Management's Report on Internal Control over Financial Reporting

Management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements.

Management has assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2020 using the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in *Internal Control - Integrated Framework* (2013). Based on this assessment, management has determined that the Company's internal control over financial reporting was effective as of December 31, 2020.

KPMG LLP, an independent registered public accounting firm, has issued an unqualified audit report on the effectiveness of the Company's internal control over financial reporting as of December 31, 2020 and has also expressed an unqualified audit opinion on the Company's 2020 consolidated financial statements as stated in their Reports of Independent Registered Public Accounting Firm dated February 1, 2021.

(s) Jean-Jacques Ruest
President and Chief Executive Officer

February 1, 2021

(s) Ghislain Houle
Executive Vice-President and Chief Financial Officer

February 1, 2021

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors
Canadian National Railway Company:

Opinion on the consolidated financial statements

We have audited the accompanying consolidated balance sheets of Canadian National Railway Company (the "Company") as of December 31, 2020 and 2019, the related consolidated statements of income, comprehensive income, changes in shareholders' equity, and cash flows for each of the years in the three-year period ended December 31, 2020, and the related notes (collectively, the "consolidated financial statements"). In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2020 and 2019, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2020, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the Company's internal control over financial reporting as of December 31, 2020, based on criteria established in *Internal Control – Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission, and our report dated February 1, 2021 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Change in accounting principle

As discussed in Note 12 to the consolidated financial statements, the Company has changed its method of accounting for leases as of January 1, 2019 due to the adoption of Accounting Standards Codification Topic 842 *Leases*, using a modified retrospective adoption approach.

Basis for opinion

These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical audit matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Evaluation of income taxes

As discussed in Note 7 to the consolidated financial statements, the net deferred income tax liability was $8,271 million as of December 31, 2020 and income tax expense was $982 million for the year ended December 31, 2020. The Company operates in different tax jurisdictions which requires the Company to make significant judgments and estimates in relation to its tax positions.

We identified the evaluation of the net deferred income tax liability and income tax expense as a critical audit matter due to the magnitude of these tax balances and complexities in the evaluation of the application of the relevant tax regulations applicable to the Company. A high degree of auditor judgment was required in assessing certain of the Company's tax positions and balances.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls related to the Company's reconciliation and analysis of its deferred income tax balances. We involved income tax and transfer pricing professionals with specialized skills and knowledge who assisted in: (1) assessing the Company's interpretation of the relevant tax regulations; (2) evaluating the Company's tax positions and transfer pricing arrangements; (3) analyzing the Company's deferred income tax balances by comparing prior year tax estimates to actual tax returns filed, and evaluating the Company's reconciliation of the deferred income tax balances to the underlying temporary differences.

Evaluation of capitalization of costs relating to track and railway infrastructure and depreciation related to properties

As discussed in Note 11 to the consolidated financial statements, capital additions were $2,863 million for the year ended December 31, 2020, of which $1,427 million related to track and railway infrastructure maintenance, including the replacement of rail, ties, bridge improvements, and other general track maintenance. As discussed in Note 1 to the consolidated financial statements, expenditures related to self-constructed properties include direct material, labor, and contracted services, as well as other allocated costs. The Company follows the group method of depreciation whereby a single composite depreciation rate is applied to the gross investment in a class of similar assets. Depreciation expense relating to properties was $1,583 million for the year ended December 31, 2020. The Company performs comprehensive Canadian and U.S. depreciation studies on specific asset groups on a periodic basis, which require significant judgment. These studies incorporate numerous assumptions related to the remaining service lives and the U.S. studies involve a third-party specialist. The depreciation studies consider, among other factors, the analysis of historical retirement data, and the forecasting of asset life characteristics. Changes in estimated service lives can significantly impact the amount of depreciation expense.

We identified the evaluation of capitalization of costs relating to track and railway infrastructure and depreciation expense related to properties as a critical audit matter. The magnitude and complexities in self-constructed properties, as well as the judgments involved in determining whether the expenditure met the Company's pre-determined capitalization criteria required subjective auditor judgment. Further, there was a high degree of auditor judgment required in evaluating the estimated service lives of the respective asset classes.

The following are the primary procedures we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls related to the Company's capital additions process, including controls related to the monitoring of budget versus actual costs on capital projects and the Company's assessment that the expenditures charged to projects meet the Company's pre-determined capitalization criteria. We also evaluated the design and tested the operating effectiveness of certain internal controls related to the Company's depreciation expense process, including controls related to the Company's assessment of the Canadian and U.S. depreciation studies. For a sample of capital expenditure additions, we examined underlying documentation and assessed whether the expenditure met the Company's pre-determined capitalization criteria. The testing was performed at a disaggregated level by type of cost (including direct material, labor, and contracted services), and for rail, included comparisons to prior period per unit measures by region. We compared the data used in depreciation studies to underlying documentation for certain asset classes. To evaluate the reasonableness of significant assumptions used in determining the estimated service lives in the Company's Canadian and U.S. depreciation studies, we compared the Company's historical retirement patterns to the service lives used in the depreciation studies, and interviewed both the Company's personnel with specialized knowledge of the subject matter and, for certain asset classes, a third party specialist.

(s) KPMG LLP*

We have served as the Company's auditor since 1992.

Montréal, Canada
February 1, 2021

** CPA auditor, CA, public accountancy permit No. A123145*

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors
Canadian National Railway Company:

Opinion on internal control over financial reporting

We have audited the Canadian National Railway Company's (the "Company") internal control over financial reporting as of December 31, 2020, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2020, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO").

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the consolidated balance sheets of the Company as of December 31, 2020 and 2019, the related consolidated statements of income, comprehensive income, changes in shareholders' equity and cash flows for each of the years in the three-year period ended December 31, 2020, and the related notes, and our report dated February 1, 2021 expressed an unqualified opinion on those consolidated financial statements.

Basis for opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and limitations of internal control over financial reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

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

(s) KPMG LLP*

Montréal, Canada
February 1, 2021

** CPA auditor, CA, public accountancy permit No. A123145*

Consolidated Statements of Income

In millions, except per share data	*Year ended December 31,*	**2020**		2019		2018
Revenues *(Note 4)*	**$**	**13,819**	$	14,917	$	14,321
Operating expenses						
Labor and fringe benefits		**2,723**		2,922		2,860
Purchased services and material		**2,152**		2,267		1,971
Fuel		**1,152**		1,637		1,732
Depreciation and amortization *(Note 11)*		**1,589**		1,562		1,329
Equipment rents		**432**		444		467
Casualty and other		**508**		492		469
Loss on assets held for sale (*Note 5*)		**486**		—		—
Total operating expenses		**9,042**		9,324		8,828
Operating income		**4,777**		5,593		5,493
Interest expense		**(554)**		(538)		(489)
Other components of net periodic benefit income *(Note 17)*		**315**		321		302
Other income *(Note 6)*		**6**		53		376
Income before income taxes		**4,544**		5,429		5,682
Income tax expense *(Note 7)*		**(982)**		(1,213)		(1,354)
Net income	**$**	**3,562**	$	4,216	$	4,328
Earnings per share *(Note 8)*						
Basic	**$**	**5.01**	$	5.85	$	5.89
Diluted	**$**	**5.00**	$	5.83	$	5.87
Weighted-average number of shares *(Note 8)*						
Basic		**711.3**		720.1		734.5
Diluted		**713.0**		722.6		737.7

See accompanying notes to consolidated financial statements.

Consolidated Statements of Comprehensive Income

In millions	*Year ended December 31,*	**2020**		2019		2018
Net income	**$**	**3,562**	$	4,216	$	4,328
Other comprehensive income (loss) *(Note 20)*						
Net gain (loss) on foreign currency translation		**(82)**		(256)		403
Net change in pension and other postretirement benefit plans *(Note 17)*		**160**		(440)		(759)
Other comprehensive income (loss) before income taxes		**78**		(696)		(356)
Income tax recovery (expense)		**(67)**		62		291
Other comprehensive income (loss)		**11**		(634)		(65)
Comprehensive income	**$**	**3,573**	$	3,582	$	4,263

See accompanying notes to consolidated financial statements.

Consolidated Balance Sheets

In millions	*December 31,*	**2020**	2019
Assets			
Current assets			
Cash and cash equivalents		**$ 569**	$ 64
Restricted cash and cash equivalents *(Note 15)*		**531**	524
Accounts receivable *(Note 9)*		**1,054**	1,213
Material and supplies		**583**	611
Other current assets *(Note 10)*		**365**	418
Total current assets		**3,102**	2,830
Properties *(Note 11)*		**40,069**	39,669
Operating lease right-of-use assets *(Note 12)*		**435**	520
Pension asset *(Note 17)*		**777**	336
Intangible assets, goodwill and other *(Note 13)*		**421**	429
Total assets		**$ 44,804**	$ 43,784
Liabilities and shareholders' equity			
Current liabilities			
Accounts payable and other *(Note 14)*		**$ 2,364**	$ 2,357
Current portion of long-term debt *(Note 15)*		**910**	1,930
Total current liabilities		**3,274**	4,287
Deferred income taxes *(Note 7)*		**8,271**	7,844
Other liabilities and deferred credits *(Note 16)*		**534**	634
Pension and other postretirement benefits *(Note 17)*		**767**	733
Long-term debt *(Note 15)*		**11,996**	11,866
Operating lease liabilities *(Note 12)*		**311**	379
Shareholders' equity			
Common shares *(Note 18)*		**3,698**	3,650
Common shares in Share Trusts *(Note 18)*		**(115)**	(163)
Additional paid-in capital		**379**	403
Accumulated other comprehensive loss *(Note 20)*		**(3,472)**	(3,483)
Retained earnings		**19,161**	17,634
Total shareholders' equity		**19,651**	18,041
Total liabilities and shareholders' equity		**$ 44,804**	$ 43,784

See accompanying notes to consolidated financial statements.

On behalf of the Board of Directors:

(s) Robert Pace
Director

(s) Jean-Jacques Ruest
Director

Consolidated Statements of Changes in Shareholders' Equity

In millions	Number of common shares: Outstanding	Number of common shares: Share Trusts	Common shares	Common shares in Share Trusts	Additional paid-in capital	Accumulated other comprehensive loss	Retained earnings	Total shareholders' equity
Balance at December 31, 2017	742.6	2.0	$ 3,613	$ (168)	$ 434	$ (2,784)	$ 15,561	$ 16,656
Net income							4,328	4,328
Stock options exercised	1.7		120		(17)			103
Settlement of equity settled awards *(Note 18)*	0.4	(0.4)		31	(68)		(30)	(67)
Stock-based compensation expense and other					59		(2)	57
Repurchase of common shares *(Note 18)*	(19.0)		(99)				(1,901)	(2,000)
Share purchases by Share Trusts *(Note 18)*	(0.4)	0.4		(38)				(38)
Other comprehensive loss *(Note 20)*						(65)		(65)
Dividends ($1.82 per share)							(1,333)	(1,333)
Balance at December 31, 2018	725.3	2.0	3,634	(175)	408	(2,849)	16,623	17,641
Net income							4,216	4,216
Stock options exercised	1.1		89		(12)			77
Settlement of equity settled awards *(Note 18)*	0.5	(0.5)		45	(56)		(61)	(72)
Stock-based compensation expense and other					63		(2)	61
Repurchase of common shares *(Note 18)*	(14.3)		(73)				(1,627)	(1,700)
Share purchases by Share Trusts *(Note 18)*	(0.3)	0.3		(33)				(33)
Other comprehensive loss *(Note 20)*						(634)		(634)
Dividends ($2.15 per share)							(1,544)	(1,544)
Cumulative-effect adjustment from the adoption of ASU 2016-02 (1)							29	29
Balance at December 31, 2019	712.3	1.8	3,650	(163)	403	(3,483)	17,634	18,041
Net income							3,562	3,562
Stock options exercised	0.8		65		(9)			56
Settlement of equity settled awards *(Note 18)*	0.6	(0.6)		62	(82)		(37)	(57)
Stock-based compensation expense and other					67		(2)	65
Repurchase of common shares *(Note 18)*	(3.3)		(17)				(362)	(379)
Share purchases by Share Trusts *(Note 18)*	(0.1)	0.1		(14)				(14)
Other comprehensive income *(Note 20)*						11		11
Dividends ($2.30 per share)							(1,634)	(1,634)
Balance at December 31, 2020	**710.3**	**1.3**	**$ 3,698**	**$ (115)**	**$ 379**	**$ (3,472)**	**$ 19,161**	**$ 19,651**

(1) The Company adopted Accounting Standards Update (ASU) 2016-02: Leases and related amendments (Topic 842) in the first quarter of 2019 using a modified retrospective approach with a cumulative-effect adjustment to Retained earnings recognized on January 1, 2019, with no restatement of comparative period financial information.

See accompanying notes to consolidated financial statements.

Consolidated Statements of Cash Flows

In millions *Year ended December 31,*		**2020**		2019		2018
Operating activities						
Net income	**$**	**3,562**	$	4,216	$	4,328
Adjustments to reconcile net income to net cash provided by operating activities:						
Depreciation and amortization		**1,589**		1,562		1,329
Pension income and funding		**(234)**		(288)		(209)
Deferred income taxes *(Note 7)*		**487**		569		527
Loss on assets held for sale *(Note 5)*		**486**		—		—
Gain on disposal of property *(Note 6)*		**—**		—		(338)
Changes in operating assets and liabilities:						
Accounts receivable		**158**		(7)		(91)
Material and supplies		**20**		(60)		(120)
Accounts payable and other		**(49)**		(498)		379
Other current assets		**—**		5		14
Other operating activities, net		**146**		424		99
Net cash provided by operating activities		**6,165**		5,923		5,918
Investing activities						
Property additions		**(2,863)**		(3,865)		(3,531)
Acquisitions, net of cash acquired *(Note 3)*		**(8)**		(259)		—
Disposal of property *(Note 6)*		**—**		—		194
Other investing activities, net		**(75)**		(66)		(67)
Net cash used in investing activities		**(2,946)**		(4,190)		(3,404)
Financing activities						
Issuance of debt *(Note 15)*		**1,789**		1,653		3,268
Repayment of debt *(Note 15)*		**(1,221)**		(402)		(2,393)
Change in commercial paper, net *(Note 15)*		**(1,273)**		141		99
Settlement of foreign exchange forward contracts on debt		**26**		2		53
Issuance of common shares for stock options exercised *(Note 19)*		**56**		77		103
Withholding taxes remitted on the net settlement of equity settled awards *(Note 19)*		**(48)**		(61)		(51)
Repurchase of common shares *(Note 18)*		**(379)**		(1,700)		(2,000)
Purchase of common shares for settlement of equity settled awards		**(9)**		(11)		(16)
Purchase of common shares by Share Trusts *(Note 18)*		**(14)**		(33)		(38)
Dividends paid		**(1,634)**		(1,544)		(1,333)
Acquisition, additional cash consideration *(Note 3)*		**—**		(25)		—
Net cash used in financing activities		**(2,707)**		(1,903)		(2,308)
Effect of foreign exchange fluctuations on cash, cash equivalents, restricted cash, and restricted cash equivalents		**—**		(1)		—
Net increase (decrease) in cash, cash equivalents, restricted cash, and restricted cash equivalents		**512**		(171)		206
Cash, cash equivalents, restricted cash, and restricted cash equivalents, beginning of year		**588**		759		553
Cash, cash equivalents, restricted cash, and restricted cash equivalents, end of year	**$**	**1,100**	$	588	$	759
Cash and cash equivalents, end of year	**$**	**569**	$	64	$	266
Restricted cash and cash equivalents, end of year		**531**		524		493
Cash, cash equivalents, restricted cash, and restricted cash equivalents, end of year	**$**	**1,100**	$	588	$	759
Supplemental cash flow information						
Interest paid	**$**	**(551)**	$	(521)	$	(488)
Income taxes paid *(Note 7)*	**$**	**(353)**	$	(822)	$	(776)

See accompanying notes to consolidated financial statements.

Contents

Notes to the Consolidated Financial Statements

Canadian National Railway Company, together with its wholly-owned subsidiaries, collectively "CN" or the "Company," is engaged in the rail and related transportation business. CN spans Canada and the United States of America (U.S.), the only railroad connecting Canada's Eastern and Western coasts with the U.S. South. CN's freight revenues are derived from the movement of a diversified and balanced portfolio of goods, including petroleum and chemicals, grain and fertilizers, coal, metals and minerals, forest products, intermodal and automotive.

1 – Summary of significant accounting policies

Basis of presentation

These consolidated financial statements are expressed in Canadian dollars, except where otherwise indicated, and have been prepared in accordance with United States generally accepted accounting principles (GAAP) as codified in the Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC).

Principles of consolidation

These consolidated financial statements include the accounts of all subsidiaries and variable interest entities for which the Company is the primary beneficiary. The Company is the primary beneficiary of the Employee Benefit Plan Trusts ("Share Trusts") as the Company funds the Share Trusts. The Company's investments in which it has significant influence are accounted for using the equity method and all other investments for which fair value is not readily determinable are accounted for at cost minus impairment, plus or minus observable price changes.

