

## 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, 2016 using the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) 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, 2016.

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, 2016 and has also expressed an unqualified audit opinion on the Company's 2016 consolidated financial statements as stated in their Reports of Independent Registered Public Accounting Firm dated February 1, 2017.

*(s) Luc Jobin*

President and Chief Executive Officer

February 1, 2017

*(s) Ghislain Houle*

Executive Vice-President and Chief Financial Officer

February 1, 2017

## Report of Independent Registered Public Accounting Firm

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

We have audited the accompanying consolidated balance sheets of the Canadian National Railway Company (the "Company") as of December 31, 2016 and 2015, and 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, 2016. 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 conducted our audits in accordance with Canadian generally accepted auditing standards and the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of the Company as of December 31, 2016 and 2015, and its consolidated results of operations and its consolidated cash flows for each of the years in the three-year period ended December 31, 2016, in conformity with United States generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company's internal control over financial reporting as of December 31, 2016, based on the criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"), and our report dated February 1, 2017 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

(s) KPMG LLP\*

Montreal, Canada  
February 1, 2017

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

*KPMG LLP is a Canadian limited liability partnership and a member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity.*

*KPMG Canada provides services to KPMG LLP.*

## Report of Independent Registered Public Accounting Firm

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

We have audited the Canadian National Railway Company's (the "Company") internal control over financial reporting as of December 31, 2016, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission ("COSO"). 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 conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). 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 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.

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.

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2016, based on criteria established in Internal Control - Integrated Framework (2013) issued by the COSO.

We also have audited, in accordance with Canadian generally accepted auditing standards and the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of the Company as of December 31, 2016 and 2015, and 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, 2016, and our report dated February 1, 2017 expressed an unqualified opinion on those consolidated financial statements.

(s) KPMG LLP\*

Montreal, Canada  
February 1, 2017

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

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## Consolidated Statements of Income

<i>In millions, except per share data</i>	<i>Year ended December 31,</i>		
	<b>2016</b>	2015	2014
<b>Revenues</b>	\$ <b>12,037</b>	\$ 12,611	\$ 12,134
<b>Operating expenses</b>			
Labor and fringe benefits	2,119	2,406	2,319
Purchased services and material	1,592	1,729	1,598
Fuel	1,051	1,285	1,846
Depreciation and amortization	1,225	1,158	1,050
Equipment rents	375	373	329
Casualty and other	363	394	368
<b>Total operating expenses</b>	<b>6,725</b>	7,345	7,510
<b>Operating income</b>	<b>5,312</b>	5,266	4,624
Interest expense	(480)	(439)	(371)
Other income (Note 3)	95	47	107
<b>Income before income taxes</b>	<b>4,927</b>	4,874	4,360
Income tax expense (Note 4)	(1,287)	(1,336)	(1,193)
<b>Net income</b>	<b>\$ 3,640</b>	\$ 3,538	\$ 3,167
<b>Earnings per share (Note 5)</b>			
Basic	\$ 4.69	\$ 4.42	\$ 3.86
Diluted	\$ 4.67	\$ 4.39	\$ 3.85
<b>Weighted-average number of shares (Note 5)</b>			
Basic	776.0	800.7	819.9
Diluted	779.2	805.1	823.5

See accompanying notes to consolidated financial statements.

## Consolidated Statements of Comprehensive Income

<i>In millions</i>	<i>Year ended December 31,</i>		
	<b>2016</b>	2015	2014
Net income	\$ 3,640	\$ 3,538	\$ 3,167
<b>Other comprehensive income (loss) (Note 15)</b>			
Net gain (loss) on foreign currency translation	(45)	249	75
Net change in pension and other postretirement benefit plans (Note 12)	(694)	306	(995)
Amortization of gain on treasury lock	-	-	(1)
<b>Other comprehensive income (loss) before income taxes</b>	<b>(739)</b>	555	(921)
Income tax recovery	148	105	344
<b>Other comprehensive income (loss)</b>	<b>(591)</b>	660	(577)
<b>Comprehensive income</b>	<b>\$ 3,049</b>	\$ 4,198	\$ 2,590

See accompanying notes to consolidated financial statements.

## Consolidated Balance Sheets

<i>In millions</i>	<i>December 31,</i>		<i>2016</i>	<i>2015</i>	
<b>Assets</b>					
<b>Current assets</b>					
Cash and cash equivalents		\$	176	\$	153
Restricted cash and cash equivalents (Note 10)			496		523
Accounts receivable (Note 6)			875		878
Material and supplies			363		355
Other current assets			197		244
<b>Total current assets</b>			<b>2,107</b>		<b>2,153</b>
Properties (Note 7)			33,755		32,624
Pension asset (Note 12)			907		1,305
Intangible and other assets (Note 8)			288		320
<b>Total assets</b>		\$	<b>37,057</b>	\$	<b>36,402</b>
<b>Liabilities and shareholders' equity</b>					
<b>Current liabilities</b>					
Accounts payable and other (Note 9)		\$	1,519	\$	1,556
Current portion of long-term debt (Note 10)			1,489		1,442
<b>Total current liabilities</b>			<b>3,008</b>		<b>2,998</b>
Deferred income taxes (Note 4)			8,473		8,105
Other liabilities and deferred credits (Note 11)			593		644
Pension and other postretirement benefits (Note 12)			694		720
Long-term debt (Note 10)			9,448		8,985
<b>Shareholders' equity</b>					
Common shares (Note 13)			3,730		3,705
Common shares in Share Trusts (Note 13)			(137)		(100)
Additional paid-in capital (Note 13)			364		475
Accumulated other comprehensive loss (Note 15)			(2,358)		(1,767)
Retained earnings			13,242		12,637
<b>Total shareholders' equity</b>			<b>14,841</b>		<b>14,950</b>
<b>Total liabilities and shareholders' equity</b>		\$	<b>37,057</b>	\$	<b>36,402</b>

See accompanying notes to consolidated financial statements.

On behalf of the Board of Directors:

(s) Robert Pace  
Director

(s) Luc Jobin  
Director

## Consolidated Statements of Changes in Shareholders' Equity

<i>In millions</i>	Number of common shares		Common shares in Share Trusts	Additional paid-in capital	Accumulated other comprehensive loss	Retained earnings	Total shareholders' equity	
	Outstanding	Share Trusts						
<i>Balance at December 31, 2013</i>	830.6	-	\$ 3,795	\$ -	\$ 220	\$ (1,850)	\$ 10,788	\$ 12,953
Net income						3,167		3,167
Stock options exercised	1.2		31		(6)			25
Stock-based compensation expense					16			16
Modification of stock-based compensation awards (Note 13)					209			209
Share repurchase programs (Note 13)	(22.4)		(108)			(1,397)		(1,505)
Other comprehensive loss (Note 15)						(577)		(577)
Dividends (\$1.00 per share)						(818)		(818)
<i>Balance at December 31, 2014</i>	809.4	-	3,718	-	439	(2,427)	11,740	13,470
Net income						3,538		3,538
Stock options exercised	2.5		91		(17)			74
Settlement of equity settled awards			4		(8)			(4)
Stock-based compensation expense					61	(3)		58
Share repurchase programs (Note 13)	(23.3)		(108)			(1,642)		(1,750)
Share purchases by Share Trusts (Note 13)	(1.4)	1.4		(100)				(100)
Other comprehensive income (Note 15)						660		660
Dividends (\$1.25 per share)						(996)		(996)
<i>Balance at December 31, 2015</i>	787.2	1.4	3,705	(100)	475	(1,767)	12,637	14,950
Net income						3,640		3,640
Stock options exercised	1.6		73		(12)			61
Settlement of equity settled awards			79		(138)			(59)
Stock-based compensation expense					62	(3)		59
Share repurchase programs (Note 13)	(26.4)		(127)			(1,873)		(2,000)
Share purchases by Share Trusts (Note 13)	(0.7)	0.7		(60)				(60)
Share settlements by Share Trusts (Note 13)	0.3	(0.3)		23	(23)			-
Other comprehensive loss (Note 15)						(591)		(591)
Dividends (\$1.50 per share)						(1,159)		(1,159)
<b><i>Balance at December 31, 2016</i></b>	<b>762.0</b>	<b>1.8</b>	<b>\$ 3,730</b>	<b>\$ (137)</b>	<b>\$ 364</b>	<b>\$ (2,358)</b>	<b>\$ 13,242</b>	<b>\$ 14,841</b>

See accompanying notes to consolidated financial statements.

## Consolidated Statements of Cash Flows

<i>In millions</i>	<i>Year ended December 31,</i>		
	<b>2016</b>	<b>2015</b>	<b>2014</b>
<b>Operating activities</b>			
Net income	\$ 3,640	\$ 3,538	\$ 3,167
Adjustments to reconcile net income to net cash provided by operating activities:			
Depreciation and amortization	1,225	1,158	1,050
Deferred income taxes (Note 4)	704	600	416
Gain on disposal of property (Note 3)	(76)	-	(80)
Changes in operating assets and liabilities:			
Accounts receivable	(3)	188	(59)
Material and supplies	(2)	4	(51)
Accounts payable and other	(51)	(282)	-
Other current assets	21	46	5
Pensions and other, net	(256)	(112)	(67)
<b>Net cash provided by operating activities</b>	<b>5,202</b>	<b>5,140</b>	<b>4,381</b>
<b>Investing activities</b>			
Property additions	(2,695)	(2,706)	(2,297)
Disposal of property (Note 3)	85	-	173
Change in restricted cash and cash equivalents	27	(60)	(15)
Other, net	(72)	(61)	(37)
<b>Net cash used in investing activities</b>	<b>(2,655)</b>	<b>(2,827)</b>	<b>(2,176)</b>
<b>Financing activities</b>			
Issuance of debt (Note 10)	1,509	841	1,022
Repayment of debt (Note 10)	(955)	(752)	(822)
Net issuance (repayment) of commercial paper (Note 10)	137	451	(277)
Settlement of foreign exchange forward contracts on long-term debt	(21)	-	-
Issuance of common shares for stock options exercised (Note 14)	61	79	30
Withholding taxes remitted on the net settlement of equity settled awards (Note 14)	(44)	(2)	-
Repurchase of common shares (Note 13)	(1,992)	(1,742)	(1,505)
Purchase of common shares for settlement of equity settled awards	(15)	(2)	-
Purchase of common shares by Share Trusts (Note 13)	(60)	(100)	-
Dividends paid	(1,159)	(996)	(818)
<b>Net cash used in financing activities</b>	<b>(2,539)</b>	<b>(2,223)</b>	<b>(2,370)</b>
Effect of foreign exchange fluctuations on US dollar-denominated cash and cash equivalents	15	11	3
<b>Net increase (decrease) in cash and cash equivalents</b>	<b>23</b>	<b>101</b>	<b>(162)</b>
Cash and cash equivalents, beginning of year	153	52	214
<b>Cash and cash equivalents, end of year</b>	<b>\$ 176</b>	<b>\$ 153</b>	<b>\$ 52</b>
<b>Supplemental cash flow information</b>			
Interest paid	\$ (470)	\$ (432)	\$ (409)
Income taxes paid (Note 4)	\$ (653)	\$ (725)	\$ (722)

See accompanying notes to consolidated financial statements.

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## 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 mid-America, from the Atlantic and Pacific oceans to the Gulf of Mexico, serving the cities and ports of Vancouver, Prince Rupert (British Columbia), Montreal, Halifax, New Orleans and Mobile (Alabama), and the key metropolitan areas of Toronto, Buffalo, Chicago, Detroit, Duluth (Minnesota)/Superior (Wisconsin), Green Bay (Wisconsin), Minneapolis/St. Paul, Memphis, and Jackson (Mississippi), with connections to all points in North America. CN’s freight revenues are derived from the movement of a diversified and balanced portfolio of goods, including petroleum and chemicals, grain and fertilizers, coal, metals and minerals, forest products, intermodal and automotive.

### 1 – Summary of significant accounting policies

#### Basis of presentation

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

#### Principles of consolidation

These consolidated financial statements include the accounts of all subsidiaries and variable interest entities for which the Company is the primary beneficiary. The Company is the primary beneficiary of the Employee Benefit Plan Trusts (“Share Trusts”) as the Company funds the Share Trusts. The Company’s investments in which it has significant influence are accounted for using the equity method and all other investments are accounted for using the cost method.

