

NORFOLK SOUTHERN CORP  
Form 10-Q  
July 27, 2016  
UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, DC 20549  
FORM 10-Q

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 for the quarterly period ended JUNE 30, 2016

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 for the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission file number 1-8339

NORFOLK SOUTHERN CORPORATION  
(Exact name of registrant as specified in its charter)

Virginia 52-1188014  
(State or other jurisdiction of incorporation) (IRS Employer Identification No.)  
Three Commercial Place  
Norfolk, Virginia 23510-2191  
(Address of principal executive offices) (Zip Code)  
(757) 629-2680  
(Registrant's telephone number, including area code)  
No Change  
(Former name, former address and former fiscal year, if changed since last report)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.  
Yes  No

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).  
Yes  No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.  
Large accelerated filer  Accelerated filer  Non-accelerated filer  Smaller reporting company

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).  
Yes  No

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of the latest practicable date.

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Class	Outstanding at June 30, 2016
Common Stock (\$1.00 par value per share)	293,549,767 (excluding 20,320,777 shares held by the registrant's consolidated subsidiaries)

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## PART I. FINANCIAL INFORMATION

## Item 1. Financial Statements.

Norfolk Southern Corporation and Subsidiaries  
Consolidated Statements of Income  
(Unaudited)

	Second Quarter		First Six Months	
	2016	2015	2016	2015
	(\$ in millions, except per share amounts)			
Railway operating revenues	\$2,454	\$2,713	\$4,874	\$5,280
Railway operating expenses:				
Compensation and benefits	667	724	1,390	1,507
Purchased services and rents	384	438	763	861
Fuel	174	255	323	519
Depreciation	257	247	509	492
Materials and other	202	235	396	481
Total railway operating expenses	1,684	1,899	3,381	3,860
Income from railway operations	770	814	1,493	1,420
Other income – net	4	19	20	40
Interest expense on debt	138	134	277	266
Income before income taxes	636	699	1,236	1,194
Provision for income taxes	231	266	444	451
Net income	\$405	\$433	\$792	\$743
Per share amounts:				
Net income				
Basic	\$1.37	\$1.43	\$2.67	\$2.43
Diluted	1.36	1.41	2.65	2.41
Dividends	0.59	0.59	1.18	1.18

See accompanying notes to consolidated financial statements.

Norfolk Southern Corporation and Subsidiaries  
Consolidated Statements of Comprehensive Income  
(Unaudited)

	Second Quarter		First Six Months	
	2016	2015	2016	2015
	(\$ in millions)			
Net income	\$405	\$433	\$792	\$743
Other comprehensive income, before tax:				
Pension and other postretirement benefits	6	11	13	21
Other comprehensive income (loss) of equity investees	1	—	—	(4 )
Other comprehensive income, before tax	7	11	13	17
Income tax expense related to items of other comprehensive income	(2 )	(5 )	(5 )	(8 )
Other comprehensive income, net of tax	5	6	8	9
Total comprehensive income	\$410	\$439	\$800	\$752

See accompanying notes to consolidated financial statements.

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Norfolk Southern Corporation and Subsidiaries  
Consolidated Balance Sheets  
(Unaudited)

June 30, December 31,  
2016 2015  
(\$ in millions)

Assets

Current assets:

Cash and cash equivalents	\$866	\$ 1,101
Accounts receivable – net	985	946
Materials and supplies	306	271
Other current assets	82	194
Total current assets	2,239	2,512

Investments

Investments	2,639	2,572
Properties less accumulated depreciation of \$11,586 and \$11,478, respectively	29,387	28,992
Other assets	69	63

Total assets \$34,334 \$ 34,139

Liabilities and stockholders' equity

Current liabilities:

Accounts payable	\$1,085	\$ 1,091
Short-term debt	—	200
Income and other taxes	205	203
Other current liabilities	267	237
Current maturities of long-term debt	550	500
Total current liabilities	2,107	2,231

Long-term debt

Long-term debt	9,549	9,393
Other liabilities	1,358	1,385
Deferred income taxes	9,047	8,942
Total liabilities	22,061	21,951

Stockholders' equity:

Common stock \$1.00 per share par value, 1,350,000,000 shares authorized; outstanding 293,549,767 and 297,795,016 shares, respectively, net of treasury shares	295	299
Additional paid-in capital	2,146	2,143
Accumulated other comprehensive loss	(437 )	(445 )
Retained income	10,269	10,191

Total stockholders' equity 12,273 12,188

Total liabilities and stockholders' equity \$34,334 \$ 34,139

See accompanying notes to consolidated financial statements.

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Norfolk Southern Corporation and Subsidiaries  
Consolidated Statements of Cash Flows  
(Unaudited)

	First Six Months	
	2016	2015
	(\$ in millions)	
Cash flows from operating activities:		
Net income	\$792	\$743
Reconciliation of net income to net cash provided by operating activities:		
Depreciation	511	494
Deferred income taxes	101	35
Gains and losses on properties	(7 )	(18 )
Changes in assets and liabilities affecting operations:		
Accounts receivable	(17 )	—
Materials and supplies	(35 )	(41 )
Other current assets	103	282
Current liabilities other than debt	25	27
Other – net	(41 )	(21 )
Net cash provided by operating activities	1,432	1,501
Cash flows from investing activities:		
Property additions	(932 )	(886 )
Property sales and other transactions	40	32
Investment purchases	(23 )	(3 )
Investment sales and other transactions	3	5
Net cash used in investing activities	(912 )	(852 )
Cash flows from financing activities:		
Dividends	(350 )	(360 )
Common stock transactions	1	—
Purchase and retirement of common stock	(400 )	(765 )
Proceeds from borrowings – net	594	494
Debt repayments	(600 )	(102 )
Net cash used in financing activities	(755 )	(733 )
Net decrease in cash and cash equivalents	(235 )	(84 )
Cash and cash equivalents:		
At beginning of year	1,101	973
At end of period	\$866	\$889
Supplemental disclosures of cash flow information:		



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Cash paid during the period for:

Interest (net of amounts capitalized)	\$260	\$249
Income taxes (net of refunds)	251	55

See accompanying notes to consolidated financial statements.

