excluding the aforementioned current income tax recovery, the effective tax rate for the three months ended March 31, 2020 was 25.3%. The increase in the effective tax rate was mainly attributable to the impact of a lower excess tax benefit resulting from the settlement of equity settled awards under the Company's stock-based compensation plans.

Summary of quarterly financial data

<i>In millions, except per share data</i>	2020		2019		2018			
	Quarter	Quarter	Quarters	Quarters	First	Fourth	Third	Second
Revenues	\$ 3,545	\$ 3,584	\$ 3,830	\$ 3,959	\$ 3,544	\$ 3,808	\$ 3,688	\$ 3,631
Operating income ⁽¹⁾	\$ 1,215	\$ 1,218	\$ 1,613	\$ 1,682	\$ 1,080	\$ 1,452	\$ 1,492	\$ 1,519
Net income ⁽¹⁾	\$ 1,011	\$ 873	\$ 1,195	\$ 1,362	\$ 786	\$ 1,143	\$ 1,134	\$ 1,310
Basic earnings per share	\$ 1.42	\$ 1.22	\$ 1.66	\$ 1.89	\$ 1.08	\$ 1.57	\$ 1.55	\$ 1.78
Diluted earnings per share	\$ 1.42	\$ 1.22	\$ 1.66	\$ 1.88	\$ 1.08	\$ 1.56	\$ 1.54	\$ 1.77
Dividends per share	\$ 0.5750	\$ 0.5375	\$ 0.5375	\$ 0.5375	\$ 0.5375	\$ 0.4550	\$ 0.4550	\$ 0.4550

(1) Certain quarters include items that management believes do not necessarily arise as part of CN's normal day-to-day operations and can distort the analysis of trends in business performance. See the section of this MD&A entitled *Adjusted performance measures* as well as the Company's 2019 Annual MD&A for additional information on these items.

Revenues generated by the Company during the year are influenced by seasonal weather conditions, general economic conditions, cyclical demand for rail transportation, and competitive forces in the transportation marketplace (see the section entitled *Business risks* of the Company's 2019 Annual MD&A). Operating expenses reflect the impact of freight volumes, seasonal weather conditions, labor costs, fuel prices, and the Company's productivity initiatives. Fluctuations in the Canadian dollar relative to the US dollar have also affected the conversion of the Company's US dollar-denominated revenues and expenses and resulted in fluctuations in net income in the rolling eight quarters presented above.

Management's Discussion and Analysis

Liquidity and capital resources

An analysis of the Company's liquidity and capital resources is provided in the section entitled *Liquidity and capital resources* of the Company's 2019 Annual MD&A. There were no significant changes during the first quarter of 2020, except as noted below.

As at March 31, 2020 and December 31, 2019, the Company had Cash and cash equivalents of \$488 million and \$64 million, respectively; Restricted cash and cash equivalents of \$525 million and \$524 million, respectively; and a working capital deficit of \$1,122 million and \$1,457 million, respectively. There are currently no specific requirements relating to working capital other than in the normal course of business as discussed herein.

The Company expects cash from operations and its various sources of financing to be sufficient to meet its ongoing obligations.

Available financing sources

Shelf prospectus and registration statement

On February 11, 2020, the Company filed a new shelf prospectus with Canadian securities regulators and a registration statement with the United States Securities and Exchange Commission (SEC), pursuant to which CN may issue up to \$6.0 billion of debt securities in the Canadian and U.S. capital markets over the 25 months from the filing date. This shelf prospectus and registration statement replaced CN's previous shelf prospectus and registration statement that was to expire on March 13, 2020. Access to the Canadian and U.S. capital markets under the shelf prospectus and registration statement is dependent on market conditions.

Revolving credit facilities

On March 15, 2019, the Company's revolving credit facility agreement was amended, which extended the term of the credit facility by one year and increased the credit facility from \$1.8 billion to \$2.0 billion, effective May 5, 2019. The increase in capacity provides the Company with additional financial flexibility. The amended credit facility of \$2.0 billion consists of a \$1.0 billion tranche maturing on May 5, 2022 and a \$1.0 billion tranche maturing on May 5, 2024. The accordion feature, which provides for an additional \$500 million of credit under the facility, subject to the consent of individual lenders, remains unchanged. As at March 31, 2020 and December 31, 2019, the Company had outstanding borrowings under this revolving credit facility of \$100 million and \$nil, respectively, at a weighted-average interest rate of 2.35% and nil, respectively, presented in Current portion of long-term debt on the Consolidated Balance Sheets.