Use of estimates

The preparation of financial statements in conformity with GAAP requires management to make estimates 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, including those related to goodwill, intangible assets, identified assets and liabilities acquired in business combinations, income taxes, depreciation, pensions and other postretirement benefits, personal injury and other claims, and environmental matters, based upon available information. Actual results could differ from these estimates.

Revenues

Nature of services

The Company's revenues consist of freight revenues and other revenues. Freight revenues include revenue from the movement of freight over rail and are derived from the following seven commodity groups:

- Petroleum and chemicals, which includes chemicals and plastics, refined petroleum products, crude and condensate, and sulfur;
- Metals and minerals, which includes energy materials, metals, minerals, and iron ore;
- Forest products, which includes lumber, pulp, paper, and panels;
- Coal, which includes coal and petroleum coke;
- Grain and fertilizers, which includes Canadian regulated grain, Canadian commercial grain, U.S. grain, potash and other fertilizers;
- Intermodal, which includes rail and trucking services for domestic and international traffic; and
- Automotive, which includes finished vehicles and auto parts.

Freight revenues also comprise revenues for optional services beyond the basic movement of freight including asset use, switching, storage, and other services.

Other revenues are derived from non-rail logistics services that support the Company's rail business including vessels and docks, transloading and distribution, automotive logistics, and freight forwarding and transportation management.

Revenue recognition

Revenues are recognized when control of promised services is transferred to customers in an amount that reflects the consideration the Company expects to be entitled to receive in exchange for those services.

The Company accounts for contracts with customers when it has approval and commitment from both parties, each party's rights have been identified, payment terms are defined, the contract has commercial substance and collection is probable. For contracts that involve multiple performance obligations, the Company allocates the transaction price to each performance obligation in the contract based on relative standalone selling prices and recognizes revenue when, or as, performance obligations in the contract are satisfied.

Revenues are presented net of taxes collected from customers and remitted to governmental authorities.

Freight revenues

Freight services are arranged through publicly-available tariffs or customer-specific agreements that establish the pricing, terms and conditions for freight services offered by the Company. For revenue recognition purposes, a contract for the movement of freight over rail exists when shipping instructions are sent by a customer and have been accepted by the Company in connection with the relevant tariff or customer-specific agreement.

Revenues for the movement of freight over rail are recognized over time due to the continuous transfer of control to the customer as freight moves from origin to destination. Progress towards completion of the performance obligation is measured based on the transit time of freight from origin to destination. The allocation of revenues between periods is based on the relative transit time in each period with expenses recorded as incurred. Revenues related to freight contracts that require the involvement of another rail carrier to move freight from origin to destination are reported on a net basis. Freight movements are completed over a short period of time and are generally completed before payment is due. Freight receivables are included in Accounts receivable on the Consolidated Balance Sheets.

The Company has no material contract assets associated with freight revenues.

Contract liabilities represent consideration received from customers for which the related performance obligation has not been satisfied. Contract liabilities are recognized into revenues when or as the related performance obligation is satisfied. The Company includes contract liabilities within Accounts payable and other and Other liabilities and deferred credits on the Consolidated Balance Sheets.

Revenues for optional services are recognized at a point in time or over time as performance obligations are satisfied, depending on the nature of the service.

Freight contracts may be subject to variable consideration in the form of volume-based incentives, rebates, or other items, which affect the transaction price. Variable consideration is recognized as revenue to the extent that it is probable that a significant reversal in the amount of cumulative revenue recognized will not occur. Variable consideration is accrued on the basis of management's best estimate of the expected amount, which is based on available historical, current and forecasted information.

Other revenues

Other revenues are recognized at a point in time or over time as performance obligations are satisfied, depending on the nature of the service.

Income taxes

The Company follows the asset and liability method of accounting for income taxes. Under the asset and liability method, the change in the net deferred income tax asset or liability is included in the computation of Net income or Other comprehensive income (loss). Deferred income tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which temporary differences are expected to be recovered or settled.

Earnings per share

Basic earnings per share is calculated using the weighted-average number of basic shares outstanding during the period. The weighted-average number of basic shares outstanding excludes shares held in the Share Trusts and includes vested equity settled stock-based compensation awards other than stock options. Diluted earnings per share is calculated using the weighted-average number of diluted shares outstanding during the period, applying the treasury stock method. The weighted-average number of diluted shares outstanding includes the dilutive effects of common shares issuable upon exercise of outstanding stock options and nonvested equity settled awards.

Foreign currency

All of the Company's foreign subsidiaries use the US dollar as their functional currency. Accordingly, the foreign subsidiaries' assets and liabilities are translated into Canadian dollars at the exchange rate in effect at the balance sheet date and the revenues and expenses are translated at the average exchange rates during the year. All adjustments resulting from the translation of the foreign operations are recorded in Other comprehensive income (loss).

The Company designates the US dollar-denominated debt of the parent company as a foreign currency hedge of its net investment in foreign operations. Accordingly, foreign exchange gains and losses, from the dates of designation, on the translation of the US dollar-denominated debt are included in Other comprehensive income (loss).

Cash and cash equivalents

Cash and cash equivalents include highly liquid investments purchased three months or less from maturity and are stated at cost plus accrued interest, which approximates fair value.

Restricted cash and cash equivalents

The Company has the option, under its bilateral letter of credit facility agreements with various banks, to pledge collateral in the form of cash and cash equivalents for a minimum term of one month, equal to at least the face value of the letters of credit issued. Restricted cash and cash equivalents include highly liquid investments purchased three months or less from maturity and are stated at cost plus accrued interest, which approximates fair value.

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.

Material and supplies

Material and supplies, which consist mainly of rail, ties, and other items for construction and maintenance of property and equipment, as well as diesel fuel, are measured at weighted-average cost.

Assets held for sale

Assets that are classified as held for sale are measured at the lower of their carrying amount or fair value less expected selling costs ("estimated selling price") with a loss recognized to the extent that the carrying amount exceeds the estimated selling price. The classification is applicable at the date upon which the sale of assets is probable, and the assets are available for immediate sale in their present condition. The transfer of the assets must also be expected to qualify for recognition as a completed sale within the year following the date of classification.

Assets once classified as held for sale, are not subject to depreciation or amortization and both the assets and any liabilities directly associated with the assets held for sale are classified as current in the Company's Consolidated Balance Sheets.

Subsequent changes to the estimated selling price of assets held for sale are recorded as gains or losses to the Consolidated Statements of Income wherein the recognition of subsequent gains is limited to the cumulative loss previously recognized.

Properties

Capitalization of costs

The Company's railroad operations are highly capital intensive. The Company's properties mainly consist of homogeneous or network-type assets such as rail, ties, ballast and other structures, which form the Company's Track and roadway properties, and Rolling stock. The Company's capital expenditures are for the replacement of existing assets and for the purchase or construction of new assets to enhance operations or provide new service offerings to customers. A large portion of the Company's capital expenditures are for self-constructed properties, including the replacement of existing track and roadway assets and track line expansion, as well as major overhauls and large refurbishments of rolling stock.

Expenditures are capitalized if they extend the life of the asset or provide future benefits such as increased revenue-generating capacity, functionality or service capacity. The Company has a process in place to determine whether or not costs qualify for capitalization, which requires judgment. For Track and roadway properties, the Company establishes basic capital programs to replace or upgrade the track infrastructure assets which are capitalized if they meet the capitalization criteria.

In addition, for Track and roadway properties, expenditures that meet the minimum level of activity as defined by the Company are also capitalized as follows:

- *grading*: installation of road bed, retaining walls, and drainage structures;
- *rail and related track material*: installation of 39 or more continuous feet of rail;
- *ties*: installation of 5 or more ties per 39 feet; and
- *ballast*: installation of 171 cubic yards of ballast per mile.

For purchased assets, the Company capitalizes all costs necessary to make the assets ready for their intended use. For self-constructed properties, expenditures include direct material, labor, and contracted services, as well as other allocated costs. These allocated costs include, but are not limited to, project supervision, fringe benefits, maintenance on equipment used on projects as well as the cost of small tools and supplies. The Company reviews and adjusts its allocations, as required, to reflect the actual costs incurred each year.

For the rail asset, the Company capitalizes the costs of rail grinding which consists of restoring and improving the rail profile and removing irregularities from worn rail to extend the service life. The service life of the rail asset is increased incrementally as rail grinding is performed thereon, and as such, the costs incurred are capitalized given that the activity extends the service life of the rail asset beyond its original or current condition as additional gross tons can be carried over the rail for its remaining service life.

For the ballast asset, the Company engages in shoulder ballast undercutting that consists of removing some or all of the ballast, which has deteriorated over its service life, and replacing it with new ballast. When ballast is installed as part of a shoulder ballast undercutting project, it represents the addition of a new asset and not the repair or maintenance of an existing asset. As such, the Company capitalizes expenditures related to shoulder ballast undercutting given that an existing asset is retired and replaced with a new asset. Under the group method of accounting for properties, the deteriorated ballast is retired at its historical cost.

Costs of deconstruction and removal of replaced assets, referred to herein as dismantling costs, are distinguished from installation costs for self-constructed properties based on the nature of the related activity. For Track and roadway properties, employees concurrently perform dismantling and installation of new track and roadway assets and, as such, the Company estimates the amount of labor and other costs that are related to dismantling. The Company determines dismantling costs based on an analysis of the track and roadway installation process.

Expenditures relating to the Company's properties that do not meet the Company's capitalization criteria are expensed as incurred. For Track and roadway properties, such expenditures include but are not limited to spot tie replacement, spot or broken rail replacement, physical track inspection for detection of rail defects and minor track corrections, and other general maintenance of track infrastructure.

Depreciation

Properties are carried at cost less accumulated depreciation including asset impairment write-downs. The cost of properties, including those under finance leases, net of asset impairment write-downs, is depreciated on a straight-line basis over their estimated service lives, measured in years, except for rail and ballast whose service lives are measured in millions of gross tons. The Company follows the group method of depreciation whereby a single composite depreciation rate is applied to the gross investment in a class of similar assets, despite small differences in the service life or salvage value of individual property units within the same asset class. The Company uses approximately 40 different depreciable asset classes.

For all depreciable asset classes, the depreciation rate is based on the estimated service lives of the assets. Assessing the reasonableness of the estimated service lives of properties requires judgment and is based on currently available information, including periodic depreciation studies conducted by the Company. The Company's United States (U.S.) properties are subject to comprehensive depreciation studies as required by the Surface Transportation Board (STB) and are conducted by external experts. Depreciation studies for Canadian properties are not required by regulation and are conducted internally. Studies are performed on specific asset groups on a periodic basis. Changes in the estimated service lives of the assets and their related composite depreciation rates are implemented prospectively.

The service life of the rail asset is based on expected future usage of the rail in its existing condition, determined using railroad industry research and testing (based on rail characteristics such as weight, curvature and metallurgy), factoring in the rail asset's usage to date. The annual composite depreciation rate for the rail asset is determined by dividing the estimated annual number of gross tons carried over the rail by the estimated service life of the rail measured in millions of gross tons. The Company amortizes the cost of rail grinding over the remaining life of the rail asset, which includes the incremental life extension generated by rail grinding.

Given the nature of the railroad and the composition of its network which is made up of homogeneous long-lived assets, it is impractical to maintain records of specific properties at their lowest unit of property.

Retirements of assets occur through the replacement of an asset in the normal course of business, the sale of an asset or the abandonment of a section of track. For retirements in the normal course of business, generally the life of the retired asset is within a reasonable range of the expected useful life, as determined in the depreciation studies, and, as such, no gain or loss is recognized under the group method. The asset's cost is removed from the asset account and the difference between its estimated historical cost and estimated related accumulated depreciation (net of salvage proceeds and dismantling costs), if any, is recorded as an adjustment to accumulated depreciation and no gain or loss is recognized. The estimated historical cost of the retired asset is estimated by using deflation factors or indices that closely correlate to the properties comprising the asset classes in combination with the estimated age of the retired asset using a first-in, first-out approach, and applying it to the replacement value of the asset.

In each depreciation study, an estimate is made of any excess or deficiency in accumulated depreciation for all corresponding asset classes to ensure that the depreciation rates remain appropriate. The excess or deficiency in accumulated depreciation is amortized over the remaining life of the asset class.

For retirements of depreciable properties that do not occur in the normal course of business, the historical cost, net of salvage proceeds, is recorded as a gain or loss in income. A retirement is considered not to be in the normal course of business if it meets the following criteria: (i) it is unusual, (ii) it is significant in amount, and (iii) it varies significantly from the retirement pattern identified through depreciation studies. A gain or loss is recognized in Other income for the sale of land or disposal of assets that are not part of railroad operations.

Leases

The Company engages in short and long-term leases for rolling stock including locomotives and freight cars, equipment, real estate and service contracts that contain embedded leases. The Company determines whether or not a contract contains a lease at inception. Leases with a term of twelve months or less are not recorded by the Company on the Consolidated Balance Sheets.

Finance and operating lease right-of-use assets and liabilities are recognized based on the present value of the future lease payments over the lease term at the commencement date. Where the implicit interest rate is not determinable from the lease, the Company uses internal incremental borrowing rates by tenor and currency to initially measure leases in excess of twelve months on the Consolidated Balance Sheets. Operating lease expense is recognized on a straight-line basis over the lease term.

The Company's lease contracts may contain termination, renewal, and/or purchase options, residual value guarantees, or a combination thereof, all of which are evaluated by the Company on a quarterly basis. The majority of renewal options available extend the lease term from one to five years. The Company accounts for such contract options when the Company is reasonably certain that it will exercise one of these options.

Lease contracts may contain lease and non-lease components that the Company generally accounts for separately, with the exception of the freight car asset category for which the Company has elected to not separate the lease and non-lease components.

Intangible assets

Intangible assets consist mainly of customer contracts and relationships acquired through business acquisitions. Intangible assets are generally amortized on a straight-line basis over their expected useful lives, ranging from 20 to 50 years. If a change in the estimated useful life of an intangible asset is determined, amortization is adjusted prospectively.

With respect to impairment, the Company tests the recoverability of its intangible assets held and used whenever events or changes in circumstances indicate that the carrying amount may not be recoverable, based on future undiscounted cash flows. If the carrying amount of an intangible asset is not recoverable and exceeds the fair value, an impairment loss is recognized for the amount by which the carrying amount of the asset exceeds the fair value.

Goodwill

The Company recognizes goodwill as the excess of the purchase price over the fair value of identifiable net assets acquired in business combinations. Goodwill is assigned to the reporting units that are expected to benefit from the business acquisition. The carrying amount of goodwill is not amortized; instead, it is tested for impairment annually as of the first day of the fiscal fourth quarter or more frequently if events or changes in circumstances indicate that it is more likely than not that the fair value of a reporting unit is less than the carrying amount.

With respect to impairment, the Company may first assess certain qualitative factors to determine if it is more likely than not that the fair value of a reporting unit is less than its carrying amount, including goodwill, or proceed directly to a quantitative goodwill impairment test. Qualitative factors include but are not limited to, economic, market and industry conditions, cost factors and overall financial performance of the reporting unit, and events such as changes in management or customers. If the qualitative assessment indicates that it is more likely than not that the fair value of a reporting unit is less than its carrying amount, the quantitative impairment test must be performed. The quantitative impairment test is performed by comparing the fair value of a reporting unit with its carrying amount, including goodwill, and an impairment loss is recognized for the amount by which the carrying amount exceeds the reporting unit's fair value, up to the value of goodwill. The Company defines the fair value of a reporting unit as the price that would be received to sell the reporting unit as a whole in an orderly transaction between market participants as of the impairment date. To determine the fair value of a reporting unit, the Company uses the discounted cash flow method using the pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset or group of assets.

Accounts receivable securitization

Based on the structure of its accounts receivable securitization program, the Company accounts for the proceeds received as secured borrowings.

Pensions

Pension costs are determined using actuarial methods. Net periodic benefit cost (income) includes the current service cost of pension benefits provided in exchange for employee service rendered during the year, which is recorded in Labor and fringe benefits expense. Net periodic benefit cost (income) also includes the following, which are recorded in Other components of net periodic benefit income (cost):

- the interest cost of pension obligations;
- the expected long-term return on pension fund assets;
- the amortization of prior service costs and amendments over the expected average remaining service life of the employee group covered by the plans; and
- the amortization of cumulative net actuarial gains and losses in excess of 10% of the greater of the beginning of year balances of the projected benefit obligation or market-related value of plan assets, over the expected average remaining service life of the employee group covered by the plans.

The pension plans are funded through contributions determined in accordance with the projected unit credit actuarial cost method.

Postretirement benefits other than pensions

The Company accrues the cost of postretirement benefits other than pensions using actuarial methods. These benefits, which are funded as they become due, include life insurance programs, medical benefits and, for a closed group of employees, free rail travel benefits.

The Company amortizes the cumulative net actuarial gains and losses in excess of 10% of the projected benefit obligation at the beginning of the year, over the expected average remaining service life of the employee group covered by the plan.

Additional paid-in capital

Additional paid-in capital includes the stock-based compensation expense on equity settled awards and other items relating to equity settled awards. Upon the exercise of stock options, the stock-based compensation expense related to those awards is reclassified from Additional paid-in capital to Common shares. Upon settlement of all other equity settled awards, the Company reclassifies from Additional paid-in capital to Retained Earnings the stock-based compensation expense and other items related to equity settled awards, up to the amount of the settlement cost. The excess, if any, of the settlement cost over the stock-based compensation expense is recorded in Retained Earnings.