#### 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 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

Freight revenues are recognized using the percentage of completed service method based on the transit time of freight as it moves from origin to destination. The allocation of revenues between reporting periods is based on the relative transit time in each period with expenses being recorded as incurred. Revenues related to non-rail transportation services are recognized as service is performed or as contractual obligations are met. Revenues are presented net of taxes collected from customers and remitted to governmental authorities.

#### 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 based on the weighted-average number of common shares outstanding over each period. The weighted-average number of basic shares outstanding excludes shares held in the Share Trusts and includes fully vested equity settled stock-based compensation awards excluding stock options. Diluted earnings per share is calculated based on the weighted-average number of diluted shares outstanding using the treasury stock method. Included in the diluted earnings per share calculation are dilutive effects of common shares issuable upon exercise of outstanding stock options and nonvested equity settled awards.

#### Foreign currency

All of the Company’s United States (U.S.) subsidiaries use the US dollar as their functional currency. Accordingly, the U.S. subsidiaries’ assets and liabilities are translated into Canadian dollars at the 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).

## Notes to Consolidated Financial Statements

The Company designates the US dollar-denominated long-term debt of the parent company as a foreign currency hedge of its net investment in U.S. subsidiaries. Accordingly, foreign exchange gains and losses, from the dates of designation, on the translation of the US dollar-denominated long-term debt are also 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, which approximates market 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 are shown separately on the balance sheet and include highly liquid investments purchased three months or less from maturity and are stated at cost, which approximates market value.

### Accounts receivable

Accounts receivable are recorded at cost net of billing adjustments and an allowance for doubtful accounts. The allowance for doubtful accounts is based on expected collectability and considers historical experience as well as known trends or uncertainties related to account collectability. When a receivable is deemed uncollectible, it is written off against the allowance for doubtful accounts. Subsequent recoveries of amounts previously written off are credited to bad debt expense in Casualty and other in the Consolidated Statements of Income.

### Material and supplies

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

### Properties

#### **Accounting policy for 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 physical or service capacity. The Company has a process in place to determine whether its capital programs qualify for capitalization. For Track and roadway properties, the Company establishes basic capital programs to replace or upgrade the track infrastructure assets which are capitalized if they meet the capitalization criteria.

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

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

For purchased assets, the Company capitalizes all costs necessary to make the asset ready for its intended use. Expenditures that are capitalized as part of self-constructed properties include direct material, labor, and contracted services, as well as other allocated costs which are not charged directly to capital projects. These allocated costs include, but are not limited to, fringe benefits, small tools and supplies, maintenance on equipment used on projects and project supervision. 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.

## Notes to Consolidated Financial Statements

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 average cost measured using the quantities of new ballast added.

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 considered normal repairs and maintenance and 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.

### ***Accounting policy for depreciation***

Railroad properties are carried at cost less accumulated depreciation including asset impairment write-downs. The cost of properties, including those under capital 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 which 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 assets, 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), less the rail asset's usage to date. The annual composite depreciation rate for rail assets 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.

### **Intangible assets**

Intangible assets consist mainly of customer contracts and relationships assumed through past acquisitions and are being amortized on a straight-line basis over 40 to 50 years.

The Company reviews the carrying amounts of intangible assets held and used whenever events or changes in circumstances indicate that such carrying amounts may not be recoverable based on future undiscounted cash flows. Assets that are deemed impaired as a result of such review are recorded at the lower of carrying amount or fair value.

### **Accounts receivable securitization**

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

### Pensions

Pension costs are determined using actuarial methods. Net periodic benefit cost (income) is recorded in Labor and fringe benefits expense and includes:

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

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

### Postretirement benefits other than pensions

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

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

### 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 fair value of performance share unit (PSU) awards is dependent on the type of PSU award. The fair value of PSU-ROIC awards is determined using a lattice-based model incorporating a minimum share price condition and the fair value of PSU-TSR awards is determined using a Monte Carlo simulation model. The fair value of deferred share unit (DSU) awards is determined using the stock price at the grant date. The 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.

### 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 unless they can contribute to current or future operations. 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 and collectability is reasonably assured.

### 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 and the changes in fair value are recorded in Net income or Other comprehensive income (loss) depending on the nature and effectiveness of the hedge transaction. Income and expense related to hedged derivative financial instruments are recorded in the same category as that generated by the underlying asset or liability.

## Notes to Consolidated Financial Statements

### 2 – Recent accounting pronouncements

The following recent Accounting Standards Updates (ASUs) issued by FASB were adopted by the Company during the current period:

Standard	Description	Impact
<b>ASU 2016-09, Compensation – Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting</b>	Simplifies several aspects of the accounting for share-based payments, including the income tax consequences, classification of awards as either equity or liabilities, and classification in the Statement of Cash Flows. The new guidance includes multiple amendments with differing application methods.	The Company elected to adopt this standard in 2016 on a prospective basis with an effective date of January 1, 2016. The adoption of this standard did not have a significant impact on the Company's Consolidated Financial Statements.
<b>ASU 2015-07, Fair Value Measurement (Topic 820): Disclosures for Investments in Certain Entities That Calculate Net Asset Value per Share (or its Equivalent)</b>	Removes the requirement to categorize within the fair value hierarchy investments for which fair value is measured using the net asset value practical expedient.	The Company adopted this standard in 2016 on a retrospective basis. Investments measured at net asset value of \$3,305 million and \$3,511 million as at December 31, 2016 and 2015, respectively, held by the Company's defined benefit pension plans, are no longer included in the fair value hierarchy.

The following recent ASUs issued by FASB have an effective date after December 31, 2016 and have not been adopted by the Company:

Standard <sup>(1)</sup>	Description	Impact	Effective date <sup>(2)</sup>
<b>ASU 2016-18, Statement of Cash Flows (Topic 230): Restricted Cash</b>	Requires that a Statement of Cash Flows explain the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. The amendments should be applied using a retrospective transition method to each period presented.	The amendments will affect the classification and presentation of restricted cash in the Company's Statement of Cash Flows.	December 15, 2017. Early adoption is permitted.
<b>ASU 2016-13, Financial Instruments – Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments</b>	Requires financial assets measured at amortized cost to be presented at the net amount expected to be collected. The amendments replace the current incurred loss impairment methodology with one that reflects expected credit losses and considers a broader range of reasonable and supportable information to determine the expected credit loss estimates.	The Company is evaluating the effects that the adoption of the ASU will have on its Consolidated Financial Statements; no significant impact is expected.	December 15, 2019. Early adoption is permitted.
<b>ASU 2016-02, Leases (Topic 842)</b>	Requires the recognition of lease assets and lease liabilities on the Balance Sheet by lessees for most leases. Lessees and lessors are required to recognize and measure leases at the beginning of the earliest period presented using a modified retrospective approach.	The Company is evaluating the effects that the adoption of the ASU will have on its Consolidated Financial Statements. The Company is reviewing all lease contracts and expects that the majority of operating leases will be recognized on the Consolidated Balance Sheet. CN expects to adopt the requirements of the ASU effective January 1, 2019.	December 15, 2018. Early adoption is permitted.
<b>ASU 2014-09, Revenue from Contracts with Customers (Topic 606)</b>	Establishes principles for reporting the nature, amount, timing and uncertainty of revenues and cash flows arising from an entity's contracts with customers. The basis of the new standard is that an entity recognizes revenue to represent the transfer of goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The new guidance can be applied using a retrospective or the cumulative effect transition method.	The Company is evaluating the effects that the adoption of the ASU will have on its Consolidated Financial Statements and related disclosures, through the review of customer contracts, in relation to the new standard. In addition, the Company is evaluating the transition method to apply. CN will adopt the requirements of the ASU effective January 1, 2018.	December 15, 2017. Early adoption is permitted.

(1) Other recently issued ASUs required to be applied for periods beginning on or after January 1, 2017 have been evaluated by the Company and will not have a significant impact on the Company's financial statements.

(2) Effective for annual and interim reporting periods beginning after the stated date.

## 3 – Other income

<i>In millions</i>	<i>Year ended December 31,</i>		<b>2016</b>	2015	2014
Gain on disposal of property <sup>(1)</sup>	\$	<b>76</b>	\$	-	\$ 99
Gain on disposal of land		<b>17</b>		52	21
Other <sup>(2)</sup>		<b>2</b>		(5)	(13)
<b><i>Total other income</i></b>	<b>\$</b>	<b>95</b>	<b>\$</b>	<b>47</b>	<b>\$ 107</b>

(1) In addition to the disposals of property described herein, 2014 includes other gains of \$19 million.

(2) Includes foreign exchange gains and losses related to foreign exchange forward contracts and the re-measurement of other US dollar-denominated monetary assets and liabilities. See Note 17 – Financial instruments.

**Disposal of property****2016***Viaduc du Sud*

On December 1, 2016, the Company completed the sale of approximately one mile of elevated track leading into Montreal's Central Station, together with the rail fixtures (collectively the "Viaduc du Sud"), to CDPQ Infra Inc., a wholly-owned subsidiary of the Caisse de dépôt et placement du Québec, for cash proceeds of \$85 million before transaction costs. The transaction resulted in a gain on disposal of \$76 million (\$66 million after-tax) that was recorded in Other income under the full accrual method of accounting for real estate transactions.

**2014***Guelph*

On September 4, 2014, the Company closed a transaction with Metrolinx to sell a segment of the Guelph subdivision located between Georgetown and Kitchener, Ontario, together with the rail fixtures and certain passenger agreements (collectively the "Guelph"), for cash proceeds of \$76 million before transaction costs. The Company did not meet all the conditions to record the sale under the full accrual method for real estate transactions as it continues to have substantial continuing involvement on the Guelph. The Company will have relinquished substantially all of the risks and rewards of ownership on the Guelph in 2018, at which time the gain on the sale is expected to be recognized.

*Deux-Montagnes*

On February 28, 2014, the Company closed a transaction with Agence Métropolitaine de Transport to sell the Deux-Montagnes subdivision between Saint-Eustache and Montreal, Quebec, including the Mont-Royal tunnel, together with the rail fixtures (collectively the "Deux-Montagnes"), for cash proceeds of \$97 million before transaction costs. Under the agreement, the Company obtained the perpetual right to operate freight trains over the Deux-Montagnes at its then current level of operating activity, with the possibility of increasing its operating activity for additional consideration. The transaction resulted in a gain on disposal of \$80 million (\$72 million after-tax) that was recorded in Other income under the full accrual method of accounting for real estate transactions.

## Notes to Consolidated Financial Statements

### 4 – 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 such as tax rates in provincial, U.S. federal, state and other foreign jurisdictions 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 tax rates on capital dispositions that may occur in any given year.

The following table provides a reconciliation of income tax expense:

<i>In millions</i>	<i>Year ended December 31,</i>		<b>2016</b>	<b>2015</b>	<b>2014</b>	
Canadian statutory federal tax rate			<b>15%</b>	15%	15%	
Income tax expense at the Canadian statutory federal tax rate	\$	<b>739</b>	\$	731	\$	654
Income tax expense (recovery) resulting from:						
Provincial and foreign taxes <sup>(1)</sup>		<b>532</b>		550	531	
Deferred income tax adjustments due to rate enactments <sup>(2)</sup>		<b>7</b>		42	-	
Gain on disposals <sup>(3)</sup>		<b>(12)</b>		(11)	(19)	
Other <sup>(4)</sup>		<b>21</b>		24	27	
<b><i>Income tax expense</i></b>	<b>\$</b>	<b>1,287</b>	<b>\$</b>	<b>1,336</b>	<b>\$</b>	<b>1,193</b>
Cash payments for income taxes	\$	<b>653</b>	\$	725	\$	722

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

(2) Includes the net income tax expense resulting from the enactment of provincial corporate income tax rates.