On March 27, 2020, the Company entered into a \$250 million one year revolving credit facility agreement. The credit facility is available for working capital and general corporate purposes. As at March 31, 2020, the Company had no outstanding borrowings under this revolving credit facility and there were no draws during the three months ended March 31, 2020.

Non-revolving credit facility

On July 25, 2019, the Company entered into a US\$300 million, non-revolving term loan credit facility agreement for financing or refinancing the purchase of equipment, which was available to be drawn upon through March 31, 2020. Term loans made under this facility have a tenor of 20 years, bear interest at a variable rate, are repayable in equal quarterly installments, are prepayable at any time without penalty, and are secured by rolling stock. On March 27, 2020, the Company entered into loan supplements to the original agreement for an additional principal amount of US\$310 million, which is available to be drawn through March 31, 2021.

The Company borrowed US\$300 million (\$397 million) on this facility during the three months ended March 31, 2020.

As at March 31, 2020 and December 31, 2019, the Company had outstanding borrowings under this non-revolving term loan facility of US\$300 million (\$422 million) and \$nil, respectively, at a weighted-average interest rate of 2.41% and nil, respectively.

Commercial paper

The Company's commercial paper programs are backstopped by the Company's revolving credit facility. As of May 5, 2019, the maximum aggregate principal amount of commercial paper that could be issued increased from \$1.8 billion to \$2.0 billion, or the US dollar equivalent, on a combined basis. As at March 31, 2020 and December 31, 2019, the Company had total commercial paper borrowings of US\$1,218 million (\$1,713 million) and US\$983 million (\$1,277 million), respectively, at a weighted-average interest rate of 1.59% and 1.77%, respectively, presented in Current portion of long-term debt on the Consolidated Balance Sheets.

Accounts receivable securitization program

The Company has an agreement to sell an undivided co-ownership interest in a revolving pool of accounts receivable to unrelated trusts for maximum cash proceeds of \$450 million. On February 27, 2020, the Company extended the term of its agreement by two years to February 1, 2023. As at March 31, 2020 and December 31, 2019, the Company had accounts receivable securitization borrowings of \$450 million and \$200 million, respectively, at a weighted-average interest rate of 1.60% and 1.90%, respectively, secured by and limited to \$511 million and \$224 million of accounts receivable, respectively, presented in Current portion of long-term debt on the Consolidated Balance Sheet.

Management's Discussion and Analysis

Bilateral letter of credit facilities

The Company has a series of committed and uncommitted bilateral letter of credit facility agreements. On March 15, 2019, the Company extended the maturity date of the committed bilateral letter of credit facility agreements to April 28, 2022. As at March 31, 2020, the Company had outstanding letters of credit of \$433 million (\$424 million as at December 31, 2019) under the committed facilities from a total available amount of \$470 million (\$459 million as at December 31, 2019) and \$154 million (\$149 million as at December 31, 2019) under the uncommitted facilities. As at March 31, 2020, included in Restricted cash and cash equivalents was \$429 million (\$429 million as at December 31, 2019) and \$90 million (\$90 million as at December 31, 2019) which were pledged as collateral under the committed and uncommitted bilateral letter of credit facilities, respectively.

Additional information relating to the Company's financing sources is provided in the section entitled *Liquidity and capital resources – Available financing sources* of the Company's 2019 Annual MD&A as well as *Note 9 – Financing activities* to the Company's unaudited Interim Consolidated Financial Statements.

Credit ratings

The Company's long-term debt and commercial paper credit ratings remain unchanged from those described in the section entitled *Liquidity and capital resources – Credit ratings* of the Company's 2019 Annual MD&A.

Cash flows

<i>In millions</i>	Three months ended March 31		
	2020	2019	Variance
Net cash provided by operating activities	\$ 1,180	\$ 997	\$ 183
Net cash used in investing activities	(607)	(878)	271
Net cash used in financing activities	(151)	(59)	(92)
Effect of foreign exchange fluctuations on cash, cash equivalents, restricted cash, and restricted cash equivalents	3	–	3
<i>Net increase in cash, cash equivalents, restricted cash, and restricted cash equivalents</i>	425	60	365
Cash, cash equivalents, restricted cash, and restricted cash equivalents, beginning of period	588	759	(171)
<i>Cash, cash equivalents, restricted cash, and restricted cash equivalents, end of period</i>	\$ 1,013	\$ 819	\$ 194

Operating activities

Net cash provided by operating activities increased by \$183 million in the first quarter of 2020 when compared to the same period in 2019, mainly due to higher cash earnings, partly offset by advance consideration received in 2019 related to a long-term rail freight contract.