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Norfolk Southern Corporation and Subsidiaries  
Notes to Consolidated Financial Statements  
(Unaudited)

In the opinion of management, the accompanying unaudited interim consolidated financial statements contain all adjustments (consisting of normal recurring accruals) necessary to present fairly Norfolk Southern Corporation (Norfolk Southern) and subsidiaries' (collectively, NS, we, us, and our) financial position at June 30, 2016, and December 31, 2015, our results of operations and comprehensive income for the second quarters and first six months of 2016 and 2015, and our cash flows for the first six months of 2016 and 2015 in conformity with U.S. generally accepted accounting principles (GAAP).

These consolidated financial statements should be read in conjunction with the consolidated financial statements and notes included in our latest Annual Report on Form 10-K.

### 1. Stock-Based Compensation

During the first and second quarters of 2016, a committee of non-employee members of our Board of Directors (and the Chief Executive Officer when delegated authority by such committee) granted stock options, restricted stock units (RSUs) and performance share units (PSUs) pursuant to the Long-Term Incentive Plan (LTIP) and granted stock options pursuant to the Thoroughbred Stock Option Plan (TSOP), as discussed below. Stock-based compensation expense was \$8 million and \$4 million during the second quarters of 2016 and 2015, respectively. Stock-based compensation expense was \$35 million for the first six months of both 2016 and 2015. The total tax effects recognized in income in relation to stock-based compensation expense were net benefits of \$3 million and \$1 million for the second quarters of 2016 and 2015, respectively, and net benefits of \$13 million and \$11 million for the first six months of 2016 and 2015, respectively.

#### Stock Options

In the first quarter of 2016, 691,310 options were granted under the LTIP and 302,320 options were granted under the TSOP. In each case, the grant price was \$70.32 on the effective date of the grant, and the options have a term that will not exceed ten years. The options granted under the LTIP and the TSOP may not be exercised prior to the fourth and third anniversaries of the date of grant, respectively, or if the optionee retires or dies before the anniversary date, may not be exercised before the later of one year after the grant date or the date of the optionee's retirement or death. Holders of options granted under the LTIP who remain actively employed receive cash dividend equivalent payments during the four year vesting period in an amount equal to the regular quarterly dividends paid on Norfolk Southern common stock (Common Stock). Dividend equivalent payments are not made on the TSOP options.

The fair value of each option award was measured on the date of grant using a lattice-based option valuation model. Expected volatility is based on implied volatility from traded options on, and historical volatility of, Common Stock. Historical data is used to estimate option exercises and employee terminations within the valuation model. The average expected option life is derived from the output of the valuation model and represents the period of time that all options granted are expected to be outstanding, including the branches of the model that result in options expiring unexercised. The average risk-free interest rate is based on the U.S. Treasury yield curve in effect at the time of grant. A dividend yield of zero was used for the LTIP options during the vesting period. A dividend yield of 3.37% was used for all vested LTIP options and all TSOP options.

The assumptions for the 2016 LTIP and TSOP grants are shown in the following table:

Average expected volatility	27%
Average risk-free interest rate	2.00%
Average expected option term LTIP	8.9 years
Per-share grant-date fair value LTIP	\$19.92
Average expected option term TSOP	8.6 years
Per-share grant-date fair value TSOP	\$14.75

For the second quarter of 2016, options relating to 156,003 shares were exercised, yielding \$8 million of cash proceeds and \$1 million of excess tax benefit recognized in the “Provision for income taxes.” For the second quarter of 2015, options relating to 90,269 shares were exercised, yielding \$5 million of cash proceeds and \$1 million of excess tax benefit, which was recognized as additional paid-in capital.

For the first six months of 2016, options relating to 369,917 shares were exercised, yielding \$18 million of cash proceeds and \$2 million of tax benefit recognized in the “Provision for income taxes.” For the first six months of 2015, options relating to 331,673 shares were exercised, yielding \$17 million of cash proceeds and \$4 million of tax benefit, which was recognized as additional paid-in capital.

#### Restricted Stock Units

During the first quarter of 2016, there were 135,390 RSUs granted with a grant-date fair value of \$70.32 and a five-year restriction period that will be settled through the issuance of shares of Common Stock. The RSU grants include cash dividend equivalent payments during the restriction period in an amount equal to the regular quarterly dividends paid on Common Stock.

No RSUs were earned or paid out during the second quarters of 2016 or 2015. During the first six months of 2016, 175,500 of the RSUs granted in 2011 vested, with 103,936 shares of Common Stock issued net of minimum withholding taxes. For the first six months of 2015, 166,750 of the RSUs granted in 2010 vested, with 99,337 shares of Common Stock issued net of minimum withholding taxes. The total related excess tax benefits were \$1 million for both the second quarter and first six months of 2016 and were recognized in the “Provision for income taxes,” and less than \$1 million and \$4 million for the second quarter and first six months of 2015, respectively, recognized as additional paid-in capital.

#### Performance Share Units

PSUs provide for awards based on the achievement of certain predetermined corporate performance goals at the end of a three-year cycle and are settled through the issuance of shares of Common Stock. During the first and second quarters of 2016, there were 1,036,120 and 6,508 PSUs granted, respectively, with weighted average grant-date fair values of \$52.55 and \$84.00, respectively. All PSUs will earn out based on the achievement of performance conditions and some will also earn out based on a market condition. The market condition fair value was measured on the date of grant using a Monte Carlo simulation model.

No PSUs were earned or paid out in the second quarters of 2016 and 2015. During the first six months of 2016, 406,038 of the PSUs granted in 2013 were earned, with 241,757 shares of Common Stock issued net of minimum withholding taxes. For the first six months of 2015, 236,601 of the PSUs granted in 2012 were earned, with 141,386 shares of Common Stock issued net of minimum withholding taxes. The total related excess tax benefits

were \$3 million for the first six months of 2016, which was recognized in the “Provision for income taxes,” and \$3 million for the first six months of 2015, which was recognized as additional paid-in capital.