Stock-based compensation

For equity settled awards, stock-based compensation costs are accrued over the requisite service period based on the fair value of the awards at the grant date. The grant date fair value of performance share unit (PSU) awards is dependent on the type of PSU award. The grant date fair value of PSU-ROIC awards is determined using a lattice-based model incorporating a minimum share price condition and the grant date fair value of PSU-TSR awards is determined using a Monte Carlo simulation model. The grant date fair value of equity settled deferred share unit (DSU) awards is determined using the stock price at the grant date. The grant date fair value of stock option awards is determined using the Black-Scholes option-pricing model. For cash settled awards, stock-based compensation costs are accrued over the requisite service period based on the fair value determined at each period-end. The fair value of cash settled DSU awards is determined using their intrinsic value.

Personal injury and other claims

In Canada, the Company accounts for costs related to employee work-related injuries based on actuarially developed estimates on a discounted basis of the ultimate cost associated with such injuries, including compensation, health care and third-party administration costs. In the U.S., the Company accrues the expected cost for personal injury, property damage and occupational disease claims, based on actuarial estimates of their ultimate cost on an undiscounted basis. For all other legal actions in Canada and the U.S., the Company maintains, and regularly updates on a case-by-case basis, provisions for such items when the expected loss is both probable and can be reasonably estimated based on currently available information.

Environmental expenditures

Environmental expenditures that relate to current operations, or to an existing condition caused by past operations, are expensed as incurred. Environmental expenditures that provide a future benefit are capitalized. Environmental liabilities are recorded when environmental assessments occur, remedial efforts are probable, and when the costs, based on a specific plan of action in terms of the technology to be used and the extent of the corrective action required, can be reasonably estimated. The Company accrues its allocable share of liability taking into account the Company's alleged responsibility, the number of potentially responsible parties and their ability to pay their respective shares of the liability. Recoveries of environmental remediation costs from other parties are recorded as assets when their receipt is deemed probable.

Derivative financial instruments

The Company uses derivative financial instruments from time to time in the management of its interest rate and foreign currency exposures. Derivative instruments are recorded on the balance sheet at fair value. The changes in fair value of derivative instruments not designated or not qualified as a hedge are recorded in Net income in the current period.

2 – Recent accounting pronouncements

The following recent Accounting Standards Update (ASU) issued by the FASB was adopted by the Company during the current year:

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 the update to the Accounts receivable accounting policy in *Note 1 - Summary of significant accounting policies*.

The following recent ASU issued by FASB came into effect during the current year 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 be 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$325 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.

The following recent ASU issued by FASB has an effective date after December 31, 2020 and has not been adopted by the Company:

ASU 2019-12 Income taxes (Topic 740): Simplifying the accounting for income taxes

The ASU adds new guidance to simplify accounting for income taxes, changes the accounting for certain income tax transactions and makes minor improvements to the codification. The ASU introduces new guidance that provides a policy election to not allocate consolidated income taxes when a member of a consolidated tax return is not subject to income tax, and provides guidance to evaluate whether a step-up in tax basis of goodwill relates to a business combination in which book goodwill was recognized or a separate transaction. In addition, the ASU changes the current guidance by making an intraperiod allocation if there is a loss in continuing operations and gains outside of continuing operations; by determining when a deferred tax liability is recognized after an investor in a foreign entity transitions to or from the equity method of accounting; by accounting for tax law changes and year-to-date losses in interim periods; and by determining how to apply the income tax guidance to franchise taxes and other taxes that are partially based on income.

The ASU is effective for annual and any interim period beginning after December 15, 2020. Early adoption is permitted.

The Company has evaluated the effects that the adoption of the ASU will have on its Consolidated Financial Statements and has concluded it will not have a significant impact.

Other recently issued ASUs required to be applied for periods beginning on or after January 1, 2021 have been evaluated by the Company and are not expected to have a significant impact on the Company's Consolidated Financial Statements.

3 – Business combinations

2019

Acquisition of intermodal division of H&R Transport Limited

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.

The Company's Consolidated Balance Sheets include 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.

The total purchase price of $105 million included $95 million cash paid on the closing date and subsequent consideration of $10 million mostly related to funds withheld for the indemnification of claims, of which $2 million remains to be paid.

The following table summarizes the consideration transferred to acquire H&R, as well as the fair value of the assets acquired and liabilities assumed, and goodwill that were recognized at the acquisition date:

In millions		December 2 2019
Consideration transferred		
Cash paid at closing	$	95
Subsequent consideration (1)		10
Fair value of total consideration transferred	$	105
Recognized amounts of identifiable assets acquired and liabilities assumed (2)		
Current assets	$	10
Non-current assets (3)		84
Non-current liabilities		(1)
Total identifiable net assets (4)	$	93
Goodwill (5)	$	12

(1) *Primarily comprised of funds withheld for the indemnification of claims, of which $2 million remains to be paid.*

(2) *As at the acquisition date, the purchase price was preliminary and subject to change over the measurement period, permitted to be up to one year from the acquisition date. The Company's purchase price allocation is now final.*

(3) *Includes identifiable intangible assets of $52 million.*

(4) *Includes operating lease right-of-use assets and liabilities.*

(5) *The goodwill acquired through the business combination is mainly attributable to the premium of an established business operation. The goodwill is deductible for tax purposes.*

Acquisition of the TransX Group of Companies

On March 20, 2019, the Company acquired the Manitoba-based TransX Group of Companies ("TransX"). TransX provides various transportation and logistics services, including intermodal, truckload, less than truckload and specialized services. The acquisition positions CN to strengthen its intermodal business, and allows the Company to expand capacity and foster additional supply chain solutions.

The Company's Consolidated Balance Sheets include 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.

The total purchase price of $192 million included an initial cash payment of $170 million, additional consideration of $25 million, less an adjustment of $3 million in the fourth quarter of 2019 to reflect the settlement of working capital. The acquisition date fair value of the additional consideration, recorded as a contingent liability, was estimated based on the expected outcome of operational and financial targets, and remained unchanged since the acquisition date. The fair value measure was based on Level 3 inputs not observable in the market. On August 27, 2019, the additional consideration was paid.

The following table summarizes the consideration transferred to acquire TransX, as well as the fair value of the assets acquired and liabilities assumed, and goodwill that were recognized at the acquisition date:

In millions		March 20 2019
Consideration transferred		
Cash paid at closing	$	170
Additional cash consideration and other (1)		22
Fair value of total consideration transferred	$	192
Recognized amounts of identifiable assets acquired and liabilities assumed (2)		
Current assets	$	85
Non-current assets (3)		260
Current liabilities		(134)
Non-current liabilities		(77)
Total identifiable net assets (4)	$	134
Goodwill (5)	$	58

(1) Includes additional cash consideration paid of $25 million less an adjustment of $3 million to reflect the settlement of working capital.

(2) As at the acquisition date, the purchase price was preliminary and subject to change over the measurement period, permitted to be up to one year from the acquisition date. In the first quarter of 2020, based on updated information available to the Company, the fair value of net assets acquired was adjusted to reflect a net decrease to current and deferred income tax balances of $7 million, resulting in a decrease to Goodwill for the same amount. The Company's purchase price allocation is now final.

(3) Includes identifiable intangible assets of $34 million.

(4) Includes finance and operating lease right-of-use assets and liabilities.

(5) The goodwill acquired through the business combination is mainly attributable to the premium of an established business operation. The goodwill is not deductible for tax purposes.

4 – Revenues

The following table provides disaggregated information for revenues:

In millions	*Year ended December 31,*		**2020**		2019		2018
Freight revenues							
Petroleum and chemicals		**$**	**2,631**	$	3,052	$	2,660
Metals and minerals			**1,409**		1,643		1,689
Forest products			**1,700**		1,808		1,886
Coal			**527**		658		661
Grain and fertilizers			**2,609**		2,392		2,357
Intermodal			**3,751**		3,787		3,465
Automotive			**591**		858		830
Total freight revenues			**13,218**		14,198		13,548
Other revenues			**601**		719		773
Total revenues (1) (2)		**$**	**13,819**	$	14,917	$	14,321

(1) As at December 31, 2020, the Company had remaining performance obligations related to freight in-transit, for which revenues of $101 million (2019 - $91 million) are expected to be recognized in the next period.

(2) See Note 23 - Segmented information for the disaggregation of revenues by geographic area.

Contract liabilities

The following table provides a reconciliation of the beginning and ending balances of contract liabilities for the years ended December 31, 2020, and 2019:

In millions		2020		2019
Beginning of year	**$**	**211**	$	3
Revenue recognized included in the beginning balance		**(16)**		(3)
Increase due to consideration received, net of revenue recognized		**5**		211
End of year	**$**	**200**	$	211
Current portion - End of year	**$**	**115**	$	50

5 – Assets held for sale

In the second quarter of 2020, the Company committed to a plan and is actively marketing for sale for on-going rail operations, certain non-core lines in Wisconsin, Michigan and Ontario representing approximately 850 miles and has met the criteria for classification of the related assets as assets held for sale. Accordingly, a $486 million loss ($363 million after-tax) was recorded to adjust the carrying amount of these track and roadway assets to their estimated selling price. The carrying amount of assets held for sale of $90 million is included in Other current assets in the Consolidated Balance Sheet at December 31, 2020. The estimated selling price is based primarily on discounted cash flow projections. These projections are based on Level 3 inputs of the fair value hierarchy and reflect the Company's best estimate of market participants' pricing of the assets as well as the general condition of the assets. Had alternative significant Level 3 inputs been used to calculate the estimated selling price at December 31, 2020, the alternative calculation would not have been materially different. The significant assumptions in the valuation model include projected cash flows, discount rate and growth rate. As at December 31, 2020, the criteria for the classification of assets held for sale continued to be met and there was no change in the Company's carrying amount of assets held for sale.

6 – Other income

In millions *Year ended December 31,*		2020		2019		2018
Gain on disposal of property	**$**	**—**	$	—	$	338
Gain on disposal of land		**11**		50		27
Other [(1)]		**(5)**		3		11
Total other income	**$**	**6**	$	53	$	376

(1) Includes foreign exchange gains and losses related to foreign exchange forward contracts and the re-measurement of foreign currency denominated monetary assets and liabilities. See Note 22 – Financial instruments for additional information.

Disposal of property

2018

Guelph

On November 15, 2018, the Company recorded a gain of $79 million ($70 million after-tax) in Other income upon transfer of control of a segment of the Guelph subdivision located between Georgetown and Kitchener, Ontario, together with the rail fixtures and certain passenger agreements (the "Guelph"). The gain recognized in 2018 was previously deferred from a 2014 transaction at which time the Company did not transfer control.

Doney and St-Francois Spurs

On September 5, 2018, the Company completed the sale of property located in Montreal, Quebec (the "Doney and St-Francois Spurs") for cash proceeds of $40 million. The transaction resulted in a gain of $36 million ($32 million after-tax) that was recorded in Other income on that date.

Central Station Railway Lease

On April 9, 2018, the Company completed the transfer of its finance lease in the passenger rail facilities in Montreal, Quebec, together with its interests in related railway operating agreements (the “Central Station Railway Lease”), for cash proceeds of $115 million. The transaction resulted in a gain of $184 million ($156 million after-tax) that was recorded in Other income on that date. The gain includes the difference between the net book value of the asset and the cash proceeds, the extinguishment of the finance lease obligation, and the recognition of a gain previously deferred from a sale-leaseback transaction.

Calgary Industrial Lead

On April 6, 2018, the Company completed the sale of land located in Calgary, Alberta, excluding the rail fixtures (the “Calgary Industrial Lead”), for cash proceeds of $39 million. The transaction resulted in a gain of $39 million ($34 million after-tax) that was recorded in Other income on that date.

7 – Income taxes

The Company's consolidated effective income tax rate differs from the Canadian, or domestic, statutory federal tax rate. The effective tax rate is affected by recurring items in provincial, U.S. federal, state and other foreign jurisdictions, such as tax rates and the proportion of income earned in those jurisdictions. The effective tax rate is also affected by discrete items such as income tax rate enactments, and lower corporate income tax rates on capital dispositions that may occur in any given year.

The enactment of the Tax Cuts and Jobs Act ("U.S. Tax Reform") in 2017 brought about significant tax law changes, which included a reduction to the U.S. federal corporate income tax rate from 35% to 21% and allowed the immediate capital expensing of new investments in certain qualified depreciable assets which will be phased down starting in year 2023. The U.S. Tax Reform also introduced the creation of a Base Erosion Anti-abuse Tax (BEAT) that subjects certain payments from U.S. corporations to foreign related parties to additional taxes, and limitations to the deduction for net interest expense incurred by U.S. corporations. Since the enactment of the U.S. Tax Reforms, U.S. authorities have issued various proposed and finalized regulations and guidance interpreting its provisions. These interpretations have been taken into account in calculating the Company's current year income tax provision and tax payments. The U.S. Tax Reform and these regulations are also expected to impact the Company's income tax provisions and tax payments in future years.

On March 27, 2020, the U.S. government enacted the *Coronavirus Aid, Relief, and Economic Security* (CARES) *Act*, a tax-and-spending package aimed at providing additional stimulus to address the economic impact of the COVID-19 pandemic. The CARES Act corporate income tax measures allow for 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 2019 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 in 2020 to reflect an amount recoverable at the higher U.S. federal corporate income tax rate of 35% applicable to pre-2018 tax years.

The following table provides a reconciliation of income tax expense:

In millions	*Year ended December 31,*	**2020**		2019		2018
Canadian statutory federal tax rate		**15%**		15%		15%
Income tax expense at the Canadian statutory federal tax rate	**$**	**682**	$	814	$	852
Income tax expense resulting from:						
Provincial and foreign income taxes (1)		**416**		551		535
Income tax adjustments due to rate enactments and tax law changes (2)		**(141)**		(112)		—
Gain on disposals (3)		**(1)**		(6)		(51)
Other (4)		**26**		(34)		18
Income tax expense	**$**	**982**	$	1,213	$	1,354
Net cash payments for income taxes	**$**	**353**	$	822	$	776

(1) *Includes mainly the impact of Canadian provincial taxes and U.S. federal and state taxes.*

(2) *Includes income tax recoveries (current or deferred as appropriate) resulting from the enactment of provincial, U.S. federal, and state corporate income tax laws and/or rates.*

(3) *Relates to the permanent differences arising from lower capital gain tax rates on the gain on disposal of the Company's properties in Canada.*

(4) *Includes adjustments relating to the filing or resolution of matters pertaining to prior years' income taxes, including net recognized tax benefits, excess tax benefits, and other items.*

The following table provides tax information on a domestic and foreign basis:

In millions	*Year ended December 31,*	**2020**	2019	2018
Income before income taxes				
Domestic		**$ 3,637**	$ 4,162	$ 4,400
Foreign		**907**	1,267	1,282
Total income before income taxes		**$ 4,544**	$ 5,429	$ 5,682
Current income tax expense (recovery)				
Domestic		**$ 616**	$ 608	$ 818
Foreign		**(121)**	36	9
Total current income tax expense		**$ 495**	$ 644	$ 827
Deferred income tax expense				
Domestic		**$ 389**	$ 423	$ 419
Foreign		**98**	146	108
Total deferred income tax expense		**$ 487**	$ 569	$ 527

The following table provides the significant components of deferred income tax assets and liabilities:

In millions	*December 31,*	**2020**	2019
Deferred income tax assets			
Pension liability		**$ 145**	$ 137
Lease liabilities		**126**	127
Net operating losses and tax credit carryforwards (1)		**70**	234
Personal injury and other claims		**68**	61
Other postretirement benefits liability		**59**	59
Compensation reserves		**41**	51
Other		**69**	69
Total deferred income tax assets		**$ 578**	$ 738
Deferred income tax liabilities			
Properties		**$ 8,321**	$ 8,222
Pension asset		**203**	88
Operating lease right-of-use assets		**118**	131
Unrealized foreign exchange gains		**45**	15
Other		**162**	126
Total deferred income tax liabilities		**$ 8,849**	$ 8,582
Total net deferred income tax liability		**$ 8,271**	$ 7,844
Total net deferred income tax liability			
Domestic		**$ 4,612**	$ 4,184
Foreign		**3,659**	3,660
Total net deferred income tax liability		**$ 8,271**	$ 7,844

(1) *As at December 31, 2020, the Company had net interest expense deduction carryforwards of $100 million which are available to offset future U.S. federal and state taxable income over an indefinite period. In addition, the Company had net operating loss carryforwards of $462 million for U.S. state tax purposes which are available to offset future U.S. state taxable income and are expiring between the years 2021 and 2040. The Company also had net operating loss carryforwards of $92 million for Canadian federal and provincial tax purposes, which are available to offset future Canadian federal and provincial taxable income and are expiring between the years 2031 and 2039.*

On an annual basis, the Company assesses the need to establish a valuation allowance for its deferred income tax assets, and if it is deemed more likely than not that its deferred income tax assets will not be realized, a valuation allowance is recorded. The ultimate realization of deferred income tax assets is dependent upon the generation of future taxable income, of the necessary character, during the periods in which those temporary differences become deductible. Management considers the scheduled reversals of deferred income tax liabilities, the available carryback and carryforward periods, and projected future taxable income in making this assessment. As at December 31, 2020, in order to fully realize all of the deferred income tax assets, the Company will need to generate future taxable income of approximately $2.7 billion, and, based upon the level of historical taxable income, projections of future taxable income of the necessary character over the periods in which the deferred income tax assets are deductible, and the reversal of taxable temporary differences, management believes, following an assessment of the current economic environment, it is more likely than not that the Company will realize the benefits of these deductible differences. As at December 31, 2020, the Company has not recognized a deferred income tax asset of $259 million (2019 - $244 million) on the unrealized foreign exchange loss recorded in Accumulated other comprehensive loss relating to its net investment in U.S. subsidiaries, as the Company does not expect this temporary difference to reverse in the foreseeable future.