Pension contributions

The Company's contributions to its various defined benefit pension plans are made in accordance with the applicable legislation in Canada and the U.S. and such contributions follow minimum and maximum thresholds as determined by actuarial valuations.

Actuarial valuations are generally required on an annual basis for all Canadian defined benefit pension plans, or when deemed appropriate by the Office of the Superintendent of Financial Institutions (OSFI). Actuarial valuations are also required annually for the Company's U.S. qualified defined benefit pension plans. For accounting purposes, the funded status is calculated under GAAP. For funding purposes, the funded status of the Company's Canadian registered defined benefit pension plans is calculated under going concern and solvency scenarios as prescribed under federal pension legislation and is subject to guidance issued by the Canadian Institute of Actuaries and OSFI. The federal pension legislation requires funding deficits to be paid over a number of years. Alternatively, a letter of credit can be subscribed to fulfill solvency deficit payments. The OSFI proposed revisions to its Instruction guide for the Preparation of Actuarial Reports for defined benefit pension plans. If these proposed revisions become final, they would affect the December 31, 2020 actuarial valuations by reducing the solvency status of the Company's defined benefit pension plans, and may negatively impact the Company's pension funding requirements starting in year 2021. The OSFI has temporarily suspended their consultation in light of the COVID-19 pandemic.

The Company's most recently filed actuarial valuations for funding purposes for its Canadian registered defined benefit pension plans conducted as at December 31, 2018 indicated a funding excess on a going concern basis of approximately \$3.3 billion and a funding excess on a solvency basis of approximately \$0.5 billion calculated using the three-year average of the plans' hypothetical wind-up ratio. The Company's next actuarial valuations for funding purposes for its Canadian registered pension plans required as at December 31, 2019 will be performed in 2020. These actuarial valuations are expected to identify a funding excess on a going concern basis of approximately \$3.5 billion, while on a solvency basis a funding excess of approximately \$0.6 billion is expected.

Management's Discussion and Analysis

Pension contributions for the three months ended March 31, 2020 and 2019 of \$68 million and \$80 million, respectively, primarily represent contributions to the CN Pension Plan, for the current service cost as determined under the Company's applicable actuarial valuations for funding purposes. In 2020, the Company now expects to make total cash contributions of approximately \$130 million for all of its pension plans.

Adverse changes to the assumptions used to calculate the Company's funding status, particularly the discount rate, as well as changes to existing federal pension legislation or regulator guidance could significantly impact the Company's future pension contributions.

Additional information relating to the pension plans is provided in *Note 15 – Pensions and other postretirement benefits* to the Company's 2019 Annual Consolidated Financial Statements.

Income tax refunds and payments

Net income tax refunds for the three months ended March 31, 2020 were \$9 million compared to net income tax payments of \$242 million for the same period in 2019. The Company does not expect to make any instalment payments in Canada until September 1, 2020 as a result of 2019 instalment overpayments applied to the current period, and deferrals of all required current year instalment payments in Canada until September 1, 2020 as permitted under the various COVID-19 pandemic measures announced by the Canadian authorities. For 2020, the Company's net income tax payments are now expected to be approximately \$600 million, and although it reflects the impacts of the CARES Act, it does not include the anticipated refund related to the carryback of U.S. federal net operating losses as it is only expected to be received in early 2021.

Investing activities

Net cash used in investing activities decreased by \$271 million in the first quarter of 2020 when compared to the same period in 2019, mainly due to lower property additions and the acquisition of TransX in 2019.

Property additions

<i>In millions</i>	Three months ended March 31	
	2020	2019
Track and roadway	\$ 278	\$ 283
Rolling stock	208	458
Buildings	5	8
Information technology	69	80
Other	43	89
Gross property additions	603	918
Less: Finance leases ⁽¹⁾	–	215
Property additions ⁽²⁾	\$ 603	\$ 703

(1) Includes re-measurement of finance leases.

(2) Includes \$45 million associated with the U.S. federal government legislative PTC implementation in the three months ended March 31, 2020 (\$63 million in the three months ended March 31, 2019).

