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, 2023 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, 2023.

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, 2023 and has also expressed an unqualified audit opinion on the Company's 2023 consolidated financial statements as stated in their Reports of Independent Registered Public Accounting Firm dated January 31, 2024.

(s) Tracy Robinson
President and Chief Executive Officer

January 31, 2024

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

January 31, 2024

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, 2023 and 2022, 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, 2023, 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, 2023 and 2022, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2023, 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, 2023, 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 January 31, 2024 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

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 8 to the consolidated financial statements, the deferred income tax assets were $682 million and the deferred income tax liabilities were $10,066 million as of December 31, 2023, and income tax expense was $863 million for the year ended December 31, 2023. 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 deferred income tax assets, the deferred income tax liabilities, 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 professionals with specialized skills and knowledge who assisted in: (1) assessing the Company's interpretation of the relevant tax regulations; (2) evaluating the reasonability of the Company's tax positions; and (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

As discussed in Note 12 to the consolidated financial statements, capital additions, net of finance leases, were $3,187 million for the year ended December 31, 2023, of which $1,529 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.

We identified the evaluation of capitalization of costs relating to track and railway infrastructure 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.

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. 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. In addition, we examined the Company's budget versus actual analysis on capital projects and assessed the Company's explanations of differences exceeding pre-determined testing thresholds.

(s) KPMG LLP

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

Montréal, Canada
January 31, 2024

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, 2023, 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, 2023, based on criteria established in *Internal Control - Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

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, 2023 and 2022, 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, 2023, and the related notes (collectively the "consolidated financial statements'), and our report dated January 31, 2024 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
January 31, 2024

Contents

CONSOLIDATED STATEMENTS OF INCOME

In millions, except per share data *Year ended December 31,*	**2023**	2022	2021
Revenues *(Note 5)*	**$ 16,828**	$ 17,107	$ 14,477
Operating expenses			
Labor and fringe benefits	**3,150**	2,935	2,879
Purchased services and material	**2,254**	2,191	2,082
Fuel	**2,097**	2,518	1,513
Depreciation and amortization	**1,817**	1,729	1,598
Equipment rents	**359**	338	336
Other	**554**	556	506
Recovery on assets held for sale *(Note 6)*	**—**	—	(137)
Transaction-related costs (*Note 4*)	**—**	—	84
Total operating expenses	**10,231**	10,267	8,861
Operating income	**6,597**	6,840	5,616
Interest expense	**(722)**	(548)	(610)
Other components of net periodic benefit income *(Note 18)*	**479**	498	407
Merger termination fee (*Note 4*)	**—**	—	886
Other income (loss) *(Note 7)*	**134**	(27)	43
Income before income taxes	**6,488**	6,763	6,342
Income tax expense *(Note 8)*	**(863)**	(1,645)	(1,443)
Net income	**$ 5,625**	$ 5,118	$ 4,899
Earnings per share *(Note 9)*			
Basic	**$ 8.55**	$ 7.46	$ 6.91
Diluted	**$ 8.53**	$ 7.44	$ 6.90
Weighted-average number of shares *(Note 9)*			
Basic	**657.7**	686.4	708.5
Diluted	**659.1**	688.3	710.3

See accompanying notes to Consolidated Financial Statements.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

In millions *Year ended December 31,*	**2023**	2022	2021
Net income	**$ 5,625**	$ 5,118	$ 4,899
Other comprehensive income (loss) *(Note 21)*			
Net gain (loss) on foreign currency translation	**(101)**	366	(52)
Net change in pension and other postretirement benefit plans *(Note 18)*	**(334)**	(250)	2,066
Derivative instruments *(Note 23)*	**96**	(2)	—
Other comprehensive income (loss) before income taxes	**(339)**	114	2,014
Income tax recovery (expense)	**29**	158	(544)
Other comprehensive income (loss)	**(310)**	272	1,470
Comprehensive income	**$ 5,315**	$ 5,390	$ 6,369

See accompanying notes to Consolidated Financial Statements.

CONSOLIDATED BALANCE SHEETS

In millions	*As at December 31,*	**2023**	2022
Assets			
Current assets			
Cash and cash equivalents		**$ 475**	$ 328
Restricted cash and cash equivalents *(Note 16)*		**449**	506
Accounts receivable *(Note 10)*		**1,300**	1,371
Material and supplies		**699**	692
Other current assets *(Note 11)*		**166**	320
Total current assets		**3,089**	3,217
Properties *(Note 12)*		**44,617**	43,537
Operating lease right-of-use assets *(Note 13)*		**424**	470
Pension asset *(Note 18)*		**3,140**	3,033
Deferred income tax assets *(Note 8)*		**682**	—
Intangible assets, goodwill and other *(Note 14)*		**714**	405
Total assets		**$ 52,666**	$ 50,662
Liabilities and shareholders' equity			
Current liabilities			
Accounts payable and other *(Note 15)*		**$ 2,695**	$ 2,785
Current portion of long-term debt *(Note 16)*		**2,340**	1,057
Total current liabilities		**5,035**	3,842
Deferred income tax liabilities *(Note 8)*		**10,066**	9,796
Other liabilities and deferred credits *(Note 17)*		**522**	441
Pension and other postretirement benefits *(Note 18)*		**495**	486
Long-term debt *(Note 16)*		**16,133**	14,372
Operating lease liabilities *(Note 13)*		**298**	341
Total liabilities		**32,549**	29,278
Shareholders' equity			
Common shares *(Note 19)*		**3,512**	3,613
Common shares in Share Trusts *(Note 19)*		**(144)**	(170)
Additional paid-in capital		**373**	381
Accumulated other comprehensive loss *(Note 21)*		**(2,279)**	(1,969)
Retained earnings		**18,655**	19,529
Total shareholders' equity		**20,117**	21,384
Total liabilities and shareholders' equity		**$ 52,666**	$ 50,662

See accompanying notes to Consolidated Financial Statements.

On behalf of the Board of Directors:

(s) Shauneen Bruder
Director

(s) Tracy Robinson
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, 2020	710.3	1.3	$3,698	$ (115)	$ 379	$ (3,711)	$19,400	$ 19,651
Net income							4,899	4,899
Stock options exercised	0.7		60		(8)			52
Settlement of equity settled awards *(Note 19)*	0.4	(0.4)		38	(60)		(42)	(64)
Stock-based compensation and other					86		(2)	84
Repurchase of common shares *(Note 19)*	(10.3)		(54)				(1,528)	(1,582)
Share purchases by Share Trusts *(Note 19)*	(0.2)	0.2		(26)				(26)
Other comprehensive income *(Note 21)*						1,470		1,470
Dividends ($2.46 per share)							(1,740)	(1,740)
Balance at December 31, 2021	700.9	1.1	3,704	(103)	397	(2,241)	20,987	22,744
Net income							5,118	5,118
Stock options exercised	0.6		70		(9)			61
Settlement of equity settled awards *(Note 19)*	0.4	(0.4)		38	(84)		(22)	(68)
Stock-based compensation and other					77		(2)	75
Repurchase of common shares *(Note 19)*	(30.2)		(161)				(4,548)	(4,709)
Share purchases by Share Trusts *(Note 19)*	(0.7)	0.7		(105)				(105)
Other comprehensive income *(Note 21)*						272		272
Dividends ($2.93 per share)							(2,004)	(2,004)
Balance at December 31, 2022	671.0	1.4	3,613	(170)	381	(1,969)	19,529	21,384
Net income							5,625	5,625
Stock options exercised	0.5		56		(7)			49
Settlement of equity settled awards *(Note 19)*	0.5	(0.5)		54	(77)		(32)	(55)
Stock-based compensation and other					76		(2)	74
Repurchase of common shares *(Note 19)*	(29.1)		(157)				(4,394)	(4,551)
Share purchases by Share Trusts *(Note 19)*	(0.2)	0.2		(28)				(28)
Other comprehensive loss *(Note 21)*						(310)		(310)
Dividends ($3.16 per share)							(2,071)	(2,071)
Balance at December 31, 2023	**642.7**	**1.1**	**$3,512**	**$ (144)**	**$ 373**	**$ (2,279)**	**$18,655**	**$ 20,117**

See accompanying notes to Consolidated Financial Statements.

CONSOLIDATED STATEMENTS OF CASH FLOWS

In millions *Year ended December 31,*	**2023**	2022	2021
Operating activities			
Net income	**$ 5,625**	$ 5,118	$ 4,899
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	**1,817**	1,729	1,598
Pension income and funding	**(418)**	(387)	(314)
Amortization of bridge financing and other fees *(Note 4)*	**—**	—	97
Recovery on assets held for sale *(Note 6)*	**—**	—	(137)
Gain on disposal of property *(Note 7)*	**(129)**	—	—
Deferred income taxes *(Note 8)*	**(288)**	404	513
Changes in operating assets and liabilities:			
Accounts receivable	**71**	(290)	(22)
Material and supplies	**(18)**	(82)	(7)
Accounts payable and other	**(191)**	(9)	141
Other current assets	**85**	(30)	35
Other operating activities, net	**411**	214	168
Net cash provided by operating activities	**6,965**	6,667	6,971
Investing activities			
Property additions	**(3,187)**	(2,750)	(2,891)
Advance for acquisition and other transaction-related costs *(Note 4)*	**—**	**—**	(908)
Refund of advance for acquisition *(Note 4)*	**—**	—	886
Business acquisitions and combinations *(Note 4)*	**(390)**	—	—
Proceeds from assets held for sale *(Note 6)*	**—**	273	—
Proceeds from disposal of property *(Note 7)*	**129**	—	—
Other investing activities, net	**(20)**	(33)	40
Net cash used in investing activities	**(3,468)**	(2,510)	(2,873)
Financing activities			
Issuance of debt *(Note 16)*	**2,554**	1,899	403
Repayment of debt *(Note 16)*	**(250)**	(383)	(861)
Change in commercial paper, net *(Note 16)*	**908**	563	66
Bridge financing and other fees *(Note 4)*	**—**	—	(97)
Settlement of foreign exchange forward contracts on debt	**38**	79	(8)
Issuance of common shares for stock options exercised *(Note 20)*	**49**	61	52
Withholding taxes remitted on the net settlement of equity settled awards *(Note 20)*	**(51)**	(44)	(37)
Repurchase of common shares *(Note 19)*	**(4,551)**	(4,709)	(1,582)
Purchase of common shares for settlement of equity settled awards	**(4)**	(24)	(27)
Purchase of common shares by Share Trusts *(Note 19)*	**(28)**	(105)	(26)
Dividends paid	**(2,071)**	(2,004)	(1,740)
Net cash used in financing activities	**(3,406)**	(4,667)	(3,857)
Effect of foreign exchange fluctuations on cash, cash equivalents, restricted cash, and restricted cash equivalents	**(1)**	3	—
Net increase (decrease) in cash, cash equivalents, restricted cash, and restricted cash equivalents	**90**	(507)	241
Cash, cash equivalents, restricted cash, and restricted cash equivalents, beginning of year	**834**	1,341	1,100
Cash, cash equivalents, restricted cash, and restricted cash equivalents, end of year	**$ 924**	$ 834	$ 1,341
Cash and cash equivalents, end of year	**$ 475**	$ 328	$ 838
Restricted cash and cash equivalents, end of year	**449**	506	503
Cash, cash equivalents, restricted cash, and restricted cash equivalents, end of year	**$ 924**	$ 834	$ 1,341
Supplemental cash flow information			
Interest paid	**$ (776)**	$ (542)	$ (512)
Income taxes paid (*Note 8*)	**$ (1,197)**	$ (1,288)	$ (759)

See accompanying notes to 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.), 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 has the direct ability to make decisions regarding the Share Trusts' principal activities. 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 Other expense 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 Balance Sheets.