The following table provides a reconciliation of unrecognized tax benefits on the Company's domestic and foreign tax positions:

In millions *Year ended December 31,*		**2020**		2019		2018
Gross unrecognized tax benefits at beginning of year	**$**	**62**	$	74	$	74
Increases for:						
Tax positions related to the current year		**17**		5		12
Tax positions related to prior years		**28**		—		2
Decreases for:						
Tax positions related to prior years		**(15)**		(17)		(13)
Settlements		**—**		—		(1)
Gross unrecognized tax benefits at end of year		**92**		62		74
Adjustments to reflect tax treaties and other arrangements		**(25)**		(2)		(5)
Net unrecognized tax benefits at end of year	**$**	**67**	$	60	$	69

As at December 31, 2020, the total amount of gross unrecognized tax benefits was $92 million, before considering tax treaties and other arrangements between taxation authorities. The amount of net unrecognized tax benefits as at December 31, 2020 was $67 million. If recognized, $16 million of the net unrecognized tax benefits as at December 31, 2020 would affect the effective tax rate. The Company believes that it is reasonably possible that $15 million of the net unrecognized tax benefits as at December 31, 2020 related to Canadian federal and provincial income tax matters, may be recognized over the next twelve months as a result of settlements and a lapse of the applicable statute of limitations, and will not affect the effective tax rate as they relate to temporary differences.

The Company recognizes accrued interest and penalties related to gross unrecognized tax benefits in Income tax expense in the Company's Consolidated Statements of Income. For the year ended December 31, 2020, the Company recognized accrued interest and penalties of $16 million (2019 - $1 million; 2018 - $3 million). As at December 31, 2020, the Company had accrued interest and penalties of $27 million (2019 - $11 million).

In Canada, the Company's federal and provincial income tax returns filed for the years 2014 to 2019 remain subject to examination by the taxation authorities. An examination of the Company's federal income tax returns for the years 2014 and 2015 are currently in progress and are expected to be completed during 2021. During 2020, the tax authorities proposed certain audit adjustments and as a result, the Company re-evaluated the relevant tax positions for all open years and recorded a $25 million deferred tax expense which is comprised of net unrecognized tax benefits and related interest charges. In the U.S., the federal income tax returns filed for the years 2013 to 2019 and the state income tax returns filed for the years 2016 to 2019 remain subject to examination by the taxation authorities. Examination of certain of the Company's state income tax returns are currently in progress. The Company does not anticipate any additional significant impacts to its results of operations or financial position as a result of the final resolutions of such matters.

8 – Earnings per share

The following table provides a reconciliation between basic and diluted earnings per share:

In millions, except per share data	*Year ended December 31,*	**2020**		2019		2018
Net income	**$**	**3,562**	$	4,216	$	4,328
Weighted-average basic shares outstanding		**711.3**		720.1		734.5
Dilutive effect of stock-based compensation		**1.7**		2.5		3.2
Weighted-average diluted shares outstanding		**713.0**		722.6		737.7
Basic earnings per share	**$**	**5.01**	$	5.85	$	5.89
Diluted earnings per share	**$**	**5.00**	$	5.83	$	5.87
Units excluded from the calculation as their inclusion would not have a dilutive effect						
Stock options		**0.7**		0.5		0.6
Performance share units		**0.3**		0.2		0.3

9 – Accounts receivable

In millions	*December 31,*	**2020**		2019
Freight	**$**	**869**	$	1,008
Non-freight		**211**		233
Gross accounts receivable		**1,080**		1,241
Allowance for credit losses		**(26)**		(28)
Net accounts receivable	**$**	**1,054**	$	1,213

10 – Other current assets

In millions	*December 31,*	**2020**		2019
Prepaid expenses	**$**	**148**	$	142
Assets held for sale *(Note 5)*		**90**		—
Income taxes receivable		**85**		219
Other		**42**		57
Total other current assets	**$**	**365**	$	418

11 – Properties

		December 31, 2020			December 31, 2019		
In millions	**Depreciation rate**	**Cost**	**Accumulated Depreciation**	**Net**	Cost	Accumulated Depreciation	Net
Properties including finance leases							
Track and roadway (1) (2)	**2 %**	**$ 39,805**	**$ 8,717**	**$ 31,088**	$ 39,395	$ 8,502	$ 30,893
Rolling stock	**5 %**	**7,665**	**2,986**	**4,679**	7,538	2,941	4,597
Buildings	**3 %**	**2,047**	**727**	**1,320**	1,956	692	1,264
Information technology (3)	**9 %**	**2,218**	**833**	**1,385**	1,972	688	1,284
Other	**5 %**	**2,777**	**1,180**	**1,597**	2,720	1,089	1,631
Total properties including finance leases (4) (5)		**$ 54,512**	**$ 14,443**	**$ 40,069**	$ 53,581	$ 13,912	$ 39,669
Finance leases included in properties							
Track and roadway (6)		**$ 406**	**$ 90**	**$ 316**	$ 406	$ 85	$ 321
Rolling stock		**61**	**3**	**58**	87	2	85
Buildings		**27**	**10**	**17**	27	9	18
Other		**107**	**21**	**86**	128	18	110
Total finance leases included in properties		**$ 601**	**$ 124**	**$ 477**	$ 648	$ 114	$ 534

(1) As at December 31, 2020, includes land of $2,316 million (2019 - $2,401 million).

(2) In 2020, the Company made an adjustment of $576 million for assets held for sale. See Note 5 – Assets held for sale for additional information.

(3) In 2020, the Company capitalized costs for internally developed software and related licenses of $205 million (2019 - $273 million).

(4) In 2020, property additions, net of finance leases, were $2,863 million (2019 - $3,865 million), of which $1,427 million (2019 - $1,489 million) related to track and railway infrastructure maintenance, including the replacement of rail, ties, bridge improvements, and other general track maintenance.

(5) In 2020, depreciation expense related to properties was $1,583 million (2019 - $1,559 million).

(6) As at December 31, 2020, includes right-of-way access of $106 million (2019 - $106 million).

In the first quarter of 2019, the Company recognized an expense of $84 million related to costs previously capitalized for a Positive Train Control (PTC) back office system following the deployment of a replacement system. The expense was recognized in Depreciation and amortization on the Consolidated Statements of Income.

12 – Leases

The Company adopted ASU 2016-02 Leases in the first quarter of 2019 with an effective date of January 1, 2019 using a modified retrospective approach with a cumulative-effect adjustment to Retained earnings recognized on January 1, 2019, with no restatement of comparative period financial information. As at January 1, 2019, the cumulative-effect adjustment to adopt the new standard increased the balance of Retained earnings by $29 million, relating to a deferred gain on a sale-leaseback transaction of a real estate property. The initial adoption transition adjustment to record right-of-use assets and lease liabilities for leases over twelve months on the Company's Consolidated Balance Sheet was $756 million to each balance. The initial adoption transition adjustment is comprised of finance and operating leases of $215 million and $541 million, respectively. New finance lease right-of-use assets and finance lease liabilities are a result of the reassessment of leases with purchase options that are reasonably certain to be exercised by the Company under the transition to Topic 842, previously accounted for as operating leases.

The following table provides the Company's lease costs for the year ended December 31, 2020 and 2019:

In millions	*Year ended December 31,*	**2020**	2019
Finance lease cost			
Amortization of right-of-use assets		**$ 12**	$ 11
Interest on lease liabilities		**3**	8
Total finance lease cost		**15**	19
Operating lease cost		**143**	171
Short-term lease cost		**42**	47
Variable lease cost (1)		**63**	63
Total lease cost (2)		**$ 263**	$ 300

(1) *Mainly relates to leases of trucks for the Company's freight delivery service contracts.*

(2) *Includes lease costs from Purchased services and material and Equipment rents in the Consolidated Statements of Income.*

Rental expense for operating leases for the year ended December 31, 2018 was $218 million.

The following table provides the Company's lease right-of-use assets and lease liabilities, and their classification on the Consolidated Balance Sheets as at December 31, 2020 and 2019:

In millions	**Classification**	*December 31,*	**2020**	2019
Lease right-of-use assets				
Finance leases	Properties		**$ 477**	$ 534
Operating leases	Operating lease right-of-use assets		**435**	520
Total lease right-of-use assets			**$ 912**	$ 1,054
Lease liabilities				
Current				
Finance leases	Current portion of long-term debt		**$ 70**	$ 59
Operating leases	Accounts payable and other		**107**	122
Noncurrent				
Finance leases	Long-term debt		**4**	75
Operating leases	Operating lease liabilities		**311**	379
Total lease liabilities			**$ 492**	$ 635

The following table provides the remaining lease terms and discount rates for the Company's leases as at December 31, 2020 and 2019:

	December 31,	**2020**	2019
Weighted-average remaining lease term *(years)*			
Finance leases		**0.8**	1.4
Operating leases		**6.8**	7.0
Weighted-average discount rate *(%)*			
Finance leases		**3.10**	3.21
Operating leases		**2.79**	3.12

The following table provides additional information for the Company's leases for the year ended December 31, 2020 and 2019:

In millions	*Year ended December 31,*	**2020**	2019
Cash paid for amounts included in the measurement of lease liabilities *($)*			
Operating cash outflows from operating leases		**142**	170
Operating cash outflows from finance leases		**3**	6
Financing cash outflows from finance leases		**59**	162
Right-of-use assets obtained in exchange for lease liabilities *($)*			
Operating lease		**53**	79
Finance lease		**—**	—

The following table provides the maturities of lease liabilities for the next five years and thereafter as at December 31, 2020:

In millions	Finance leases	Operating leases [1]
2021	$ 71	$ 118
2022	1	84
2023	—	61
2024	—	41
2025	—	35
2026 and thereafter	3	125
Total lease payments	75	464
Less: Imputed interest	1	46
Present value of lease payments	$ 74	$ 418

(1) Includes $70 million related to renewal options that are reasonably certain to be exercised.

13 – Intangible assets, goodwill and other

In millions *December 31,*	**2020**	2019
Intangible assets	**$ 145**	$ 152
Investments [1]	**83**	84
Goodwill *(Note 3)*	**70**	77
Deferred costs	**64**	67
Long-term receivables	**37**	31
Other long-term assets	**22**	18
Total intangible assets, goodwill and other	**$ 421**	$ 429

(1) As at December 31, 2020, the Company had $56 million (2019 - $60 million) of investments accounted for under the equity method and $27 million (2019 - $24 million) of investments for which fair value was not readily determinable accounted for at cost minus impairment, plus or minus observable price changes.

14 – Accounts payable and other

In millions *December 31,*	**2020**	2019
Trade payables	**$ 780**	$ 866
Payroll-related accruals	**349**	284
Accrued charges	**293**	318
Income and other taxes	**223**	202
Accrued interest	**162**	161
Contract liabilities (*Note 4*)	**115**	50
Personal injury and other claims provisions *(Note 21)*	**109**	91
Operating lease liabilities *(Note 12)*	**107**	122
Environmental provisions *(Note 21)*	**46**	38
Other postretirement benefits liability *(Note 17)*	**14**	15
Other	**166**	210
Total accounts payable and other	**$ 2,364**	$ 2,357

15 – Debt

In millions		Maturity		US dollar-denominated amount	*December 31,*	2020		2019
Notes and debentures (1)								
Canadian National series:								
2.40%	2-year notes (2)	Feb 3, 2020	US$	300	$	**—**	$	390
2.75%	7-year notes (2)	Feb 18, 2021				**250**		250
2.85%	10-year notes (2)	Dec 15, 2021	US$	400		**509**		520
2.25%	10-year notes (2)	Nov 15, 2022	US$	250		**318**		325
7.63%	30-year debentures	May 15, 2023	US$	150		**191**		195
2.95%	10-year notes (2)	Nov 21, 2024	US$	350		**445**		455
2.80%	10-year notes (2)	Sep 22, 2025				**350**		350
2.75%	10-year notes (2)	Mar 1, 2026	US$	500		**636**		649
6.90%	30-year notes (2)	Jul 15, 2028	US$	475		**604**		617
3.20%	10-year notes (2)	Jul 31, 2028				**350**		350
3.00%	10-year notes (2)	Feb 8, 2029				**350**		350
7.38%	30-year debentures (2)	Oct 15, 2031	US$	200		**255**		260
6.25%	30-year notes (2)	Aug 1, 2034	US$	500		**636**		649
6.20%	30-year notes (2)	Jun 1, 2036	US$	450		**573**		585
6.71%	Puttable Reset Securities PURS[SM] (2)	Jul 15, 2036	US$	250		**318**		325
6.38%	30-year debentures (2)	Nov 15, 2037	US$	300		**382**		390
3.50%	30-year notes (2)	Nov 15, 2042	US$	250		**318**		325
4.50%	30-year notes (2)	Nov 7, 2043	US$	250		**318**		325
3.95%	30-year notes (2)	Sep 22, 2045				**400**		400
3.20%	30-year notes (2)	Aug 2, 2046	US$	650		**827**		844
3.60%	30-year notes (2)	Aug 1, 2047				**500**		500
3.65%	30-year notes (2)	Feb 3, 2048	US$	600		**764**		779
3.60%	30-year notes (2)	Jul 31, 2048				**450**		450
4.45%	30-year notes (2)	Jan 20, 2049	US$	650		**827**		844
3.60%	30-year notes (2)	Feb 8, 2049				**450**		450
3.05%	30-year notes (2)	Feb 8, 2050				**450**		450
2.45%	30-year notes (2)	May 1, 2050	US$	600		**764**		—
4.00%	50-year notes (2)	Sep 22, 2065				**100**		100
Illinois Central series:								
7.70%	100-year debentures	Sep 15, 2096	US$	125		**159**		162
BC Rail series:								
Non-interest bearing 90-year subordinated notes (3)		Jul 14, 2094				**842**		842
Total notes and debentures						**13,336**		13,131
Other								
Commercial paper						**56**		1,277
Accounts receivable securitization						**—**		200
Finance leases						**74**		134
Equipment loans and other (4)						**402**		4
Total debt, gross						**13,868**		14,746
Net unamortized discount and debt issuance costs (3)						**(962)**		(950)
Total debt (5)						**12,906**		13,796
Less: Current portion of long-term debt						**910**		1,930
Total long-term debt					$	**11,996**	$	11,866

(1) The Company's notes and debentures are unsecured.

(2) The fixed rate debt securities are redeemable, in whole or in part, at the option of the Company, at any time, at the greater of par and a formula price based on interest rates prevailing at the time of redemption.

(3) As at December 31, 2020, these notes were recorded as a discounted debt of $13 million (2019 - $12 million) using an imputed interest rate of 5.75% (2019 - 5.75%). The discount of $829 million (2019 - $830 million) is included in Net unamortized discount and debt issuance costs.

(4) Includes $368 million of equipment loan under the non-revolving credit facility and $34 million of other equipment loans payable monthly at a weighed average interest rate of 2.00%.

(5) See Note 22 - Financial instruments for the fair value of debt.

Notes and debentures

For the year ended December 31, 2020, the Company issued and repaid the following:

- On May 1, 2020, issuance of US$600 million ($837 million) 2.45% Notes due 2050 in the U.S. capital markets, which resulted in net proceeds of $810 million; and
- On February 3, 2020, repayment of US$300 million ($397 million) 2.40% Notes due 2020 upon maturity.

For the year ended December 31, 2019, the Company issued the following:

- On November 1, 2019, issuance of $450 million 3.05% Notes due 2050 in the Canadian capital markets, which resulted in net proceeds of $443 million; and
- 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.

Revolving credit facilities

The Company has an unsecured revolving credit facility with a consortium of lenders, which is available for general corporate purposes, including backstopping the Company's commercial paper programs. The Company's revolving 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. Subject to the consent of the individual lenders, the Company has the option to increase the facility by an additional $500 million during its term and to request an extension once a year to maintain the tenors of three years and five years of the respective tranches. The credit facility provides for borrowings at various benchmark interest rates, plus applicable margins, based on CN's debt credit ratings. In 2020, the Company borrowed $100 million and repaid $100 million on this facility. As at December 31, 2020 and 2019, the Company had no outstanding borrowings under this revolving credit facility.

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 and provides for borrowings at various interest rates, plus a margin. On May 19, 2020, the Company entered into a supplement to the original agreement to increase the credit facility to $390 million. As at December 31, 2020, the Company had no outstanding borrowings under this revolving credit facility and there were no draws in 2020.