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

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

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

<i>In millions</i>	<i>Year ended December 31,</i>		<b>2016</b>	<b>2015</b>	<b>2014</b>	
<b>Income before income taxes</b>						
Domestic	\$	<b>3,726</b>	\$	3,437	\$	3,042
Foreign		<b>1,201</b>		1,437		1,318
<b><i>Total income before income taxes</i></b>	<b>\$</b>	<b>4,927</b>	<b>\$</b>	<b>4,874</b>	<b>\$</b>	<b>4,360</b>
<b>Current income tax expense</b>						
Domestic	\$	<b>568</b>	\$	640	\$	522
Foreign		<b>15</b>		96		255
<b><i>Total current income tax expense</i></b>	<b>\$</b>	<b>583</b>	<b>\$</b>	<b>736</b>	<b>\$</b>	<b>777</b>
<b>Deferred income tax expense</b>						
Domestic	\$	<b>450</b>	\$	328	\$	271
Foreign		<b>254</b>		272		145
<b><i>Total deferred income tax expense</i></b>	<b>\$</b>	<b>704</b>	<b>\$</b>	<b>600</b>	<b>\$</b>	<b>416</b>

## Notes to Consolidated Financial Statements

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

<i>In millions</i>	<i>December 31,</i>		<b>2016</b>		<b>2015</b>	
<b>Deferred income tax assets</b>						
Pension liability		\$	130	\$		147
Personal injury and legal claims			66			64
Environmental and other reserves			166			179
Other postretirement benefits liability			83			82
Unrealized foreign exchange losses			58			124
Net operating losses and tax credit carryforwards <sup>(1)</sup>			23			26
<b>Total deferred income tax assets</b>		\$	<b>526</b>	\$		<b>622</b>
<b>Deferred income tax liabilities</b>						
Properties		\$	8,673	\$		8,303
Pension asset			243			348
Other			83			76
<b>Total deferred income tax liabilities</b>		\$	<b>8,999</b>	\$		<b>8,727</b>
<b>Total net deferred income tax liability</b>		\$	<b>8,473</b>	\$		<b>8,105</b>
<b>Total net deferred income tax liability</b>						
Domestic		\$	3,334	\$		3,074
Foreign			5,139			5,031
<b>Total net deferred income tax liability</b>		\$	<b>8,473</b>	\$		<b>8,105</b>

(1) Net operating losses and tax credit carryforwards will expire between the years 2018 and 2036.

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 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, 2016, in order to fully realize all of the deferred income tax assets, the Company will need to generate future taxable income of approximately \$2.1 billion and, based upon the level of historical taxable income and projections of future taxable income over the periods in which the deferred income tax assets are deductible, management believes it is more likely than not that the Company will realize the benefits of these deductible differences. Management has assessed the impacts of the current economic environment and concluded there are no significant impacts to its assertions for the realization of deferred income tax assets. As at December 31, 2016, the Company has not recognized a deferred income tax asset of \$242 million (2015 - \$234 million) on the unrealized foreign exchange loss recorded in Accumulated other comprehensive loss relating to its net investment in U.S. subsidiaries, as the Company does not expect this temporary difference to reverse in the foreseeable future.

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

<i>In millions</i>	<i>Year ended December 31,</i>		<b>2016</b>		<b>2015</b>		<b>2014</b>	
Gross unrecognized tax benefits at beginning of year		\$	27	\$	35	\$		30
<i>Increases for:</i>								
Tax positions related to the current year			16		4			3
Tax positions related to prior years			24		8			3
<i>Decreases for:</i>								
Settlements			(2)		(14)			-
Lapse of the applicable statute of limitations			(4)		(6)			(1)
<b>Gross unrecognized tax benefits at end of year</b>		\$	<b>61</b>	\$	<b>27</b>	\$		<b>35</b>
Adjustments to reflect tax treaties and other arrangements			(7)		(8)			(6)
<b>Net unrecognized tax benefits at end of year</b>		\$	<b>54</b>	\$	<b>19</b>	\$		<b>29</b>

## Notes to Consolidated Financial Statements

As at December 31, 2016, the total amount of gross unrecognized tax benefits was \$61 million, before considering tax treaties and other arrangements between taxation authorities. The amount of net unrecognized tax benefits as at December 31, 2016 was \$54 million. If recognized, \$20 million of the net unrecognized tax benefits as at December 31, 2016 would affect the effective tax rate. The Company believes that it is reasonably possible that approximately \$7 million of the net unrecognized tax benefits as at December 31, 2016 related to various federal, state, and provincial income tax matters, each of which are individually insignificant, may be resolved over the next twelve months as a result of settlements and a lapse of the applicable statute of limitations.

The Company recognizes accrued interest and penalties related to gross unrecognized tax benefits in Income tax expense in the Company's Consolidated Statements of Income. For the year ended December 31, 2016, the Company recognized accrued interest and penalties of approximately \$2 million (2015 - \$1 million; 2014 - \$1 million). As at December 31, 2016, the Company had accrued interest and penalties of approximately \$4 million (2015 - \$4 million).

In Canada, the Company's federal and provincial income tax returns filed for the years 2011 to 2015 remain subject to examination by the taxation authorities. An examination of the Company's federal income tax returns for the years 2011 and 2012 is currently in progress and is expected to be completed during 2017. In the U.S., the federal income tax returns filed for the years 2013 and 2015 and the state income tax returns filed for the years 2012 to 2015 remain subject to examination by the taxation authorities. Examination of the Company's U.S. federal income tax return for the year 2014 has been completed and examinations of certain state income tax returns are currently in progress. 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.

## 5 – Earnings per share

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

<i>In millions, except per share data</i>	<i>Year ended December 31,</i>		<i>2016</i>		<i>2015</i>		<i>2014</i>	
Net income	\$	3,640	\$	3,538	\$	3,167		
Weighted-average basic shares outstanding		776.0		800.7		819.9		
Dilutive effect of stock-based compensation		3.2		4.4		3.6		
<b><i>Weighted-average diluted shares outstanding</i></b>		<b>779.2</b>		<b>805.1</b>		<b>823.5</b>		
Basic earnings per share	\$	4.69	\$	4.42	\$	3.86		
Diluted earnings per share	\$	4.67	\$	4.39	\$	3.85		
Units excluded from the calculation as their inclusion would not have a dilutive effect:								
Stock options		1.2		0.8		0.4		
Performance share units		0.2		-		-		

## 6 – Accounts receivable

<i>In millions</i>	<i>December 31,</i>		<i>2016</i>		<i>2015</i>	
Freight		\$	752	\$	705	
Non-freight			151		180	
<b><i>Gross accounts receivable</i></b>			<b>903</b>		<b>885</b>	
Allowance for doubtful accounts			(28)		(7)	
<b><i>Net accounts receivable</i></b>		\$	<b>875</b>	\$	<b>878</b>	

## Notes to Consolidated Financial Statements

### 7 – Properties

In millions	December 31, 2016				December 31, 2015			
	Depreciation rate	Cost	Accumulated depreciation	Net	Cost	Accumulated depreciation	Net	
<b>Properties including capital leases</b>								
Track and roadway <sup>(1)</sup>	2%	\$ 34,684	\$ 7,744	\$ 26,940	\$ 33,941	\$ 7,830	\$ 26,111	
Rolling stock	5%	6,493	2,521	3,972	6,216	2,362	3,854	
Buildings	2%	1,851	652	1,199	1,791	624	1,167	
Information technology <sup>(2)</sup>	9%	1,198	628	570	1,067	567	500	
Other	4%	1,941	867	1,074	1,812	820	992	
<b>Total properties including capital leases</b>		<b>\$ 46,167</b>	<b>\$ 12,412</b>	<b>\$ 33,755</b>	<b>\$ 44,827</b>	<b>\$ 12,203</b>	<b>\$ 32,624</b>	
<b>Capital leases included in properties</b>								
Track and roadway <sup>(3)</sup>		\$ 415	\$ 70	\$ 345	\$ 415	\$ 66	\$ 349	
Rolling stock		370	138	232	748	301	447	
Buildings		109	28	81	109	26	83	
Other		131	30	101	122	36	86	
<b>Total capital leases included in properties</b>		<b>\$ 1,025</b>	<b>\$ 266</b>	<b>\$ 759</b>	<b>\$ 1,394</b>	<b>\$ 429</b>	<b>\$ 965</b>	

(1) As at December 31, 2016, includes land of \$2,446 million (2015 - \$2,487 million).

(2) During 2016, the Company capitalized costs for internally developed software of \$106 million (2015 - \$85 million).

(3) As at December 31, 2016, includes right-of-way access of \$108 million (2015 - \$108 million).

### 8 – Intangible and other assets

In millions	December 31,	
	2016	2015
Deferred costs <sup>(1)</sup>	\$ 73	\$ 75
Investments <sup>(2)</sup>	68	69
Intangible assets	67	71
Long-term receivables <sup>(1)</sup>	33	57
Other long-term assets <sup>(1)</sup>	47	48
<b>Total intangible and other assets</b>	<b>\$ 288</b>	<b>\$ 320</b>

(1) In 2016, certain other assets were reclassified into new captions within intangible and other assets. This change has no impact on the Company's previously reported balance sheet as Total intangible and other assets remain unchanged. The 2015 comparative figures have been reclassified in order to conform to the current year's presentation.

(2) As at December 31, 2016, the Company had \$54 million (2015 - \$56 million) of investments accounted for under the equity method and \$14 million (2015 - \$13 million) of investments accounted for under the cost method. See Note 17 - Financial instruments for the fair value of Investments.

### 9 – Accounts payable and other

In millions	December 31,	
	2016	2015
Trade payables	\$ 484	\$ 391
Payroll-related accruals	327	287
Accrued charges	141	192
Accrued interest	129	122
Income and other taxes	122	254
Personal injury and other claims provisions (Note 16)	76	51
Environmental provisions (Note 16)	50	51
Stock-based compensation liability (Note 14)	45	39
Other postretirement benefits liability (Note 12)	18	18
Other	127	151
<b>Total accounts payable and other</b>	<b>\$ 1,519</b>	<b>\$ 1,556</b>

## Notes to Consolidated Financial Statements

### 10 – Long-term debt

<i>In millions</i>	<b>Maturity</b>	<b>US dollar-denominated amount</b>	<i>December 31,</i>	<b>2016</b>	<b>2015</b>
<b>Notes and debentures <sup>(1)</sup></b>					
Canadian National series:					
5.80%	10-year notes <sup>(2)</sup>	June 1, 2016	US\$ 250	\$ -	\$ 346
1.45%	5-year notes <sup>(2)</sup>	Dec. 15, 2016	US\$ 300	-	415
-	3-year floating rate notes <sup>(3)</sup>	Nov. 14, 2017	US\$ 250	336	346
5.85%	10-year notes <sup>(2)</sup>	Nov. 15, 2017	US\$ 250	336	346
5.55%	10-year notes <sup>(2)</sup>	May 15, 2018	US\$ 325	436	450
6.80%	20-year notes <sup>(2)</sup>	July 15, 2018	US\$ 200	269	277
5.55%	10-year notes <sup>(2)</sup>	Mar. 1, 2019	US\$ 550	738	761
2.75%	7-year notes <sup>(2)</sup>	Feb. 18, 2021		250	250
2.85%	10-year notes <sup>(2)</sup>	Dec. 15, 2021	US\$ 400	537	554
2.25%	10-year notes <sup>(2)</sup>	Nov. 15, 2022	US\$ 250	336	346
7.63%	30-year debentures	May 15, 2023	US\$ 150	201	208
2.95%	10-year notes <sup>(2)</sup>	Nov. 21, 2024	US\$ 350	470	484
2.80%	10-year notes <sup>(2)</sup>	Sep. 22, 2025		350	350
2.75%	10-year notes <sup>(2)</sup>	Mar. 1, 2026	US\$ 500	671	-
6.90%	30-year notes <sup>(2)</sup>	July 15, 2028	US\$ 475	638	657
7.38%	30-year debentures <sup>(2)</sup>	Oct. 15, 2031	US\$ 200	269	277
6.25%	30-year notes <sup>(2)</sup>	Aug. 1, 2034	US\$ 500	671	692
6.20%	30-year notes <sup>(2)</sup>	June 1, 2036	US\$ 450	604	623
6.71%	Puttable Reset Securities PURS <sup>SM</sup> <sup>(2)</sup>	July 15, 2036	US\$ 250	336	346
6.38%	30-year debentures <sup>(2)</sup>	Nov. 15, 2037	US\$ 300	403	415
3.50%	30-year notes <sup>(2)</sup>	Nov. 15, 2042	US\$ 250	336	346
4.50%	30-year notes <sup>(2)</sup>	Nov. 7, 2043	US\$ 250	336	346
3.95%	30-year notes <sup>(2)</sup>	Sep. 22, 2045		400	400
3.20%	30-year notes <sup>(2)</sup>	Aug. 2, 2046	US\$ 650	872	-
4.00%	50-year notes <sup>(2)</sup>	Sep. 22, 2065		100	100
Illinois Central series:					
7.70%	100-year debentures	Sep. 15, 2096	US\$ 125	168	173
BC Rail series:					
	Non-interest bearing 90-year subordinated notes <sup>(4)</sup>	July 14, 2094		842	842
<b>Total notes and debentures</b>				<b>\$ 10,905</b>	<b>\$ 10,350</b>
<b>Other</b>					
Commercial paper				605	458
Capital lease obligations				344	522
<b>Total debt, gross</b>				<b>11,854</b>	<b>11,330</b>
Net unamortized discount and debt issuance costs <sup>(4)</sup>				(917)	(903)
<b>Total debt <sup>(5)</sup></b>				<b>10,937</b>	<b>10,427</b>
Less: Current portion of long-term debt				1,489	1,442
<b>Total long-term debt</b>				<b>\$ 9,448</b>	<b>\$ 8,985</b>

(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) This floating rate note bears interest at the three-month London Interbank Offered Rate (LIBOR) plus 0.17%. The interest rate as at December 31, 2016 was 1.07% (2015 - 0.53%).