Subsequent changes to the estimated selling price of assets held for sale are recorded as recoveries 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 five 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 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.

Government assistance

By analogy to the grant model of accounting within International Accounting Standards (IAS) 20, Accounting for Government Grants and Disclosure of Government Assistance, the Company records government assistance from various levels of Canadian and U.S. governments and government agencies when the conditions of their receipt are complied with and there is reasonable assurance that the assistance will be received.

The Company receives government assistance typically in the form of cash primarily for the purpose of track infrastructure assets and public safety improvements to track and roadway properties. The government assistance related to properties has conditions of how the assistance is to be spent; such as the Company purchasing or self-constructing assets to improve CN assets and under limited transactions would require the Company to reimburse the assistance if certain conditions are not adhered to. The period for which the assistance is received coincides with the timing to complete the purchase or self-construction.

The Company accounts for government assistance received or receivable related to CN's property assets as a reduction from the cost of the assets in the Consolidated Balance Sheets within Properties and depreciated over the same service life of the related assets in Depreciation and amortization in the Consolidated Statements of Income.

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 assessed 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;
- the Company uses a market related value to calculate net periodic benefit cost (income) (see *Note 2 – Change in accounting policy* for additional information) 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 restricted share unit (RSU) awards and 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 – Change in accounting policy

Change in accounting policy for determining net periodic pension cost (income)

Effective January 1, 2022, CN elected to change its accounting methodology for determining the market-related value of assets for the Company’s defined benefit pension plans. The new accounting method changed the calculation of market-related value of pension plan assets used to determine net periodic benefit cost but had no impact on the annual funded status of the plans. The Company's previous methodology calculated market-related value for pensions whereby realized and unrealized gains/losses and appreciation/depreciation in the value of the investments were recognized over a period of five years. The Company's new methodology applies a corridor approach so that the market-related value does not result in a value that deviates excessively from its fair value. Specifically, the market-related value will not exceed 110% or be less than 90% of the fair value. This change established a corridor approach whereby the amount causing the market-related value to be outside of the 10% corridor is recognized immediately in the market-related value of assets and will not be subject to the five-year period of recognition. There is no change in the recognition approach for investment income.

CN considers the use of a calculated value with a corridor approach preferable to the previous calculated value approach as it results in a more current reflection of impacts of changes in value of these plan assets in the determination of net periodic benefit cost. The new accounting method to calculate the market-related value for pensions also aligns with the prevailing guidance issued by the Office of the Superintendent of Financial Institutions (OSFI) for the preparation of actuarial valuations for funding purposes for all registered Canadian defined benefit pension plans, whereby the Company adopted and applied the updated OSFI guidance starting with the December 31, 2021 funding valuations that were filed during the second quarter of 2022.

The change in accounting method was applied retrospectively to all periods presented within CN's financial statements. The change did not impact Operating income or Net cash provided by operating activities but did impact the previously reported portion of Other components of net periodic benefit cost (income) for defined benefit pension plans along with related consolidated income items such as Net income and Earnings per share. Other impacts included related changes to previously reported consolidated Other comprehensive income (loss), Retained earnings, Accumulated other comprehensive income (loss), and associated line items within the determination of Net cash provided (used) by operating activities. *Note 2 – Change in accounting policy* to the Company's 2022 Annual Consolidated Financial Statements details the impact of this change on previously reported amounts.

3 – Recent accounting pronouncements

The following recent Accounting Standards Updates (ASU) issued by the Financial Accounting Standards Board (FASB) has an effective date after December 31, 2023 and has not been adopted by the Company:

ASU 2023-07 Segment reporting (Topic 280): Improvements to reportable segment disclosures

The ASU will improve financial disclosures about a public entity's reportable segments and address requests from investors for additional and more detailed information regarding reportable segment expenses. The main amendments in the ASU require public entities, including those that have a single reportable segment, to disclose on an annual and interim basis the significant segment expenses provided to the chief operating decision maker (CODM), disclose the title/position of the CODM and how the segment expenses information is used in the decision making process.

The ASU is effective for annual periods beginning after December 15, 2023. Early adoption is permitted.

The adoption of the ASU will have an impact on the Company's Consolidated Financial Statements disclosures. The Company will include the relevant disclosure within the 2024 Annual Consolidated Financial Statements and 2025 Interim Financial Statements.

ASU 2023-09 – Income Taxes (Topic 740): Improvements to income tax disclosures

The ASU amends the rules on income tax disclosures by modifying or eliminating certain existing income tax disclosure requirements in addition to establishing new requirements. The amendments address investor requests for more transparency about income taxes, including jurisdictional information, by requiring consistent categories and greater disaggregation of information. The ASU's two primary amendments relate to the rate reconciliation and income taxes paid annual disclosures.

Reconciling items presented in the rate reconciliation will be in dollar amounts and percentages, and will be disaggregated into specified categories with certain reconciling items further broken out by nature and/or jurisdiction using a 5% threshold of domestic federal taxes. Income taxes paid will be disaggregated between federal, provincial/territorial, and foreign taxing jurisdictions using a 5% threshold of total income taxes paid net of refunds received.

The ASU is effective for annual periods beginning after December 15, 2024. Early adoption is permitted for annual financial statements that have not yet been issued or made available for issuance. The ASU should be applied prospectively. Retrospective application is permitted.

The adoption of the ASU will have an impact on the Company's Consolidated Financial Statements disclosures. The required disclosure changes will be reflected in the Company's Consolidated Financial Statements when the ASU is adopted.

The following Accounting Standards Updates (ASU) issued by the Financial Accounting Standards Board (FASB) have been adopted by the Company:

ASU 2020-04 and ASU 2022-06 Reference rate reform (Topic 848): Facilitation of the effects of reference rate reform on financial reporting and related amendments

USD London Interbank Offered Rate (LIBOR) and Canadian Dollar Offered Rate (CDOR) are benchmark interest rates referenced in a variety of agreements. The publication of certain LIBOR and CDOR rates were discontinued in January 2022 and May 2021, respectively. The remaining LIBOR rates were discontinued on June 30, 2023 and the remaining CDOR rates are expected to be discontinued on June 30, 2024. The recommended alternative reference rates for LIBOR and CDOR are the Secured Overnight Financing Rate (SOFR) and Canadian Overnight Repo Rate Average (CORRA), respectively.

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 ASU was effective starting on March 12, 2020, and is available to be adopted on a prospective basis no later than December 31, 2024, following the amendments of ASU 2022-06.

The Company was eligible and has elected to use the optional expedient provided by the ASU which allowed the amendment to be accounted for as a non substantial modification of an existing debt. As a result, the amendment did not have a significant impact to the Company's Consolidated Financial Statements and related disclosures. See *Note 16 - Debt* for additional information on reference rate reform with respect to the non-revolving credit facility, revolving credit facilities, equipment loans and accounts receivable securitization program.

Other recently issued ASUs required to be applied on or after December 31, 2023 have been evaluated by the Company and are not expected to have a significant impact on the Company's Consolidated Financial Statements.

4 – Business acquisitions and combinations

2023

Iowa Northern Railway Company

On December 6, 2023, the Company acquired the shares of the Iowa Northern Railway Company (IANR), a Class III short-line railroad that owns and leases approximately 175 route miles in northeast Iowa that are connected to CN's U.S. rail network. CN paid US$230 million ($312 million), including transaction costs to date. IANR serves upper Midwest agricultural and industrial markets covering many goods, including biofuels and grain. This transaction represents a meaningful opportunity to support the growth of local business by creating single-line service to North American destinations, while preserving access to existing carrier options.

The shares of IANR were deposited into an independent voting trust while the U.S Surface Transportation Board (STB) considers the Company's application to acquire control of IANR. During the trust period, IANR will continue to be operated under its current management and the Company cannot exercise day-to-day control. As a result, the Company recorded its investment in IANR at its acquisition cost under the equity method of accounting. Subject to final approval by the STB, the Company would obtain control of IANR and would account for the acquisition as a business combination under the acquisition method of accounting.

On the acquisition date of December 6, 2023, immediately prior to the acquisition, there was a basis difference of $236 million between the consideration paid to acquire IANR and the underlying carrying value of the net assets of IANR. The basis difference related to depreciable properties and if any, intangible assets with definite lives will be amortized over the related assets' remaining useful lives. The remainder of the basis difference, relating to land, intangible assets with indefinite lives if any, and equity method goodwill, would not be amortized and would be carried at cost subject to an assessment for impairment. The estimated fair value of IANR's underlying net assets is preliminary based on information available to the Company to date and subject to change over the measurement period, which may be up to twelve months from the acquisition date.

The Company has not provided summarized financial information for IANR, on its historical cost basis, for the period December 6, 2023 to December 31, 2023, and as at December 31, 2023 as it was not material.

Cape Breton & Central Nova Scotia Railway

On November 1, 2023, the Company acquired from Genesee & Wyoming Inc. a stake in the Cape Breton & Central Nova Scotia Railway (CBNS), a Class III short-line railroad that owns approximately 150 route miles. CN paid $78 million in cash, net of cash acquired and including working capital adjustments. The acquisition was accounted for as a business combination. As a result, the Company's Consolidated Balance Sheet includes the net assets of CBNS as of November 1, 2023, which were comprised of $101 million in fair value of properties mostly track and roadway assets, partly offset by $18 million in deferred tax liabilities. The remaining net assets were comprised of current assets and liabilities which were individually insignificant and there were no identifiable intangible assets. No goodwill was recognized. The fair value of CBNS's underlying net assets has been estimated on a preliminary basis and may be subject to change as additional information becomes available over the next twelve months. The Company has not provided pro forma information related to prior periods as it was not material.

2021

Terminated CN Kansas City Southern (KCS) merger agreement

On September 15, 2021, KCS notified CN that it terminated the previously announced May 21, 2021 definitive merger agreement (the "CN Merger Agreement") under which CN would have acquired KCS.

On August 31, 2021, the STB rejected the joint motion by CN and KCS to approve a proposed voting trust agreement. On September 15, 2021, KCS and its Board of Directors announced that the revised acquisition proposal of September 12, 2021 from Canadian Pacific Railway Limited (CP) constituted a "Company Superior Proposal" as defined in the CN Merger Agreement. Consequently, KCS entered into a waiver letter agreement with CN under which KCS agreed to terminate the CN Merger Agreement in order to enter into a merger agreement with CP. As a result, CN received from KCS a merger termination fee of US$700 million ($886 million), recorded in Merger termination fee within the Company's Consolidated Statements of Income and reflected in Operating activities within the Consolidated Statements of Cash Flows. In addition, KCS also refunded Brooklyn US Holdings, Inc. ("Holdco"), a wholly owned subsidiary of the Company, US$700 million ($886 million) that CN had previously paid as an advance to KCS of US$700 million ($845 million) in connection with KCS's payment of the termination fee to CP under KCS's original merger agreement with CP that was terminated on May 21, 2021. The refund received in the third quarter of 2021 was recorded in Transaction-related costs within the Consolidated Statements of Income and reflected in Investing activities within the Consolidated Statements of Cash flows. The US$700 million ($845 million) advance was recorded in Advance to KCS and other transaction costs within the Consolidated Balance Sheets in the second quarter of 2021 and was expensed to Transaction-related costs within the Consolidated Statements of Income in the third quarter of 2021. This advance, along with $63 million of transaction-related costs paid in the second quarter of 2021, was reflected in Investing activities within the Consolidated Statements of Cash flows.