Both credit facility agreements have one financial covenant, which limits debt as a percentage of total capitalization, and with which the Company is in compliance.

Non-revolving credit facility

The Company has 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. 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.Term loans made under this facility have a tenor of 20 years, bear interest at a variable rate, are repayable in equal quarterly instalments, are prepayable at any time without penalty, and are secured by rolling stock.

On February 3, 2020, the Company issued a US$300 million ($397 million) equipment loan under this facility and repaid US$11 million ($15 million) in 2020.

As at December 31, 2020, the Company had outstanding borrowings of US$289 million ($368 million), at an interest rate of 0.87% and had US$310 million available under this non-revolving term loan facility. As at December 31, 2019, the Company had no outstanding borrowings and had US$300 million available under this non-revolving term loan facility.

Commercial paper

The Company has a commercial paper program in Canada and in the U.S. Both programs are backstopped by the Company's revolving credit facility. The maximum aggregate principal amount of commercial paper that could be issued is $2.0 billion, or the US dollar equivalent, on a combined basis.

As at December 31, 2020 and 2019, the Company had total commercial paper borrowings of US$44 million ($56 million) and US$983 million ($1,277 million), respectively, at a weighted-average interest rate of 0.13% and 1.77%, respectively, presented in Current portion of long-term debt on the Consolidated Balance Sheets.

The following table provides a summary of cash flows associated with the issuance and repayment of commercial paper:

In millions *Year ended December 31,*		**2020**		2019		2018
Commercial paper with maturities less than 90 days						
Issuance	**$**	**5,315**	$	5,069	$	8,292
Repayment		**(6,076)**		(5,141)		(8,442)
Change in commercial paper with maturities less than 90 days, net	**$**	**(761)**	$	(72)	$	(150)
Commercial paper with maturities of 90 days or greater						
Issuance	**$**	**736**	$	2,115	$	1,135
Repayment		**(1,248)**		(1,902)		(886)
Change in commercial paper with maturities of 90 days or greater, net	**$**	**(512)**	$	213	$	249
Change in commercial paper, net	**$**	**(1,273)**	$	141	$	99

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 December 31, 2020, the Company had no borrowings under the accounts receivable securitization program. As at December 31, 2019, the Company had borrowings under the accounts receivable securitization program of $200 million at a weighted-average interest rate of 1.90%, secured by and limited to $224 million of accounts receivable, presented in Current portion of long-term debt on the Consolidated Balance Sheets.

The following table provides a summary of cash flows associated with the proceeds received and repayment of the accounts receivable securitization program:

In millions *Year ended December 31,*		**2020**		2019		2018
Beginning of year	**$**	**200**	$	—	$	421
Proceeds received		**450**		420		530
Repayment		**(650)**		(220)		(950)
Foreign exchange		**—**		—		(1)
End of year	**$**	**—**	$	200	$	—

Bilateral letter of credit facilities

The Company has a series of committed and uncommitted bilateral letter of credit facility agreements. On June 11, 2020, the Company extended the maturity date of certain committed bilateral letter of credit facility agreements to April 28, 2023. The agreements are held with various banks to support the Company's requirements to post letters of credit in the ordinary course of business. Under these agreements, the Company has the option from time to time to pledge collateral in the form of cash or cash equivalents, for a minimum term of one month, equal to at least the face value of the letters of credit issued.

As at December 31, 2020, the Company had outstanding letters of credit of $421 million (2019 - $424 million) under the committed facilities from a total available amount of $492 million (2019 - $459 million) and $165 million (2019 - $149 million) under the uncommitted facilities.

As at December 31, 2020, included in Restricted cash and cash equivalents was $424 million (2019 - $429 million) and $100 million (2019 - $90 million) which were pledged as collateral under the committed and uncommitted bilateral letter of credit facilities, respectively.

Debt maturities

The following table provides the debt maturities, excluding finance lease liabilities, as at December 31, 2020, for the next five years and thereafter:

In millions		Debt [1]
2021	$	840
2022		329
2023		203
2024		459
2025		364
2026 and thereafter		10,637
Total		12,832
Finance lease liabilities [2]		74
Total debt	**$**	**12,906**

(1) Presented net of unamortized discounts and debt issuance costs.

(2) See Note 12 - Leases for maturities of finance lease liabilities.

Amount of US dollar-denominated debt

In millions	*December 31,*		**2020**		2019
Notes and debentures		**US$**	**6,950**	US$	6,650
Commercial paper			**44**		983
Finance lease liabilities			**50**		74
Equipment loans and other			**314**		—
Total amount of US dollar-denominated debt in US$		**US$**	**7,358**	US$	7,707
Total amount of US dollar-denominated debt in C$		**$**	**9,363**	$	10,011

16 – Other liabilities and deferred credits

In millions	*December 31,*		**2020**		2019
Personal injury and other claims provisions *(Note 21)* [1]		**$**	**238**	$	261
Contract liabilities *(Note 4)* [1]			**85**		161
Stock-based compensation liability *(Note 19)*			**14**		16
Environmental provisions *(Note 21)* [1]			**13**		19
Deferred credits and other			**184**		177
Total other liabilities and deferred credits		**$**	**534**	$	634

(1) See Note 14 – Accounts payable and other for the related current portion.

17 – Pensions and other postretirement benefits

The Company has various retirement benefit plans under which substantially all of its employees are entitled to benefits at retirement age, generally based on compensation and length of service and/or contributions. Senior and executive management employees, subject to certain minimum service and age requirements, are also eligible for an additional retirement benefit under their Special Retirement Stipend Agreements, the Supplemental Executive Retirement Plan or the Defined Contribution Supplemental Executive Retirement Plan.

The Company also offers postretirement benefits to certain employees providing life insurance, medical benefits and, for a closed group of employees, free rail travel benefits during retirement. These postretirement benefits are funded as they become due. The information in the tables that follow pertains to all of the Company's defined benefit plans. However, the following descriptions relate solely to the Company's main pension plan, the CN Pension Plan, unless otherwise specified.

Description of the CN Pension Plan

The CN Pension Plan is a contributory defined benefit pension plan that covers the majority of CN employees. It provides for pensions based mainly on years of service and final average pensionable earnings and is generally applicable from the first day of employment. Indexation of pensions is provided after retirement through a gain/loss sharing mechanism, subject to guaranteed minimum increases. An independent trust company is the Trustee of the Company's pension trust funds (which includes the CN Pension Trust Fund). As Trustee, the trust company performs certain duties, which include holding legal title to the assets of the CN Pension Trust Fund and ensuring that the Company, as Administrator, complies with the provisions of the CN Pension Plan and the related legislation. The Company utilizes a measurement date of December 31 for the CN Pension Plan.

Funding policy

Employee contributions to the CN Pension Plan are determined by the plan rules. Company contributions are in accordance with the requirements of the Government of Canada legislation, the *Pension Benefits Standards Act, 1985*, including amendments and regulations thereto, 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. These actuarial valuations are prepared in accordance with legislative requirements and with the recommendations of the Canadian Institute of Actuaries for the valuation of pension plans. Actuarial valuations are also required annually for the Company's U.S. qualified defined benefit pension plans.

The Company's most recently filed actuarial valuations for funding purposes for its Canadian registered defined benefit pension plans conducted as at December 31, 2019 indicated a funding excess on a going concern basis of approximately $3.5 billion and a funding excess on a solvency basis of approximately $0.6 billion, calculated using the three-year average of the plans' hypothetical wind-up ratio in accordance with the *Pension Benefit Standards Regulations, 1985*. The federal pension legislation requires funding deficits, if any, to be paid over a number of years, as calculated under current pension regulations. Alternatively, a letter of credit can be subscribed to fulfill required solvency deficit payments.

The Company's next actuarial valuations for funding purposes for its Canadian registered defined benefit pension plans required as at December 31, 2020 will be performed in 2021. These actuarial valuations are expected to identify a funding excess on a going concern basis of approximately $3.4 billion, while on a solvency basis a funding excess of approximately $0.5 billion is expected. Based on the anticipated results of these valuations, the Company expects to make total cash contributions of approximately $135 million for all of the Company's pension plans in 2021. As at February 1, 2021 the Company had contributed $64 million to its defined benefit pension plans for 2021.

Plan assets

The assets of the Company's various Canadian defined benefit pension plans are primarily held in separate trust funds ("Trusts") which are diversified by asset type, country, sector and investment strategy. Each year, the CN Board of Directors reviews and confirms or amends the Statement of Investment Policies and Procedures ("SIPP") which includes the plans' long-term target asset allocation ("Policy") and related benchmark indices. This Policy is based on the long-term expectations of the economy and financial market returns and considers the dynamics of the plans' pension benefit obligations. In 2020, the Policy was amended to implement a target asset allocation change to cash and short-term investments, and bonds and mortgages.

The CN Investment Division ("Investment Manager"), a division of the Company created to invest and administer the assets of the plan, can also implement an investment strategy ("Strategy") which can lead the Plan's actual asset allocation to deviate from the Policy due to changing market risks and opportunities. The Pension and Investment Committee of the Board of Directors ("Committee") regularly compares the actual plan asset allocation to the Policy and Strategy and compares the actual performance of the Company's pension plan assets to the performance of the benchmark indices.

The Company's 2020 Policy and actual asset allocation for the Company's pension plans based on fair value are as follows:

		Actual plan asset allocation	
	Policy	**2020**	2019
Cash and short-term investments	2 %	**3 %**	3 %
Bonds and mortgages	41 %	**37 %**	36 %
Emerging market debt	1.5 %	**2 %**	3 %
Private debt	1.5 %	**3 %**	3 %
Equities	35 %	**38 %**	37 %
Real estate	4 %	**2 %**	2 %
Oil and gas	7 %	**3 %**	5 %
Infrastructure	4 %	**3 %**	3 %
Absolute return	10 %	**10 %**	10 %
Alternative risk premia (1)	— %	**1 %**	1 %
Investment-related liabilities	(6)%	**(2)%**	(3)%
Total	100 %	**100 %**	100 %

(1) Asset class description has been changed from risk-factor allocation to alternative risk premia.

The Committee's approval is required for all major investments in illiquid securities. The SIPP allows for the use of derivative financial instruments to implement strategies, hedge and adjust existing or anticipated exposures. The SIPP prohibits investments in securities of the Company or its subsidiaries. Investments held in the Company's pension plans consist mainly of the following:

- Cash and short-term investments consist of highly liquid securities which ensure adequate cash flows are available to cover near-term benefit payments. Short-term investments are mainly obligations issued by Canadian chartered banks and by Canadian governments.
- Bonds include bond instruments, issued or guaranteed by governments and non-government entities. As at December 31, 2020, 80% (2019 - 80%) of bonds were issued or guaranteed by Canadian, U.S. or other governments. Mortgages consist of mortgage products which are primarily conventional or participating loans secured by commercial properties. On an exposure basis, the Plan's Policy for bonds and mortgages is 46%. This comprises a 41% allocation mainly to government and corporate bonds and a 5% allocation to derivative financial instruments related to bond exposure.
- Emerging market debt consists of units of co-mingled funds or in separate accounts managed by external managers whose mandate is to invest in debt instruments of emerging market countries.
- Private debt includes participations in private debt funds focused on generating steady yields.
- Equity investments include publicly traded securities diversified by industry sector, country and issuer and investments in mainly energy related private equity funds. As at December 31, 2020, the most significant allocation to an individual issuer of a publicly traded security was 3% (2019 - 1%) and the most significant allocation to an industry sector was 17% (2019 - 12%). On an exposure basis, the Plan's Policy for equities is 40%. This comprises a 35% allocation to equities and a 5% allocation to derivative financial instruments related to equity exposure.
- Real estate is a diversified portfolio of Canadian land and commercial properties and investments in real estate private equity funds.
- Oil and gas investments include petroleum and natural gas properties and listed and non-listed securities of oil and gas companies.
- Infrastructure investments include participations in private infrastructure funds, term loans and notes of infrastructure companies.
- Absolute return investments are primarily a portfolio of units of externally managed hedge funds, which are invested in various long/short strategies within multi-strategy, fixed income, global macro funds and growth insurance. Managers are monitored on a continuous basis through investment and operational due diligence.
- Alternative risk premia investments are a portfolio of units of externally managed funds and internally managed strategies on a risk-adjusted basis.
- Investment-related liabilities reflect a certain level of financing associated with securities sold under repurchase agreements and other assets.

The plans' Investment Manager monitors market events and risk exposures to foreign currencies, interest rates, market risks, credit risks and liquidity risks daily. When investing in foreign securities, the plans are exposed to foreign currency risk that may be adjusted or hedged; the effect of which is included in the valuation of the foreign securities. Net of the adjusted or hedged amount, the plans were 60% exposed to the Canadian dollar, 23% to the US dollar, 8% to European currencies, 2% to the Japanese Yen and 7% to various other currencies as at December 31, 2020. Interest rate risk represents the risk that the fair value of the investments will fluctuate due to changes in market interest rates. Sensitivity to interest rates is a function of the timing and amount of cash flows of the interest-bearing assets and liabilities of the plans. Derivatives are contractual agreements whose value is derived from interest rates, foreign currencies, commodities or equities, among other fluctuating inputs and factors. They may include forwards, futures, options, and swaps. Derivatives are included in the investment asset classes based on their underlying exposure and are used from time to time to synthetically replace any investment activity that would otherwise be accomplished through a direct investment in any investment asset class. When derivatives are used for hedging purposes, the gains or losses on the derivatives are offset by a corresponding change in the value of the hedged assets. To manage counterparty credit risk, established policies require dealing with counterparties considered to be of high credit quality. Adequate liquidity is maintained to cover cash flows by monitoring factors such as fair value, collateral pledged and received, repurchase agreements and securities lending agreements.

Overall return in the capital markets and the level of interest rates affect the funded status of the Company's pension plans, particularly the Company's main Canadian pension plan. Adverse changes with respect to pension plan returns and the level of interest rates from the date of the last actuarial valuations may have a material adverse effect on the funded status of the plans and on the Company's results of operations.

The following tables present the fair value of plan assets by asset class as at December 31, 2020 and 2019:

In millions		**Fair value measurements at December 31, 2020**								
		Total		**Level 1**		**Level 2**		**Level 3**		**NAV**
Cash and short-term investments [1]	$	594	$	41	$	553	$	–	$	–
Bonds [2]										
Canada, U.S. and supranational		642		–		642		–		–
Provinces of Canada and municipalities		5,103		–		5,103		–		–
Corporate		1,472		–		1,472		–		–
Emerging market debt [3]		406		–		406		–		–
Mortgages [4]		21		–		21		–		–
Private debt [5]		575		–		–		–		575
Public equities [6]										
Canadian		555		555		–		–		–
U.S.		3,249		3,214		35		–		–
International		3,477		3,477		–		–		–
Private equities [7]		303		–		–		–		303
Real estate [8]		381		–		–		279		102
Oil and gas [9]		649		128		17		504		–
Infrastructure [10]		571		–		65		–		506
Absolute return funds [11]										
Multi-strategy		1,032		–		–		–		1,032
Fixed income		68		–		–		–		68
Global macro		697		–		–		–		697
Growth insurance		92		92		–		–		–
Alternative risk premia [12]		191		–		–		–		191
Total investments [13]	**$**	**20,078**	**$**	**7,507**	**$**	**8,314**	**$**	**783**	**$**	**3,474**
Investment-related liabilities [14]		(441)								
Other [15]		86								
Total plan assets	**$**	**19,723**								

In millions		Fair value measurements at December 31, 2019								
		Total		Level 1		Level 2		Level 3		NAV
Cash and short-term investments [1]	$	502	$	92	$	410	$	–	$	–
Bonds [2]										
Canada, U.S. and supranational		771		–		771		–		–
Provinces of Canada and municipalities		4,503		–		4,503		–		–
Corporate		1,347		–		1,347		–		–
Emerging market debt [3]		500		–		500		–		–
Mortgages [4]		52		–		52		–		–
Private debt [5]		481		–		–		–		481
Public equities [6]										
Canadian		338		338		–		–		–
U.S.		3,265		3,234		31		–		–
International		3,006		3,006		–		–		–
Private equities [7]		215		–		–		–		215
Real estate [8]		435		–		–		329		106
Oil and gas [9]		901		177		17		707		–
Infrastructure [10]		619		–		66		–		553
Absolute return funds [11]										
Multi-strategy		1,083		–		–		–		1,083
Fixed income		175		–		–		–		175
Global macro		490		–		–		–		490
Growth Insurance		17		17		–		–		–
Alternative risk premia [12]		288		–		–		–		288
Total investments [13]	$	18,988	$	6,864	$	7,697	$	1,036	$	3,391
Investment-related liabilities [14]		(565)								
Other [15]		1								
Total plan assets	$	18,424								

Level 1: Fair value based on quoted prices in active markets for identical assets.
Level 2: Fair value based on other significant observable inputs.
Level 3: Fair value based on significant unobservable inputs.
NAV: Investments measured at net asset value as a practical expedient.

Footnotes to the tables follow on the next page.