## 2. Earnings Per Share

The following table sets forth the calculation of basic and diluted earnings per share:

	Basic Second Quarter		Diluted Second Quarter	
	2016	2015	2016	2015
	(\$ in millions, except per share amounts, shares in millions)			
Net income	\$405	\$433	\$405	\$433
Dividend equivalent payments	(1 )	(1 )	(1 )	(1 )
Income available to common stockholders	\$404	\$432	\$404	\$432
Weighted-average shares outstanding	294.7	302.9	294.7	302.9
Dilutive effect of outstanding options and share-settled awards			1.9	2.6
Adjusted weighted-average shares outstanding			296.6	305.5
Earnings per share	\$1.37	\$1.43	\$1.36	\$1.41

	Basic First Six Months		Diluted First Six Months	
	2016	2015	2016	2015
	(\$ in millions, except per share amounts, shares in millions)			
Net income	\$792	\$743	\$792	\$743
Dividend equivalent payments	(2 )	(3 )	(2 )	(2 )
Income available to common stockholders	\$790	\$740	\$790	\$741
Weighted-average shares outstanding	296.0	304.8	296.0	304.8
Dilutive effect of outstanding options and share-settled awards			1.7	2.7
Adjusted weighted-average shares outstanding			297.7	307.5
Earnings per share	\$2.67	\$2.43	\$2.65	\$2.41

During the second quarters and first six months of 2016 and 2015, dividend equivalent payments were made to holders of LTIP stock options and RSUs. For purposes of computing basic earnings per share, dividend equivalent payments made to holders of these stock options and RSUs were deducted from net income to determine income available to common stockholders. For purposes of computing diluted earnings per share, we evaluate on a grant-by-grant basis those stock options and RSUs receiving dividend equivalent payments under the two-class and treasury stock methods to determine which method is the more dilutive for each grant. For those grants for which the

two-class method was more dilutive, net income was reduced by dividend equivalent payments to determine income available to common stockholders. The dilution calculations exclude options having exercise prices

exceeding the average market price of Common Stock as follows: 1.5 million in the first quarter of 2016, none in the first quarter of 2015, 1.5 million in the second quarter of 2016, and 0.7 million in the second quarter of 2015.

### 3. Stockholders' Equity

#### Common Stock

Common Stock is reported net of shares held by our consolidated subsidiaries (Treasury Shares). Treasury Shares at June 30, 2016, and December 31, 2015, amounted to 20,320,777 shares, with a cost of \$19 million at both dates.

#### Accumulated Other Comprehensive Loss

The components of "Other comprehensive income" reported in the Consolidated Statements of Comprehensive Income and changes in the cumulative balances of "Accumulated other comprehensive loss" reported in the Consolidated Balance Sheets consisted of the following:

	Pensions and Other Postretirement Benefits (\$ in millions)	Other Comprehensive Loss of Equity Investees	Accumulated Other Comprehensive Loss
December 31, 2015	\$ (367)	\$ (78 )	\$ (445 )
Other comprehensive income (loss):			
Amounts reclassified into net income	7	(1) —	7
Net loss	—	(1 )	(1 )
Tax expense	(3 )	—	(3 )
Other comprehensive income (loss)	4	(1 )	3
March 31, 2016	\$ (363)	\$ (79 )	\$ (442 )
Other comprehensive income (loss):			
Amounts reclassified into net income	6	(1) —	6
Net gain	—	1	1
Tax expense	(2 )	—	(2 )
Other comprehensive income	4	1	5
June 30, 2016	\$ (359)	\$ (78 )	\$ (437 )

	Pensions and Other Postretirement Benefits (\$ in millions)	Other Comprehensive Loss of Equity Investees	Accumulated Other Comprehensive Loss
December 31, 2014	\$ (320)	\$ (78 )	\$ (398 )
Other comprehensive income (loss):			
Amounts reclassified into net income	10	(1)—	10
Net loss	—	(4 )	(4 )
Tax expense	(3 )	—	(3 )
Other comprehensive income (loss)	7	(4 )	3
March 31, 2015	\$ (313)	\$ (82 )	\$ (395 )
Other comprehensive income (loss):			
Amounts reclassified into net income	11	(1)—	11
Tax expense	(5 )	—	(5 )
Other comprehensive income	6	—	6
June 30, 2015	\$ (307)	\$ (82 )	\$ (389 )

(1) These items are included in the computation of net periodic pension and postretirement benefit costs. See Note 7, "Pensions and Other Postretirement Benefits," for additional information.

#### 4. Stock Repurchase Program

We repurchased and retired 5.0 million and 7.4 million shares of Common Stock under our stock repurchase program in the first six months of 2016 and 2015, respectively, at a cost of \$400 million and \$765 million, respectively. The timing and volume of purchases is guided by our assessment of market conditions and other pertinent factors. Any near-term share repurchases are expected to be made with internally generated cash, cash on hand, or proceeds from borrowings. Since the beginning of 2006, we have repurchased and retired 156.1 million shares at a total cost of \$9.9 billion.



## 5. Investments

### Investment in Conrail

Through a limited liability company, we and CSX Corporation (CSX) jointly own Conrail Inc. (Conrail), whose primary subsidiary is Consolidated Rail Corporation (CRC). We have a 58% economic and 50% voting interest in the jointly owned entity, and CSX has the remainder of the economic and voting interests. Our investment in Conrail was \$1.2 billion at June 30, 2016, and \$1.1 billion at December 31, 2015.

CRC owns and operates certain properties (the Shared Assets Areas) for the joint and exclusive benefit of Norfolk Southern Railway Company (NSR) and CSX Transportation, Inc. (CSXT). The costs of operating the Shared Assets Areas are borne by NSR and CSXT based on usage. In addition, NSR and CSXT pay CRC a fee for access to the Shared Assets Areas. "Purchased services and rents" and "Fuel" include expenses for amounts due to CRC for the operation of the Shared Assets Areas totaling \$36 million and \$40 million for the second quarters of 2016 and 2015, respectively, and \$75 million and \$77 million for the first six months of 2016 and 2015, respectively. Our equity in the earnings of Conrail, net of amortization, included in "Purchased services and rents" was \$11 million and \$13 million for the second quarters of 2016 and 2015, respectively, and \$22 million and \$23 million for the first six months of 2016 and 2015, respectively.

"Accounts payable" includes \$109 million at June 30, 2016, and \$71 million at December 31, 2015, due to Conrail for the operation of the Shared Assets Areas. In addition, "Other liabilities" includes \$280 million at both June 30, 2016, and December 31, 2015, for long-term advances from Conrail, maturing 2044, that bear interest at an average rate of 2.9%.