Acquisitions

On December 2, 2019, the Company acquired H&R for a total purchase price of \$105 million, of which \$95 million was paid on the closing date, \$8 million related to funds withheld for the indemnification of claims to be paid within twenty months of the acquisition date, plus \$2 million cash paid since the closing to reflect the settlement of working capital.

The preliminary allocation of the purchase price to the assets acquired and liabilities assumed was performed on the basis of their respective fair values. The Company used a third party to assist in establishing the fair values of the assets acquired and liabilities assumed which resulted in the recognition of identifiable net assets of \$93 million and goodwill of \$12 million. The goodwill acquired through the business combination is mainly attributable to the premium of an established business operation. The Company's purchase price allocation is preliminary and subject to change over the measurement period, which may be up to one year from the acquisition date.

The Company's Consolidated Balance Sheet includes the assets and liabilities of H&R as of December 2, 2019, the acquisition date. Since the acquisition date, H&R's results of operations have been included in the Company's results of operations. The Company has not provided pro forma information relating to the pre-acquisition period as it was not material.

On March 20, 2019, the Company acquired TransX. The total purchase price of \$192 million included an initial cash payment of \$170 million, additional consideration of \$25 million paid on August 27, 2019 upon achievement of targets, less an adjustment of \$3 million in the fourth quarter of 2019 to reflect the settlement of working capital.

Management's Discussion and Analysis

The allocation of the purchase price to the assets acquired and liabilities assumed was performed on the basis of their respective fair values. The Company used a third party to assist in establishing the fair values of the assets acquired and liabilities assumed which resulted in the recognition of identifiable net assets of \$134 million and goodwill of \$58 million. The goodwill acquired through the business combination is mainly attributable to the premium of an established business operation. The Company's purchase price allocation is now final and no longer subject to change as the measurement period permitted to be up to one year from the acquisition date is closed.

The Company's Consolidated Balance Sheet includes the assets and liabilities of TransX as of March 20, 2019, the acquisition date. Since the acquisition date, TransX's results of operations have been included in the Company's results of operations. The Company has not provided pro forma information relating to the pre-acquisition period as it was not material.

See *Note 3 - Business combinations* to the Company's unaudited Interim Consolidated Financial Statements for additional information.

2020 Capital expenditure program

In light of anticipated lower volumes for the year, the 2020 capital expenditure program has been reduced by \$0.2 billion, partly offset by approximately \$0.1 billion due to the negative impact of foreign exchange, resulting in a net \$0.1 billion reduction from \$3.0 billion to \$2.9 billion. Additional details of the Company's 2020 capital program are provided in the section entitled *Liquidity and capital resources – Cash flows* of the Company's 2019 Annual MD&A.

Financing activities

Net cash used in financing activities increased by \$92 million in the first quarter of 2020 when compared to the same period in 2019, primarily driven by higher net repayment of debt; partly offset by higher net issuance of commercial paper and lower repurchases of common shares.

Debt financing activities

Debt financing activities in the first quarter of 2020 included the following:

- On February 3, 2020, repayment of US\$300 million (\$397 million) 2.40% Notes due 2020 upon maturity;
- On February 3, 2020, issuance of US\$300 million (\$397 million) equipment loan under the non-revolving credit facility;
- Net issuance of commercial paper of \$304 million;
- Proceeds from the accounts receivable securitization program of \$450 million;
- Repayment of accounts receivable securitization borrowings of \$200 million;
- Proceeds from borrowings under revolving credit facility agreement of \$100 million; and
- Repayment of finance leases of \$9 million.

Debt financing activities in the first quarter of 2019 included the following:

- On February 8, 2019, issuance of \$350 million 3.00% Notes due 2029 and \$450 million 3.60% Notes due 2049 in the Canadian capital markets, which resulted in total net proceeds of \$790 million; and
- Net repayment of commercial paper of \$14 million.

Additional information relating to the Company's outstanding debt securities is provided in *Note 13 – Debt* to the Company's 2019 Annual Consolidated Financial Statements.

Repurchase of common shares

The Company may repurchase its common shares pursuant to a Normal Course Issuer Bid (NCIB) at prevailing market prices plus brokerage fees, or such other prices as may be permitted by the Toronto Stock Exchange. Under its current NCIB, the Company may repurchase up to 16.0 million common shares between February 1, 2020 and January 31, 2021. As at March 31, 2020, the Company had repurchased 2.0 million common shares for \$226 million under its current NCIB.

The Company repurchased 14.1 million common shares under its previous NCIB effective between February 1, 2019 and January 31, 2020, which allowed for the repurchase of up to 22.0 million common shares.