(4) As at December 31, 2016, these notes were recorded as a discounted debt of \$10 million (2015 - \$10 million) using an imputed interest rate of 5.75% (2015 - 5.75%). The discount of \$832 million (2015 - \$832 million) is included in Net unamortized discount and debt issuance costs.

(5) See Note 17 - Financial instruments for the fair value of debt.

### Revolving credit facility

The Company has an unsecured revolving credit facility with a consortium of lenders, which is available for general corporate purposes, including backstopping the Company's commercial paper programs. On March 11, 2016, the credit facility agreement was amended, which increased the credit facility from \$800 million to \$1.3 billion, effective May 5, 2016, consisting of a tranche for \$420 million maturing on May 5, 2019 and a tranche for \$880 million maturing on May 5, 2021. The increased capacity provides the Company with additional financial flexibility. The credit facility agreement allows for an increase in the credit facility amount, up to a maximum of \$1.8 billion, as well as the option to extend the term by an additional year at each anniversary date, subject to the consent of individual lenders. The credit facility provides for borrowings at various interest rates, including the Canadian prime rate, bankers' acceptance rates, the U.S. federal funds effective rate and the London Interbank Offered Rate (LIBOR), plus applicable margins, based on CN's debt credit ratings. The credit facility agreement has one financial covenant, which limits debt as a percentage of total capitalization, and with which the Company is in compliance. As at December 31, 2016 and 2015, the Company had no outstanding borrowings under its revolving credit facility and there were no draws during the years ended December 31, 2016 and 2015.

### Commercial paper

The Company has a commercial paper program in Canada and the U.S. Both programs are backstopped by the Company's revolving credit facility, enabling it to issue commercial paper up to a maximum aggregate principal amount of \$1.3 billion, or the US dollar equivalent, on a combined basis, which was increased from \$800 million, effective May 5, 2016. As at December 31, 2016, the Company had total commercial paper borrowings of US\$451 million (\$605 million) (2015 - US\$331 million (\$458 million)) at a weighted-average interest rate of 0.65% (2015 - 0.41%) presented in Current portion of long-term debt on the Consolidated Balance Sheets. The Company's commercial paper has a maturity of less than 90 days.

The following table presents the issuances and repayments of commercial paper:

<i>In millions</i>	<i>Year ended December 31,</i>		
	<b>2016</b>	2015	2014
Issuances of commercial paper	\$ 3,656	\$ 2,624	\$ 2,443
Repayments of commercial paper	(3,519)	(2,173)	(2,720)
<i>Net issuance (repayment) of commercial paper</i>	\$ 137	\$ 451	\$ (277)

### 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 October 25, 2016, the Company extended the term of its agreement by one year to February 1, 2019. As at December 31, 2016 and 2015, the Company had no proceeds received under the accounts receivable securitization program.

### Bilateral letter of credit facilities

The Company has a series of committed bilateral letter of credit facility agreements. During 2016, the Company extended the expiry date of the majority of these agreements by one year to April 28, 2019, and entered into various uncommitted bilateral letter of credit facility agreements. These 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, 2016, the Company had outstanding letters of credit of \$451 million (2015 - \$551 million) under the committed facilities from a total available amount of \$508 million (2015 - \$575 million) and \$68 million (2015 - \$nil) under the uncommitted facilities. As at December 31, 2016, included in Restricted cash and cash equivalents was \$426 million (2015 - \$523 million) and \$68 million (2015 - \$nil) which were pledged as collateral under the committed and uncommitted bilateral letter of credit facilities, respectively.

### Capital lease obligations

During 2016, the Company recorded \$57 million in assets it acquired through equipment leases (2015 - \$nil), for which an equivalent amount was recorded in debt. As at December 31, 2016, the capital lease obligations are secured by properties with a net carrying amount of \$403 million (2015 - \$603 million). Interest rates for capital lease obligations range from 0.7% to 6.8% with maturity dates in the years 2017 through 2037. As at December 31, 2016, the imputed interest on these leases amounted to \$95 million (2015 - \$118 million).

## Notes to Consolidated Financial Statements

### Long-term debt maturities

The following table provides the long-term debt maturities, including capital lease repayments on debt outstanding as at December 31, 2016, for the next five years and thereafter:

<i>In millions</i>	Capital leases	Debt	Total
2017 <sup>(1)</sup>	\$ 212	\$ 1,277	\$ 1,489
2018	17	697	714
2019	10	730	740
2020	16	-	16
2021	6	781	787
2022 and thereafter	83	7,108	7,191
<b>Total</b>	<b>\$ 344</b>	<b>\$ 10,593</b>	<b>\$ 10,937</b>

(1) Current portion of long-term debt.

### Amount of US dollar-denominated debt

<i>In millions</i>	December 31,	2016	2015
Notes and debentures	US\$	6,675	US\$ 6,075
Commercial paper		451	331
Capital lease obligations		158	274
<b>Total amount of US dollar-denominated debt in US\$</b>	<b>US\$</b>	<b>7,284</b>	<b>US\$ 6,680</b>
<b>Total amount of US dollar-denominated debt in C\$</b>	<b>\$</b>	<b>9,780</b>	<b>\$ 9,245</b>

## 11 – Other liabilities and deferred credits

<i>In millions</i>	December 31,	2016	2015
Personal injury and other claims provisions (Note 16) <sup>(1)</sup>	\$	225	\$ 245
Environmental provisions (Note 16) <sup>(1)</sup>		36	59
Stock-based compensation liability (Note 14) <sup>(1)</sup>		35	63
Deferred credits and other		297	277
<b>Total other liabilities and deferred credits</b>	<b>\$</b>	<b>593</b>	<b>\$ 644</b>

(1) See Note 9 – Accounts payable and other for the related current portion.

## 12 – Pensions and other postretirement benefits

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

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

### Description of the CN Pension Plan

The CN Pension Plan is a contributory defined benefit pension plan that covers the majority of CN employees. It provides for pensions based mainly on years of service and final average pensionable earnings and is generally applicable from the first day of employment. Indexation of pensions is provided after retirement through a gain/loss sharing mechanism, subject to guaranteed minimum increases. An independent

## Notes to Consolidated Financial Statements

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 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 pension plans.

The Company's most recently filed actuarial valuations for its Canadian registered pension plans conducted as at December 31, 2015 indicated a funding excess on a going concern basis of approximately \$2.2 billion and a funding excess on a solvency basis of approximately \$0.3 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, as calculated under current pension regulations, to be paid over a number of years. Alternatively, a letter of credit can be subscribed to fulfill required solvency deficit payments.

The Company's next actuarial valuations for its Canadian plans required as at December 31, 2016 will be performed in 2017. These actuarial valuations are expected to identify a funding excess on a going concern basis of approximately \$2.5 billion, while on a solvency basis a funding excess of approximately \$0.1 billion is expected. Based on the anticipated results of these valuations, the Company expects to make total cash contributions of approximately \$115 million for all pension plans in 2017. As at February 1, 2017 the Company had contributed \$60 million to its defined benefit pension plans for 2017.

### Plan assets

The assets of the Company's various Canadian defined benefit pension plans are primarily held in separate trust funds ("Trusts") which are diversified by asset type, country and investment strategies. 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 a long-term forward-looking view of the world economy, the dynamics of the plans' benefit obligations, the market return expectations of each asset class and the current state of financial markets.

Annually, the CN Investment Division ("Investment Manager"), a division of the Company created to invest and administer the assets of the plans, proposes an investment strategy ("Strategy") for the coming year which is expected to differ from the Policy because of current economic and market conditions and expectations. The 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 plans to the performance of the benchmark indices.

The Company's 2016 Policy and actual asset allocation for the Company's pension plans based on fair value are as follows:

	Policy	Actual plan asset allocation	
		2016	2015
Cash and short-term investments	3%	3%	2%
Bonds and mortgages	40%	33%	30%
Private debt <sup>(1)</sup>	-	1%	1%
Equities <sup>(1)</sup>	42%	38%	41%
Real estate	4%	2%	2%
Oil and gas	7%	6%	5%
Infrastructure <sup>(1)</sup>	4%	5%	5%
Absolute return	-	10%	11%
Risk-based allocation	-	2%	3%
<b>Total</b>	<b>100%</b>	<b>100%</b>	<b>100%</b>

(1) Certain assets in the 2015 comparative figures have been reclassified from infrastructure to private debt and equity to conform to the current year's presentation.

## Notes to Consolidated Financial Statements

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 primarily of highly liquid securities which ensure adequate cash flows are available to cover near-term benefit payments. Short-term investments are mainly obligations issued by Canadian chartered banks.
- Bonds include bond instruments, issued or guaranteed by governments and corporate entities, as well as corporate notes and investments in emerging market debt funds. As at December 31, 2016, 66% (2015 - 74%) of bonds were issued or guaranteed by Canadian, U.S. or other governments. Mortgages consist of mortgage products which are primarily conventional or participating loans secured by commercial properties.
- Private debt includes participations in private debt funds focused on generating steady yields.
- Equity investments include primarily publicly traded securities, well diversified by country, issuer and industry sector and participations in private equity funds, comprised of investments in diversified sectors such as energy and health care. As at December 31, 2016, the most significant allocation to an individual issuer of a publicly traded security was approximately 2% (2015 - 2%) and the most significant allocation to an industry sector was approximately 21% (2015 - 22%).
- Real estate is a diversified portfolio of Canadian land and commercial properties, net of related mortgage debt, if any, and investments in real estate private equity funds.
- Oil and gas investments include petroleum and natural gas properties and listed and non-listed securities of oil and gas companies.
- Infrastructure investments include participations in private infrastructure funds, term loans and notes of infrastructure companies and publicly traded securities of infrastructure and utility companies.
- Absolute return investments are primarily a portfolio of units of externally managed hedge funds, which are invested in various long/short strategies within multi-strategy, fixed income, equities and global macro funds. Managers are monitored on a continuous basis through investment and operational due diligence.
- Risk-based allocation investments are a portfolio of units of externally managed funds where the asset class exposures are managed on a risk-adjusted basis in order to capture asset class premiums.

The plans' Investment Manager monitors market events and exposures to markets, currencies, commodity prices and interest rates 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 64% exposed to the Canadian dollar, 15% to the US dollar, 8% to European currencies, 6% to the Japanese Yen and 7% to various other currencies as at December 31, 2016. 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 used from time to time to adjust the plan asset allocation or exposures to foreign currencies, interest rate or market risks of the portfolio or anticipated transactions. Derivatives are contractual agreements whose value is derived from interest rates, foreign exchange rates, and equity or commodity prices. They may include forwards, futures, options and swaps and are included in investment categories based on their underlying exposure. 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 credit risk, established policies require dealing with counterparties considered to be of high credit quality.

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.