The following table reconciles the beginning and ending balances of the fair value of investments classified as Level 3:

	Fair value measurements based on significant unobservable inputs (Level 3)		
In millions	**Real estate** [8]	**Oil and gas** [9]	**Total**
Balance at December 31, 2018	$ 321	$ 728	$ 1,049
Actual return relating to assets still held at the reporting date	13	7	20
Purchases	3	—	3
Sales	(1)	—	(1)
Disbursements	(7)	(28)	(35)
Balance at December 31, 2019	329	707	1,036
Actual return relating to assets still held at the reporting date	(54)	(188)	(242)
Purchases	6	—	6
Sales	(1)	—	(1)
Disbursements	(1)	(15)	(16)
Balance at December 31, 2020	**$ 279**	**$ 504**	**$ 783**

(1) Cash and short-term investments with related accrued interest are valued at cost, which approximates fair value, and are categorized as Level 1 and Level 2 respectively.

(2) Bonds are valued using mid-market prices obtained from independent pricing data suppliers. When prices are not available from independent sources, the fair value is based on the present value of future cash flows using current market yields for comparable instruments.

(3) Emerging market debt funds are valued based on the net asset value which is readily available and published by each fund's independent administrator.

(4) Mortgages are valued based on the present value of future net cash flows using current market yields for comparable instruments.

(5) Private debt investments are valued based on the net asset value as reported by each fund's manager, generally based on the present value of future net cash flows using current market yields for comparable instruments.

(6) The fair value of public equity investments is based on quoted prices in active markets for identical assets.

(7) Private equity investments are valued based on the net asset value as reported by each fund's manager, generally using discounted cash flow analysis or earnings multiples.

(8) The fair value of real estate investments categorized as Level 3 includes immoveable properties. Land is valued based on the fair value of comparable assets, and income producing properties are valued based on the present value of estimated future net cash flows or the fair value of comparable assets. Independent valuations of all immoveable properties are performed triennially on a rotational basis. The fair value of real estate investments categorized as NAV consists mainly of investments in real estate private equity funds and is based on the net asset value as reported by each fund's manager, generally using a discounted cash flow analysis or earnings multiples.

(9) Oil and gas investments categorized as Level 1 are valued based on quoted prices in active markets. Oil and gas participations traded on a secondary market are valued based on the most recent transaction price and are categorized as Level 2. Investments in oil and gas categorized as Level 3 consist of operating oil and gas properties and the fair value is based on estimated future net cash flows that are discounted using prevailing market rates for transactions in similar assets. Estimated future net cash flows are based on forecasted oil and gas prices and projected annual production and costs.

(10) The fair value of infrastructure investments categorized as Level 2 is based on the present value of future cash flows using current market yields for comparable instruments. The fair value of infrastructure funds categorized as NAV is based on the net asset value as reported by each fund's manager, generally using a discounted cash flow analysis or earnings multiples.

(11) Absolute return investments are valued using the net asset value as reported by each fund's independent administrator. All absolute return investments have contractual redemption frequencies, ranging from monthly to annually, and redemption notice periods varying from 5 to 90 days.

(12) Alternative risk premia investments are valued using the net asset value as reported by each fund's independent administrator or fund manager. All funds have contractual redemption frequencies ranging from daily to annually, and redemption notice periods varying from 5 to 60 days.

(13) Derivative financial instruments, which are included in total investments, are valued using quoted market prices when available and are categorized as Level 1, or based on valuation techniques using market data, when quoted market prices are not available and are categorized as Level 2. Derivatives are included in the investment asset categories based on their underlying exposure.

(14) Investment-related liabilities include securities sold under repurchase agreements. The securities sold under repurchase agreement do not meet the conditions to remove from the assets and are therefore maintained on the books with an offsetting liability recorded to represent the financing nature of this transaction. These agreements are recorded at cost, which together with accrued interest approximates fair value due to their short-term nature.

(15) Other consists of operating assets of $262 million (2019 - $108 million) and liabilities of $176 million (2019 - $107 million) required to administer the Trusts' investment assets and the plans' benefit and funding activities. Such assets are valued at cost and have not been assigned to a fair value category.

Obligations and funded status for defined benefit pension and other postretirement benefit plans

In millions *Year ended December 31,*		Pensions **2020**		2019		Other postretirement benefits **2020**		2019
Change in benefit obligation								
Projected benefit obligation at beginning of year	**$**	**18,609**	$	17,275	**$**	**227**	$	247
Amendments		**—**		—		**—**		—
Interest cost		**532**		596		**6**		8
Actuarial loss (gain) on projected benefit obligation (1)		**1,208**		1,611		**9**		(9)
Current service cost		**175**		143		**2**		2
Plan participants' contributions		**59**		64				—
Foreign currency changes		**(7)**		(15)		**—**		(3)
Benefit payments, settlements and transfers		**(1,077)**		(1,065)		**(16)**		(18)
Projected benefit obligation at the end of the year (2)	**$**	**19,499**	$	18,609	**$**	**228**	$	227
Component representing future salary increases		**(271)**		(253)		**—**		—
Accumulated benefit obligation at end of year	**$**	**19,228**	$	18,356	**$**	**228**	$	227
Change in plan assets								
Fair value of plan assets at beginning of year	**$**	**18,424**	$	17,244	**$**	**—**	$	—
Employer contributions		**93**		105		**—**		—
Plan participants' contributions		**59**		64		**—**		—
Foreign currency changes		**(6)**		(11)		**—**		—
Actual return on plan assets		**2,230**		2,087		**—**		—
Benefit payments, settlements and transfers		**(1,077)**		(1,065)		**—**		—
Fair value of plan assets at end of year (2)	**$**	**19,723**	$	18,424	**$**	**—**	$	—
Funded status - Excess (deficiency) of fair value of plan assets over projected benefit obligation at end of year	**$**	**224**	$	(185)	**$**	**(228)**	$	(227)

(1) Substantially all of the pensions' actuarial loss for the year ended December 31, 2020 and actuarial loss for the year ended December 31, 2019 is the result of the change in the end of year discount rate of the current year versus the prior year (55 basis points decrease for 2020 and 67 basis points decrease for 2019).

(2) For the CN Pension Plan, as at December 31, 2020, the projected benefit obligation was $18,075 million (2019 - $17,252 million) and the fair value of plan assets was $18,774 million (2019 - $17,523 million). The measurement date of all plans is December 31.

Amounts recognized in the Consolidated Balance Sheets

In millions *December 31,*		Pensions **2020**		2019		Other postretirement benefits **2020**		2019
Noncurrent assets - Pension asset	**$**	**777**	$	336	**$**	**—**	$	—
Current liabilities *(Note 14)*		**—**		—		**(14)**		(15)
Noncurrent liabilities - Pension and other postretirement benefits		**(553)**		(521)		**(214)**		(212)
Total amount recognized	**$**	**224**	$	(185)	**$**	**(228)**	$	(227)

Amounts recognized in Accumulated other comprehensive loss (Note 20)

In millions *December 31,*		Pensions **2020**		2019		Other postretirement benefits **2020**		2019
Net actuarial gain (loss)	**$**	**(4,165)**	$	(4,336)	**$**	**—**	$	14
Prior service credit (cost)	**$**	**—**	$	(3)	**$**	**4**	$	4

Information for defined benefit pension plans with an accumulated benefit obligation in excess of plan assets

In millions *December 31,*	Pensions 2020	2019
Accumulated benefit obligation (1)	**$ 724**	$ 676
Fair value of plan assets (1)	**$ 242**	$ 225

(1) All of the Company's other postretirement benefit pension plans have an accumulated benefit obligation in excess of plan assets.

Information for defined benefit pension plans with a projected benefit obligation in excess of plan assets

In millions *December 31,*	Pensions 2020	2019
Projected benefit obligation	**$ 900**	$ 843
Fair value of plan assets	**$ 347**	$ 322

Components of net periodic benefit cost (income) for defined benefit pension and other postretirement benefit plans

In millions *Year ended December 31,*	Pensions			Other postretirement benefits		
	2020	2019	2018	**2020**	2019	2018
Current service cost	**$ 175**	$ 143	$ 170	**$ 2**	$ 2	$ 2
Other components of net periodic benefit cost (income)						
Interest cost	**532**	596	568	**6**	8	9
Settlement loss	**2**	5	3	**—**	—	—
Expected return on plan assets	**(1,095)**	(1,085)	(1,083)	**—**	—	—
Amortization of prior service cost	**3**	3	3	**—**	—	—
Amortization of net actuarial loss (gain)	**242**	155	200	**(5)**	(3)	(2)
Total Other components of net periodic benefit cost (income)	**$ (316)**	$ (326)	$ (309)	**$ 1**	$ 5	$ 7
Net periodic benefit cost (income)	**$ (141)**	$ (183)	$ (139)	**$ 3**	$ 7	$ 9

Weighted-average assumptions used in accounting for defined benefit pension and other postretirement benefit plans

December 31,	Pensions			Other postretirement benefits		
	2020	2019	2018	**2020**	2019	2018
To determine projected benefit obligation						
Discount rate (1)	**2.55 %**	3.10 %	3.77 %	**2.53 %**	3.14 %	4.00 %
Rate of compensation increase (2)	**2.75 %**	2.75 %	2.75 %	**2.75 %**	2.75 %	2.75 %
To determine net periodic benefit cost (income)						
Rate to determine current service cost (3)	**3.20 %**	3.93 %	3.68 %	**3.35 %**	4.25 %	3.83 %
Rate to determine interest cost (3)	**2.86 %**	3.47 %	3.15 %	**2.84 %**	3.68 %	3.23 %
Rate of compensation increase (2)	**2.75 %**	2.75 %	2.75 %	**2.75 %**	2.75 %	2.75 %
Expected return on plan assets (4)	**7.00 %**	7.00 %	7.00 %	**N/A**	N/A	N/A

(1) The Company's discount rate assumption, which is set annually at the end of each year, is determined by management with the aid of third-party actuaries. The discount rate is used to measure the single amount that, if invested at the measurement date in a portfolio of high-quality debt instruments with a rating of AA or better, would provide the necessary cash flows to pay for pension benefits as they become due. For the Canadian pension and other postretirement benefit plans, future expected benefit payments are discounted using spot rates based on a derived AA corporate bond yield curve for each maturity year.

(2) The rate of compensation increase is determined by the Company based upon its long-term plans for such increases.

(3) The Company uses the spot rate approach to measure current service cost and interest cost for all defined benefit pension and other postretirement benefit plans. Under the spot rate approach, individual spot discount rates along the same yield curve used in the determination of the projected benefit obligation are applied to the relevant projected cash flows at the relevant maturity.

(4) The expected long-term rate of return is determined based on expected future performance for each asset class and is weighted based on the investment policy. For 2020, the Company used a long-term rate of return assumption of 7.00% on the market-related value of plan assets to compute net periodic benefit cost (income). The Company has elected to use a market-related value of assets, whereby realized and unrealized gains/losses and appreciation/depreciation in the value of the investments are recognized over a period of five years, while investment income is recognized immediately. In 2021, the Company will decrease the expected long-term rate of return on plan assets by 25 basis points to 6.75% to reflect management's current view of long-term investment returns.

Expected future benefit payments

The following table provides the expected benefit payments for pensions and other postretirement benefits for the next five years and the subsequent five-year period:

In millions		Pensions		Other postretirement benefits
2021	$	1,066	$	14
2022	$	1,059	$	14
2023	$	1,054	$	13
2024	$	1,046	$	12
2025	$	1,040	$	12
Years 2026 to 2030	$	5,070	$	55

Defined contribution and other plans

The Company maintains defined contribution pension plans for certain salaried employees as well as certain employees covered by collective bargaining agreements. The Company also maintains other plans including a Section 401(k) savings plan for U.S. based employees. The Company's contributions under these plans were expensed as incurred and, in 2020, amounted to $22 million (2019 - $23 million; 2018 - $22 million).

Contributions to multi-employer plan

Under collective bargaining agreements, the Company participates in a multi-employer benefit plan named the Railroad Employees National Early Retirement Major Medical Benefit Plan which provides certain postretirement health care benefits to certain retirees. The Company's contributions under this plan were expensed as incurred and amounted to $10 million in 2020 (2019 - $12 million; 2018 - $13 million). The annual contribution rate for the plan was $153.43 per month per active employee for 2020 (2019 - $164.12). The plan covered 388 retirees in 2020 (2019 - 445 retirees).

18 – Share capital

Authorized capital stock

The authorized capital stock of the Company is as follows:

- Unlimited number of Common Shares, without par value
- Unlimited number of Class A Preferred Shares, without par value, issuable in series
- Unlimited number of Class B Preferred Shares, without par value, issuable in series

Common shares

In millions	*December 31,*	**2020**	2019	2018
Issued common shares		**711.6**	714.1	727.3
Common shares in Share Trusts		**(1.3)**	(1.8)	(2.0)
Outstanding common shares		**710.3**	712.3	725.3

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. The Company may repurchase up to 16.0 million common shares between February 1, 2020 and January 31, 2021 under its NCIB. As at December 31, 2020, the Company had repurchased 2.0 million common shares under this NCIB.

The Company paused its share repurchases at the end of March 2020 due to the economic circumstances resulting from the COVID-19 pandemic.

The following table provides the information related to the share repurchases for the years ended December 31, 2020, 2019 and 2018:

In millions, except per share data	*Year ended December 31,*	**2020**		2019		2018
Number of common shares repurchased		**3.3**		14.3		19.0
Weighted-average price per share (1)	**$**	**116.97**	$	118.70	$	104.99
Amount of repurchase (1)	**$**	**379**	$	1,700	$	2,000

(1) Includes brokerage fees.

See *Note 24 - Subsequent events* for information on the Company's new NCIB.

Share Trusts

The Company's 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 Plans (ESIP) (see *Note 19 – Stock-based compensation*). Shares purchased by the Share Trusts are retained until the Company instructs the trustee to transfer shares to the participants of the Share Units Plan or the ESIP. Common shares purchased by the Share Trusts are accounted for as treasury stock. The Share Trusts may sell shares on the open market to facilitate the remittance of the Company's employee tax withholding obligations under the Share Units Plan.

The following table provides the information related to the share purchases and settlements by Share Trusts under the Share Units Plan and the ESIP for the years ended December 31, 2020, 2019 and 2018:

In millions, except per share data	*Year ended December 31,*	**2020**		2019		2018
Share purchases by Share Units Plan Share Trusts						
Number of common shares		**—**		—		0.4
Weighted-average price per share	**$**	**—**	$	—	$	104.87
Amount of purchase	**$**	**—**	$	—	$	38
Share purchases by ESIP Share Trusts						
Number of common shares		**0.1**		0.3		N/A
Weighted-average price per share	**$**	**123.03**	$	118.83		N/A
Amount of purchase	**$**	**14**	$	33		N/A
Total purchases	**$**	**14**	$	33	$	38

In millions, except per share data	*Year ended December 31,*	**2020**		2019		2018
Share settlements by Share Units Plan Share Trusts						
Number of common shares		**0.4**		0.5		0.4
Weighted-average price per share	**$**	**88.23**	$	88.23	$	84.53
Amount of settlement	**$**	**35**	$	45	$	31
Share settlements by ESIP Share Trusts						
Number of common shares		**0.2**		—		N/A
Weighted-average price per share	**$**	**118.04**	$	—		N/A
Amount of settlements	**$**	**27**	$	—		N/A
Total settlements	**$**	**62**	$	45	$	31

19 – Stock-based compensation

The Company has various stock-based compensation plans for eligible employees. A description of the major plans is provided herein.

The following table provides the stock-based compensation expense for awards under all plans, as well as the related tax benefit and excess tax benefit recognized in income, for the years ended December 31, 2020, 2019 and 2018:

In millions	*Year ended December 31,*	**2020**		2019		2018
Share Units Plan	**$**	**28**	$	26	$	38
Voluntary Incentive Deferral Plan (VIDP)		**4**		4		—
Stock option awards		**11**		12		12
Employee Share Investment Plan (ESIP)		**21**		15		40
Total stock-based compensation expense	**$**	**64**	$	57	$	90
Income tax impacts of stock-based compensation						
Tax benefit recognized in income	**$**	**14**	$	12	$	21
Excess tax benefit recognized in income	**$**	**16**	$	23	$	13

Share Units Plan

The objective of the Share Units Plan is to enhance the Company's ability to attract and retain talented employees and to provide alignment of interests between such employees and the shareholders of the Company. Under the Share Units Plan, the Company grants performance share unit (PSU) awards.

PSU-ROIC awards settle depending on the level of attainment of a target return on invested capital (ROIC) performance condition, as defined by the award agreement, over the plan period of three years. The level of attainment of the performance condition results in a performance factor that ranges from 0% to 200%. Settlement is also conditional upon the attainment of a minimum share price market condition, calculated using the average of the last three months of the plan period.

PSU-TSR awards settle depending on the level of attainment of a target total shareholder return (TSR) market condition, as defined by the award agreement, over the plan period of three years. The level of attainment of the market condition results in a performance factor that ranges from 0% to 200% depending on the Company's TSR relative to a Class I Railways peer group and the S&P/TSX 60 companies.

PSUs are settled in common shares of the Company, subject to the attainment of their respective performance and market conditions, by way of disbursement from the Share Trusts (see *Note 18 – Share capital*). The number of shares remitted to the participant upon settlement is equal to the number of PSUs awarded multiplied by the performance factor, less shares withheld to satisfy the participant's withholding tax requirement.