As of March 31, 2020, in light of the uncertain and unprecedented environment, the Company had paused share repurchases.

Management's Discussion and Analysis

The following table provides the information related to the share repurchases for the three months ended March 31, 2020 and 2019:

<i>In millions, except per share data</i>	Three months ended March 31	
	2020	2019
Number of common shares repurchased	3.3	3.9
Weighted-average price per share	\$ 116.97	\$ 111.28
Amount of repurchase	\$ 379	\$ 432

Share Trusts

The Company's Employee Benefit Plan Trusts ("Share Trusts") purchase CN's common shares on the open market, which are used to deliver common shares under the Share Units Plan and, beginning in 2019, the Employee Share Investment Plan (ESIP). Shares purchased by the Share Trusts are retained until the Company instructs the trustee to transfer shares to participants of the Share Units Plan or the ESIP. Additional information relating to Share Trusts is provided in *Note 16 – Share capital* to the Company's 2019 Annual Consolidated Financial Statements.

Dividends paid

The Company paid quarterly dividends of \$0.5750 per share amounting to \$409 million in the first quarter of 2020, compared to \$389 million, at the quarterly rate of \$0.5375 per share for the same period in 2019.

Contractual obligations

In the normal course of business, the Company incurs contractual obligations. The following table sets forth the Company's contractual obligations for the following items as at March 31, 2020:

<i>In millions</i>	Total	2020	2021	2022	2023	2024	2025 & thereafter
Debt obligations ⁽¹⁾	\$ 15,155	\$ 2,283	\$ 823	\$ 364	\$ 224	\$ 505	\$ 10,956
Interest on debt obligations	10,377	365	543	524	507	499	7,939
Finance lease obligations ⁽²⁾	135	54	77	1	—	—	3
Operating lease obligations ⁽³⁾	550	108	115	78	54	38	157
Purchase obligations ⁽⁴⁾	1,427	920	203	129	90	43	42
Other long-term liabilities ⁽⁵⁾	747	90	55	43	42	31	486
Total contractual obligations	\$ 28,391	\$ 3,820	\$ 1,816	\$ 1,139	\$ 917	\$ 1,116	\$ 19,583

(1) Presented net of unamortized discounts and debt issuance costs and excludes finance lease obligations.

(2) Includes \$3 million of imputed interest.

(3) Includes \$70 million related to renewal options reasonably certain to be exercised and \$57 million of imputed interest.

(4) Includes fixed and variable commitments for rail, information technology services and licenses, wheels, engineering services, locomotives, railroad ties, rail cars, as well as other equipment and services. Costs of variable commitments were estimated using forecasted prices and volumes.

(5) Includes expected payments for workers' compensation, postretirement benefits other than pensions, net unrecognized tax benefits, environmental liabilities and pension obligations that have been classified as contractual settlement agreements.

Management's Discussion and Analysis

Free cash flow

Management believes that free cash flow is a useful measure of liquidity as it demonstrates the Company's ability to generate cash for debt obligations and for discretionary uses such as payment of dividends, share repurchases, and strategic opportunities. The Company defines its free cash flow measure as the difference between net cash provided by operating activities and net cash used in investing activities, adjusted for the impact of business acquisitions, if any. Free cash flow does not have any standardized meaning prescribed by GAAP and therefore, may not be comparable to similar measures presented by other companies.

The following table provides a reconciliation of net cash provided by operating activities as reported for the three months ended March 31, 2020 and 2019, to free cash flow:

<i>In millions</i>	Three months ended March 31	
	2020	2019
Net cash provided by operating activities	\$ 1,180	\$ 997
Net cash used in investing activities	(607)	(878)
Net cash provided before financing activities	573	119
Adjustment: Acquisition, net of cash acquired ⁽¹⁾	—	167
Free cash flow	\$ 573	\$ 286

(1) Relates to the acquisition of TransX. See the section of this MD&A entitled *Liquidity and capital resources - Investing activities* for additional information.

Adjusted debt-to-adjusted EBITDA multiple

Management believes that the adjusted debt-to-adjusted EBITDA multiple is a useful credit measure because it reflects the Company's ability to service its debt and other long-term obligations. The Company calculates the adjusted debt-to-adjusted EBITDA multiple as adjusted debt divided by adjusted EBITDA. These measures do not have any standardized meaning prescribed by GAAP and therefore, may not be comparable to similar measures presented by other companies.