## Notes to Consolidated Financial Statements

The following tables present the fair value of plan assets as at December 31, 2016 and 2015 by asset class:

<i>In millions</i>	Fair value measurements at December 31, 2016					
	Total	Level 1	Level 2	Level 3	NAV <sup>(1)</sup>	
Cash and short-term investments <sup>(2)</sup>	\$ 571	\$ 83	\$ 488	\$ -	\$ -	
Bonds <sup>(3)</sup>						
Canada, U.S. and supranational	1,418	-	1,418	-	-	
Provinces of Canada and municipalities	2,384	-	2,384	-	-	
Corporate	1,475	-	1,475	-	-	
Emerging market debt	509	-	509	-	-	
Mortgages <sup>(4)</sup>	106	-	106	-	-	
Private debt <sup>(5)</sup>	226	-	-	-	226	
Equities <sup>(6)</sup>						
Canadian	1,846	1,670	-	-	176	
U.S.	997	949	-	-	48	
International	3,853	3,853	-	-	-	
Real estate <sup>(7)</sup>	383	-	-	324	59	
Oil and gas <sup>(8)</sup>	1,076	336	18	722	-	
Infrastructure <sup>(9)</sup>	805	-	92	-	713	
Absolute return funds <sup>(10)</sup>						
Multi-strategy	1,005	-	-	-	1,005	
Fixed income	304	-	-	-	304	
Equity	35	-	-	-	35	
Global macro	428	-	-	-	428	
Risk-based allocation <sup>(11)</sup>	311	-	-	-	311	
<b>Total</b>	<b>\$ 17,732</b>	<b>\$ 6,891</b>	<b>\$ 6,490</b>	<b>\$ 1,046</b>	<b>\$ 3,305</b>	
Other <sup>(12)</sup>	99					
<b>Total plan assets</b>	<b>\$ 17,831</b>					

<i>In millions</i>	Fair value measurements at December 31, 2015					
	Total	Level 1	Level 2	Level 3	NAV <sup>(1)</sup>	
Cash and short-term investments <sup>(2)</sup>	\$ 389	\$ 47	\$ 342	\$ -	\$ -	
Bonds <sup>(3)</sup>						
Canada, U.S. and supranational	1,280	-	1,280	-	-	
Provinces of Canada and municipalities	2,611	-	2,611	-	-	
Corporate	911	-	911	-	-	
Emerging market debt	471	-	471	-	-	
Mortgages <sup>(4)</sup>	127	-	127	-	-	
Private debt <sup>(5) (13)</sup>	203	-	-	-	203	
Equities <sup>(6)</sup>						
Canadian <sup>(13)</sup>	1,743	1,532	-	-	211	
U.S.	1,236	1,236	-	-	-	
International	4,315	4,315	-	-	-	
Real estate <sup>(7)</sup>	357	-	-	331	26	
Oil and gas <sup>(8)</sup>	1,012	234	12	766	-	
Infrastructure <sup>(9) (13)</sup>	847	10	102	-	735	
Absolute return funds <sup>(10)</sup>						
Multi-strategy	714	-	-	-	714	
Fixed income	440	-	-	-	440	
Equity	261	-	-	-	261	
Global macro	499	-	-	-	499	
Risk-based allocation <sup>(11)</sup>	422	-	-	-	422	
<b>Total</b>	<b>\$ 17,838</b>	<b>\$ 7,374</b>	<b>\$ 5,856</b>	<b>\$ 1,097</b>	<b>\$ 3,511</b>	
Other <sup>(12)</sup>	79					
<b>Total plan assets</b>	<b>\$ 17,917</b>					

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 table follow on the next page.

## Notes to Consolidated Financial Statements

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

<i>In millions</i>	Fair value measurements based on significant unobservable inputs (Level 3)		
	Real estate <sup>(7)</sup>	Oil and gas <sup>(8)</sup>	Total
Balance at December 31, 2014	\$ 317	\$ 1,008	\$ 1,325
Actual return relating to assets still held at the reporting date	34	(213)	(179)
Purchases	23	-	23
Sales	(3)	-	(3)
Disbursements	(40)	(29)	(69)
Balance at December 31, 2015	\$ 331	\$ 766	\$ 1,097
Actual return relating to assets still held at the reporting date	15	(24)	(9)
Purchases	1	-	1
Disbursements	(23)	(20)	(43)
<b>Balance at December 31, 2016</b>	<b>\$ 324</b>	<b>\$ 722</b>	<b>\$ 1,046</b>

- (1) As a result of the retrospective adoption of ASU 2015-07, investments measured at net asset value as a practical expedient are no longer categorized within the fair value hierarchy. See Note 2 - Recent accounting pronouncements for additional information.
- (2) Cash and short-term investments are valued at cost, which approximates fair value, and are categorized as Level 1 and Level 2 respectively.
- (3) Bonds, excluding emerging market debt funds, are valued using mid-market prices obtained from independent pricing data suppliers. When prices are not available from independent sources, the fair value is based on the present value of future cash flows using current market yields for comparable instruments. Emerging market debt funds are valued based on the net asset value which is readily available and published by each fund's independent administrator. All bonds are categorized as Level 2.
- (4) The fair value of \$106 million (2015 - \$127 million) of mortgages categorized as Level 2 is based on the present value of future net cash flows using current market yields for comparable instruments.
- (5) Private debt investments of \$226 million (2015 - \$203 million) are based on the net asset value as reported by each fund's manager, generally using a discounted cash flow analysis.
- (6) The fair value of equity investments categorized as Level 1 is based on quoted prices in active markets for identical assets. The fair value of \$176 million (2015 - \$211 million) of Canadian equity investments categorized as NAV consist mainly of investments in energy related private equity funds and is based on the net asset value as reported by each fund's manager. The fair value of \$48 million (2015 - \$nil) of U.S. equity investments categorized as NAV consist of an investment in a U.S. private equity fund and is based on the net asset value as reported by the fund's manager.
- (7) The fair value of real estate investments of \$324 million (2015 - \$331 million) includes land and buildings net of related mortgage debt of \$nil (2015 - \$4 million) and is categorized as Level 3. Land is valued based on the fair value of comparable assets, and buildings are valued based on the present value of estimated future net cash flows or the fair value of comparable assets. Independent valuations of land and buildings are performed triennially on a rotational basis. Mortgage debt is valued based on the present value of future cash flows using current market yields for comparable instruments. The fair value of investments of \$59 million (2015 - \$26 million) in real estate private equity funds is based on the net asset value as reported by each fund's manager, generally using a discounted cash flow analysis or earnings multiples.
- (8) Oil and gas investments categorized as Level 1 are valued based on quoted prices in active markets. Investments in oil and gas equities traded on a secondary market are valued based on the most recent transaction price and are categorized as Level 2. Investments of \$722 million (2015 - \$766 million) categorized as Level 3 consist of operating oil and gas properties and the fair value is based on estimated future net cash flows that are discounted using prevailing market rates for transactions in similar assets. The future net cash flows are based on forecasted oil and gas prices and projected future annual production and costs.
- (9) Infrastructure investments of \$nil (2015 - \$10 million) categorized as Level 1 are valued based on quoted prices in active markets for identical assets, \$92 million (2015 - \$102 million) of term loans and notes of infrastructure companies categorized as Level 2 are valued based on the present value of future cash flows using current market yields for comparable instruments and \$713 million (2015 - \$735 million) of infrastructure funds categorized as NAV are valued based on the net asset value as reported by each fund's manager, generally using a discounted cash flow analysis or earnings multiples.
- (10) 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.
- (11) Risk-based allocation investments are valued using the net asset value as reported by each fund's independent administrator. All funds have contractual redemption frequencies ranging from daily to annually, and redemption notice periods varying from 5 to 60 days.
- (12) Other consists of operating assets of \$163 million (2015 - \$119 million) and liabilities of \$64 million (2015 - \$40 million) required to administer the Trusts' investment assets and the plans' benefit and funding activities. Such assets are valued at cost and have not been assigned to a fair value category.
- (13) Certain assets in the 2015 comparative figures have been reclassified from infrastructure to private debt and Canadian equities in the amounts of \$203 million and \$187 million, respectively, to conform to the current year's presentation.

## Notes to Consolidated Financial Statements

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

In millions	Year ended December 31,	Pensions		Other postretirement benefits	
		2016	2015	2016	2015
<b>Change in benefit obligation</b>					
Projected benefit obligation at beginning of year		\$ 17,081	\$ 17,279	\$ 269	\$ 267
Amendments		-	1	-	-
Interest cost		543	650	8	10
Actuarial loss (gain) on projected benefit obligation		614	(112)	10	(8)
Current service cost		124	152	2	3
Plan participants' contributions		53	58	-	-
Foreign currency changes		(10)	55	(2)	14
Benefit payments, settlements and transfers		(1,039)	(1,002)	(17)	(17)
<i>Projected benefit obligation at end of year</i> <sup>(1)</sup>		\$ 17,366	\$ 17,081	\$ 270	\$ 269
Component representing future salary increases		(328)	(334)	-	-
<i>Accumulated benefit obligation at end of year</i>		\$ 17,038	\$ 16,747	\$ 270	\$ 269
<b>Change in plan assets</b>					
Fair value of plan assets at beginning of year		\$ 17,917	\$ 17,761	\$ -	\$ -
Employer contributions		144	108	-	-
Plan participants' contributions		53	58	-	-
Foreign currency changes		(5)	34	-	-
Actual return on plan assets		761	958	-	-
Benefit payments, settlements and transfers		(1,039)	(1,002)	-	-
<i>Fair value of plan assets at end of year</i> <sup>(1)</sup>		\$ 17,831	\$ 17,917	\$ -	\$ -
<i>Funded status - Excess (deficiency) of fair value of plan assets over projected benefit obligation at end of year</i>					
		\$ 465	\$ 836	\$ (270)	\$ (269)

(1) For the CN Pension Plan, as at December 31, 2016, the projected benefit obligation was \$16,078 million (2015 - \$15,794) and the fair value of plan assets was \$16,933 million (2015 - \$17,038 million). The measurement date of all plans is December 31.

### Amounts recognized in the Consolidated Balance Sheets

In millions	December 31,	Pensions		Other postretirement benefits	
		2016	2015	2016	2015
Noncurrent assets - Pension asset		\$ 907	\$ 1,305	\$ -	\$ -
Current liabilities (Note 9)		-	-	(18)	(18)
Noncurrent liabilities - Pension and other postretirement benefits		(442)	(469)	(252)	(251)
<i>Total amount recognized</i>		\$ 465	\$ 836	\$ (270)	\$ (269)

### Amounts recognized in Accumulated other comprehensive loss (Note 15)

In millions	December 31,	Pensions		Other postretirement benefits	
		2016	2015	2016	2015
Net actuarial gain (loss) <sup>(1)</sup>		\$ (2,888)	\$ (2,204)	\$ 6	\$ 21
Prior service cost <sup>(2)</sup>		\$ (14)	\$ (17)	\$ (2)	\$ (4)

(1) In 2017, the net actuarial loss for defined benefit pension plans and net actuarial gain for other postretirement benefits that will be amortized from Accumulated other comprehensive loss into net periodic benefit cost (income) are estimated to be \$189 million and \$4 million, respectively.

(2) In 2017, the prior service cost for defined benefit pension plans and other postretirement benefits that will be amortized from Accumulated other comprehensive loss into net periodic benefit cost (income) are estimated to be \$4 million and \$1 million, respectively.

## Notes to Consolidated Financial Statements

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

In millions	December 31,	Pensions		Other postretirement benefits	
		2016	2015	2016	2015
Projected benefit obligation		\$ 637	\$ 743	N/A	N/A
Accumulated benefit obligation		\$ 574	\$ 656	N/A	N/A
Fair value of plan assets		\$ 207	\$ 274	N/A	N/A

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

In millions	Year ended December 31,	Pensions			Other postretirement benefits		
		2016	2015	2014	2016	2015	2014
Current service cost		\$ 124	\$ 152	\$ 132	\$ 2	\$ 3	\$ 2
Interest cost		543	650	711	8	10	12
Settlement loss		10	4	3	-	-	-
Expected return on plan assets		(1,018)	(1,004)	(978)	-	-	-
Amortization of prior service cost		3	4	4	2	1	2
Amortization of net actuarial loss (gain)		177	228	124	(5)	(4)	(4)
<b>Net periodic benefit cost (income)</b>		<b>\$ (161)</b>	<b>\$ 34</b>	<b>\$ (4)</b>	<b>\$ 7</b>	<b>\$ 10</b>	<b>\$ 12</b>

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

	December 31,	Pensions			Other postretirement benefits		
		2016	2015	2014	2016	2015	2014
<b>To determine projected benefit obligation</b>							
Discount rate <sup>(1)</sup>		3.81%	3.99%	3.87%	3.96%	4.14%	3.86%
Rate of compensation increase <sup>(2)</sup>		2.75%	2.75%	3.00%	2.75%	2.75%	3.00%
<b>To determine net periodic benefit cost (income)</b>							
Rate to determine current service cost <sup>(3)</sup>		4.24%	3.87%	4.73%	4.59%	3.86%	4.69%
Rate to determine interest cost <sup>(3)</sup>		3.27%	3.87%	4.73%	3.35%	3.86%	4.69%
Rate of compensation increase <sup>(2)</sup>		2.75%	3.00%	3.00%	2.75%	3.00%	3.00%
Expected return on plan assets <sup>(4)</sup>		7.00%	7.00%	7.00%	N/A	N/A	N/A

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

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

(3) In 2015 and prior years, current service cost and interest cost were determined using the discount rate used to measure the projected benefit obligation at the beginning of the period. Beginning in 2016, as described in the "Adoption of the spot rate approach" section of this Note, the Company adopted the spot rate approach to measure current service cost and interest cost for all defined benefit pension and other postretirement benefit plans.