The Company incurred $84 million of transaction-related costs for the year ended December 31, 2021 recorded in Transaction-related costs within the Consolidated Statements of Income. This included $125 million of transaction-related costs, consisting of a $76 million expense for costs previously capitalized to Advance to KCS and other transaction costs within the Consolidated Balance Sheets in the second quarter of 2021 in accordance with the expected application of equity method accounting and $49 million of additional transaction-related costs incurred in the third quarter of 2021; partially offset by $41 million of income generated as a result of the applicable foreign exchange rates prevailing at the time of payment of the US dollar denominated advance to KCS and receipt of the related refund.

The Company also paid $97 million of bridge financing and other fees which were recorded in Interest expense within the Consolidated Statements of Income for the year ended December 31, 2021.

For the year ended December 31, 2021, after accounting for all direct and incremental expenses as well as income generated from the merger termination fee, CN recorded additional income of $705 million ($616 million after-tax), as a result of its strategic decision to bid for KCS.

5 – Revenues

In millions	*Year ended December 31,*	**2023**	2022	2021
Freight revenues				
Petroleum and chemicals		**$ 3,195**	$ 3,229	$ 2,816
Metals and minerals		**2,048**	1,911	1,548
Forest products		**1,943**	2,006	1,740
Coal		**1,017**	937	618
Grain and fertilizers		**3,265**	2,783	2,475
Intermodal		**3,823**	4,906	4,115
Automotive		**945**	797	576
Total freight revenues		**16,236**	16,569	13,888
Other revenues		**592**	538	589
Total revenues (1) (2)		**$ 16,828**	$ 17,107	$ 14,477

(1) As at December 31, 2023, the Company had remaining performance obligations related to freight in-transit, for which revenues of $88 million (2022 - $103 million) are expected to be recognized in the next period.

(2) See *Note 24 – Segmented information* for the disaggregation of revenues by geographic area.

Contract liabilities

In millions	**2023**	2022
Beginning of year	**$ 28**	$ 74
Revenue recognized included in the beginning balance	**(12)**	(74)
Increase due to consideration received, net of revenue recognized	**79**	28
End of year	**$ 95**	$ 28
Current portion - end of year	**$ 13**	$ 12

6 – Assets held for sale

In the first quarter of 2021, CN entered into an agreement with a short line operator, for the sale of non-core lines in Wisconsin, Michigan and Ontario representing 850 miles that were classified as assets held for sale plus an additional 50 miles of track and roadway assets, resulting in a $137 million recovery ($102 million after-tax) of the $486 million loss ($363 million after-tax) recorded in the second quarter of 2020 to adjust the carrying amount of the track and roadway assets to their then estimated net selling price.

In the fourth quarter of 2021, the STB approved the Company's agreement with the short line operator without condition and the transaction closed in the first quarter of 2022 for proceeds of $273 million.

7 – Other income (loss)

In millions	*Year ended December 31,*	**2023**	2022	2021
Gain on disposal of property		**$ 129**	$ –	$ –
Gain on disposal of land		**7**	15	23
Gain (loss) on foreign currency (1)		**7**	(7)	2
Gain (loss) on equity investment with readily determinable fair values		**–**	(29)	20
Other		**(9)**	(6)	(2)
Total other income (loss)		**$ 134**	$ (27)	$ 43

(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 23 – Financial instruments* for additional information.

Disposal of property

On December 13, 2023, the Company completed the sale of a portion of land within the Bala Subdivision located in Markham and Richmond Hill, Ontario, Canada for cash proceeds of $129 million which resulted in a gain of $129 million ($112 million after tax) as the carrying amount of the land was nominal.

8 – 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 and other transactions that may occur in any given year.

In the fourth quarter of 2023, the Company received a ruling from taxation authorities in a non-U.S. foreign jurisdiction in connection with prior taxation years. Consistent with the ruling, and effective as of January 1, 2021, the Company has foregone favorable tax deductions of a permanent nature on certain income generated from intercompany arrangements. This resulted in the Company generating tax-deductible goodwill approximating the value of the foregone tax deductions, which is available to be amortized over a period of up to ten years.

As a result, the Company recorded a net deferred income tax recovery of $682 million, comprised of a $767 million deferred income tax recovery related to the tax-deductible goodwill initially generated as of January 1, 2021, partly offset by a $85 million income tax expense related to the foregone tax deduction ($31 million for 2023 and $54 million for prior years) which was initially recorded in current taxes and was then reclassified to deferred taxes following the amortization of the tax-deductible goodwill for those years. As a result, the remaining deferred income tax asset as at December 31, 2023 was $682 million, representing the tax impact of unamortized tax-deductible goodwill of $5.8 billion.

Income tax expense

In millions	*Year ended December 31,*	**2023**	2022	2021
Canadian statutory federal tax rate		**15%**	15%	15%
Income tax expense at the Canadian statutory federal tax rate		**$ 973**	$ 1,014	$ 951
Income tax expense resulting from:				
Provincial and foreign income taxes (1)		**633**	657	617
Tax-deductible goodwill and related impacts (2)		**(713)**	–	–
Non-taxable portion of merger termination fee (3)		**–**	–	(116)
Other (4)		**(30)**	(26)	(9)
Income tax expense		**$ 863**	$ 1,645	$ 1,443
Net cash payments for income taxes		**$ 1,197**	$ 1,288	$ 759

(1) Includes the impact of Canadian provincial taxes, U.S. federal and state taxes, and other foreign taxes.

(2) Relates to the impacts of recognizing the $767 million deferred income tax recovery party offset by a $54 million income tax expense on the foregone tax deductions related to prior taxation years.

(3) Relates to the permanent difference arising from applying a lower inclusion tax rate on the $886 million of income generated from the merger termination fee received from KCS (see *Note 4 –Business acquisitions and combinations*).

(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 resulting from the settlement of equity settled awards under the Company's stock-based compensation plans, and other items.

Tax information on a domestic and foreign basis

In millions	*Year ended December 31,*	**2023**	2022	2021
Income before income taxes				
Domestic		**$ 4,936**	$ 4,835	$ 4,726
Foreign		**1,552**	1,928	1,616
Total income before income taxes		**$ 6,488**	$ 6,763	$ 6,342
Current income tax expense				
Domestic		**$ 896**	$ 956	$ 763
Foreign		**255**	285	167
Total current income tax expense		**$ 1,151**	$ 1,241	$ 930
Deferred income tax expense (recovery)				
Domestic		**$ 360**	$ 298	$ 360
Foreign		**(648)**	106	153
Total deferred income tax expense (recovery)		**$ (288)**	$ 404	$ 513

Net deferred income taxes

In millions	*As at December 31,*	**2023**	2022
Deferred income tax assets (liabilities)			
Deferred income tax assets [(1)]		**$ 682**	$ –
Deferred income tax liabilities		**(10,066)**	(9,796)
Net deferred income taxes		**$ (9,384)**	$ (9,796)
Deferred income tax assets			
Tax-deductible goodwill [(1)]		**$ 682**	$ –
Net operating losses and tax credit carryforwards [(2)]		**130**	46
Lease liabilities		**126**	132
Pension liability		**95**	93
Personal Injury & legal claims		**59**	61
Other postretirement benefits liability		**38**	38
Compensation reserves		**37**	45
Unrealized foreign exchange losses		**–**	61
Other		**56**	53
Total deferred income tax assets		**$ 1,223**	$ 529
Deferred income tax liabilities			
Properties		**$ (9,560)**	$ (9,296)
Pension asset		**(822)**	(794)
Operating lease right-of-use assets		**(106)**	(117)
Other		**(119)**	(118)
Total deferred income tax liabilities		**$ (10,607)**	$ (10,325)
Net deferred income taxes		**$ (9,384)**	$ (9,796)
Net deferred income taxes by jurisdiction			
Domestic		**$ (5,950)**	$ (5,614)
Foreign U.S.		**(4,116)**	(4,182)
Foreign non-U.S. [(1)]		**682**	–
Net deferred income taxes		**$ (9,384)**	$ (9,796)

(1) As at December 31, 2023, the Company had tax-deductible goodwill of $5.8 billion remaining to be amortized which will expire in 2030.

(2) As at December 31, 2023, the Company had net interest expense deduction carryforwards of $480 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 $200 million for U.S. state tax purposes which are available to offset future U.S. state taxable income and are expiring between 2024 and 2042.

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, 2023, in order to fully realize all of the deferred income tax assets excluding the tax-deductible goodwill, the Company will need to generate future taxable income of approximately $1.8 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. Management believes it is more likely than not that CN will fully realize the benefits of the remaining $5.8 billion unamortized tax-deductible goodwill because under the current tax laws the Company has the ability and intent to maintain the necessary intercompany arrangements that will generate sufficient future taxable income of the appropriate character in the non-U.S. foreign jurisdiction, and to fully utilize the tax-deductible goodwill. As at December 31, 2023, the Company has not recognized a deferred income tax asset of $217 million (2022 - $196 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.

Unrecognized tax benefits

In millions *Year ended December 31,*	**2023**	2022	2021
Gross unrecognized tax benefits at beginning of year	**$ 52**	$ 64	$ 92
Increases for:			
Tax positions related to the current year	**4**	3	4
Decrease for:			
Tax positions related to prior years	**(8)**	(10)	(32)
Settlements	**(2)**	(5)	—
Gross unrecognized tax benefits at end of year	**46**	52	64
Adjustments to reflect tax treaties and other arrangements	**(14)**	(14)	(17)
Net unrecognized tax benefits at end of year	**$ 32**	$ 38	$ 47

As at December 31, 2023, the total amount of gross unrecognized tax benefits was $46 million, before considering tax treaties and other arrangements between taxation authorities. The amount of net unrecognized tax benefits as at December 31, 2023 was $32 million. If recognized, $18 million of the net unrecognized tax benefits as at December 31, 2023 would affect the effective tax rate.

The Company believes that it is reasonably possible that $13 million of the net unrecognized tax benefits as at December 31, 2023 related to Canadian and U.S. federal, state, and provincial income tax matters, each of which are individually insignificant, may be recognized over the next twelve months as a result of settlements and a lapse of the applicable statute of limitations of which approximately half will affect the effective tax rate as the remaining amount relates to temporary differences.

The Company recognizes interest and penalties related to unrecognized tax benefits in Income tax expense in the Statements of Income. The Company recorded a net tax expense of $1 million related to net interest and penalties expense for the year ended December 31, 2023 and net tax recoveries of $12 million and $2 million related to net reversals of interest and penalties for the years ended December 31, 2022 and 2021, respectively. As at December 31, 2023, the Company had accrued interest and penalties of $14 million (2022 -$13 million).

In Canada, the Company's federal and provincial income tax returns filed for the years 2018 to 2022 remain subject to examination by the taxation authorities. An examination of the Company's federal income tax returns for the year 2018 and 2019 is currently in progress and is expected to be completed during 2024. In 2020, the tax authorities proposed certain audit adjustments and, as a result, the Company recorded a $25 million deferred tax expense which is comprised of net unrecognized tax benefits and related interest expenses. During 2021 and 2022, the tax authorities finalized their audit adjustments related to certain tax positions and as a result, the Company re-evaluated the relevant tax positions for all open years and recorded deferred tax recoveries of $8 million and $13 million, respectively, reducing net unrecognized tax benefits and related interest expenses. In the U.S., the federal income tax returns filed for the years 2020 to 2022 and the state income tax returns filed for the years 2018 to 2022 remain subject to examination by the taxation authorities. The Company does not anticipate any significant impacts to its results of operations or financial position as a result of the final resolutions of such matters.