The following table provides a reconciliation of debt and net income to the adjusted measures presented below, which have been used to calculate the adjusted debt-to-adjusted EBITDA multiple:

<i>In millions, unless otherwise indicated</i>	<i>As at and for the twelve months ended March 31,</i>	
	2020	2019
Debt	\$ 15,287	\$ 13,433
Adjustments:		
Operating lease liabilities, including current portion	493	567
Pension plans in deficiency	527	475
Adjusted debt	\$ 16,307	\$ 14,475
Net income	\$ 4,441	\$ 4,373
Interest expense	546	498
Income tax expense	1,122	1,349
Depreciation and amortization	1,514	1,446
EBITDA	7,623	7,666
Adjustments:		
Other income	(62)	(372)
Other components of net periodic benefit income	(319)	(305)
Operating lease cost	166	208
Adjusted EBITDA	\$ 7,408	\$ 7,197
Adjusted debt-to-adjusted EBITDA multiple (times)	2.20	2.01

All forward-looking statements discussed in this section are subject to risks and uncertainties and are based on assumptions about events and developments that may not materialize or that may be offset entirely or partially by other events and developments. See the section of this MD&A entitled *Forward-looking statements* for a discussion of assumptions and risk factors affecting such forward-looking statements.

Management's Discussion and Analysis

Off balance sheet arrangements

Guarantees and indemnifications

In the normal course of business, the Company enters into agreements that may involve providing guarantees or indemnifications to third parties and others, which may extend beyond the term of the agreements. These include, but are not limited to, standby letters of credit, surety and other bonds, and indemnifications that are customary for the type of transaction or for the railway business. As at March 31, 2020, the Company has not recorded a liability with respect to guarantees and indemnifications. Additional information relating to guarantees and indemnifications is provided in *Note 13 – Major commitments and contingencies* to the Company's unaudited Interim Consolidated Financial Statements.

Outstanding share data

As at April 27, 2020, the Company had 709.8 million common shares and 4.1 million stock options outstanding.

Financial instruments

Risk management

In the normal course of business, the Company is exposed to various risks from its use of financial instruments, such as credit risk, liquidity risk, and market risks which include foreign currency risk, interest rate risk and commodity price risk. A description of these risks and how the Company manages them, is provided in the section entitled *Financial instruments* of the Company's 2019 Annual MD&A.

Derivative financial instruments

As at March 31, 2020, the Company had outstanding foreign exchange forward contracts with a notional value of US\$1,218 million (US\$1,088 million as at December 31, 2019). For the three months ended March 31, 2020 and 2019, the Company recorded a gain of \$126 million and a loss of \$44 million, respectively, related to foreign exchange forward contracts. These gains and losses were largely offset by the re-measurement of US dollar-denominated monetary assets and liabilities recorded in Other income.

As at March 31, 2020, the fair value of outstanding foreign exchange forward contracts included in Other current assets and Accounts payable and other was \$83 million and \$6 million, respectively (\$nil and \$24 million, respectively, as at December 31, 2019).

Fair value of financial instruments

As at March 31, 2020, the Company's debt, excluding finance leases, had a carrying amount of \$15,155 million (\$13,662 million as at December 31, 2019) and a fair value of \$17,198 million (\$15,667 million as at December 31, 2019).

Additional information relating to financial instruments is provided in *Note 14 – Financial instruments* to the Company's unaudited Interim Consolidated Financial Statements.

Management's Discussion and Analysis

Recent accounting pronouncements

The following recent Accounting Standards Update (ASU) issued by the Financial Accounting Standards Board (FASB) was adopted by the Company during the first quarter of 2020:

ASU 2016-13 Financial instruments - Credit losses (Topic 326): Measurement of credit losses on financial instruments

The ASU requires financial assets measured at amortized cost to be presented at the net amount expected to be collected. The new standard replaces the current incurred loss impairment methodology with one that reflects expected credit losses.

The Company adopted this standard in the first quarter of 2020 with an effective date of January 1, 2020. The adoption of this standard did not have an impact on the Company's Consolidated Financial Statements, other than for the new disclosure requirements.

The accounting policy for accounts receivable has been updated as follows:

Accounting policy for accounts receivable

Accounts receivable are recorded at cost net of billing adjustments and an allowance for credit losses. The allowance for credit losses is based on relevant information about past events, including historical experience, current conditions, and reasonable and supportable forecasts that affect the collectibility of the reported amount. When a receivable is deemed uncollectible, it is written off against the allowance for credit losses. Subsequent recoveries of amounts previously written off are credited to bad debt expense in Casualty and other in the Consolidated Statements of Income.