For the 2018 grant, the level of ROIC attained resulted in a performance factor of 111%, and the level of TSR attained resulted in a performance factor of 99% for the plan period ended December 31, 2020. The total fair value of the equity settled PSU awards that vested in 2020 was $27 million (2019 - $45 million; 2018 - $42 million). As the respective performance and market conditions under each award were met as at December 31, 2020, a settlement of approximately 0.2 million shares, net of withholding taxes, is expected to occur in the first quarter of 2021.

The following table provides a summary of the activity related to PSU awards:

	PSU-ROIC (1)		PSU-TSR (2)	
	Units	Weighted-average grant date fair value	Units	Weighted-average grant date fair value
	In millions		*In millions*	
Outstanding at December 31, 2019	1.0	$ 58.35	0.3	$ 112.08
Granted	0.3	$ 73.92	0.1	$ 153.00
Settled (3)	(0.4)	$ 53.19	(0.1)	$ 103.36
Forfeited	—	$ 64.80	—	$ 129.51
Outstanding at December 31, 2020	**0.9**	**$ 65.06**	**0.3**	**$ 131.57**
Nonvested at December 31, 2019	0.6	$ 61.29	0.2	$ 117.04
Granted	0.3	$ 73.92	0.1	$ 153.00
Vested (4)	(0.3)	$ 50.77	(0.1)	$ 104.58
Forfeited	—	$ 64.80	—	$ 129.51
Nonvested at December 31, 2020	**0.6**	**$ 72.22**	**0.2**	**$ 142.37**

(1) The grant date fair value of equity settled PSUs-ROIC granted in 2020 of $20 million is calculated using a lattice-based valuation model. As at December 31, 2020, total unrecognized compensation cost related to all outstanding awards was $12 million and is expected to be recognized over a weighted-average period of 1.6 years.

(2) The grant date fair value of equity settled PSUs-TSR granted in 2020 of $21 million is calculated using a Monte Carlo simulation model. As at December 31, 2020, total unrecognized compensation cost related to all outstanding awards was $13 million and is expected to be recognized over a weighted-average period of 1.7 years.

(3) Equity settled PSUs-ROIC granted in 2017 met the minimum share price condition for settlement and attained a performance factor of 169%. Equity settled PSUs-TSR granted in 2017 attained a performance factor of 100%. In the first quarter of 2020, these awards were settled, net of the remittance of the participants' withholding tax obligation of $41 million, by way of disbursement from the Share Trusts of 0.4 million common shares.

(4) These awards are expected to be settled in the first quarter of 2021.

The following table provides assumptions related to the the fair values of PSU awards, and the weighted-average grant date fair values for units granted in 2020 , 2019 and 2018:

Year of grant	**2020**	2019	2018
Assumptions			
Stock price *($)* (1)	**125.82**	110.41	97.77
Expected stock price volatility *(%)* (2)	**17**	17	18
Expected term *(years)* (3)	**3.0**	3.0	3.0
Risk-free interest rate *(%)* (4)	**1.40**	1.75	1.92
Dividend rate *($)* (5)	**2.30**	2.15	1.82
Weighted-average grant date fair value *($)*			
ROIC	**73.92**	70.76	50.77
TSR	**153.00**	128.20	104.58

(1) Represents the closing share price on the grant date.

(2) Based on the historical volatility of the Company's stock over a period commensurate with the expected term of the award.

(3) Represents the period of time that awards are expected to be outstanding.

(4) Based on the implied yield available on zero-coupon government issues with an equivalent term commensurate with the expected term of the awards.

(5) Based on the annualized dividend rate.

Voluntary Incentive Deferral Plan

The Company's Voluntary Incentive Deferral Plan (VIDP) provides eligible senior management employees the opportunity to elect to receive their annual incentive bonus payment in deferred share units (DSU) up to specific deferral limits. A DSU is equivalent to a common share of the Company and also earns dividends when normal cash dividends are paid on common shares. The number of DSUs received by each participant is established at the time of deferral. For each participant, the Company will grant a further 25% of the amount elected in DSUs, which will vest over a period of four years. The election to receive eligible incentive payments in DSUs is no longer available to a participant when the value of the participant's vested DSUs is sufficient to meet the Company's stock ownership guidelines.

Equity settled awards

DSUs are settled in common shares of the Company at the time of cessation of employment by way of an open market purchase by the Company. The number of shares remitted to the participant is equal to the number of DSUs awarded less shares withheld to satisfy the participant's withholding tax requirement.

Cash settled awards

The value of each participant's DSUs is payable in cash at the time of cessation of employment.

Stock price volatility

The Company's liability for the cash settled VIDP is marked-to-market at each period-end and varies with the Company's share price. Fluctuations in the Company's share price cause volatility to stock-based compensation expense as recorded in Net income. The Company does not currently hold any derivative financial instruments to manage this exposure.

The following table provides a summary of the activity related to DSU awards:

	Equity settled DSUs (1)		Cash settled DSUs (2)
	Units	Weighted-average grant date fair value	Units
	In millions		*In millions*
Outstanding at December 31, 2019	0.7	$ 81.91	0.1
Granted	—	$ 124.14	—
Settled (3)	(0.1)	$ 80.39	—
Outstanding at December 31, 2020 (4)	**0.6**	**$ 83.47**	**0.1**

(1) The grant date fair value of equity settled DSUs granted is calculated using the Company's stock price on the grant date. As at December 31, 2020, the aggregate intrinsic value of all equity settled DSUs outstanding amounted to $76 million.

(2) The fair value of cash settled DSUs as at December 31, 2020 is based on the intrinsic value. As at December 31, 2020, the liability for all cash settled DSUs was $14 million (2019 - $16 million). The closing stock price used to determine the liability was $139.94. The total fair value of cash settled DSU awards vested in 2020, 2019 and 2018 was $nil.

(3) For the year ended December 31, 2020 the shares purchased for the settlement of equity settled DSUs were net of the remittance of the participants' withholding tax obligation of $7 million.

(4) The total fair value of equity settled DSU awards vested, the number of units outstanding that were nonvested, unrecognized compensation cost and the remaining recognition period for cash and equity settled DSUs have not been quantified as they relate to a minimal number of units.

Stock option awards

The Company's stock option plan allows for eligible employees to acquire common shares of the Company upon vesting at a price equal to the market value of the common shares at the grant date. The options issued by the Company are conventional options that vest over a period of time. The right to exercise options generally accrues over a period of four years of continuous employment for options granted prior to 2020, and five years for options granted in 2020. Options are not generally exercisable during the first 12 months after the date of grant and expire after 10 years. As at December 31, 2020, 14.3 million common shares remained authorized for future issuances under these plans.

During the year ended December 31, 2020, the Company granted 0.7 million (2019 - 0.9 million; 2018 - 1.1 million) stock options.

The following table provides the activity of stock option awards during 2020, and for options outstanding and exercisable at December 31, 2020, the weighted-average exercise price:

	Options outstanding		Nonvested options	
	Number of options	Weighted-average exercise price	Number of options	Weighted-average grant date fair value
	In millions		*In millions*	
Outstanding at December 31, 2019 (1)	3.8	$ 86.89	2.1	$ 15.00
Granted (2)	0.7	$ 126.13	0.7	$ 19.09
Forfeited/Cancelled	(0.1)	$ 106.84	(0.1)	$ 16.46
Exercised (3)	(0.8)	$ 70.05	N/A	N/A
Vested (4)	N/A	N/A	(0.8)	$ 13.99
Outstanding at December 31, 2020 (1)	**3.6**	**$ 97.15**	**1.9**	**$ 17.04**
Exercisable at December 31, 2020 (1)	**1.7**	**$ 82.42**	**N/A**	**N/A**

(1) *Stock options with a US dollar exercise price have been translated to Canadian dollars using the foreign exchange rate in effect at the balance sheet date.*

(2) *The grant date fair value of options granted in 2020 of $14 million ($19.09 per option) is calculated using the Black-Scholes option-pricing model. As at December 31, 2020, total unrecognized compensation cost related to all outstanding awards was $10 million and is expected to be recognized over a weighted-average period of 3.1 years.*

(3) *The total intrinsic value of options exercised in 2020 was $47 million (2019 - $53 million; 2018 - $78 million). The cash received upon exercise of options in 2020 was $56 million (2019 - $77 million; 2018 - $103 million) and the related excess tax benefit realized in 2020 was $2 million (2019 - $3 million; 2018 - $3 million).*

(4) *The grant date fair value of options vested in 2020 was $12 million (2019 - $12 million; 2018 - $12 million).*

The following table provides the number of stock options outstanding and exercisable as at December 31, 2020 by range of exercise price and their related intrinsic value, and for options outstanding, the weighted-average years to expiration. The table also provides the aggregate intrinsic value for in-the-money stock options, which represents the value that would have been received by option holders had they exercised their options on December 31, 2020 at the Company's closing stock price of $139.94.

	Options outstanding				Options exercisable		
	Number of options	Weighted-average years to expiration	Weighted-average exercise price	Aggregate intrinsic value	Number of options	Weighted-average exercise price	Aggregate intrinsic value
Range of exercise prices	*In millions*			*In millions*	*In millions*		*In millions*
$ 34.45 - $ 85.00	0.8	3.8	$ 66.17	$ 60	0.8	$ 66.17	$ 60
$ 85.01 - $ 95.00	0.7	5.9	$ 89.92	33	0.4	$ 89.55	22
$ 95.01 - $ 105.00	0.6	7.1	$ 98.60	25	0.3	$ 98.60	11
$ 105.01 - $ 115.00	0.7	8.1	$ 108.37	23	0.2	$ 108.94	6
$ 115.01 - $ 137.36	0.8	9.1	$ 123.01	14	—	$ 118.41	1
Balance at December 31, 2020 (1)	**3.6**	**6.7**	**$ 97.15**	**$ 155**	**1.7**	**$ 82.42**	**$ 100**

(1) *Stock options with a US dollar exercise price have been translated to Canadian dollars using the foreign exchange rate in effect at the balance sheet date. The weighted-average years to expiration of exercisable stock options was 5.3 years.*

The following table provides assumptions related to the fair values of stock option awards, and the weighted-average grant date fair values for units granted in 2020, 2019, and 2018:

Year of grant	**2020**	2019	2018
Assumptions			
Grant price *($)*	**126.13**	110.94	98.05
Expected stock price volatility *(%)* (1)	**19**	18	18
Expected term *(years)* (2)	**5.7**	5.5	5.5
Risk-free interest rate *(%)* (3)	**1.26**	1.75	2.08
Dividend rate *($)* (4)	**2.30**	2.15	1.82
Weighted-average grant date fair value *($)*	**19.09**	16.34	15.34

(1) Based on the historical volatility of the Company's stock over a period commensurate with the expected term of the award.

(2) Represents the period of time that awards are expected to be outstanding. The Company uses historical data to predict option exercise behavior.

(3) Based on the implied yield available on zero-coupon government issues with an equivalent term commensurate with the expected term of the awards.

(4) Based on the annualized dividend rate.

ESIP

The Company has an ESIP giving eligible employees the opportunity to subscribe for up to 10% of their gross salaries to purchase shares of the Company's common stock on the open market and to have the Company invest, on the employees' behalf, a further 35% of the amount invested by the employees, up to 6% of their gross salaries.

Company contributions to the ESIP, which consist of shares purchased on the open market, are subject to a one-year vesting period and are forfeited should certain participant contributions be sold or disposed of prior to vesting. Company contributions to the ESIP are held in Share Trusts until vesting, at which time shares are delivered to the employee.

The following table provides a summary of the activity related to the ESIP:

	ESIP	
	Number of shares	Weighted-average share price
	In millions	
Unvested contributions, December 31, 2019	0.3	$ 118.83
Company contributions (1)	0.2	$ 121.12
Vested (2)	(0.2)	$ 118.71
Forfeited	(0.1)	$ 118.53
Unvested contributions, December 31, 2020 (3)	**0.2**	**$ 122.07**

(1) In light of the uncertain and unprecedented economic environment, Company contributions were temporarily suspended between May 25, 2020 and October 1, 2020.

(2) The total fair value of units purchased with Company contributions that vested in 2020 was $27 million (2019 - $nil).

(3) As at December 31, 2020, total unrecognized compensation cost related to all outstanding units was $8 million and is expected to be recognized over the next 12 months.

The following table provides the number of participants holding shares, the total number of ESIP shares purchased on behalf of employees, including the Company's contributions for the years ended December 31, 2020, 2019 and 2018:

Year ended December 31,	**2020**	2019	2018
Number of participants holding shares	**20,270**	21,674	22,185
Total number of ESIP shares purchased on behalf of employees *(millions)*	**1.1**	1.5	1.8

20 – Accumulated other comprehensive loss

In millions	Foreign currency translation adjustments	Pension and other postretirement benefit plans	Total before tax	Income tax recovery (expense) (1)	Total net of tax
Balance at December 31, 2017	$ (444)	$ (3,122)	$ (3,566)	$ 782	$ (2,784)
Other comprehensive income (loss) before reclassifications:					
Foreign exchange gain on translation of net investment in foreign operations	1,038		1,038	–	1,038
Foreign exchange loss on translation of US dollar-denominated debt designated as a hedge of the net investment in foreign operations	(635)		(635)	86	(549)
Actuarial loss arising during the year		(969)	(969)	262	(707)
Prior service credit arising during the year		6	6	(2)	4
Amounts reclassified from Accumulated other comprehensive loss:					
Amortization of net actuarial loss		198	198 (2)	(54) (3)	144
Amortization of prior service costs		3	3 (2)	– (3)	3
Settlement loss arising during the year		3	3 (2)	(1) (3)	2
Other comprehensive income (loss)	403	(759)	(356)	291	(65)
Balance at December 31, 2018	(41)	(3,881)	(3,922)	1,073	(2,849)
Other comprehensive income (loss) before reclassifications:					
Foreign exchange loss on translation of net investment in foreign operations	(636)		(636)	–	(636)
Foreign exchange gain on translation of US dollar-denominated debt designated as a hedge of the net investment in foreign operations	380		380	(52)	328
Actuarial loss arising during the year		(600)	(600)	155	(445)
Amounts reclassified from Accumulated other comprehensive loss:					
Amortization of net actuarial loss		152	152 (2)	(39) (3)	113
Amortization of prior service costs		3	3 (2)	(1) (3)	2
Settlement loss arising during the year		5	5 (2)	(1) (3)	4
Other comprehensive income (loss)	(256)	(440)	(696)	62	(634)
Balance at December 31, 2019	(297)	(4,321)	(4,618)	1,135	(3,483)
Other comprehensive income (loss) before reclassifications:					
Foreign exchange loss on translation of net investment in foreign operations	(269)		(269)	–	(269)
Foreign exchange gain on translation of US dollar-denominated debt designated as a hedge of the net investment in foreign operations	187		187	(24)	163
Actuarial loss arising during the year		(82)	(82)	22	(60)
Amounts reclassified from Accumulated other comprehensive loss:					
Amortization of net actuarial loss		237	237 (2)	(64) (3)	173
Amortization of prior service costs		3	3 (2)	(1) (3)	2
Settlement loss arising during the year		2	2 (2)	– (3)	2
Other comprehensive income (loss)	(82)	160	78	(67)	11
Balance at December 31, 2020	**$ (379)**	**$ (4,161)**	**$ (4,540)**	**$ 1,068**	**$ (3,472)**

(1) The Company releases stranded tax effects from Accumulated other comprehensive loss to Net income upon the liquidation or termination of the related item.

(2) Reclassified to Other components of net periodic benefit income in the Consolidated Statements of Income and included in net periodic benefit cost. See Note 17 - Pensions and other postretirement benefits.

(3) Included in Income tax expense in the Consolidated Statements of Income.

21 – Major commitments and contingencies

Purchase commitments

As at December 31, 2020, the Company had fixed and variable commitments to purchase rail, wheels, information technology services and licenses, engineering services, locomotives, railroad ties, rail cars, as well as other equipment and services with a total estimated cost of $1,324 million. Costs of variable commitments were estimated using forecasted prices and volumes.

Contingencies

In the normal course of business, the Company becomes involved in various legal actions seeking compensatory and occasionally punitive damages, including actions brought on behalf of various purported classes of claimants and claims relating to employee and third-party personal injuries, occupational disease and property damage, arising out of harm to individuals or property allegedly caused by, but not limited to, derailments or other accidents.

Canada

Employee injuries are governed by the workers' compensation legislation in each province whereby employees may be awarded either a lump sum or a future stream of payments depending on the nature and severity of the injury. As such, the provision for employee injury claims is discounted. In the provinces where the Company is self-insured, costs related to employee work-related injuries are accounted for based on actuarially developed estimates of the ultimate cost associated with such injuries, including compensation, health care and third-party administration costs. An actuarial study is generally performed at least on a triennial basis. For all other legal actions, the Company maintains, and regularly updates on a case-by-case basis, provisions for such items when the expected loss is both probable and can be reasonably estimated based on currently available information.

In 2020, 2019 and 2018 the Company recorded a decrease of $13 million and $7 million, and an increase of $4 million, respectively, to its provision for personal injuries in Canada as a result of actuarial valuations for employee injury claims.