9 – Earnings per share

In millions, except per share data — *Year ended December 31,*	2023	2022	2021
Net income	**$ 5,625**	$ 5,118	$ 4,899
Weighted-average basic shares outstanding	**657.7**	686.4	708.5
Dilutive effect of stock-based compensation	**1.4**	1.9	1.8
Weighted-average diluted shares outstanding	**659.1**	688.3	710.3
Basic earnings per share	**$ 8.55**	$ 7.46	$ 6.91
Diluted earnings per share	**$ 8.53**	$ 7.44	$ 6.90
Units excluded from the calculation as their inclusion would not have a dilutive effect			
Stock options	**1.0**	0.6	0.5
Performance share units	**0.5**	0.2	0.1

10 – Accounts receivable

In millions — *As at December 31,*	2023	2022
Freight	**$ 1,051**	$ 1,142
Non-freight	**274**	244
Gross accounts receivable	**1,325**	1,386
Allowance for credit losses	**(25)**	(15)
Net accounts receivable	**$ 1,300**	$ 1,371

11 – Other current assets

In millions — *As at December 31,*	2023	2022
Prepaid expenses	**$ 133**	$ 186
Income taxes receivable	**—**	46
Derivative instruments (*Note 23*)	**—**	33
Other	**33**	55
Total other current assets	**$ 166**	$ 320

12 – Properties

In millions *As at*	Depreciation rate	December 31, 2023 Cost	Accumulated Depreciation	Net	December 31, 2022 Cost	Accumulated Depreciation	Net
Properties including finance leases							
Track and roadway [1]	**2 %**	**$ 45,370**	**$ 10,506**	**$ 34,864**	$ 44,037	$ 9,977	$ 34,060
Rolling stock	**4 %**	**8,544**	**3,401**	**5,143**	8,233	3,295	4,938
Buildings	**3 %**	**2,254**	**782**	**1,472**	2,202	750	1,452
Information technology [2]	**10 %**	**2,879**	**1,331**	**1,548**	2,670	1,156	1,514
Other	**5 %**	**2,964**	**1,374**	**1,590**	2,921	1,348	1,573
Total properties including finance leases [3]		**$ 62,011**	**$ 17,394**	**$ 44,617**	$ 60,063	$ 16,526	$ 43,537
Finance leases included in properties							
Track and roadway [4]		**$ 406**	**$ 105**	**$ 301**	$ 405	$ 100	$ 305
Rolling stock		**28**	**1**	**27**	12	1	11
Buildings		**27**	**12**	**15**	27	11	16
Other		**107**	**34**	**73**	101	31	70
Total finance leases included in properties		**$ 568**	**$ 152**	**$ 416**	$ 545	$ 143	$ 402

(1) As at December 31, 2023, includes land of $2,497 million (2022 - $2,483 million).

(2) In 2023, the Company capitalized costs for internally developed software and related licenses of $203 million (2022 - $213 million).

(3) In 2023, property additions, net of finance leases, were $3,187 million (2022 - $2,750 million), of which $1,529 million (2022 - $1,490 million) related to track and railway infrastructure maintenance, including the replacement of rail, ties, bridge improvements, and other general track maintenance.

(4) As at December 31, 2023, includes right-of-way access of $106 million (2022 - $106 million).

Government assistance

For the year ended December 31, 2023 and 2022, the Company received $90 million and $70 million, respectively, of government assistance towards the purchase and self-construction of properties.

As at December 31, 2023 and 2022, the total Properties balance of $44,617 million and $43,537 million, respectively, is net of $1,736 million and $1,721 million of unamortized government assistance, respectively, primarily related to the enhancement of CN's track and roadway infrastructure. For the year ended December 31, 2023 and 2022, Depreciation and amortization expense on the Consolidated Statements of Income is presented net of amortization of government assistance of $66 million and $63 million, respectively.

13 – Leases

Lease costs

In millions *Year ended December 31,*	**2023**	2022	2021
Finance lease cost			
Amortization of right-of-use assets	**$ 11**	$ 11	$ 12
Interest on lease liabilities	**—**	—	1
Total finance lease cost	**11**	11	13
Operating lease cost	**149**	142	131
Short-term lease cost	**39**	40	26
Variable lease cost [1]	**43**	51	58
Total lease cost [2]	**$ 242**	$ 244	$ 228

(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.

Classification

In millions	Classification	*As at December 31,*	2023		2022
Lease right-of-use assets					
Finance leases	Properties	$	416	$	402
Operating leases	Operating lease right-of-use assets		424		470
Total lease right-of-use assets		$	840	$	872
Lease liabilities					
Current					
Finance leases	Current portion of long-term debt	$	31	$	1
Operating leases	Accounts payable and other		117		125
Noncurrent					
Finance leases	Long-term debt		7		9
Operating leases	Operating lease liabilities		298		341
Total lease liabilities		$	453	$	476

Terms and discount rates

As at December 31,	2023	2022
Weighted-average remaining lease term *(years)*		
Finance leases	1.0	4.8
Operating leases	4.9	5.3
Weighted-average discount rate *(%)*		
Finance leases	5.31	4.30
Operating leases	3.44	2.95

Additional information

In millions *Year ended December 31,*	2023	2022	2021
Cash paid for amounts included in the measurement of lease liabilities *($)*			
Operating cash outflows from operating leases	148	135	129
Operating cash outflows from finance leases	—	—	1
Financing cash outflows from finance leases	2	7	68
Right-of-use assets obtained in exchange for lease liabilities *($)*			
Operating lease	91	142	135
Finance lease	30	7	6

Lease liabilities maturities

In millions		Finance leases		Operating leases [(1)]
2024	$	31	$	131
2025		2		111
2026		4		74
2027		1		48
2028		1		29
2029 & thereafter		—		58
Total lease payments		39		451
Less: Imputed interest		1		36
Present value of lease payments	$	38	$	415

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

14 – Intangible assets, goodwill and other

In millions	*As at December 31,*	**2023**	2022
Investments [1]		**$ 402**	$ 94
Intangible assets		**131**	137
Deferred costs		**83**	66
Goodwill		**70**	70
Long-term receivables		**16**	25
Other long-term assets		**12**	13
Total intangible assets, goodwill and other		**$ 714**	$ 405

(1) As at December 31, 2023, the Company had $367 million (2022 - $60 million) of investments accounted for under the equity method, see *Note 4 – Business acquisitions and combinations*; and $35 million (2022 - $34 million) of investments for which fair value was not readily determinable accounted for at cost minus impairment, plus or minus observable price changes.

15 – Accounts payable and other

In millions	*As at December 31,*	**2023**	2022
Trade payables		**$ 968**	$ 954
Payroll-related accruals		**391**	535
Accrued charges		**350**	288
Income and other taxes		**310**	388
Accrued interest		**215**	201
Operating lease liabilities *(Note 13)*		**117**	125
Derivative instruments (*Note 23*)		**64**	4
Personal injury and other claims provisions *(Note 22)*		**51**	45
Environmental provisions *(Note 22)*		**39**	41
Contract liabilities (*Note 5*)		**13**	12
Other postretirement benefits liability *(Note 18)*		**12**	14
Other		**165**	178
Total accounts payable and other		**$ 2,695**	$ 2,785

16 – Debt

In millions		Maturity	US$ denominated amount		*As at December 31,* 2023	2022
Notes and debentures [1]						
Canadian National series:						
7.63%	30-year debentures	May 15, 2023	US$	–	$ **–**	$ 203
2.95%	10-year notes [2]	Nov 21, 2024	US$	350	**464**	474
2.80%	10-year notes [2]	Sep 22, 2025			**350**	350
2.75%	10-year notes [2]	Mar 1, 2026	US$	500	**662**	678
6.90%	30-year notes [2]	Jul 15, 2028	US$	475	**629**	644
3.20%	10-year notes [2]	Jul 31, 2028			**350**	350
3.00%	10-year notes [2]	Feb 8, 2029			**350**	350
4.15%	7-year notes [2]	May 10, 2030			**550**	–
7.38%	30-year debentures [2]	Oct 15, 2031	US$	200	**265**	271
3.85%	10-year notes [2]	Aug 5, 2032	US$	800	**1,059**	1,084
4.40%	10-year notes [2]	May 10, 2033			**400**	–
5.85%	10-year notes [2]	Nov 1, 2033	US$	300	**397**	–
6.25%	30-year notes [2]	Aug 1, 2034	US$	500	**662**	678
6.20%	30-year notes [2]	Jun 1, 2036	US$	450	**596**	610
6.71%	Puttable Reset Securities PURS[SM] [2]	Jul 15, 2036	US$	250	**331**	339
6.38%	30-year debentures [2]	Nov 15, 2037	US$	300	**397**	407
3.50%	30-year notes [2]	Nov 15, 2042	US$	250	**331**	339
4.50%	30-year notes [2]	Nov 7, 2043	US$	250	**331**	339
3.95%	30-year notes [2]	Sep 22, 2045			**400**	400
3.20%	30-year notes [2]	Aug 2, 2046	US$	650	**861**	881
3.60%	30-year notes [2]	Aug 1, 2047			**500**	500
3.65%	30-year notes [2]	Feb 3, 2048	US$	600	**795**	813
3.60%	30-year notes [2]	Jul 31, 2048			**450**	450
4.45%	30-year notes [2]	Jan 20, 2049	US$	650	**861**	881
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	**795**	813
4.40%	30-year notes [2]	Aug 5, 2052	US$	700	**927**	949
4.70%	30-year notes [2]	May 10, 2053			**800**	–
6.13%	30-year notes [2]	Nov 1, 2053	US$	300	**397**	–
4.00%	50-year notes [2]	Sep 22, 2065			**100**	100
Illinois Central series:						
7.70%	100-year debentures	Sep 15, 2096	US$	125	**165**	169
BC Rail series:						
Non-interest bearing 90-year subordinated notes [3]		Jul 14, 2094			**842**	842
Total notes and debentures					**16,917**	14,814
Other						
Commercial paper					**1,801**	805
Finance leases					**38**	10
Equipment loans and other [4]					**715**	779
Total debt, gross					**19,471**	16,408
Net unamortized discount and debt issuance costs [3]					**(998)**	(979)
Total debt [5]					**18,473**	15,429
Less: Current portion of long-term debt					**2,340**	1,057
Total long-term debt					**$ 16,133**	$ 14,372

(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, 2023, these notes were recorded as a discounted debt of $15 million (2022 - $15 million) using an imputed interest rate of 5.75% (2022 - 5.75%). The discount of $827 million (2022 - $827 million) is included in Net unamortized discount and debt issuance costs.

(4) Includes $677 million (2022 - $734 million) of equipment loans under the non-revolving credit facility. Also included is $38 million (2022 - $45 million) of other equipment loans payable monthly at a weighted average interest rate of 2.11% (2022 - 2.12%).

(5) See *Note 23 – Financial instruments* for the fair value of debt.

Notes and debentures

For the year ended December 31, 2023, the Company issued and repaid the following:

- On November 1, 2023, issuance of US$300 million ($416 million) 5.85% Notes due 2033 and US$300 million ($416 million) 6.13% Notes due 2053, in the U.S. capital markets, which resulted in total net proceeds of $824 million;
- On May 15, 2023, repayment of US$150 million ($203 million) 7.63% Notes due 2023 upon maturity; and
- On May 10, 2023, issuance of $550 million 4.15% Notes due 2030, $400 million 4.40% Notes due 2033 and $800 million 4.70% Notes due 2053 in the Canadian capital markets, which resulted in total net proceeds of $1,730 million.