### Investment in TTX

NS and eight other North American railroads jointly own TTX Company (TTX). NS has a 19.65% ownership interest in TTX, a railcar pooling company that provides its owner-railroads with standardized fleets of intermodal, automotive, and general use railcars at stated rates.

Amounts paid to TTX for use of equipment are included in "Purchased services and rents." This amounted to \$56 million and \$53 million of expense for the second quarters of 2016 and 2015, respectively, and \$114 million and \$106 million for the first six months of 2016 and 2015, respectively. Offsetting these amounts, our equity in the earnings of TTX, also included in "Purchased services and rents," totaled \$5 million and \$7 million for the second quarters of 2016 and 2015, respectively, and \$10 million and \$9 million for the first six months of 2016 and 2015, respectively.

## 6. Debt

During the second quarter of 2016, NS issued \$600 million of 2.9% senior notes due 2026. In May 2016, we renewed our five-year credit agreement, extending the facility until May 2021. In June 2016, we renewed and amended our accounts receivable securitization facility, extending it until June 2018.

## 7. Pensions and Other Postretirement Benefits

We have both funded and unfunded defined benefit pension plans covering principally salaried employees. We also provide specified health care and life insurance benefits to eligible retired employees; these plans can be amended or terminated at our option. Under our self-insured retiree health care plan, for those participants who are not Medicare-eligible, a defined percentage of health care expenses is covered for retired employees and their dependents, reduced by any deductibles, coinsurance, and, in some cases, coverage provided under other group insurance policies. Those participants who are Medicare-eligible are not covered under the self-insured retiree health care plan, but instead are provided with an employer-funded health reimbursement account which can be used for reimbursement of health insurance premiums or eligible out-of-pocket medical expenses. Pension and postretirement benefit cost components for the second quarter and first six months are as follows:

	Pension Benefits		Other Postretirement Benefits	
	Second Quarter		Second Quarter	
	2016	2015	2016	2015
	(\$ in millions)			
Service cost	\$9	\$10	\$ 2	\$ 2
Interest cost	21	23	4	5
Expected return on plan assets	(43)	(42)	(5)	(5)
Amortization of net losses	12	17	—	—
Amortization of prior service benefit	—	—	(6)	(6)
Net cost (benefit)	\$(1)	\$8	\$(5)	\$(4)

	Pension Benefits		Other Postretirement Benefits	
	First Six Months		First Six Months	
	2016	2015	2016	2015
	(\$ in millions)			
Service cost	\$18	\$20	\$ 3	\$ 4
Interest cost	41	47	8	10
Expected return on plan assets	(86)	(83)	(9)	(10)
Amortization of net losses	25	33	—	—
Amortization of prior service benefit	—	—	(12)	(12)
Net cost (benefit)	\$(2)	\$17	\$(10)	\$(8)

Effective January 1, 2016, we began using a spot rate approach to estimate the service cost and interest cost components of net periodic benefit cost for our pension and other postretirement benefits plans rather than a single weighted-average discount rate. This change in estimate resulted in reductions in service and interest cost of \$7 million and \$13 million in the second quarter and first six months of 2016, respectively.



## 8. Fair Value

### Fair Value Measurements

Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) 820-10, "Fair Value Measurements," established a framework for measuring fair value and a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value into three broad levels, as follows:

**Level 1** Inputs to the valuation methodology are unadjusted quoted prices for identical assets or liabilities in active markets that we have the ability to access.

**Level 2** Inputs to the valuation methodology include:

- quoted prices for similar assets or liabilities in active markets;
- quoted prices for identical or similar assets or liabilities in inactive markets;
- inputs other than quoted prices that are observable for the asset or liability;
- inputs that are derived principally from or corroborated by observable market data by correlation or other means.

If the asset or liability has a specified (contractual) term, the Level 2 input must be observable for substantially the full term of the asset or liability.

**Level 3** Inputs to the valuation methodology are unobservable and significant to the fair value measurement.

The asset's or liability's fair value measurement level within the hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Other than those assets and liabilities described below that approximate fair value, there were no assets or liabilities measured at fair value on a recurring basis at June 30, 2016, or December 31, 2015.

### Fair Values of Financial Instruments

We have evaluated the fair values of financial instruments and methods used to determine those fair values. The fair values of "Cash and cash equivalents," "Accounts receivable," "Accounts payable," and "Short-term debt" approximate carrying values because of the short maturity of these financial instruments. The carrying value of corporate-owned life insurance is recorded at cash surrender value and, accordingly, approximates fair value. The carrying amounts and estimated fair values for the remaining financial instruments, excluding investments accounted for under the equity method, consisted of the following:

	June 30, 2016		December 31, 2015	
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
	(\$ in millions)			
Long-term investments	\$183	\$211	\$162	\$190

Long-term debt, including current maturities ~~(10,099~~(12,219) ~~(9,893~~ (11,124

Underlying net assets were used to estimate the fair value of investments with the exception of notes receivable, which are based on future discounted cash flows. The fair values of long-term debt were estimated based on quoted market prices or discounted cash flows using current interest rates for debt with similar terms, company rating, and remaining maturity.

The following table sets forth the fair value of long-term investment and long-term debt balances disclosed above by valuation technique level, within the fair value hierarchy (there were no level 3 valued assets or liabilities).

	Level 1	Level 2	Total
	(\$ in millions)		
June 30, 2016			
Long-term investments	\$71	\$140	\$211
Long-term debt, including current maturities	(12,012)	(1,203)	(13,215)
December 31, 2015			
Long-term investments	\$49	\$141	\$190
Long-term debt, including current maturities	(11,021)	(212)	(11,233)

## 9. Commitments and Contingencies

### Lawsuits

We and/or certain subsidiaries are defendants in numerous lawsuits and other claims relating principally to railroad operations. When we conclude that it is probable that a liability has been incurred and the amount of the liability can be reasonably estimated, it is accrued through a charge to earnings. While the ultimate amount of liability incurred in any of these lawsuits and claims is dependent on future developments, in our opinion, the recorded liability is adequate to cover the future payment of such liability and claims. However, the final outcome of any of these lawsuits and claims cannot be predicted with certainty, and unfavorable or unexpected outcomes could result in additional accruals that could be significant to results of operations in a particular year or quarter. Any adjustments to the recorded liability will be reflected in earnings in the periods in which such adjustments become known.