(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 2016, the Company used a long-term rate of return assumption of 7.00% on the market-related value of plan assets to compute net periodic benefit cost (income). The Company has elected to use a market-related value of assets, whereby realized and unrealized gains/losses and appreciation/depreciation in the value of the investments are recognized over a period of five years, while investment income is recognized immediately. In 2017, the Company will maintain the expected long-term rate of return on plan assets at 7.00% to reflect management's current view of long-term investment returns.

## Notes to Consolidated Financial Statements

### Expected future benefit payments

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

<i>In millions</i>	Pensions	Other postretirement benefits
2017	\$ 1,032	\$ 18
2018	\$ 1,038	\$ 18
2019	\$ 1,045	\$ 18
2020	\$ 1,049	\$ 18
2021	\$ 1,052	\$ 17
Years 2022 to 2026	\$ 5,215	\$ 81

### 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 certain U.S. based employees. The Company's contributions under these plans were expensed as incurred and, in 2016, amounted to \$18 million (2015 - \$18 million; 2014 - \$16 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 \$12 million in 2016 (2015 - \$10 million; 2014 - \$10 million). The annual contribution rate for the plan was \$178.45 per month per active employee for 2016 (2015 - \$140.54). The plan covered 416 retirees in 2016 (2015 - 777 retirees).

### Adoption of the spot rate approach

In 2016, the Company adopted the spot rate approach to measure current service cost and interest cost for all defined benefit pension and other postretirement benefit plans on a prospective basis as a change in accounting estimate. In 2015 and in prior years, these costs were determined using the discount rate used to measure the projected benefit obligation at the beginning of the period.

The spot rate approach enhances the precision to which current service cost and interest cost are measured by increasing the correlation between projected cash flows and spot discount rates corresponding to their maturity. 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 for current service cost at the relevant maturity. More specifically, current service cost is measured using the cash flows related to benefits expected to be accrued in the following year by active members of a plan and interest cost is measured using the projected cash flows making up the projected benefit obligation multiplied by the corresponding spot discount rate at each maturity. Use of the spot rate approach does not affect the measurement of the projected benefit obligation.

Based on bond yields prevailing at December 31, 2015, the single equivalent discount rates used to determine current service cost and interest cost under the spot rate approach in 2016 were 4.24% and 3.27%, respectively, compared to 3.99% for both costs under the approach applicable to 2015 and prior years. For 2016, the Company estimates the adoption of the spot rate approach increased net periodic benefit income by approximately \$130 million compared to the approach applicable in 2015 and prior years.

Based on bond yields prevailing at December 31, 2016, the single equivalent discount rates used to determine current service cost and interest cost under the spot rate approach in 2017 are 4.11% and 3.15%, respectively.

## 13 – 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

<i>In millions</i>	<i>December 31,</i>	<b>2016</b>	2015	2014
Issued common shares		<b>763.8</b>	788.6	809.4
Common shares in Share Trusts		<b>(1.8)</b>	(1.4)	-
<b><i>Outstanding common shares</i></b>		<b>762.0</b>	787.2	809.4

### Share repurchase programs

The Company may repurchase shares pursuant to a normal course issuer bid (NCIB) at prevailing market prices plus brokerage fees, or such other prices as may be permitted by the Toronto Stock Exchange. Under its current NCIB, the Company may repurchase up to 33.0 million common shares between October 30, 2016 and October 29, 2017. As at December 31, 2016, the Company had repurchased 3.5 million common shares under its current program.

The following table provides the information related to the share repurchase programs for the years ended December 31, 2016, 2015 and 2014:

<i>In millions, except per share data</i>	<i>Year ended December 31,</i>	<b>2016</b>	2015	2014
Number of common shares repurchased <sup>(1)</sup>		<b>26.4</b>	23.3	22.4
Weighted-average price per share <sup>(2)</sup>	\$	<b>75.85</b>	\$ 75.20	\$ 67.38
Amount of repurchase <sup>(3)</sup>	\$	<b>2,000</b>	\$ 1,750	\$ 1,505

(1) Includes repurchases of common shares in each quarter of 2016 and the first, third and fourth quarters of 2015, and the first and fourth quarters of 2014 pursuant to private agreements between the Company and arm's-length third-party sellers.

(2) Includes brokerage fees where applicable.

(3) Includes settlements in subsequent periods.

### Share purchases by Share Trusts

In 2014, the Company established Share Trusts to purchase common shares on the open market, which will be used to deliver common shares under the Share Units Plan (see Note 14 – Stock-based compensation). Shares purchased by the Share Trusts are retained until the Company instructs the trustee to transfer shares to participants of the Share Units Plan. 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. In 2017, the Share Trusts could purchase up to 0.9 million common shares on the open market in anticipation of future settlements of equity settled PSU awards.

For the year ended December 31, 2016, the Share Trusts disbursed 0.3 million common shares, which had a historical cost of \$23 million, representing a weighted-average price per share of \$73.31, for settlement under the Share Units Plan, and purchased 0.7 million common shares for \$60 million at a weighted-average price per share of \$84.99, including brokerage fees.

For the year ended December 31, 2015, the Share Trusts purchased 1.4 million common shares for \$100 million at a weighted-average price per share of \$73.31, including brokerage fees.

### 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. It also includes the impact of the modification of certain cash settled awards to equity settled awards, which represents the fair value of cash settled stock-based compensation awards modified in 2014 to settle in common shares of the Company and consists of \$132 million, \$60 million and \$17 million related DSUs, PSUs and other plans, respectively (see Note 14 – Stock-based compensation). Upon the exercise or settlement of equity settled awards, the stock-based compensation expense related to those awards is reclassified from Additional paid-in capital to Common shares.

## 14 – Stock-based compensation

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

The following table provides the stock-based compensation expense for awards under all plans, as well as the related tax benefit and excess tax benefit recognized in income, for the years ended December 31, 2016, 2015 and 2014:

<i>In millions</i>	<i>Year ended December 31,</i>		
	<b>2016</b>	2015	2014
<b>Share Units Plan</b>			
Equity settled awards	\$ 42	\$ 39	\$ 2
Cash settled awards	16	14	117
<i>Total Share Units Plan expense</i>	\$ 58	\$ 53	\$ 119
<b>Voluntary Incentive Deferral Plan (VIDP)</b>			
Equity settled awards	\$ 1	\$ -	\$ -
Cash settled awards	5	(3)	33
<i>Total VIDP expense (recovery)</i>	\$ 6	\$ (3)	\$ 33
<b>Stock option awards</b>	\$ 12	\$ 11	\$ 9
<i>Total stock-based compensation expense</i>	\$ 76	\$ 61	\$ 161
Tax benefit recognized in income	\$ 17	\$ 14	\$ 43
Excess tax benefit recognized in income <sup>(1)</sup>	\$ 5	N/A	N/A

(1) Effective January 1, 2016, the excess tax benefit is recognized in income in accordance with ASU 2016-09.

**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.

The PSU-ROIC awards vest dependent upon the attainment of a target relating to return on invested capital (ROIC) over the plan period of three years. Such performance vesting criteria results in a performance vesting factor that ranges from 0% to 200% for PSU-ROIC awards granted in 2016 and 2015 (0% to 150% for PSUs-ROIC outstanding and granted prior to December 31, 2014) depending on the level of ROIC attained. Payout is conditional upon the attainment of a minimum share price, calculated using the average of the last three months of the plan period.

PSU-TSR awards, introduced in 2015, vest from 0% to 200%, subject to the attainment of a total shareholder return (TSR) market condition over the plan period of three years based on the Company's TSR relative to a Class I Railways peer group and components of the S&P/TSX 60 Index.

On December 9, 2014, 0.5 million cash settled PSUs-ROIC granted in 2013 and 0.4 million cash settled PSUs-ROIC granted in 2014 were modified to equity settled awards. The modification affected PSUs-ROIC held by 133 employees and did not result in the recognition of incremental compensation cost as the awards were previously recognized at fair value. Further, there was no change to the vesting conditions of the awards.

**Equity settled awards**

PSUs-ROIC and PSUs-TSR are settled in common shares of the Company, subject to the attainment of their respective vesting conditions, by way of disbursement from the Share Trusts (see Note 13 – Share capital). The number of shares remitted to the participant upon settlement is equal to the number of PSUs awarded multiplied by the performance vesting factor less shares withheld to satisfy the participant's minimum statutory withholding tax requirement. For the plan period ended December 31, 2016, for the 2014 grant, the level of ROIC attained resulted in a performance vesting factor of 150%. The total fair value of the equity settled awards that vested in 2016 was \$41 million (2015 - \$48 million). As the minimum share price condition under the plan was met at December 31, 2016, net settlement of approximately 0.3 million shares from the Share Trusts is expected to occur in the first quarter of 2017.

**Cash settled awards**

The value of the payout is equal to the number of PSUs-ROIC awarded multiplied by the performance vesting factor and by the 20-day average closing share price ending on January 31 of the following year. For the plan period ended December 31, 2016, for the 2014 grant, the level of ROIC attained resulted in a performance vesting factor of 150%. The total fair value of the cash settled awards that vested in 2016 was \$45 million (2015 - \$39 million; 2014 - \$106 million). As the minimum share price condition under the plan was met at December 31, 2016, payout of approximately \$45 million is expected to be paid in the first quarter of 2017.

## Notes to Consolidated Financial Statements

In 2016 and 2015, there were no cash settled PSU-ROIC awards granted. In 2014, the Company granted 0.8 million PSU-ROIC awards to designated management employees entitling them to receive payout in cash based on the Company's share price. These awards were then subject to modification resulting in 0.4 million PSU-ROIC awards granted in 2014 to be settled in common shares of the Company.

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

	Equity settled				Cash settled
	PSUs-ROIC <sup>(1)</sup>		PSUs-TSR <sup>(2)</sup>		PSUs-ROIC <sup>(3)</sup>
	Units	Weighted-average grant date fair value	Units	Weighted-average grant date fair value	Units
	<i>In millions</i>		<i>In millions</i>		<i>In millions</i>
Outstanding at December 31, 2015	1.3	\$ 64.36	0.1	\$ 114.86	0.7
Granted	0.5	\$ 35.11	0.2	\$ 95.31	-
Settled <sup>(4) (5)</sup>	(0.5)	\$ 75.15	-	N/A	(0.3)
<b>Outstanding at December 31, 2016</b>	<b>1.3</b>	<b>\$ 49.82</b>	<b>0.3</b>	<b>\$ 103.93</b>	<b>0.4</b>
Nonvested at December 31, 2015	0.8	\$ 58.83	0.1	\$ 114.86	0.4
Granted	0.5	\$ 35.11	0.2	\$ 95.31	-
Vested during the year <sup>(6)</sup>	(0.4)	\$ 66.84	-	N/A	(0.4)
<b>Nonvested at December 31, 2016</b>	<b>0.9</b>	<b>\$ 42.14</b>	<b>0.3</b>	<b>\$ 103.93</b>	<b>-</b>

- (1) The grant date fair value of equity settled PSUs-ROIC granted in 2016 of \$19 million is calculated using a lattice-based valuation model. As at December 31, 2016, total unrecognized compensation cost related to nonvested equity settled PSUs-ROIC outstanding was \$15 million and is expected to be recognized over a weighted-average period of 1.5 years.
- (2) The grant date fair value of equity settled PSUs-TSR granted in 2016 of \$17 million is calculated using a Monte Carlo simulation model. As at December 31, 2016, total unrecognized compensation cost related to nonvested equity settled PSUs-TSR outstanding was \$10 million and is expected to be recognized over a weighted-average period of 1.5 years.
- (3) The fair value as at December 31, 2016 of cash settled PSUs-ROIC outstanding is calculated using a lattice-based valuation model. As at December 31, 2016, fair value per unit of vested cash settled PSUs-ROIC was \$90.36, and the liability for cash settled PSUs-ROIC was \$45 million (2015 - \$66 million).
- (4) Equity settled PSUs-ROIC granted in 2013 met the minimum share price condition for settlement and attained a performance vesting factor of 150%. In the first quarter of 2016, these awards were settled, net of the remittance of the participants' minimum statutory withholding tax obligation of \$25 million, by way of disbursement from the Share Trusts of 0.3 million common shares.
- (5) Cash settled PSUs-ROIC granted in 2013 met the minimum share price condition for payout and attained a performance vesting factor of 150%. In the first quarter of 2016, the Company paid out \$37 million for these awards.
- (6) The awards that vested during the year are expected to be settled or paid out in the first quarter of 2017.