For the year ended December 31, 2022, the Company issued and repaid the following:

- On November 15, 2022, repayment of US$250 million ($332 million) 2.25% Notes due 2022 upon maturity; and
- On August 5, 2022, issuance of US$800 million ($1,028 million) 3.85% Notes due 2032 and US$700 million ($900 million) 4.40% Notes due 2052, in the U.S capital markets, which resulted in total net proceeds of $1,901 million.

Revolving credit facilities

The Company has unsecured revolving credit facilities with a consortium of lenders. The unsecured credit facility of $2.5 billion is available for general corporate purposes and backstopping the Company's commercial paper programs. The facility consists of two tranches of $1.25 billion and was amended on March 17, 2023 to extend its tenor by one year to March 31, 2026 and March 31, 2028. This revolving credit facility agreement is structured as a sustainability linked loan whereby its applicable margins are adjusted up or down based on the Company's performance under certain sustainability targets. The unsecured credit facility of $1.0 billion is available for general corporate purposes and was amended on March 17, 2023 to extend its tenor by one year to March 17, 2025. Both credit facilities provide borrowings at various benchmark interest rates, such as SOFR and CDOR, plus applicable margins, based on CN's credit ratings. The facilities were also amended in March 2023 to include fallback language that addresses the cessation of CDOR and adoption of CORRA as the alternative benchmark.

Subject to the consent of the individual lenders, the Company has the option to increase the revolving credit facilities by an additional $500 million each during its term and to request an extension of the $2.5 billion credit facility once a year to maintain the tenors of three year and five year of the respective tranches.

As at December 31, 2023 and 2022, the Company had no outstanding borrowings under these revolving credit facilities and there were no draws in 2023 and 2022.

Both revolving credit facility agreements have one financial covenant, which limits debt as a percentage of total capitalization. The Company was in compliance as at December 31, 2023.

Equipment loans

The Company has various secured non-revolving term loan credit facilities for financing or refinancing the purchase of equipment. The equipment loans made under the non-revolving credit facilities have a tenor at inception varying from 15 to 20 years and are secured by rolling stock.

On March 31, 2023, the Company entered into new loan supplements to the existing agreement for an additional principal amount of US$304 million, which is available to be drawn, in Canadian or U.S. dollars, through March 31, 2024. On November 3, 2023, the Company entered into a new term loan facility for a principal amount of $366 million, which is available to be drawn through November 4, 2024. Borrowings under the non-revolving term loan facilities are provided at SOFR and/or CDOR, plus applicable margins. On March 31, 2023, outstanding loans referencing LIBOR, were transitioned to SOFR. The facilities also include fallback language that addressed the cessation of CDOR and adoption of CORRA as the alternative benchmark. The Company made no draws under these facilities in 2023.

In 2023, the Company repaid $41 million (2022 - $40 million) of its equipment loans. As at December 31, 2023, the Company had outstanding borrowings of $677 million (2022 - $734 million), at a weighted-average interest rate of 6.09% (2022 - 5.22%), and had $769 million (2022 - $nil) available to be drawn under these facilities.

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 can be issued is $2.5 billion, or the US dollar equivalent, on a combined basis.

As at December 31, 2023 and 2022, the Company had total commercial paper borrowings of US$1,360 million ($1,801 million) and US$594 million ($805 million), respectively, at a weighted-average interest rate of 5.63% and 4.27%, respectively, presented in Current portion of long-term debt on the Consolidated Balance Sheets.

In millions	*Year ended December 31,*		**2023**		2022		2021
Commercial paper with maturities less than 90 days							
Issuance		**$**	**13,767**	$	11,799	$	5,254
Repayment			**(13,090)**		(11,087)		(5,289)
Change in commercial paper with maturities less than 90 days, net		**$**	**677**	$	712	$	(35)
Commercial paper with maturities of 90 days or greater							
Issuance		**$**	**1,871**	$	440	$	353
Repayment			**(1,640)**		(589)		(252)
Change in commercial paper with maturities of 90 days or greater, net		**$**	**231**	$	(149)	$	101
Change in commercial paper, net		**$**	**908**	$	563	$	66

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 January 19, 2023, the Company extended the term of its agreement by one year to February 1, 2025. The Company has retained the responsibility for servicing, administering and collecting the receivables sold. The average servicing period is approximately one month and the interest on borrowings under the accounts receivable securitization program is renewed based on commercial paper rates then in effect or SOFR or CDOR if the commercial paper market is inaccessible and includes fallback language that allows for the succession of CDOR to an alternative rate consistent with market convention.

As at December 31, 2023, and 2022, the Company had no outstanding borrowings under the accounts receivable securitization program. The Company had no proceeds received and no repayments in 2023, 2022 and 2021.

Bilateral letter of credit facilities

The Company has a series of committed and uncommitted bilateral letter of credit facility agreements. On March 17, 2023, the Company extended the maturity date of its committed bilateral letter of credit facility agreements to April 28, 2026. 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, 2023, the Company had outstanding letters of credit of $337 million (2022 - $396 million) under the committed facilities from a total available amount of $361 million (2022 - $470 million) and $152 million (2022 - $100 million) under the uncommitted facilities.

As at December 31, 2023, included in Restricted cash and cash equivalents was $339 million (2022 - $397 million) pledged as collateral under the committed bilateral letter of credit facilities, $100 million (2022 - $100 million) pledged as collateral under the uncommitted bilateral letter of credit facilities, and $10 million (2022 - $9 million) held in escrow.

Debt maturities

In millions		Debt [1]
2024	$	2,309
2025		383
2026		695
2027		34
2028		1,014
2029 & thereafter		14,000
Total		18,435
Finance lease liabilities [2]		38
Total debt	**$**	**18,473**

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

(2) See *Note 13 – Leases* for maturities of finance lease liabilities.

Amount of US dollar-denominated debt

In millions	*As at December 31,*		**2023**		2022
Notes and debentures		**US$**	**8,250**	US$	7,800
Commercial paper			**1,360**		594
Finance lease liabilities			**27**		7
Equipment loans and other			**540**		574
Total amount of US dollar-denominated debt in US$		**US$**	**10,177**	US$	8,975
Total amount of US dollar-denominated debt in C$		**$**	**13,477**	$	12,165

17 – Other liabilities and deferred credits

In millions	*As at December 31,*		**2023**		2022
Personal injury and other claims provisions *(Note 22)* [1]		**$**	**260**	$	251
Contract liabilities *(Note 5)* [1]			**82**		16
Environmental provisions *(Note 22)* [1]			**19**		18
Stock-based compensation liability *(Note 20)*			**5**		7
Deferred credits and other			**156**		149
Total other liabilities and deferred credits		**$**	**522**	$	441

(1) See *Note 15 – Accounts payable and other* for the related current portion.

18 – 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.

Amendments to postretirement medical benefits plans in the U.S.

In June 2022, CN approved changes affecting members participating in the Company’s postretirement medical benefits plans in the U.S. Beginning in 2023, Medicare-eligible retirees are covered by a health reimbursement arrangement, which is an employer-funded account that can be used for reimbursement of eligible medical expenses. Non-Medicare eligible retirees continue to be covered by the existing self-insured program. This change constituted a plan amendment event resulting in a $28 million reduction to the affected plans’ Accumulated projected benefit obligation, recorded in Other comprehensive income, and is composed of a prior service credit of $21 million and an actuarial gain of $7 million, substantially all due to lower expected future benefit payments and to the approximate 130 basis point increase in the end of period discount rates between December 31, 2021 and May 31, 2022, respectively.

Curtailment event

On October 31, 2021, the CN Board of Directors approved changes affecting non-unionized members participating in the Company’s defined benefit pension plans. Effective April 1, 2024, the affected defined benefit pension plans will be amended to cease benefits accruals for non-unionized members, generally known as a delayed hard freeze. Effective April 1, 2024, all non-unionized members will be transferred to the Company’s defined contribution pension plans for their future service. This delayed hard freeze constitutes a plan curtailment event recognized on October 31, 2021 resulting in a $52 million reduction to the Projected benefit obligation, recorded in Other comprehensive income as an actuarial gain, mostly due to reflecting projected future salary increases and service only up to April 1, 2024. The curtailment event also triggered an interim re-measurement of the funded status of the affected defined benefit pension plans resulting in an actuarial gain of $1,915 million recorded in Other comprehensive income composed of i) an actuarial gain on the Projected benefit obligation of $1,808 million substantially all due to the 84 basis point increase in the end of period discount rate between December 31, 2020 of 2.55% and October 31, 2021 of 3.39%, and ii) an actuarial gain on the Plan assets of $107 million due to higher actual returns of $982 million compared to expected returns of $875 million over that same ten-month period. Due to the interim re-measurement, the resulting Net periodic benefit income recorded during the fourth quarter of 2021 increased by $25 million composed of i) a decrease to Current service cost of $9 million, and ii) an increase to Other components of net periodic benefit income of $16 million.

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, 2022 indicated a funding excess on a going concern basis of approximately $4.4 billion and a funding excess on a solvency basis of approximately $1.6 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, 2023 will be performed in 2024. These actuarial valuations are expected to identify a funding excess on a going concern basis of approximately $4.9 billion, while on a solvency basis a funding excess of approximately $2.6 billion is expected. Based on the anticipated results of these valuations, the CN Pension Plan is expected to remain fully funded and at a level such that the Company would continue to be prohibited from making contributions to the CN Pension Plan in 2024. As such, the Company expects to make total cash contributions of approximately $70 million in 2024 for all other pension plans, and includes the impact of affected non-unionized members transferring from the Company's defined benefit pension plans to defined contribution pension plans effective April 1, 2024. As at January 31, 2024 the Company had contributed $2 million to its defined benefit pension plans for 2024.

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, geography, 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 2023, the Policy was amended to implement a target asset allocation change to bonds and mortgages and equities.

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.

Actual asset allocation

		Actual plan asset allocation	
	Policy	**2023**	2022
Cash and short-term investments	2 %	**2 %**	3 %
Bonds and mortgages	41 %	**41 %**	35 %
Emerging market debt	2 %	**2 %**	2 %
Private debt	3 %	**6 %**	6 %
Equities	29 %	**25 %**	30 %
Real estate	4 %	**3 %**	3 %
Resource and royalties	5 %	**7 %**	7 %
Infrastructure	4 %	**4 %**	4 %
Specialty portfolio	2 %	**2 %**	2 %
Absolute return	12 %	**14 %**	15 %
Alternative risk premia	— %	**— %**	1 %
Investment-related liabilities	(4 %)	**(6 %)**	(8 %)
Total	100 %	**100 %**	100 %

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 as well as anticipated cash requirements needed to support derivative instruments or any other contractual commitment. 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, 2023, 73% (2022 - 76%) of bonds were issued or guaranteed by Canadian, U.S. or other governments. Mortgages consist of mortgage bonds, interest in mortgages or in funds making loans, all of which are secured by real estate. 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 securities and funds focused on generating steady yields.
- Equity investments include publicly traded securities diversified by industry sector, geography and issuer and investments in private equity funds. As at December 31, 2023, the most significant allocation to an individual issuer of a publicly traded security was 6% (2022 - 4%) and the most significant allocation to an industry sector was 24% (2022 - 19%). On an exposure basis, the Plan's Policy for equities is 34%. This comprises a 29% 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 global real estate private equity funds.
- Resource and royalties investments include petroleum and natural gas and mineral properties and listed and non-listed securities of resource and energy transition companies.
- Infrastructure investments include participations in private infrastructure funds, term loans and notes of infrastructure companies.
- Specialty portfolio consists of mainly private equities in addition to private debt, resource and royalties investments, absolute return investments and public equities. Exposure to public assets may be included to manage the risk-return profile and tactical allocation relative to the Policy portfolio weight.
- Absolute return investments are primarily a portfolio of units of externally managed hedge funds, which are invested in various long/short and derivatives strategies within multi-strategy, fixed income, commodity, equity, global macro funds and downside protection. Managers are monitored on a continuous basis through investment and operational due diligence.
- For 2022, 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 58% exposed to the Canadian dollar, 29% to the US dollar, 7% to European currencies, 1% to the Japanese Yen and 5% to various other currencies as at December 31, 2023. 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.