One of our chemical customers, Sunbelt Chlor Alkali Partnership (Sunbelt), filed a rate reasonableness complaint before the Surface Transportation Board (STB) alleging that our tariff rates for transportation of regulated movements are unreasonable. Since April 1, 2011, we have been billing and collecting amounts based on the challenged tariff rates. In 2014, the STB resolved this rate reasonableness complaint in our favor. In June 2016, the STB resolved petitions for reconsideration, which will be reviewed by the parties for technical issues. The matter remains decided in our favor; however, the findings are still subject to appeal. We believe the estimate of any reasonably possible loss will not have a material effect on our financial position, results of operations, or liquidity. With regard to rate cases, we record adjustments to revenues in the periods if and when such adjustments are probable and reasonably estimable.

On November 6, 2007, various antitrust class actions filed against us and other Class I railroads in various Federal district courts regarding fuel surcharges were consolidated in the District of Columbia by the Judicial Panel on Multidistrict Litigation. On June 21, 2012, the court certified the case as a class action. The defendant railroads appealed this certification, and the Court of Appeals for the District of Columbia vacated the District Court's decision and remanded the case for further consideration. We believe the allegations in the complaints are without merit and intend to vigorously defend the cases. We do not believe the outcome of these proceedings will have a material effect on our financial position, results of operations, or liquidity. A lawsuit containing similar allegations against us and four other major railroads that was filed on March 25, 2008, in the U.S. District Court for the District of Minnesota, was voluntarily dismissed by the plaintiff subject to a tolling agreement entered into in August 2008, and most recently extended in August 2013.



## Casualty Claims

Casualty claims include employee personal injury and occupational claims as well as third-party claims, all exclusive of legal costs. To aid in valuing our personal injury liability and determining the amount to accrue with respect to such claims during the year, we utilize studies prepared by an independent consulting actuarial firm. Job-related accidental injury and occupational claims are subject to the Federal Employers' Liability Act (FELA), which is applicable only to railroads. FELA's fault-based system produces results that are unpredictable and inconsistent as compared with a no-fault workers' compensation system. The variability inherent in this system could result in actual costs being different from the liability recorded. While the ultimate amount of claims incurred is dependent on future developments, in our opinion, the recorded liability is adequate to cover the future payments of claims and is supported by the most recent actuarial study. In all cases, we record a liability when the expected loss for the claim is both probable and reasonably estimable.

Employee personal injury claims – The largest component of casualties and other claims expense is employee personal injury costs. The independent actuarial firm engaged by us provides quarterly studies to aid in valuing our employee personal injury liability and estimating personal injury expense. The actuarial firm studies our historical patterns of reserving for claims and subsequent settlements, taking into account relevant outside influences. The actuarial firm uses the results of these analyses to estimate the ultimate amount of liability, which includes amounts for incurred but unasserted claims. We adjust the liability quarterly based upon our assessment and the results of the study. Our estimate of loss liabilities is subject to inherent limitation given the difficulty of predicting future events such as jury decisions, court interpretations, or legislative changes, and as such the actual loss may vary from the estimated liability recorded.

Occupational claims – Occupational claims (including asbestosis and other respiratory diseases, as well as conditions allegedly related to repetitive motion) are often not caused by a specific accident or event but rather allegedly result from a claimed exposure over time. Many such claims are being asserted by former or retired employees, some of whom have not been employed in the rail industry for decades. The independent actuarial firm provides an estimate of the occupational claims liability based upon our history of claim filings, severity, payments, and other pertinent facts. The liability is dependent upon judgments we make as to the specific case reserves as well as judgments of the actuarial firm in the quarterly studies. The actuarial firm's estimate of ultimate loss includes a provision for those claims that have been incurred but not reported. This provision is derived by analyzing industry data and projecting our experience into the future as far as can be reasonably determined. We adjust the liability quarterly based upon our assessment and the results of the study. However, it is possible that the recorded liability may not be adequate to cover the future payment of claims. Adjustments to the recorded liability are reflected in operating expenses in the periods in which such adjustments become known.

Third-party claims – We record a liability for third-party claims, including those for highway crossing accidents, trespasser and other injuries, automobile liability, property damage, and lading damage. The actuarial firm assists us with the calculation of potential liability for third-party claims, except lading damage, based upon our experience including the number and timing of incidents, amount of payments, settlement rates, number of open claims, and legal defenses. The actuarial estimate includes a provision for claims that have been incurred but not reported. We adjust the liability quarterly based upon our assessment and the results of the study. Given the inherent uncertainty in regard to the ultimate outcome of third-party claims, it is possible that the actual loss may differ from the estimated liability recorded.

## Environmental Matters

We are subject to various jurisdictions' environmental laws and regulations. We record a liability where such liability or loss is probable and its amount can be reasonably estimated. Claims, if any, against third parties, for recovery of cleanup costs we have incurred are reflected as receivables (when collection is probable) in the Consolidated Balance



Sheets and are not netted against the associated liability. Environmental engineers regularly participate in ongoing evaluations of all known sites and in determining any necessary adjustments to liability

estimates. We have an Environmental Policy Council, composed of senior managers, to oversee and interpret our environmental policy.

Our Consolidated Balance Sheets include liabilities for environmental exposures of \$66 million at June 30, 2016, and \$69 million at December 31, 2015 (of which \$15 million are classified as current liabilities at both June 30, 2016, and December 31, 2015). At both June 30, 2016, and December 31, 2015, the liability represents our estimates of the probable cleanup, investigation, and remediation costs based on available information at 145 known locations and projects. At June 30, 2016, 15 sites accounted for \$42 million of the liability, and no individual site was considered to be material. We anticipate that much of this liability will be paid out over five years; however, some costs will be paid out over a longer period.

At 12 locations, one or more of our subsidiaries in conjunction with a number of other parties have been identified as potentially responsible parties under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 or comparable state statutes that impose joint and several liability for cleanup costs. We calculate our estimated liability for these sites based on facts and legal defenses applicable to each site and not solely on the basis of the potential for joint liability.