The following table provides the assumptions and fair values related to the PSU-ROIC awards:

Year of grant	Equity settled		
	PSUs-ROIC <sup>(1)</sup>		
	2016	2015	2014
<b>Assumptions</b>			
Stock price (\$) <sup>(2)</sup>	74.17	84.55	76.29
Expected stock price volatility <sup>(3)</sup>	19%	15%	15%
Expected term (years) <sup>(4)</sup>	3.0	3.0	2.0
Risk-free interest rate <sup>(5)</sup>	0.43%	0.45%	1.02%
Dividend rate (\$) <sup>(6)</sup>	1.50	1.25	1.00
<b>Weighted-average grant date fair value (\$)</b>	<b>35.11</b>	<b>50.87</b>	<b>66.84</b>

- (1) Assumptions used to determine fair value of the equity settled PSU-ROIC awards are on the grant date.
- (2) For equity settled awards, the stock price represents the closing share price on the grant date. The stock price on the grant date for 2014 is the stock price at the modification date of December 9, 2014.
- (3) Based on the historical volatility of the Company's stock over a period commensurate with the expected term of the award.
- (4) Represents the period of time that awards are expected to be outstanding.
- (5) Based on the implied yield available on zero-coupon government issues with an equivalent term commensurate with the expected term of the awards.
- (6) Based on the annualized dividend rate.

### Voluntary Incentive Deferral Plan

The Company's Voluntary Incentive Deferral Plan (VIDP) provides eligible senior management employees the opportunity to elect to receive their annual incentive bonus payment in deferred share units (DSU) of the Company 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. For equity settled DSUs, the number of DSUs received by each participant is established at time of deferral. For cash settled DSUs, the number of DSUs received by each participant is calculated using the Company's average closing share price for the 20 trading days prior to and including the date of the incentive payment. 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.

On December 9, 2014, 1.7 million cash settled DSUs were modified to equity settled awards. The modification affected DSUs held by 104 employees and did not result in the recognition of incremental compensation cost as the awards were previously recognized at fair value. Further, there was no change to the vesting conditions of the awards.

### 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 minimum statutory withholding tax requirement.

The total fair value of equity settled DSU awards vested in both 2016 and 2015 was \$1 million.

### Cash settled awards

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

The total fair value of cash settled DSU awards vested in 2016, 2015 and 2014 was \$nil.

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

	Equity settled		Cash settled
	DSUs <sup>(1)</sup>		DSUs <sup>(2)</sup>
	Units	Weighted-average grant date fair value	Units
	<i>In millions</i>		<i>In millions</i>
Outstanding at December 31, 2015	1.8	\$ 76.44	0.4
Granted	-	\$ 73.63	-
Vested	-	\$ 81.71	-
Settled <sup>(3)</sup>	(0.3)	\$ 76.35	(0.1)
<b>Outstanding at December 31, 2016 <sup>(4)</sup></b>	<b>1.5</b>	<b>\$ 76.54</b>	<b>0.3</b>

(1) The grant date fair value of equity settled DSUs granted in 2016 of \$2 million is calculated using the Company's stock price on the grant date. As at December 31, 2016, the aggregate intrinsic value of equity settled DSUs outstanding amounted to \$133 million.

(2) The fair value at December 31, 2016 of cash settled DSUs is based on the intrinsic value. As at December 31, 2016 the liability for cash settled DSUs was \$35 million (\$36 million as at December 31, 2015). The closing stock price used to determine the liability was \$90.36.

(3) For the year ended December 31, 2016, the Company purchased 0.2 million common shares for the settlement of equity settled DSUs, net of the remittance of the participants' minimum statutory withholding tax obligation of \$16 million.

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

## Notes to Consolidated Financial Statements

### Stock option awards

The Company has stock option plans 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 date of granting. 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. Options are not generally exercisable during the first 12 months after the date of grant and expire after 10 years. As at December 31, 2016, 17.2 million common shares remained authorized for future issuances under these plans.

During the year ended December 31, 2016, the Company granted 1.2 million (2015 - 0.9 million; 2014 - 1.0 million) stock options.

As at December 31, 2016, the total number of conventional options outstanding was 5.3 million.

The following table provides the activity of stock option awards during 2016, and for options outstanding and exercisable at December 31, 2016, the weighted-average exercise price:

	Options outstanding		Nonvested options	
	Number of options	Weighted-average exercise price	Number of options	Weighted-average grant date fair value
	<i>In millions</i>		<i>In millions</i>	
Outstanding at December 31, 2015 <sup>(1)</sup>	5.9	\$ 53.43	2.3	\$ 10.94
Granted <sup>(2)</sup>	1.2	\$ 75.16	1.2	\$ 10.57
Forfeited/Cancelled	(0.2)	\$ 70.92	(0.2)	\$ 10.62
Exercised <sup>(3)</sup>	(1.6)	\$ 37.65	N/A	N/A
Vested <sup>(4)</sup>	N/A	N/A	(0.9)	\$ 9.98
<b>Outstanding at December 31, 2016 <sup>(1)</sup></b>	<b>5.3</b>	<b>\$ 61.07</b>	<b>2.4</b>	<b>\$ 11.16</b>
<b>Exercisable at December 31, 2016 <sup>(1)</sup></b>	<b>2.9</b>	<b>\$ 49.91</b>	<b>N/A</b>	<b>N/A</b>

(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 awarded in 2016 of \$13 million is calculated using the Black-Scholes option-pricing model. As at December 31, 2016, total unrecognized compensation cost related to nonvested options outstanding was \$8 million and is expected to be recognized over a weighted-average period of 2.1 years.

(3) The total intrinsic value of options exercised in 2016 was \$73 million (2015 - \$127 million; 2014 - \$50 million). The cash received upon exercise of options in 2016 was \$61 million (2015 - \$74 million; 2014 - \$25 million) and the related excess tax benefit realized in 2016, 2015 and 2014 was \$5 million.

(4) The grant date fair value of options vested in 2016 was \$10 million (2015 - \$9 million; 2014 - \$9 million).

The following table provides the number of stock options outstanding and exercisable as at December 31, 2016 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, 2016 at the Company's closing stock price of \$90.36.

Range of exercise prices	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	
	<i>In millions</i>			<i>In millions</i>	<i>In millions</i>		<i>In millions</i>	
\$ 20.95 - \$ 32.28	0.5	2.1	\$ 24.54	\$ 30	0.5	\$ 24.54	\$ 30	
\$ 32.29 - \$ 49.84	1.1	4.7	\$ 42.73	51	1.0	\$ 42.34	48	
\$ 49.85 - \$ 67.12	1.3	5.9	\$ 57.56	43	1.0	\$ 56.54	34	
\$ 67.13 - \$ 74.00	1.1	8.2	\$ 70.93	23	0.2	\$ 71.08	4	
\$ 74.01 - \$ 92.77	1.3	8.5	\$ 83.82	9	0.2	\$ 87.80	1	
<b>Balance at December 31, 2016 <sup>(1)</sup></b>	<b>5.3</b>	<b>6.5</b>	<b>\$ 61.07</b>	<b>\$ 156</b>	<b>2.9</b>	<b>\$ 49.91</b>	<b>\$ 117</b>	

(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. As at December 31, 2016, substantially all of the stock options outstanding were in-the-money. The weighted-average years to expiration of exercisable stock options was 5 years.

## Notes to Consolidated Financial Statements

The following table provides the assumptions used in the valuation of stock option awards:

<i>Year of grant</i>	2016	2015	2014
<b>Assumptions</b>			
Grant price (\$)	75.16	84.47	58.74
Expected stock price volatility <sup>(1)</sup>	20%	20%	23%
Expected term (years) <sup>(2)</sup>	5.5	5.5	5.4
Risk-free interest rate <sup>(3)</sup>	0.76%	0.78%	1.51%
Dividend rate (\$) <sup>(4)</sup>	1.50	1.25	1.00
<b>Weighted-average grant date fair value (\$)</b>	<b>10.57</b>	<b>13.21</b>	<b>11.09</b>

(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.

### Stock price volatility

Compensation cost for the Company's cash settled Share Units Plan is based on the fair value of the awards at each period end using the lattice-based valuation model for which a primary assumption is the Company's share price. In addition, the Company's liability for the cash settled VIDP is marked-to-market at each period-end and, as such, is also reliant on 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. A \$1 change in the Company's share price at December 31, 2016 would have an impact of approximately \$1 million on stock-based compensation expense.

### Employee Share Investment Plan

The Company has an Employee Share Investment Plan (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.

The following table provides the number of participants holding shares, the total number of ESIP shares purchased on behalf of employees, including the Company's contributions, as well as the resulting expense recorded for the years ended December 31, 2016, 2015 and 2014:

	<i>Year ended December 31,</i>		
	2016	2015	2014
Number of participants holding shares	19,108	19,728	18,488
Total number of ESIP shares purchased on behalf of employees (millions)	1.9	2.0	2.1
Expense for Company contribution (millions)	\$ 37	\$ 38	\$ 34

## 15 - Accumulated other comprehensive loss

<i>In millions</i>	Foreign currency translation adjustments	Pension and other postretirement benefit plans	Derivative instruments	Total before tax	Income tax recovery (expense)	Total net of tax
Balance at December 31, 2013	\$ (533)	\$ (1,515)	\$ 8	\$ (2,040)	\$ 190	\$ (1,850)
Other comprehensive income (loss) before reclassifications:						
Foreign exchange gain on translation of net investment in foreign operations	644			644	4	648
Foreign exchange loss on translation of US dollar- denominated debt designated as a hedge of the net investment in U.S. subsidiaries	(569)			(569)	73	(496)
Actuarial loss arising during the year		(1,120)		(1,120)	301	(819)
Prior service cost from plan amendment arising during the year		(4)		(4)	1	(3)
Amounts reclassified from Accumulated other comprehensive loss:						
Amortization of net actuarial loss		120		120 <sup>(1)</sup>	(32) <sup>(2)</sup>	88
Amortization of prior service costs		6		6 <sup>(1)</sup>	(2) <sup>(2)</sup>	4
Settlement loss arising during the year		3		3 <sup>(1)</sup>	(1) <sup>(2)</sup>	2
Amortization of gain on treasury lock			(1)	(1) <sup>(3)</sup>	-	(1)
<b><i>Other comprehensive income (loss)</i></b>	<b>75</b>	<b>(995)</b>	<b>(1)</b>	<b>(921)</b>	<b>344</b>	<b>(577)</b>
Balance at December 31, 2014	\$ (458)	\$ (2,510)	\$ 7	\$ (2,961)	\$ 534	\$ (2,427)
Other comprehensive income (loss) before reclassifications:						
Foreign exchange gain on translation of net investment in foreign operations	1,607			1,607	-	1,607
Foreign exchange loss on translation of US dollar- denominated debt designated as a hedge of the net investment in U.S. subsidiaries	(1,358)			(1,358)	181	(1,177)
Actuarial gain arising during the year		74		74	(18)	56
Prior service cost from plan amendment arising during the year		(1)		(1)	-	(1)
Amounts reclassified from Accumulated other comprehensive loss:						
Amortization of net actuarial loss		224		224 <sup>(1)</sup>	(56) <sup>(2)</sup>	168
Amortization of prior service costs		5		5 <sup>(1)</sup>	(1) <sup>(2)</sup>	4
Settlement loss arising during the year		4		4 <sup>(1)</sup>	(1) <sup>(2)</sup>	3
<b><i>Other comprehensive income</i></b>	<b>249</b>	<b>306</b>	<b>-</b>	<b>555</b>	<b>105</b>	<b>660</b>
<b><i>Balance at December 31, 2015</i></b>	<b>\$ (209)</b>	<b>\$ (2,204)</b>	<b>\$ 7</b>	<b>\$ (2,406)</b>	<b>\$ 639</b>	<b>\$ (1,767)</b>

(1) Reclassified to Labor and fringe benefits in the Consolidated Statements of Income and included in components of net periodic benefit cost. See Note 12 - Pensions and other postretirement benefits.

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

(3) Related to treasury lock transactions settled in prior years, which are being amortized over the terms of the related debt to Interest expense on the Consolidated Statements of Income.