Fair value of plan assets by asset class

	Fair value measurements at December 31, 2023				
In millions	Total	Level 1	Level 2	Level 3	NAV
Cash and short-term investments [1]	$ 367	$ 117	$ 250	$ –	$ –
Bonds [2]					
Canada, U.S. and supranational	38	–	38	–	–
Provinces of Canada and municipalities	5,209	–	5,209	–	–
Corporate	1,903	–	1,903	–	–
Emerging market debt [3]	352	–	352	–	–
Mortgages [4]	1	–	1	–	–
Private debt [5]	1,021	–	1	–	1,020
Public equities [6]					
Canadian	181	180	1	–	–
U.S.	1,828	1,736	92	–	–
International	2,170	2,170	–	–	–
Private equities [7]	616	–	(3)	–	619
Real estate [8]	439	–	–	252	187
Resource and royalties [9]	1,272	312	45	915	–
Infrastructure [10]	660	–	14	–	646
Absolute return funds [11]					
Multi-strategy	1,192	–	–	–	1,192
Fixed income	6	–	4	–	2
Equity	385	–	–	–	385
Global macro	774	–	–	–	774
Downside protection	15	13	2	–	–
Total investments [13]	**$ 18,429**	**$ 4,528**	**$ 7,909**	**$ 1,167**	**$ 4,825**
Investment-related liabilities [14]	(868)				
Other [15]	(28)				
Total plan assets	**$ 17,533**				

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 following page.

	Fair value measurements at December 31, 2022				
In millions	Total	Level 1	Level 2	Level 3	NAV
Cash and short-term investments [1]	$ 536	$ 72	$ 464	$ —	$ —
Bonds [2]					
Canada, U.S. and supranational	466	—	466	—	—
Provinces of Canada and municipalities	3,861	—	3,861	—	—
Corporate	1,389	—	1,389	—	—
Emerging market debt [3]	363	—	363	—	—
Mortgages [4]	16	—	16	—	—
Private debt [5]	997	—	—	—	997
Public equities [6]					
Canadian	361	354	7	—	—
U.S.	1,931	2,011	(80)	—	—
International	2,310	2,310	—	—	—
Private equities [7]	689	—	(1)	—	690
Real estate [8]	404	—	—	249	155
Resource and royalties [9]	1,198	365	(8)	841	—
Infrastructure [10]	720	—	76	—	644
Absolute return funds [11]					
Multi-strategy	1,390	—	—	—	1,390
Fixed income	8	—	3	—	5
Commodity	71	—	—	—	71
Equity	247	—	—	—	247
Global macro	773	—	—	—	773
Downside protection	70	70	—	—	—
Alternative risk premia [12]	155	—	—	—	155
Total investments [13]	$ 17,955	$ 5,182	$ 6,556	$ 1,090	$ 5,127
Investment-related liabilities [14]	(1,479)				
Other [15]	113				
Total plan assets	$ 16,589				

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 following page.

Fair value of investments classified as Level 3

	Fair value measurements based on significant unobservable inputs (Level 3)		
In millions	Real estate (8)	Resource and royalties (9)	Total
Balance at December 31, 2021	$ 272	$ 677	$ 949
Actual return relating to assets still held at the reporting date	(23)	221	198
Purchases	2	–	2
Disbursements	(2)	(57)	(59)
Balance at December 31, 2022	249	841	1,090
Actual return relating to assets still held at the reporting date	10	81	91
Purchases	2	2	4
Disbursements	(9)	(9)	(18)
Balance at December 31, 2023	**$ 252**	**$ 915**	**$ 1,167**

(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 net 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 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 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. In 2023, $47 million (2022 - $36 million) of private debt investments are included as part of the specialty portfolio strategy.

(6) The fair value of public equity investments is based on quoted prices in active markets. In 2023, $nil (2022 - $5 million) of public equity investments are included as part of the specialty portfolio strategy.

(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. In 2023, $273 million (2022 - $304 million) of private equity investments are included as part of the specialty portfolio strategy.

(8) The fair value of real estate investments categorized as Level 3 includes immovable 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 immovable 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) Resource and royalties investments categorized as Level 1 are valued based on quoted prices in active markets. Resource and royalties participations traded on a secondary market are valued based on the most recent transaction price and are categorized as Level 2, of which $10 million in 2023 (2022 - $nil) are included as part of the specialty portfolio strategy. Investments in resource and royalties categorized as Level 3 consist of operating resource and royalties 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, gas or other commodity prices and future projected annual production and costs.

(10) The fair value of infrastructure investments categorized as Level 2 is based on the present value of future net 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. In 2023, $1 million (2022 - $35 million) of absolute return investments are included as part of the specialty portfolio strategy.

(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.

Footnotes to the table continue on the following page.

(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. The remaining derivatives included within Other are valued at mark-to-market. Derivatives are included in the investment asset categories based on their underlying exposure. The following table presents the fair value asset/unrealized gain or liability/unrealized loss positions and notional values as at December 31, 2023 and 2022:

	Year ended December 31, 2023			Year ended December 31, 2022		
		Fair value			Fair value	
In millions	**Notional value**	**Asset/ unrealized gain**	**Liability/ unrealized loss**	Notional value	Asset/ unrealized gain	Liability/ unrealized loss
Cash and short-term investments						
Foreign exchange forwards	**$ 20**	**$ —**	**$ —**	$ 5	$ —	$ —
Bonds						
Bond forwards	**1,101**	**162**	**(4)**	1,432	1	(24)
Foreign exchange forwards	**71**	**1**	**(1)**	32	1	(1)
Options	**118**	**2**	**(2)**	19	1	—
Credit default swaps	**99**	**—**	**(2)**	102	—	(1)
Swaps	**378**	**198**	**(205)**	10	—	(1)
Emerging market debt						
Swaps	**19**	**2**	**—**	18	2	—
Foreign exchange forwards	**—**	**—**	**—**	87	—	—
Private debt						
Foreign exchange forwards	**101**	**1**	**—**	83	—	—
Public equities						
Foreign exchange forwards	**1,434**	**75**	**(14)**	1,436	14	(30)
Swaps	**2,172**	**40**	**(9)**	1,636	7	(64)
Private equities						
Foreign exchange forwards	**568**	**1**	**(4)**	494	1	(2)
Real estate						
Foreign exchange forwards	**11**	**—**	**—**	17	—	—
Resource and royalties						
Commodity swaps	**99**	**1**	**(16)**	177	1	(45)
Infrastructure						
Foreign exchange forwards	**190**	**2**	**—**	174	1	—
Absolute return funds						
Foreign exchange forwards	**689**	**4**	**—**	580	3	—
Swaps	**463**	**2**	**—**	20	—	—
Options	**36**	**13**	**—**	203	70	—
Alternative risk premia						
Foreign exchange forwards	**—**	**—**	**—**	37	—	—
Swaps	**—**	**—**	**—**	360	1	(1)
Total derivatives included in investments	**$ 7,569**	**$ 504**	**$ (257)**	$ 6,922	$ 103	$ (169)
Other [(15)]						
Interest rate futures	**381**	**—**	**—**	3,115	1	(1)
Equity futures	**348**	**1**	**—**	344	1	(1)
Total derivatives included in plan assets	**$ 8,298**	**$ 505**	**$ (257)**	$ 10,381	$ 105	$ (171)

(14) Investment-related liabilities include securities sold under repurchase agreements. The securities sold under repurchase agreements do not meet the conditions to be removed 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 $143 million (2022 - $155 million) and liabilities of $171 million (2022 - $42 million) required to administer the Trusts' investment assets and the plans' benefits and funding activities. Such assets and liabilities are valued at cost, except for the interest rate and equity futures margins in Other which are valued at mark-to-market and have not been assigned to a fair value category.

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

	Pensions		Other postretirement benefits	
In millions *Year ended December 31,*	**2023**	2022	**2023**	2022
Change in benefit obligation				
Projected benefit obligation at beginning of year	**$ 13,909**	$ 17,813	**$ 147**	$ 212
Amendments	**—**	—	**—**	(21)
Interest cost	**703**	468	**7**	5
Actuarial loss (gain) on projected benefit obligation (1)	**1,035**	(3,548)	**2**	(40)
Current service cost	**83**	157	**1**	2
Plan participants' contributions	**64**	60	**—**	—
Foreign currency changes	**(6)**	19	**(1)**	3
Benefit payments, settlements and transfers	**(1,033)**	(1,060)	**(11)**	(14)
Projected benefit obligation at the end of the year (2)	**$ 14,755**	$ 13,909	**$ 145**	$ 147
Component representing future salary increases	**(13)**	(85)	**—**	—
Accumulated benefit obligation at end of year	**$ 14,742**	$ 13,824	**$ 145**	$ 147
Change in plan assets				
Fair value of plan assets at beginning of year	**$ 16,589**	$ 20,416	**$ —**	$ —
Employer contributions	**25**	47	**—**	—
Plan participants' contributions	**64**	60	**—**	—
Foreign currency changes	**(4)**	14	**—**	—
Actual return on plan assets	**1,892**	(2,888)	**—**	—
Benefit payments, settlements and transfers	**(1,033)**	(1,060)	**—**	—
Fair value of plan assets at end of year (2)	**$ 17,533**	$ 16,589	**$ —**	$ —
Funded status - Excess (deficiency) of fair value of plan assets over projected benefit obligation at end of year	**$ 2,778**	$ 2,680	**$ (145)**	$ (147)

(1) Substantially all of the pensions' actuarial loss for the year ended December 31, 2023 and actuarial gain for the year ended December 31, 2022 is the result of the change in the end of year discount rate (62 basis points decrease for 2023 and 211 basis points increase for 2022).

(2) For the CN Pension Plan, as at December 31, 2023, the projected benefit obligation was $13,711 million (2022 - $12,887 million) and the fair value of plan assets was $16,762 million (2022 - $15,838 million). The measurement date of all plans is December 31.