With respect to known environmental sites (whether identified by us or by the Environmental Protection Agency or comparable state authorities), estimates of our ultimate potential financial exposure for a given site or in the aggregate for all such sites can change over time because of the widely varying costs of currently available cleanup techniques, unpredictable contaminant recovery and reduction rates associated with available cleanup technologies, the likely development of new cleanup technologies, the difficulty of determining in advance the nature and full extent of contamination and each potential participant's share of any estimated loss (and that participant's ability to bear it), and evolving statutory and regulatory standards governing liability.

The risk of incurring environmental liability – for acts and omissions, past, present, and future – is inherent in the railroad business. Some of the commodities we transport, particularly those classified as hazardous materials, pose special risks that we work diligently to reduce. In addition, several of our subsidiaries own, or have owned, land used as operating property, or which is leased and operated by others, or held for sale. Because environmental problems that are latent or undisclosed may exist on these properties, there can be no assurance that we will not incur environmental liabilities or costs with respect to one or more of them, the amount and materiality of which cannot be estimated reliably at this time. Moreover, lawsuits and claims involving these and potentially other unidentified environmental sites and matters are likely to arise from time to time. The resulting liabilities could have a significant effect on our financial position, results of operations, or liquidity in a particular year or quarter.

Based on our assessment of the facts and circumstances now known, we believe we have recorded the probable and reasonably estimable costs for dealing with those environmental matters of which we are aware. Further, we believe that it is unlikely that any known matters, either individually or in the aggregate, will have a material adverse effect on our financial position, results of operations, or liquidity.

#### Insurance

We obtain, on behalf of ourself and our subsidiaries, insurance for potential losses for third-party liability and first-party property damages. We are currently self-insured up to \$50 million and above \$1.1 billion (\$1.5 billion for specific perils) per occurrence and/or policy year for bodily injury and property damage to third parties and up to \$25 million and above \$200 million per occurrence and/or policy year for property owned by us or in our care, custody, or control.

#### 10. New Accounting Pronouncements

In March 2016, the FASB issued Accounting Standards Update (ASU) No. 2016-09, "Improvements to Employee Share-Based Payment Accounting." We adopted the provisions of this ASU during the first quarter of 2016. This update principally affects the recognition of excess tax benefits and deficiencies and the cash flow classification of

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share-based compensation-related transactions. The requirement to recognize excess tax benefits and deficiencies as income tax expense or benefit in the income statement was applied prospectively, with a benefit of \$6 million recognized in the "Provision for income taxes" line item for the six months ended June 30, 2016. The classification requirements on the Consolidated Statements of Cash Flows for the adoption of ASU 2016-09 resulted in a \$23 million increase in "Current liabilities other than debt" within the operating activities section and a corresponding decrease in "Common stock transactions" within the financing activities section for the first six months of 2016. We retrospectively presented the Consolidated Statements of Cash Flows for the first six months of 2015 to reflect a \$28 million increase in "Current liabilities other than debt" within the operating activities section and a corresponding decrease in "Common stock transactions" within the financing activities section.

In November 2015, the FASB issued ASU No. 2015-17, "Balance Sheet Classification of Deferred Taxes." This update requires that deferred tax liabilities and assets be classified as noncurrent on the balance sheet rather than as separate current and noncurrent amounts. We adopted the provisions of this ASU during the first quarter of 2016 and applied it retrospectively. The adoption of ASU 2015-17 resulted in the presentation of \$110 million of current deferred income tax assets as a reduction of "Deferred income taxes" in the long-term liabilities section of the Consolidated Balance Sheet at June 30, 2016. We retrospectively presented the December 31, 2015, Consolidated Balance Sheet and related disclosures to reflect the reclassification of \$121 million of deferred income tax assets from "Deferred income taxes" in the current assets section of the balance sheet to "Deferred income taxes" in the long-term liabilities section of the balance sheet.

In February 2016, the FASB issued ASU No. 2016-02, "Leases." This update, effective for our annual and interim reporting periods beginning January 1, 2019, will replace existing lease guidance in GAAP and will require lessees to recognize lease assets and lease liabilities on the balance sheet for all leases and disclose key information about leasing arrangements. When implemented, lessees and lessors will be required to recognize and measure leases at the beginning of the earliest period presented using a modified retrospective approach. We are evaluating the effect that ASU 2016-02 will have on our consolidated financial statements and related disclosures.

In May 2014, the FASB issued ASU No. 2014-09, "Revenue from Contracts with Customers." This update will replace most existing revenue recognition guidance in GAAP and require an entity to recognize the amount of revenue to which it expects to be entitled for the transfer of promised goods or services to customers. In July 2015, the FASB approved a one-year deferral of the effective date of the new standard, making it effective for our annual and interim reporting periods beginning January 1, 2018. Early application is permitted, but not before the original effective date for public business entities (annual reporting periods beginning after December 15, 2016). ASU 2014-09 permits the use of either the retrospective or cumulative effect transition method. We are evaluating the effect that ASU 2014-09 will have on our consolidated financial statements and related disclosures.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Norfolk Southern Corporation and Subsidiaries

The following discussion and analysis should be read in conjunction with the Consolidated Financial Statements and Notes.

OVERVIEW

We are one of the nation's premier transportation companies. Our Norfolk Southern Railway Company subsidiary operates approximately 20,000 miles of road in 22 states and the District of Columbia, serves every major container port in the eastern United States, and provides efficient connections to other rail carriers. We operate the most extensive intermodal network in the East and are a major transporter of coal, automotive, and industrial products.

Our second quarter results reflect continued focus on achieving the goals set forth in our strategic plan. Implementation and maintenance of multiple cost control initiatives allowed for further expense reductions while maintaining strong network fluidity and near all-time best service levels. Our second-quarter operating ratio (a measure of the amount of operating revenues consumed by operating expenses) improved 140 basis points over the same period last year, and our first six-month operating ratio was record-setting, despite the economic challenges that continue to affect our industry. We remain committed to executing our strategic plan and believe we are well positioned to achieve productivity savings of about \$200 million and an operating ratio below 70% this year.