As at December 31, 2020, 2019 and 2018, the Company's provision for personal injury and other claims in Canada was as follows:

In millions		**2020**		2019		2018
Beginning of year	**$**	**207**	$	207	$	183
Accruals and other		**31**		29		52
Payments		**(32)**		(29)		(28)
End of year	**$**	**206**	$	207	$	207
Current portion - End of year	**$**	**68**	$	55	$	60

United States

Personal injury claims by the Company's employees, including claims alleging occupational disease and work-related injuries, are subject to the provisions of the *Federal Employers' Liability Act* (FELA). Employees are compensated under FELA for damages assessed based on a finding of fault through the U.S. jury system or through individual settlements. As such, the provision is undiscounted. With limited exceptions where claims are evaluated on a case-by-case basis, the Company follows an actuarial-based approach and accrues the expected cost for personal injury, including asserted and unasserted occupational disease claims, and property damage claims, based on actuarial estimates of their ultimate cost. An actuarial study is performed annually.

For employee work-related injuries, including asserted occupational disease claims, and third-party claims, including grade crossing, trespasser and property damage claims, the actuarial valuation considers, among other factors, the Company's historical patterns of claims filings and payments. For unasserted occupational disease claims, the actuarial valuation includes the projection of the Company's experience into the future considering the potentially exposed population. The Company adjusts its liability based upon management's assessment and the results of the study. On an ongoing basis, management reviews and compares the assumptions inherent in the latest actuarial valuation with the current claim experience and, if required, adjustments to the liability are recorded.

Due to the inherent uncertainty involved in projecting future events, including events related to occupational diseases, which include but are not limited to, the timing and number of actual claims, the average cost per claim and the legislative and judicial environment, the Company's future payments may differ from current amounts recorded.

In 2020, the Company recorded a decrease of $10 million to its provision for U.S. personal injury and other claims attributable to non-occupational disease claims, third-party claims and occupational disease claims pursuant to the 2020 actuarial valuation. In 2019 and 2018, actuarial valuations resulted in an increase of $2 million and $13 million, respectively. The prior years' adjustments from the actuarial valuations were mainly attributable to third-party claims, non-occupational disease claims and occupational disease claims reflecting changes in the Company's estimates of unasserted claims and costs related to asserted claims. The Company has an ongoing risk mitigation strategy focused on reducing the frequency and severity of claims through injury prevention and containment; mitigation of claims; and lower settlements of existing claims.

As at December 31, 2020, 2019 and 2018, the Company's provision for personal injury and other claims in the U.S. was as follows:

In millions		**2020**		2019		2018
Beginning of year	**$**	**145**	$	139	$	116
Accruals and other		**28**		44		41
Payments		**(29)**		(31)		(28)
Foreign exchange		**(3)**		(7)		10
End of year	**$**	**141**	$	145	$	139
Current portion - End of year	**$**	**41**	$	36	$	37

Although the Company considers such provisions to be adequate for all its outstanding and pending claims, the final outcome with respect to actions outstanding or pending at December 31, 2020, or with respect to future claims, cannot be reasonably determined. When establishing provisions for contingent liabilities the Company considers, where a probable loss estimate cannot be made with reasonable certainty, a range of potential probable losses for each such matter, and records the amount it considers the most reasonable estimate within the range. However, when no amount within the range is a better estimate than any other amount, the minimum amount in the range is accrued. For matters where a loss is reasonably possible but not probable, a range of potential losses cannot be estimated due to various factors which may include the limited availability of facts, the lack of demand for specific damages and the fact that proceedings were at an early stage. Based on information currently available, the Company believes that the eventual outcome of the actions against the Company will not, individually or in the aggregate, have a material adverse effect on the Company's financial position. However, due to the inherent inability to predict with certainty unforeseeable future developments, there can be no assurance that the ultimate resolution of these actions will not have a material adverse effect on the Company's results of operations, financial position or liquidity.

Environmental matters

The Company's operations are subject to numerous federal, provincial, state, municipal and local environmental laws and regulations in Canada and the U.S. concerning, among other things, emissions into the air; discharges into waters; the generation, handling, storage, transportation, treatment and disposal of waste, hazardous substances, and other materials; decommissioning of underground and aboveground storage tanks; and soil and groundwater contamination. A risk of environmental liability is inherent in railroad and related transportation operations; real estate ownership, operation or control; and other commercial activities of the Company with respect to both current and past operations.

Known existing environmental concerns

The Company is or may be liable for remediation costs at individual sites, in some cases along with other potentially responsible parties, associated with actual or alleged contamination. The ultimate cost of addressing these known contaminated sites cannot be definitively established given that the estimated environmental liability for any given site may vary depending on the nature and extent of the contamination; the nature of anticipated response actions, taking into account the available clean-up techniques; evolving regulatory standards governing environmental liability; and the number of potentially responsible parties and their financial viability. As a result, liabilities are recorded based on the results of a four-phase assessment conducted on a site-by-site basis. A liability is initially recorded when environmental assessments occur, remedial efforts are probable, and when the costs, based on a specific plan of action in terms of the technology to be used and the extent of the corrective action required, can be reasonably estimated. The Company estimates the costs related to a particular site using cost scenarios established by external consultants based on the extent of contamination and expected costs for remedial efforts. In the case of multiple parties, the Company accrues its allocable share of liability taking into account the Company's alleged responsibility, the number of potentially responsible parties and their ability to pay their respective share of the liability. Adjustments to initial estimates are recorded as additional information becomes available.

The Company's provision for specific environmental sites is undiscounted and includes costs for remediation and restoration of sites, as well as monitoring costs. Environmental expenses, which are classified as Casualty and other in the Consolidated Statements of Income, include amounts for newly identified sites or contaminants as well as adjustments to initial estimates. Recoveries of environmental remediation costs from other parties are recorded as assets when their receipt is deemed probable.

As at December 31, 2020, 2019 and 2018, the Company's provision for specific environmental sites was as follows:

In millions		2020		2019		2018
Beginning of year	**$**	**57**	$	61	$	78
Accruals and other		**44**		31		16
Payments		**(42)**		(34)		(34)
Foreign exchange		**—**		(1)		1
End of year	**$**	**59**	$	57	$	61
Current portion - End of year	**$**	**46**	$	38	$	39

The Company anticipates that the majority of the liability at December 31, 2020 will be paid out over the next five years. Based on the information currently available, the Company considers its provisions to be adequate.

Unknown existing environmental concerns

While the Company believes that it has identified the costs likely to be incurred for environmental matters based on known information, the discovery of new facts, future changes in laws, the possibility of releases of hazardous materials into the environment and the Company's ongoing efforts to identify potential environmental liabilities that may be associated with its properties may result in the identification of additional environmental liabilities and related costs. The magnitude of such additional liabilities and the costs of complying with future environmental laws and containing or remediating contamination cannot be reasonably estimated due to many factors, including:

- the lack of specific technical information available with respect to many sites;
- the absence of any government authority, third-party orders, or claims with respect to particular sites;
- the potential for new or changed laws and regulations and for development of new remediation technologies and uncertainty regarding the timing of the work with respect to particular sites; and
- the determination of the Company's liability in proportion to other potentially responsible parties and the ability to recover costs from any third parties with respect to particular sites.

Therefore, the likelihood of any such costs being incurred or whether such costs would be material to the Company cannot be determined at this time. There can thus be no assurance that liabilities or costs related to environmental matters will not be incurred in the future, or will not have a material adverse effect on the Company's financial position or results of operations in a particular quarter or fiscal year, or that the Company's liquidity will not be adversely impacted by such liabilities or costs, although management believes, based on current information, that the costs to address environmental matters will not have a material adverse effect on the Company's financial position or liquidity. Costs related to any unknown existing or future contamination will be accrued in the period in which they become probable and reasonably estimable.

Future occurrences

In railroad and related transportation operations, it is possible that derailments or other accidents, including spills and releases of hazardous materials, may occur that could cause harm to human health or to the environment. As a result, the Company may incur costs in the future, which may be material, to address any such harm, compliance with laws and other risks, including costs relating to the performance of clean-ups, payment of environmental penalties and remediation obligations, and damages relating to harm to individuals or property.

Regulatory compliance

The Company may incur significant capital and operating costs associated with environmental regulatory compliance and clean-up requirements, in its railroad operations and relating to its past and present ownership, operation or control of real property. Operating expenses related to regulatory compliance activities for environmental matters for the year ended December 31, 2020 amounted to $25 million (2019 - $25 million; 2018 - $22 million). In addition, based on the results of its operations and maintenance programs, as well as ongoing environmental audits and other factors, the Company plans for specific capital improvements on an annual basis. Certain of these improvements help ensure facilities, such as fueling stations, waste water and storm water treatment systems, comply with environmental standards and include new construction and the updating of existing systems and/or processes. Other capital expenditures relate to assessing and remediating certain impaired properties. The Company's environmental capital expenditures for the year ended December 31, 2020 amounted to $20 million (2019 - $25 million; 2018 - $19 million).

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 December 31, 2020, the Company had outstanding letters of credit of $421 million (2019 - $424 million) under the committed bilateral letter of credit facilities and $165 million (2019 - $149 million) under the uncommitted bilateral letter of credit facilities, and surety and other bonds of $168 million (2019 - $169 million), all issued by financial institutions with investment grade credit ratings to third parties to indemnify them in the event the Company does not perform its contractual obligations.

As at December 31, 2020, the maximum potential liability under these guarantee instruments was $754 million (2019 - $742 million), of which $688 million (2019 - $681 million) related to other employee benefit liabilities and workers' compensation and $66 million (2019 - $61 million) related to other liabilities. The guarantee instruments expire at various dates between 2021 and 2025.

As at December 31, 2020, the Company had not recorded a liability with respect to guarantees as the Company did not expect to make any payments under its guarantees.

General indemnifications

In the normal course of business, the Company provides indemnifications, customary for the type of transaction or for the railway business, in various agreements with third parties, including indemnification provisions where the Company would be required to indemnify third parties and others. During the year, the Company entered into various contracts with third parties for which an indemnification was provided. Due to the nature of the indemnification clauses, the maximum exposure for future payments cannot be reasonably determined. To the extent of any actual claims under these agreements, the Company maintains provisions for such items, which it considers to be adequate. As at December 31, 2020, the Company had not recorded a liability with respect to any indemnifications.

22 – Financial instruments

Risk management

In the normal course of business, the Company is exposed to various risks from its use of financial instruments. To manage these risks, the Company follows a financial risk management framework, which is monitored and approved by the Company's Finance Committee, with a goal of maintaining a strong balance sheet, optimizing earnings per share and free cash flow, financing its operations at an optimal cost of capital and preserving its liquidity. The Company has limited involvement with derivative financial instruments in the management of its risks and does not hold or issue them for trading or speculative purposes.

Foreign currency risk

The Company conducts its business in both Canada and the U.S. and as a result, is affected by currency fluctuations. Changes in the exchange rate between the Canadian dollar and the US dollar affect the Company's revenues and expenses. To manage foreign currency risk, the Company designates US dollar-denominated debt of the parent company as a foreign currency hedge of its net investment in foreign operations. As a result, from the dates of designation, foreign exchange gains and losses on translation of the Company's US dollar-denominated debt are recorded in Accumulated other comprehensive loss, which minimizes volatility of earnings resulting from the conversion of US dollar-denominated debt into the Canadian dollar.

The Company also enters into foreign exchange forward contracts to manage its exposure to foreign currency risk. As at December 31, 2020, the Company had outstanding foreign exchange forward contracts with a notional value of US$397 million (2019 - US$1,088 million). Changes in the fair value of foreign exchange forward contracts, resulting from changes in foreign exchange rates, are recognized in Other income in the Consolidated Statement of Income as they occur. For the year ended December 31, 2020, the Company recorded a loss of $3 million (2019 - loss of $75 million; 2018 - gain of $157 million) 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 recognized in Other income. As at December 31, 2020, the fair value of outstanding foreign exchange forward contracts included in Other current assets and Accounts payable and other was $nil and $18 million, respectively (2019 - $nil and $24 million, respectively).

Interest rate risk

The Company is exposed to interest rate risk, which is the risk that the fair value or future cash flows of a financial instrument will vary as a result of changes in market interest rates. Such risk exists in relation to the Company's debt. The Company mainly issues fixed-rate debt, which exposes the Company to variability in the fair value of the debt. The Company also issues debt with variable interest rates, which exposes the Company to variability in interest expense.

To manage interest rate risk, the Company manages its borrowings in line with liquidity needs, maturity schedule, and currency and interest rate profile. In anticipation of future debt issuances, the Company may use derivative instruments such as forward rate agreements. The Company does not currently hold any significant derivative instruments to manage its interest rate risk.

Fair value of financial instruments

The financial instruments that the Company measures at fair value on a recurring basis in periods subsequent to initial recognition are categorized into the following levels of the fair value hierarchy based on the degree to which inputs are observable:

- Level 1: Inputs are quoted prices for identical instruments in active markets
- Level 2: Significant inputs (other than quoted prices included in Level 1) are observable
- Level 3: Significant inputs are unobservable

The carrying amounts of Cash and cash equivalents and Restricted cash and cash equivalents approximate fair value. These financial instruments include highly liquid investments purchased three months or less from maturity, for which the fair value is determined by reference to quoted prices in active markets.

The carrying amounts of Accounts receivable, Other current assets and Accounts payable and other approximate fair value due to their short maturity, unless otherwise specified. The fair value of derivative financial instruments, included in Other current assets and Accounts payable and other is classified as Level 2 and is used to manage the Company's exposure to foreign currency risk. The fair value is measured by discounting future cash flows using a discount rate derived from market data for financial instruments subject to similar risks and maturities. The fair value of assets held for sale, included in Other current assets is classified as Level 3. Additional disclosures are provided in *Note 5 – Assets held for sale.*

The carrying amount of the Company's debt does not approximate fair value. The fair value is estimated based on quoted market prices for the same or similar debt instruments, as well as discounted cash flows using current interest rates for debt with similar terms, company rating, and remaining maturity. The Company classifies debt as Level 2. As at December 31, 2020, the Company's debt, excluding finance leases, had a carrying amount of $12,832 million (2019 - $13,662 million) and a fair value of $16,046 million (2019 - $15,667 million).

23 – Segmented information

The Company manages its operations as one business segment over a single network that spans vast geographic distances and territories, with operations in Canada and the U.S. Financial information reported at this level, such as revenues, operating income, and cash flow from operations, is used by the Company's management, including its chief operating decision-maker, in evaluating financial and operational performance and allocating resources across CN's network.

The Company's strategic initiatives, which drive its operational direction, are developed and managed centrally by management and are communicated to its regional activity centers (the Western Region and Eastern Region). The Company's management is responsible for, among others, CN's marketing strategy, the management of large customer accounts, overall planning and control of infrastructure and rolling stock, the allocation of resources, and other functions such as financial planning, accounting and treasury.

The role of each region is to manage the day-to-day service requirements within their respective territories and control direct costs incurred locally. Such cost control is required to ensure that pre-established efficiency standards set at the corporate level are met. The regions execute the overall corporate strategy and operating plan established by the Company's management, as the regions' management of throughput and control of direct costs does not serve as the platform for the Company's decision-making process. Approximately 95% of the Company's freight revenues are from national accounts for which freight traffic spans North America and touches various commodity groups. As a result, the Company does not manage revenues on a regional basis since a large number of the movements originate in one region and pass through and/or terminate in another region.

The regions also demonstrate common characteristics in each of the following areas:

- each region's sole business activity is the transportation of freight over the Company's extensive rail network;
- the regions service national accounts that extend over the Company's various commodity groups and across its rail network;
- the services offered by the Company stem predominantly from the transportation of freight by rail with the goal of optimizing the rail network as a whole; and
- the Company and its subsidiaries, not its regions, are subject to regulatory regimes in both Canada and the U.S.

For the years ended December 31, 2020, 2019, and 2018, no major customer accounted for more than 10% of total revenues and the largest freight customer represented approximately 3% of total annual freight revenues.

The following tables provide information by geographic area:

In millions	*Year ended December 31,*	**2020**		2019		2018
Revenues						
Canada	**$**	**9,588**	$	10,167	$	9,610
U.S.		**4,231**		4,750		4,711
Total revenues	**$**	**13,819**	$	14,917	$	14,321
Net income						
Canada	**$**	**2,632**	$	3,131	$	3,163
U.S.		**930**		1,085		1,165
Total net income	**$**	**3,562**	$	4,216	$	4,328

In millions	*December 31,*	**2020**		2019
Properties				
Canada	**$**	**22,235**	$	21,482
U.S.		**17,834**		18,187
Total properties	**$**	**40,069**	$	39,669

24 – Subsequent events

Normal course issuer bid

On January 26, 2021, the Board of Directors of the Company approved a new NCIB, which allows for the repurchase of up to 14 million common shares between February 1, 2021 and January 31, 2022. The Company expects to resume its share repurchases in the first quarter of 2021 under the new NCIB.

Notes and debentures

On January 18, 2021, as a result of lower prevailing interest rates and pursuant to an early repayment option within the Company's fixed rate debt agreements, the Company repaid in full the seven-year 2.75% Notes due February 18, 2021. The payment consisted of $250 million of principal plus $3 million of accrued interest.