Amounts recognized in the Consolidated Balance Sheets

	Pensions		Other postretirement benefits	
In millions *As at December 31,*	**2023**	2022	**2023**	2022
Noncurrent assets - Pension asset	**$ 3,140**	$ 3,033	**$ —**	$ —
Current liabilities *(Note 15)*	**—**	—	**(12)**	(14)
Noncurrent liabilities - Pension and other postretirement benefits	**(362)**	(353)	**(133)**	(133)
Total amount recognized	**$ 2,778**	$ 2,680	**$ (145)**	$ (147)

Amounts recognized in Accumulated other comprehensive loss (Note 21)

	Pensions		Other postretirement benefits	
In millions *As at December 31,*	**2023**	2022	**2023**	2022
Net actuarial gain (loss)	**$ (3,052)**	$ (2,730)	**$ 30**	$ 39
Prior service credit (cost)	**$ —**	$ —	**$ 19**	$ 22

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

	Pensions	
In millions *As at December 31,*	**2023**	2022
Accumulated benefit obligation (1)	**$ 562**	$ 543
Fair value of plan assets (1)	**$ 203**	$ 199

(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

		Pensions	
In millions	*As at December 31,*	**2023**	2022
Projected benefit obligation		**$ 565**	$ 631
Fair value of plan assets		**$ 203**	$ 278

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

	Pensions			Other postretirement benefits		
In millions *Year ended December 31,*	**2023**	2022	2021	**2023**	2022	2021
Current service cost	**$ 83**	$ 157	$ 197	**$ 1**	$ 2	$ 2
Other components of net periodic benefit cost (income)						
Interest cost	**703**	468	392	**7**	5	5
Settlement loss	**—**	1	2	**—**	—	—
Expected return on plan assets	**(1,186)**	(1,132)	(1,076)	**—**	—	—
Amortization of prior service cost (credit)	**—**	—	—	**(3)**	(2)	(1)
Amortization of net actuarial loss (gain)	**7**	166	275	**(7)**	(4)	(4)
Total Other components of net periodic benefit cost (income)	**$ (476)**	$ (497)	$ (407)	**$ (3)**	$ (1)	$ —
Net periodic benefit cost (income)	**$ (393)**	$ (340)	$ (210)	**$ (2)**	$ 1	$ 2

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

	Pensions			Other postretirement benefits		
As at December 31,	**2023**	2022	2021	**2023**	2022	2021
To determine projected benefit obligation						
Discount rate (1)	**4.64 %**	5.26 %	3.15 %	**4.71 %**	5.23 %	3.06 %
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)	**5.25 %**	3.40 %	3.02 %	**5.17 %**	3.43 %	2.95 %
Rate to determine interest cost (3)	**5.21 %**	2.67 %	2.10 %	**5.23 %**	2.74 %	1.90 %
Rate of compensation increase (2)	**2.75 %**	2.75 %	2.75 %	**2.75 %**	2.75 %	2.75 %
Expected return on plan assets (4)	**7.60 %**	7.00 %	6.79 %	**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 2023, the Company used a long-term rate of return assumption of 7.60% on the market-related value of plan assets to compute net periodic benefit cost (income). In 2024, the Company will decrease the expected long-term rate of return on plan assets by 30 basis points to 7.30% to reflect management's current view of long-term investment returns.

Expected future benefit payments

In millions		Pensions		Other postretirement benefits
2024	$	1,051	$	12
2025	$	1,049	$	11
2026	$	1,039	$	11
2027	$	1,030	$	10
2028	$	1,018	$	10
Years 2029 to 2033	$	4,900	$	44

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 2023, amounted to $26 million (2022 - $23 million; 2021 - $23 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 $6 million in 2023 (2022 - $7 million; 2021 - $10 million). The annual contribution rate for the plan was $89.00 per month per active employee for 2023 (2022 - $109.49). The plan covered 183 retirees in 2023 (2022 - 263 retirees).

19 – 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	*As at December 31,*	**2023**	2022	2021
Issued common shares		**643.8**	672.4	702.0
Common shares in Share Trusts		**(1.1)**	(1.4)	(1.1)
Outstanding common shares		**642.7**	671.0	700.9

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 32.0 million common shares between February 1, 2023 and January 31, 2024 under its NCIB. As at December 31, 2023, the Company had repurchased 26.6 million common shares under this NCIB.

In millions, except per share data	*Year ended December 31,*		**2023**		2022		2021
Number of common shares repurchased			**29.1**		30.2		10.3
Weighted-average price per share (1)		**$**	**156.37**	$	156.00	$	153.69
Amount of repurchase (1)		**$**	**4,551**	$	4,709	$	1,582

(1) Includes brokerage fees.

See *Note 25 – Subsequent event* 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 the Employee Share Investment Plans (ESIP) (see *Note 20 – 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.

Share purchases

In millions, except per share data	*Year ended December 31,*	**2023**	2022	2021
Share purchases by Share Units Plan Share Trusts				
Number of common shares		**–**	0.5	–
Weighted-average price per share		**$ –**	$ 170.85	$ –
Amount of purchase		**$ –**	$ 81	$ –
Share purchases by ESIP Share Trusts				
Number of common shares		**0.2**	0.2	0.2
Weighted-average price per share		**$ 156.89**	$ 155.53	$ 142.90
Amount of purchase		**$ 28**	$ 24	$ 26
Total purchases		**$ 28**	$ 105	$ 26

Share settlements

In millions, except per share data	*Year ended December 31,*	**2023**	2022	2021
Share settlements by Share Units Plan Share Trusts				
Number of common shares		**0.3**	0.2	0.2
Weighted-average price per share		**$ 122.08**	$ 88.23	$ 88.23
Amount of settlement		**$ 31**	$ 15	$ 20
Share settlements by ESIP Share Trusts				
Number of common shares		**0.2**	0.2	0.2
Weighted-average price per share		**$ 151.32**	$ 141.60	$ 128.40
Amount of settlements		**$ 23**	$ 23	$ 18
Total settlements		**$ 54**	$ 38	$ 38

20 – Stock-based compensation

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

Stock-based compensation expense

In millions	*Year ended December 31,*	**2023**	2022	2021
Share Units Plan		**$ 25**	$ 31	$ 47
Voluntary Incentive Deferral Plan (VIDP)		**2**	1	2
Stock option awards		**11**	8	12
Employee Share Investment Plan (ESIP)		**26**	23	20
Total stock-based compensation expense		**$ 64**	$ 63	$ 81
Income tax impacts of stock-based compensation				
Tax benefit recognized in income		**$ 15**	$ 16	$ 18
Excess tax benefit recognized in income		**$ 10**	$ 14	$ 10

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 and restricted share unit (RSU) 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.

RSU awards settle depending on continued employment throughout the plan period, and are not subject to market or performance conditions.

PSUs and RSUs are settled in common shares of the Company by way of disbursement from the Share Trusts (see *Note 19 – Share capital*). The number of shares remitted to the participant upon settlement is equal to the sum of the number of PSUs awarded multiplied by the performance factor and the number of RSUs awarded, less shares withheld to satisfy the participant's withholding tax requirement.

Performance share units

For the 2021 grant, the level of ROIC attained resulted in a performance factor of 190%, and the level of TSR attained resulted in a performance factor of 119% for the plan period ended December 31, 2023. The total fair value of the equity settled PSU awards that vested in 2023 was $44 million (2022 - $40 million; 2021 - $30 million). As the respective performance and market conditions under each award were met as at December 31, 2023, a settlement of approximately 0.3 million shares, net of withholding taxes, is expected to occur in the first quarter of 2024.

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, 2022	0.7	$	73.21	0.4	$	160.40
Granted	0.2	$	89.37	0.1	$	174.04
Settled (3)	(0.2)	$	74.02	(0.1)	$	153.22
Forfeited	—	$	91.23	—	$	188.58
Outstanding at December 31, 2023	**0.7**	**$**	**78.29**	**0.4**	**$**	**166.89**
Nonvested at December 31, 2022	0.5	$	72.78	0.2	$	164.20
Granted	0.2	$	89.37	0.1	$	174.04
Vested (4)	(0.2)	$	64.50	(0.1)	$	148.02
Forfeited	—	$	91.23	—	$	188.58
Nonvested at December 31, 2023	**0.5**	**$**	**78.29**	**0.2**	**$**	**166.89**

(1) The grant date fair value of equity settled PSUs-ROIC granted in 2023 of $23 million is calculated using a lattice-based valuation model. As at December 31, 2023, total unrecognized compensation cost related to all outstanding awards was $10 million and is expected to be recognized over a weighted-average period of 1.8 years.

(2) The grant date fair value of equity settled PSUs-TSR granted in 2023 of $23 million is calculated using a Monte Carlo simulation model. As at December 31, 2023, total unrecognized compensation cost related to all outstanding awards was $18 million and is expected to be recognized over a weighted-average period of 1.8 years.

(3) Equity settled PSUs-ROIC granted in 2020 met the minimum share price condition for settlement and attained a performance factor of 120%. Equity settled PSUs-TSR granted in 2020 attained a performance factor of 162%. In the first quarter of 2023, these awards were settled, net of the remittance of the participants' withholding tax obligation of $35 million, by way of disbursement from the Share Trusts of 0.3 million common shares.

(4) These awards are expected to be settled in the first quarter of 2024.

Additional information

Year of grant	**2023**	2022	2021
Assumptions			
Stock price *($)* (1)	**157.91**	153.81	133.36
Expected stock price volatility *(%)* (2)	**26**	25	24
Expected term *(years)* (3)	**3.0**	3.0	3.0
Risk-free interest rate *(%)* (4)	**3.38**	1.58	0.19
Dividend rate *($)* (5)	**3.16**	2.93	2.46
Weighted-average grant date fair value *($)*			
ROIC	**89.37**	81.03	64.50
TSR	**174.04**	180.18	148.02

(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.

Restricted share units

The Company has a nominal amount of RSU units as at December 31, 2023. The total fair value of RSU awards vested, the number of units outstanding that were nonvested, unrecognized compensation cost and the remaining recognition period have not been quantified as they relate to a minimal number of units.

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.

	Equity settled DSUs (1)	
	Units *In millions*	Weighted-average grant date fair value
Outstanding at December 31, 2022	0.3	$ 106.60
Granted	—	$ 157.22
Settled (2)	—	$ 122.29
Outstanding at December 31, 2023 (3)	**0.3**	**$ 112.66**

(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, 2023, the aggregate intrinsic value of all equity settled DSUs outstanding amounted to $56 million.

(2) For the year ended December 31, 2023, the shares purchased for the settlement of equity settled DSUs were net of the remittance of the participants' withholding tax obligation of $3 million.

(3) 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 have not been quantified as they relate to a minimal number of units.

Cash settled awards

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

As at December 31, 2023, the liability for cash settled DSUs was $5 million based on closing stock price of $166.55 (2022 - $7 million based on closing stock price of $160.84).

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 and onwards. Options are not generally exercisable during the first 12 months after the date of grant and expire after 10 years. As at December 31, 2023, 12.8 million common shares remained authorized for future issuances under these plans.

During the year ended December 31, 2023, the Company granted 0.6 million (2022 - 0.6 million; 2021 - 0.7 million) stock options.

	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, 2022 (1)	3.3	$ 119.08	1.5	$ 21.96
Granted (2)	0.6	$ 157.89	0.6	$ 32.96
Forfeited/Cancelled	(0.1)	$ 145.10	(0.1)	$ 25.22
Exercised (3)	(0.5)	$ 94.60	N/A	N/A
Vested (4)	N/A	N/A	(0.5)	$ 20.18
Outstanding at December 31, 2023 (1)	**3.3**	**$ 127.64**	**1.5**	**$ 26.65**
Exercisable at December 31, 2023 (1)	**1.8**	**$ 110.61**	**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 2023 of $19 million ($32.96 per option) is calculated using the Black-Scholes option-pricing model. As at December 31, 2023, total unrecognized compensation cost related to all outstanding awards was $19 million and is expected to be recognized over a weighted-average period of 3.6 years.

(3) The total intrinsic value of options exercised in 2023 was $33 million (2022 - $42 million; 2021 - $42 million). The cash received upon exercise of options in 2023 was $49 million (2022 - $61 million; 2021 - $52 million) and the related excess tax benefit realized in 2023 was $1 million (2022 - $2 million; 2021 - $1 million).

(4) The grant date fair value of options vested in 2023 was $10 million (2022 - $11 million; 2021 - $12 million).

The following table provides the number of stock options outstanding and exercisable as at December 31, 2023 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, 2023 at the Company's closing stock price of $166.55.