The following recent ASU issued by FASB came into effect in the first quarter of 2020 and has not been adopted by the Company:

ASU 2020-04 Reference rate reform (Topic 848): Facilitation of the effects of reference rate reform on financial reporting

London Interbank Offered Rate (LIBOR) is a benchmark interest rate referenced in a variety of agreements that are used by all types of entities. At the end of 2021, banks will no longer be required to report information that is used to determine LIBOR. As a result, LIBOR could be discontinued. Other interest rates used globally could also be discontinued for similar reasons.

The ASU provides optional expedients and exceptions for applying generally accepted accounting principles to transactions affected by reference rate reform if certain criteria are met. These transactions include contract modifications, hedging relationships, and sale or transfer of debt securities classified as held-to-maturity.

The provisions of the ASU are effective starting on March 12, 2020; however, they will only be available until December 31, 2022, when the reference rate replacement activity is expected to have completed. The Company may apply the provisions of the ASU as of the beginning of a reporting period when the elections are made, or prospectively from the date within an interim period that includes or is subsequent to March 12, 2020. The Company currently has outstanding loans and finance lease obligations referencing LIBOR totaling approximately US\$400 million that would be affected by the provisions of this ASU. The Company is evaluating the effects that the adoption of the ASU will have on its Consolidated Financial Statements and related disclosures, and whether it will elect to apply any of the optional expedients and exceptions provided in the ASU.

Other recently issued ASUs required to be applied for periods beginning on or after March 31, 2020 have been evaluated by the Company and are not expected to have a significant impact on the Company's Consolidated Financial Statements.

Critical accounting estimates

The preparation of financial statements in accordance with GAAP requires management to make estimates, judgments and assumptions that affect the reported amounts of revenues, expenses, assets and liabilities, and the disclosure of contingent assets and liabilities at the date of the financial statements. On an ongoing basis, management reviews its estimates based upon available information. Actual results could differ from these estimates. The Company's policies for income taxes, capital expenditures, depreciation, pensions and other postretirement benefits, personal injury and other claims, and environmental matters, require management's more significant judgments and estimates in the preparation of the Company's consolidated financial statements and, as such, are considered to be critical. Reference is made to the section entitled *Critical accounting estimates* of the Company's 2019 Annual MD&A for a detailed description of the Company's critical accounting estimates. There have not been any material changes to these estimates in the first quarter of 2020.

Management discusses the development and selection of the Company's critical accounting policies, including the underlying estimates and assumptions, with the Audit Committee of the Company's Board of Directors. The Audit Committee has reviewed the Company's related disclosures.

Management's Discussion and Analysis

Business risks

In the normal course of business, the Company is exposed to various business risks and uncertainties that can have an effect on the Company's results of operations, financial position, or liquidity. While some exposures may be reduced by the Company's risk management strategies, many risks are driven by external factors beyond the Company's control or are of a nature which cannot be eliminated.

Reference is made to the section entitled *Business risks* of the Company's 2019 Annual MD&A for a detailed description of such key areas of business risks and uncertainties with respect to: Competition, Environmental matters, Personal injury and other legal claims, Labor negotiations, Regulation, Economic conditions, Pension funding volatility, Reliance on technology and related cybersecurity risk, Trade restrictions, Terrorism and international conflicts, Customer credit risk, Liquidity, Supplier concentration, Availability of qualified personnel, Fuel costs, Foreign exchange, Interest rates, Transportation network disruptions, Severe weather and Climate change, which is incorporated herein by reference. Additional risks and uncertainties not currently known to management or that may currently not be considered material by management, could nevertheless also have an adverse effect on the Company's business.

The following are material changes to the risks described in the Company's 2019 Annual MD&A, as well as an update on labor workforce and regulatory matters.