SUMMARIZED RESULTS OF OPERATIONS

Second-quarter 2016 net income was \$405 million, down \$28 million, or 6%, compared with the same period last year. The decrease in net income reflected lower income from railway operations, down \$44 million, or 5%, primarily due to a decline in operating revenues (down \$259 million, or 10%) as a result of a 7% drop in volumes and lower average revenue per unit (driven primarily by reduced fuel surcharge revenues). This decline was partially offset by lower railway operating expenses (down \$215 million, or 11%) resulting from lower expenses across most categories driven by lower fuel prices, cost control initiatives, and service improvements. The operating ratio improved to 68.6% for the second quarter of 2016, compared with 70.0% for the second quarter of 2015.

For the first six months of 2016 net income was \$792 million, up \$49 million, or 7%, compared with the same period last year. The increase was driven by lower operating expenses (down \$479 million, or 12%), largely due to lower fuel prices, cost control initiatives, and service improvements, offset in part by lower railway operating revenues (down \$406 million, or 8%) as a result of depressed coal volumes and lower average revenue per unit (driven primarily by reduced fuel surcharge revenues). The operating ratio improved to an all-time best 69.4% for the first six months of 2016, compared with 73.1% for the first six months of 2015.

## DETAILED RESULTS OF OPERATIONS

## Railway Operating Revenues

Second-quarter railway operating revenues were \$2.5 billion in 2016, down \$259 million, or 10%, compared with the second quarter of 2015. For the first six months, railway operating revenues were \$4.9 billion, down \$406 million, or 8%, compared with the same period last year. As shown in the following table, the decreases in revenue resulted from volume declines, primarily driven by continued weakness in the coal markets, and lower average revenue per unit, as the effects of reduced fuel surcharges more than offset price increases.

	Decrease	
	Second Quarter	First Six Months
	2016 vs. 2015	2016 vs. 2015
	(\$ in millions)	
Volume (units)	\$(191)	\$(256)
Revenue per unit (68 )	(150 )	(150 )
Total	\$(259)	\$(406)

Over 85% of our revenue base is covered by negotiated fuel surcharges, and revenues associated with these surcharges totaled \$50 million and \$119 million in the second quarters of 2016 and 2015, respectively, and \$99 million and \$282 million for the first six months of 2016 and 2015, respectively. Fuel surcharge revenues are typically tied to either West Texas Intermediate Crude Oil (WTI) or On-Highway Diesel (OHD). OHD covers more than half of our revenue base governed by each program and accounted for about 90% of our fuel surcharge revenue for the second quarter and first six months of 2016, primarily the result of WTI price levels below most of our surcharge trigger points. Should the current fuel price environment persist for the remainder of the year, we expect fuel surcharge revenue to continue to be lower than 2015, but to a lesser extent than in the first six months.

Revenues, units, and average revenue per unit for our market groups were as follows:

	Second Quarter					
	Revenues		Units		Revenue per Unit	
	2016	2015	2016	2015	2016	2015
	(\$ in millions)		(in thousands)		(\$ per unit)	
Merchandise:						
Chemicals	\$426	\$454	122.8	137.3	\$3,467	\$3,312
Agriculture/consumer/gov'	883	379	148.0	153.7	2,587	2,463
Metals and construction	334	344	183.6	182.1	1,822	1,889
Automotive	248	254	112.7	111.2	2,198	2,278
Paper/clay/forest	186	196	71.6	77.2	2,603	2,545
Merchandise	1,577	1,627	638.7	661.5	2,469	2,459
Intermodal	538	633	951.8	999.9	565	633
Coal	339	453	210.0	275.7	1,611	1,644

Total \$2,454 \$2,713 1,800.5 1,937.1 1,362 1,401

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	First Six Months					
	Revenues		Units		Revenue per Unit	
	2016	2015	2016	2015	2016	2015
	(\$ in millions)		(in thousands)		(\$ per unit)	
Merchandise:						
Chemicals	\$845	\$886	243.4	264.6	\$3,471	\$3,349
Agriculture/consumer/gov'	769	753	299.4	303.7	2,568	2,479
Metals and construction	634	654	338.5	334.6	1,874	1,954
Automotive	502	473	226.0	206.9	2,220	2,284
Paper/clay/forest	376	381	144.6	149.7	2,603	2,548
Merchandise	3,126	3,147	1,251.9	1,259.5	2,497	2,498
Intermodal	1,060	1,225	1,880.9	1,926.6	564	636
Coal	688	908	424.8	553.1	1,619	1,643
Total	\$4,874	\$5,280	3,557.6	3,739.2	1,370	1,412

#### Merchandise

Merchandise revenues decreased \$50 million, or 3%, in the second quarter and \$21 million, or 1%, for the first six months compared with the same periods last year, primarily driven by a 3% and 1% decline in volumes, respectively. Average revenue per unit was up slightly for the second quarter and flat for the first six months reflecting reduced fuel surcharge revenues (which lowered average revenue per unit by \$28 and \$50, respectively), offset by price increases.

Chemicals volume declined 11% in the second quarter and 8% for the first six months, reflecting fewer shipments of crude oil originated from the Bakken oil fields, in addition to lower chlor-alkali and rock salt traffic as a result of market consolidations and milder winter weather. For the first six months, these declines were partially offset by more shipments of coal ash, liquefied petroleum gas, and plastics.

One of our chemical customers, Sunbelt, filed a rate reasonableness complaint before the STB alleging that our tariff rates for transportation of regulated movements are unreasonable. Since April 1, 2011 we have been billing and collecting amounts based on the challenged tariff rates. In 2014, the STB resolved this rate reasonableness complaint in our favor. In June 2016, the STB resolved petitions for reconsideration, which will be reviewed by the parties for technical issues. The matter remains decided in our favor; however, the findings are still subject to appeal. We believe the estimate of any reasonably possible loss will not have a material effect on our financial position, results of operations, or liquidity. With regard to rate cases, we record adjustments to revenues in the periods if and when such adjustments are probable and reasonably estimable.

Agriculture, consumer products, and government volume decreased 4% in the second quarter and 1% for the first six months, reflecting declines in corn volumes resulting from customer sourcing changes and lower feed shipments, offset in part by higher ethanol volumes as a result of greater gasoline consumption. For the first six months, these declines were largely offset by higher food oils and wheat volumes as a result of service improvements.