## Notes to Consolidated Financial Statements

<i>In millions</i>	Foreign currency translation adjustments	Pension and other postretirement benefit plans	Derivative instruments	Total before tax	Income tax recovery (expense)	Total net of tax
Balance at December 31, 2015	\$ (209)	\$ (2,204)	\$ 7	\$ (2,406)	\$ 639	\$ (1,767)
Other comprehensive income (loss) before reclassifications:						
Foreign exchange loss on translation of net investment in foreign operations	(310)			(310)	-	(310)
Foreign exchange gain on translation of US dollar- denominated debt designated as a hedge of the net investment in U.S. subsidiaries	265			265	(35)	230
Actuarial loss arising during the year		(881)		(881)	235	(646)
Amounts reclassified from Accumulated other comprehensive loss:						
Amortization of net actuarial loss		172		172 <sup>(1)</sup>	(47) <sup>(2)</sup>	125
Amortization of prior service costs		5		5 <sup>(1)</sup>	(1) <sup>(2)</sup>	4
Settlement loss arising during the year		10		10 <sup>(1)</sup>	(4) <sup>(2)</sup>	6
<i>Other comprehensive income (loss)</i>	(45)	(694)	-	(739)	148	(591)
<b>Balance at December 31, 2016</b>	<b>\$ (254)</b>	<b>\$ (2,898)</b>	<b>\$ 7</b>	<b>\$ (3,145)</b>	<b>\$ 787</b>	<b>\$ (2,358)</b>

(1) Reclassified to Labor and fringe benefits in the Consolidated Statements of Income and included in components of net periodic benefit cost. See Note 12 - Pensions and other postretirement benefits.

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

## 16 – Major commitments and contingencies

### Lease commitments

The Company has operating and capital leases, mainly for locomotives, freight cars and intermodal equipment. Of the capital leases, many provide the option to purchase the leased items at fixed values during or at the end of the lease term. As at December 31, 2016, the Company's commitments under these operating and capital leases were \$629 million and \$439 million, respectively. Future minimum rental payments for operating leases having initial non-cancelable lease terms of more than one year and minimum lease payments for capital leases for the next five years and thereafter, are as follows:

<i>In millions</i>	Operating	Capital
2017	\$ 140	\$ 224
2018	126	24
2019	96	17
2020	66	22
2021	48	12
2022 and thereafter	153	140
<b>Total</b>	<b>\$ 629</b>	<b>439</b>
<i>Less: Imputed interest on capital leases at rates ranging from approximately 0.7% to 6.8%</i>		95
<b>Present value of minimum lease payments included in debt (Note 10)</b>		<b>\$ 344</b>

Rental expense for operating leases for the year ended December 31, 2016 was \$197 million (2015 - \$204 million; 2014 - \$201 million).

## Notes to Consolidated Financial Statements

### Purchase commitments

As at December 31, 2016, the Company had commitments to purchase railroad ties, rail, freight cars, fuel, and other equipment and services, as well as outstanding information technology service contracts and licenses, at an aggregate cost of \$1,115 million.

### Contingencies

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

### Canada

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

In 2016, the Company recorded a decrease of \$11 million to its provision for personal injuries and other claims in Canada as a result of an actuarial valuation for employee injury claims as well as various other legal claims. In 2015 and 2014, actuarial valuations resulted in a decrease of \$12 million and \$2 million, respectively.

As at December 31, 2016, 2015 and 2014, the Company's provision for personal injury and other claims in Canada was as follows:

<i>In millions</i>	2016	2015	2014
Beginning of year	\$ 191	\$ 203	\$ 210
Accruals and other	24	17	28
Payments	(32)	(29)	(35)
<i>End of year</i>	\$ 183	\$ 191	\$ 203
Current portion - End of year	\$ 39	\$ 27	\$ 28

### United States

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

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

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

In 2016, the Company recorded an increase of \$21 million to its provision for U.S. personal injury and other claims attributable to occupational disease claims, non-occupational disease claims and third-party claims pursuant to the 2016 actuarial valuation. In 2015 and 2014, actuarial valuations resulted in a decrease of \$5 million and \$20 million, respectively. The prior years' decreases from the 2015 and 2014 actuarial valuations were mainly attributable to non-occupational disease claims, occupational disease claims and third-party claims reflecting a decrease 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.

## Notes to Consolidated Financial Statements

As at December 31, 2016, 2015 and 2014, the Company's provision for personal injury and other claims in the U.S. was as follows:

<i>In millions</i>	2016	2015	2014
Beginning of year	\$ 105	\$ 95	\$ 106
Accruals and other	51	22	2
Payments	(34)	(30)	(22)
Foreign exchange	(4)	18	9
<i>End of year</i>	\$ 118	\$ 105	\$ 95
Current portion - End of year	\$ 37	\$ 24	\$ 20

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, 2016, 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 consolidated 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 has identified approximately 170 sites at which it is or may be liable for remediation costs, in some cases along with other potentially responsible parties, associated with alleged contamination and is subject to environmental clean-up and enforcement actions, including those imposed by the United States Federal *Comprehensive Environmental Response, Compensation and Liability Act* of 1980 (CERCLA), also known as the Superfund law, or analogous state laws. CERCLA and similar state laws, in addition to other similar Canadian and U.S. laws, generally impose joint and several liability for clean-up and enforcement costs on current and former owners and operators of a site, as well as those whose waste is disposed of at the site, without regard to fault or the legality of the original conduct. The Company has been notified that it is a potentially responsible party for study and clean-up costs at 6 sites governed by the Superfund law (and analogous state laws) for which investigation and remediation payments are or will be made or are yet to be determined and, in many instances, is one of several potentially responsible parties.

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.

## Notes to Consolidated Financial Statements

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

As at December 31, 2016, 2015 and 2014, the Company's provision for specific environmental sites was as follows:

<i>In millions</i>	2016	2015	2014
Beginning of year	\$ 110	\$ 114	\$ 119
Accruals and other	6	81	11
Payments	(29)	(91)	(19)
Foreign exchange	(1)	6	3
<i>End of year</i>	\$ 86	\$ 110	\$ 114
Current portion - End of year	\$ 50	\$ 51	\$ 45

The Company anticipates that the majority of the liability at December 31, 2016 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, 2016 amounted to \$19 million (2015 - \$20 million; 2014 - \$20 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 fuelling stations and 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, 2016 amounted to \$15 million (2015 - \$18 million; 2014 - \$19 million).

## Notes to Consolidated Financial Statements

### **Guarantees and indemnifications**

In the normal course of business, the Company, including certain of its subsidiaries, 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, residual value guarantees of operating leases, standby letters of credit, surety and other bonds, and indemnifications that are customary for the type of transaction or for the railway business.

#### **Guarantees**

##### *Guarantee of residual values of operating leases*

The Company has guaranteed a portion of the residual values of certain of its assets under operating leases with expiry dates between 2017 and 2022, for the benefit of the lessor. If the fair value of the assets at the end of their respective lease term is less than the fair value, as estimated at the inception of the lease, then the Company must, under certain conditions, compensate the lessor for the shortfall. As at December 31, 2016, the maximum exposure in respect of these guarantees was \$161 million (2015 - \$200 million). There are no recourse provisions to recover any amounts from third parties.

##### *Other guarantees*

As at December 31, 2016, the Company had outstanding letters of credit of \$451 million (2015 - \$551 million) under the committed bilateral letter of credit facilities and \$68 million (2015 - \$nil) under the uncommitted bilateral letter of credit facilities, and surety and other bonds of \$169 million (2015 - \$120 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, 2016, the maximum potential liability under these guarantee instruments was \$688 million (2015 - \$671 million), of which \$629 million (2015 - \$589 million) related to other employee benefit liabilities and workers' compensation and \$59 million (2015 - \$82 million) related to other liabilities. The guarantee instruments expire at various dates between 2017 and 2019.

As at December 31, 2016, 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, 2016, the Company had not recorded a liability with respect to any indemnifications.

## 17 - Financial instruments

### **Risk management**

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

#### **Foreign currency risk**

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

## Notes to Consolidated Financial Statements

The Company also enters into foreign exchange forward contracts to manage its exposure to foreign currency risk. As at December 31, 2016, the Company had outstanding foreign exchange forward contracts with a notional value of US\$1,035 million (2015 - US\$361 million). Changes in the fair value of foreign exchange forward contracts, resulting from changes in foreign exchange rates, are recognized in Other income in the Consolidated Statements of Income as they occur. For the year ended December 31, 2016, the Company recorded a loss of \$1 million (2015 - gain of \$61 million; 2014 - gain of \$9 million) related to foreign exchange forward contracts. These losses or gains were largely offset by the re-measurement of US dollar-denominated monetary assets and liabilities recognized in Other income. As at December 31, 2016, Other current assets included an unrealized gain of \$19 million (2015 - \$4 million) and Accounts payable and other included an unrealized loss of \$1 million (2015 - \$2 million), related to the fair value of outstanding foreign exchange forward contracts.

### **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 long-term debt. The Company mainly issues fixed-rate debt, which exposes the Company to variability in the fair value of the debt. The Company also issues debt with variable interest rates, which exposes the Company to variability in interest expense.

To manage interest rate risk, the Company manages its borrowings in line with liquidity needs, maturity schedule, and currency and interest rate profile. In anticipation of future debt issuances, the Company may use derivative instruments such as forward rate agreements. The Company does not currently hold any significant derivative instruments to manage its interest rate risk. As at December 31, 2016, Accumulated other comprehensive loss included an unamortized gain of \$7 million (2015 - \$7 million) relating to treasury lock transactions settled in a prior year, which is being amortized over the term of the related debt.

### **Fair value of financial instruments**

The following table provides the valuation methods and assumptions used by the Company to estimate the fair value of financial instruments and their associated level within the fair value hierarchy:

<b>Level 1</b> <b>Quoted prices for identical instruments in active markets</b>	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.
<b>Level 2</b> <b>Significant inputs (other than quoted prices included in Level 1) are observable</b>	<p>The carrying amounts of Accounts receivable, Other current assets, and Accounts payable and other approximate fair value. The fair value of these financial instruments is not determined using quoted prices, but rather from market observable information. The fair value of derivative financial instruments used to manage the Company's exposure to foreign currency risk and included in Other current assets and Accounts payable and other is measured by discounting future cash flows using a discount rate derived from market data for financial instruments subject to similar risks and maturities.</p> <p>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. As at December 31, 2016, the Company's debt had a carrying amount of \$10,937 million (2015 - \$10,427 million) and a fair value of \$12,084 million (2015 - \$11,720 million).</p>
<b>Level 3</b> <b>Significant inputs are unobservable</b>	The carrying amounts of investments included in Intangible and other assets approximate fair value, with the exception of certain cost investments for which significant inputs are unobservable and fair value is estimated based on the Company's proportionate share of the underlying net assets. As at December 31, 2016, the Company's investments had a carrying amount of \$68 million (2015 - \$69 million) and a fair value of \$220 million (2015 - \$220 million).

## 18 – 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 corporate management, including the Company's 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 corporate management and are communicated to its regional activity centers (the Western Region, Eastern Region and Southern Region). Corporate 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 corporate management, as their management of throughput and control of direct costs does not serve as the platform for the Company's decision-making process. Approximately 95% of the Company's freight revenues are from national accounts for which freight traffic spans North America and touches various commodity groups. As a result, the Company does not manage revenues on a regional basis since a large number of the movements originate in one region and pass through and/or terminate in another region.

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

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

For the years ended December 31, 2016, 2015, and 2014, no major customer accounted for more than 10% of total revenues and the largest rail freight customer represented approximately 3%, 3%, and 2%, respectively, of total annual rail freight revenues.

The following tables provide information by geographic area:

<i>In millions</i>	<i>Year ended December 31,</i>		<b>2016</b>	<b>2015</b>	<b>2014</b>	
<b>Revenues</b>						
Canada	\$	7,971	\$	8,283	\$	8,108
U.S.		4,066		4,328		4,026
<i>Total revenues</i>	\$	12,037	\$	12,611	\$	12,134
<b>Net income</b>						
Canada	\$	2,708	\$	2,469	\$	2,249
U.S.		932		1,069		918
<i>Total net income</i>	\$	3,640	\$	3,538	\$	3,167

<i>In millions</i>	<i>December 31,</i>		<b>2016</b>	<b>2015</b>
<b>Properties</b>				
Canada	\$	17,445	\$	16,737
U.S.		16,310		15,887
<i>Total properties</i>	\$	33,755	\$	32,624