	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*
$ 58.71 - $ 100.00	0.6	2.7	$ 86.45	$ 44	0.6	$ 86.45	$ 44
$ 100.01 - $ 120.00	0.6	4.8	$ 109.67	37	0.6	$ 109.66	37
$ 120.01 - $ 135.00	0.7	6.3	$ 127.77	27	0.3	$ 127.12	14
$ 135.01 - $ 155.00	0.5	7.4	$ 142.96	13	0.2	$ 141.17	5
$ 155.01 - $ 166.89	0.9	8.8	$ 158.27	7	0.1	$ 159.93	—
Balance at December 31, 2023 (1)	**3.3**	**6.2**	**$ 127.64**	**$ 128**	**1.8**	**$ 110.61**	**$ 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 4.8 years.

Additional information

Year of grant	**2023**	2022	2021
Assumptions			
Grant price *($)*	**157.89**	152.84	133.56
Expected stock price volatility *(%)* (1)	**23**	21	21
Expected term *(years)* (2)	**5.5**	5.6	5.8
Risk-free interest rate *(%)* (3)	**2.98**	1.72	0.48
Dividend rate *($)* (4)	**3.16**	2.93	2.46
Weighted-average grant date fair value *($)*	**32.96**	27.00	20.50

(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.

	ESIP		
	Number of shares		Weighted-average share price
	In millions		
Unvested contributions, December 31, 2022	0.1	$	154.12
Company contributions	0.3	$	156.57
Vested (1)	(0.2)	$	155.38
Forfeited	—	$	157.39
Unvested contributions, December 31, 2023 (2)	**0.2**	**$**	**156.40**

(1) The total fair value of units purchased with Company contributions that vested in 2023 was $23 million (2022 - $24 million).

(2) As at December 31, 2023, total unrecognized compensation cost related to all outstanding units was $16 million and is expected to be recognized over the next 12 months.

Additional information

Year ended December 31,	**2023**	2022	2021
Number of participants holding shares	**21,450**	19,967	20,142
Total number of ESIP shares purchased on behalf of employees *(millions)*	**1.2**	1.0	1.1

21 – Accumulated other comprehensive loss

In millions	Foreign currency translation adjustments	Pension and other postretirement benefit plans	Derivative instruments	Total before tax	Income tax recovery (expense) (1)	Total net of tax
Balance at December 31, 2020	$ (384)	$ (4,485)	$ 5	$ (4,864)	$ 1,153	$ (3,711)
Other comprehensive income (loss) before reclassifications:						
Translation of net investment (2)	(84)			(84)	–	(84)
Translation of US dollar debt (3)	32			32	(2)	30
Actuarial gain arising during the year		1,794		1,794	(471)	1,323
Amounts reclassified from Accumulated other comprehensive loss:						
Amortization of net actuarial loss		271		271	(71)	200
Amortization of prior service credit		(1)		(1)	–	(1)
Settlement loss arising during the year (4)		2		2	–	2
Other comprehensive income (loss)	(52)	2,066	–	2,014	(544)	1,470
Balance at December 31, 2021	(436)	(2,419)	5	(2,850)	609	(2,241)
Other comprehensive income (loss) before reclassifications:						
Translation of net investment (2)	1,073			1,073	–	1,073
Translation of US dollar debt (3)	(707)			(707)	93	(614)
Derivative instruments (5)			(2)	(2)	–	(2)
Actuarial loss arising during the year (6)		(432)		(432)	113	(319)
Prior service credit arising during the year (6)		21		21	(6)	15
Amounts reclassified from Accumulated other comprehensive loss:						
Amortization of net actuarial loss		162		162	(43)	119
Amortization of prior service credit		(2)		(2)	1	(1)
Settlement loss arising during the year (4)		1		1	–	1
Other comprehensive income (loss)	366	(250)	(2)	114	158	272
Balance at December 31, 2022	(70)	(2,669)	3	(2,736)	767	(1,969)
Other comprehensive income (loss) before reclassifications:						
Translation of net investment (2)	(363)			(363)	–	(363)
Translation of US dollar debt (3)	262			262	(33)	229
Derivative instruments (5)			97	97	(25)	72
Actuarial loss arising during the year		(331)		(331)	86	(245)
Amounts reclassified from Accumulated other comprehensive loss:						
Amortization of prior service credit		(3)		(3)	1	(2)
Amortization of gain on treasury lock			(1)	(1)	–	(1)
Other comprehensive income (loss)	(101)	(334)	96	(339)	29	(310)
Balance at December 31, 2023	**$ (171)**	**$ (3,003)**	**$ 99**	**$ (3,075)**	**$ 796**	**$ (2,279)**

(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) Foreign exchange gain/(loss) on translation of net investment in foreign operations.

(3) Foreign exchange gain/(loss) on translation of US dollar-denominated debt designated as a hedge of the net investment in foreign operations. The Company designates US dollar-denominated debt of the parent company as a foreign currency hedge of its net investment in foreign operations. Accordingly, 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 the volatility of earnings resulting from the conversion of US dollar-denominated debt into Canadian dollars.

(4) Total before tax reclassified to Other components of net periodic benefit income in the Consolidated Statements of Income and included in net periodic benefit cost. See *Note 18 – Pensions and other postretirement benefits*.

(5) Cumulative gains or losses of the treasury locks are included in Derivative instruments. See *Note 23 – Financial instruments* for additional information.

(6) Amendments to the postretirement medical benefits plans in the U.S. resulted in a prior service credit of $21 million and an actuarial gain of $7 million.See *Note 18 – Pensions and other postretirement benefits* for additional information.

22 – Major commitments and contingencies

Purchase commitments

As at December 31, 2023, the Company had fixed and variable commitments to purchase locomotives, engineering services, information technology services and licenses, railroad cars, rail, rail ties, wheels as well as other equipment and services with a total estimated cost of $2,222 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.

Personal injury and other claims provisions - 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 2023, 2022 and 2021 the Company recorded a increase of $11 million, and a decrease of $11 million and $11 million, respectively, to its provision for personal injuries in Canada as a result of actuarial valuations for employee injury claims.

In millions		**2023**		2022		2021
Beginning of year	**$**	**168**	$	182	$	206
Accruals and other		**44**		16		12
Payments		**(32)**		(30)		(36)
End of year	**$**	**180**	$	168	$	182
Current portion - End of year	**$**	**24**	$	27	$	50

Personal injury and other claims provisions - 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 non-occupational disease claims, third-party claims, including grade crossing, trespasser and property damage claims, and occupational disease 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 2023, the Company recorded a increase of $2 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 2023 actuarial valuation. In 2022 and 2021, actuarial valuations resulted in a decrease of $9 million and a decrease of $20 million, respectively. The prior years' adjustments from the actuarial valuations were mainly attributable to non-occupational disease claims, third -party 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.

In millions		**2023**		2022		2021
Beginning of year	**$**	**128**	$	125	$	141
Accruals and other		**34**		33		30
Payments		**(28)**		(39)		(45)
Foreign exchange		**(3)**		9		(1)
End of year	**$**	**131**	$	128	$	125
Current portion - End of year	**$**	**27**	$	18	$	25

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, 2023, 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 Other expense 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.

Environmental provisions

In millions		**2023**		2022		2021
Beginning of year	**$**	**59**	$	56	$	59
Accruals and other		**17**		27		23
Payments		**(19)**		(26)		(26)
Foreign exchange		**1**		2		—
End of year	**$**	**58**	$	59	$	56
Current portion - End of year	**$**	**39**	$	41	$	38

The Company anticipates that the majority of the liability at December 31, 2023 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, 2023 amounted to $32 million (2022 - $31 million; 2021 - $27 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, 2023 amounted to $13 million (2022 - $19 million; 2021 - $18 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, 2023, the Company had outstanding letters of credit of $337 million (2022 - $396 million) under the committed bilateral letter of credit facilities and $152 million (2022 - $100 million) under the uncommitted bilateral letter of credit facilities, and surety and other bonds of $157 million (2022 - $171 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, 2023, the maximum potential liability under these guarantee instruments was $646 million (2022 - $667 million), of which $603 million (2022 - $625 million) related to other employee benefit liabilities and workers' compensation and $43 million (2022 - $42 million) related to other liabilities. The guarantee instruments expire at various dates between 2024 and 2025.

As at December 31, 2023, 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, 2023, the Company had not recorded a liability with respect to any indemnifications.

23 – 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 Audit, Finance and Risk 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, 2023, the Company had outstanding foreign exchange forward contracts to purchase a notional value of US$1,496 million (2022 - US$1,311 million). These outstanding contracts are at a weighted-average exchange rate of $1.37 per US$1.00 (2022 - $1.33 per US$1.00) with exchange rates ranging from $1.34 to $1.39 per US$1.00 (2022 - $1.29 to $1.37 per US$1.00). The weighted-average term of the contracts is 77 days (2022 - 157 days) with terms ranging from 26 days to 178 days (2022 - 29 days to 300 days). 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 Statements of Income as they occur. For the year ended December 31, 2023, the Company recorded a loss of $45 million (2022 - gain of $129 million; 2021 - loss of $18 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, 2023, the fair value of outstanding foreign exchange forward contracts included in Other current assets and Accounts payable and other was $nil and $64 million, respectively (2022 - $33 million and $4 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.

During 2023 and 2022, the Company entered into treasury lock agreements to hedge US Treasury benchmark rates related to expected debt issuances in 2023 and 2022, respectively. The treasury locks were designated as cash flow hedging instruments with cumulative gains or losses recorded in Accumulated other comprehensive loss in derivative instruments. In conjunction with the November 1, 2023 debt issuance, the Company settled a notional US$450 million ($622 million) of treasury locks, resulting in a cumulative gain of $97 million. The cash proceeds were included in operating activities in the Consolidated Statements of Cash Flows, and the gain was recorded in Accumulated other comprehensive loss and is being amortized over the term of the corresponding debt and recognized as an adjustment to interest expense on the Consolidated Statements of Income. In conjunction with the August 5, 2022 debt issuance, the Company settled a notional US$675 million ($868 million) of treasury locks, resulting in a cumulative loss of $2 million. This loss was recorded in Accumulated other comprehensive loss and is being amortized over the term of the corresponding debt and recognized as an adjustment to interest expense on the Consolidated Statements of Income. As at December 31, 2023 and 2022, there were no treasury locks outstanding.

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 equity investments with readily determinable fair values, included in Intangible assets, goodwill and other, is classified as Level 1 with gains and losses being recorded in Other income within the Consolidated Statements of Income. 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 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, 2023, the Company's debt, excluding finance leases, had a carrying amount of $18,435 million (2022 - $15,419 million) and a fair value of $17,844 million (2022 - $14,137 million). The carrying amount of debt excluding finance leases exceeded the fair value due to an increase in market rates compared to the stated coupon rate.

24 – 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, Eastern Region and U.S. 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 85% 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, 2023, 2022, and 2021, no major customer accounted for more than 10% of total revenues and the largest freight customer represented less than 3%, 4% and 4%, respectively, of total annual freight revenues.

Geographic information

In millions	*Year ended December 31,*	**2023**	2022	2021
Revenues				
Canada		**$ 11,570**	$ 11,583	$ 9,955
U.S.		**5,258**	5,524	4,522
Total revenues		**$ 16,828**	$ 17,107	$ 14,477

In millions	*As at December 31,*	**2023**	2022
Long-lived assets			
Canada		**$ 25,530**	$ 24,396
U.S.		**19,511**	19,611
Total long-lived assets (1)		**$ 45,041**	$ 44,007

(1) The Company defines long-lived assets as Properties and Operating lease right-of-use assets.

25 – Subsequent event

Normal course issuer bid

On January 23, 2024, the Board of Directors of the Company approved a new NCIB, which allows for the repurchase of up to 32.0 million common shares between February 1, 2024 and January 31, 2025.