Pandemic risk & economic downturn

Severe disruptions in regional economies and the world economy can be caused by the pandemic outbreak of a contagious illness, such as the current COVID-19 pandemic. The transmission of COVID-19 and efforts to contain its spread have recently resulted in international, national and local border closings, travel restrictions, significant disruptions to business operations, supply chains and customer activity and demand, service cancellations, reductions and other changes, significant challenges in healthcare service preparation and delivery, and quarantines, as well as considerable general concern and uncertainty, all of which have negatively affected the economic environment and may in the future have further and larger impacts. At this stage, it is not possible to predict what additional measures and restrictions will be imposed by governmental authorities and the period in time during which those measures and restrictions will apply. Any additional border closings and economic or supply chain disruptions could materially affect our financial results and operations. The COVID-19 pandemic could also significantly impact freight demand and commodity prices in connection with an ensuing economic downturn, supply shortages, trade disruption, temporary staff shortages, temporary closures of facilities in geographic locations more importantly impacted by the outbreak. We cannot presently predict the scope and severity of such potential disruptions but their impact on the Company's financial results and operations could be material.

Trade restrictions

On March 13, 2020, Canada ratified the United States-Mexico-Canada Agreement (USMCA), the new trade agreement replaces the North American Free Trade Agreement (NAFTA). All three countries have now ratified the agreement which is scheduled to come into force later this year.

There can be no assurance that the potential outcome of other ongoing trade actions taken by governments and agencies globally will not materially adversely affect the volume of rail shipments and/or revenues from commodities carried by the Company, and thus materially and negatively impact earnings and/or cash flow.

Transportation network disruptions

Due to the integrated nature of the North American freight transportation infrastructure, the Company's operations may be negatively affected by service disruptions of its own network, including illegal blockades, as well as of other transportation links such as ports and other railroads which interchange with the Company. A significant prolonged service disruption of CN's network or one or more of these entities could have an adverse effect on the Company's results of operations, financial position or liquidity. Furthermore, deterioration in the cooperative relationships with the Company's connecting carriers could directly affect the Company's operations.

Labor workforce

As at March 31, 2020, CN employed a total of 17,250 employees in Canada, of which 12,197, or 71%, were unionized employees, and 6,725 employees in the U.S., of which 5,597, or 83%, were unionized employees.

Management's Discussion and Analysis

Regulation

In order to facilitate the continued movement of goods during the COVID-19 pandemic, regulatory agencies in the U.S. and Canada have issued waivers or exemptions to railway companies providing relief from the strict application of some regulations. This relief was provided in anticipation of workforce shortages and other constraints associated with the COVID-19 pandemic that would prevent railways from complying with requirements in a manner consistent with existing provisions. The regulatory agencies have made clear that this relief can only be used when the circumstances do not allow railways to comply and impose on railways requirements to document the circumstances when the relief is used.

Economic regulation - U.S.

The Passenger Rail Investment and Improvement Act of 2008 (PRIIA) required Amtrak and the Federal Railroad Administration (FRA) of joint authority to promulgate the PRIIA performance standards. The prior metrics were vacated and the arbitration provision in the statute was severed by the U.S. Court of Appeals for the District of Columbia. On March 31, 2020, the FRA proposed metrics for measuring performance. FRA will hold a public hearing by way of conference call on April 30, 2020. Written comments are due on June 1, 2020. As part of PRIIA, U.S. Congress authorized the STB to investigate any railroad over whose track Amtrak operates that fails to meet heightened performance standards preference to Amtrak, the STB is authorized to assess damages against the host railroad.

Safety regulation - Canada

On February 7, 2020, the Minister issued an order restricting to speed of trains carrying dangerous goods. On February 16, 2020, the Minister revised the order to take into account the substantial investments made to equip main line tracks with automated signaling technology, on which the vast majority of CN's traffic is handled. The revised order enabled the Company to recover more efficiently from the illegal blockades. The Minister has issued a new Ministerial Order taking effect on April 1, 2020 to replace the order issued on February 16, 2020. This new order applies to trains moving crude oil or liquefied petroleum gas by establishing speed restrictions for non-winter and winter months.

Safety regulation - U.S.

On February 18, 2020, the FRA issued a final rule that requires each Class I railroad and certain shortline railroads to develop a Railroad Risk Reduction Program in a written plan that will be reviewed and approved by the FRA and will be subject to audit. Written plans must be submitted by August 2021. On April 10, 2020, the Association of American Railroads sought reconsideration from FRA on certain aspects of the final rule.

No assurance can be given that these and any other current or future regulatory or legislative initiatives by the U.S. federal government and agencies will not materially adversely affect the Company's results of operations or its competitive and financial position.

Controls and procedures

The Company's Chief Executive Officer and its Chief Financial Officer, after evaluating the effectiveness of the Company's disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) as of March 31, 2020, have concluded that the Company's disclosure controls and procedures were effective.

During the first quarter ended March 31, 2020, there was no change in the Company's internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.