Metals and construction volume increased 1% in the second quarter and first six months, reflecting more shipments of cement as a result of higher demand in the construction sector, milder winter weather, and market share gains. The first six months also reflected higher coil steel carloads from growth in the automotive market and customer sourcing changes. Both periods were offset in part by lower demand for materials used in natural gas and oil drilling as a result



of depressed commodity prices.

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Automotive volume grew 1% for the second quarter and 9% for the first six months, primarily driven by increased automotive parts business and growth in the production of North American light vehicles.

Paper, clay, and forest products volume declined 7% in the second quarter and 3% for the first six months. Both periods reflect reduced pulpboard and paper volumes driven by weakness in the export market and further contraction of the paper market. The second quarter also reflected lower woodchip and kaolin volumes as a result of softened demand. The first six months was also impacted by declines in municipal waste as a result of market share loss.

Merchandise revenues for the remainder of the year are expected to increase compared to last year reflecting higher average revenue per unit (driven primarily by price increases), notwithstanding lower volumes (as fourth quarter favorability is not expected to fully offset third quarter declines), primarily the result of decreased chemical and automotive shipments.

#### Intermodal

Intermodal revenues decreased \$95 million, or 15%, in the second quarter and \$165 million, or 13%, for the first six months compared with the same periods last year. The decreases reflected the effects of the Triple Crown Services (TCS) subsidiary restructuring as well as reduced fuel surcharge revenues (which together lowered average revenue per unit by \$71 for the second quarter and by \$76 for the first six months). Volume was down 5% and 2% for the second quarter and first six months, respectively, compared with the same periods last year, as volume losses from the restructuring of our TCS subsidiary were offset in part by growth in our international business.

Intermodal units by market were as follows:

	Second Quarter		First Six Months	
	2016	2015	2016	2015
	(units in thousands)			
Domestic (excluding Triple Crown)	570.8	579.0	1,121.6	1,127.9
Triple Crown	18.5	71.7	38.0	138.0
Total Domestic	589.3	650.7	1,159.6	1,265.9
International	362.5	349.2	721.3	660.7
Total	951.8	999.9	1,880.9	1,926.6

Total domestic volume decreased 9% in the second quarter and 8% for the first six months of 2016, primarily the result of the restructuring of our TCS subsidiary. International volume grew 4% in the second quarter and 9% for the first six months of 2016 due to increased demand from existing customers and market share gains.

Intermodal revenues for the remainder of the year are expected to be flat compared to last year driven by higher volumes, offset by lower average revenue per unit (a result of the restructuring of our TCS subsidiary, offset in part by price increases).

#### Coal

Coal revenues decreased \$114 million, or 25%, in the second quarter and \$220 million, or 24%, for the first six months compared with the same periods last year, reflecting a 24% and 23% drop in volumes, respectively. Average revenue per unit fell 2% and 1%, respectively, primarily driven by the decline in fuel surcharges (which lowered average revenue per unit by \$30 and \$47, respectively).



Coal tonnage by market was as follows:

	Second Quarter		First Six Months	
	2016	2015	2016	2015
	(tons in thousands)			
Utility	14,336	20,189	29,740	40,303
Export	3,683	4,066	7,382	9,377
Domestic metallurgical	3,580	4,059	6,539	7,204
Industrial	1,521	2,192	3,196	4,175
Total	23,120	30,506	46,857	61,059

Utility coal tonnage decreased 29% in the second quarter and 26% for the first six months, driven by high stockpiles and limited coal burn due to mild winter weather and sustained lower natural gas prices. Export coal tonnage declined 9% in the second quarter and 21% for the first six months, driven by strong competition faced by U.S. coal suppliers as excess coal supply, depressed coal prices, and a strong U.S. dollar continued to further reduce demand for U.S. export coal. Domestic metallurgical coal tonnage dropped 12% in the second quarter and 9% for the first six months, reflecting softness in the metallurgical coal market. Industrial coal tonnage fell 31% in the second quarter and 23% for the first six months as a result of natural gas conversions and decreased coal burn.

Coal revenues for the remainder of the year are expected to be lower than last year primarily due to a decrease in volumes and lower average revenue per unit.

#### Railway Operating Expenses

Second-quarter railway operating expenses were \$1.7 billion in 2016, down \$215 million, or 11%, compared with the same period last year. For the first six months, expenses were \$3.4 billion, down \$479 million, or 12%.

The following table shows the changes in railway operating expenses summarized by major classifications:

	Second Quarter	First Six Months
	2016 vs. 2015	2016 vs. 2015
	Increase (Decrease) (\$ in millions)	
Fuel	\$(81 )	\$(196 )
Compensation and benefits	(57 )	(117 )
Purchased services and rents	(54 )	(98 )
Materials and other	(33 )	(85 )
Depreciation	10	17
Total	\$(215)	\$(479 )

Fuel expense, which includes the cost of locomotive fuel as well as other fuel used in railway operations, decreased \$81 million, or 32%, in the second quarter and \$196 million, or 38%, for the first six months, primarily the result of lower locomotive fuel prices (down 25% and 31%, respectively) and reduced locomotive fuel consumption (down 6% and 5%, respectively).

Compensation and benefits expense decreased \$57 million, or 8%, in the second quarter and \$117 million, or 8%, for the first six months, reflecting changes in:

- employee levels, including decreased overtime and trainees (down \$50 million for the quarter and \$95 million for the first six months),
- pension costs (down \$9 million for the quarter and \$19 million for the first six months),
- payroll taxes (down \$8 million for the quarter and \$21 million for the first six months),
- labor agreement signing bonus in first-quarter 2015 (\$11 million), and
- health and welfare benefit costs for agreement employees (up \$10 million for the quarter and \$25 million for the first six months), which reflected higher rates, offset in part by favorability from reduced headcount.

Average rail headcount for the quarter was down by about 2,000 compared with second quarter 2015. We expect headcount to remain relatively flat with current levels through the second half of the year. Incentive compensation is expected to be about \$30 million higher per quarter, as last year included reversals of bonus accruals. Both of these expectations are based on our current volume projections.

Purchased services and rents includes the costs of services provided by outside contractors, the net costs of operating joint (or leased) facilities with other railroads and the net cost of equipment rentals. This category of expenses declined \$54 million, or 12%, for the quarter and \$98 million, or 11%, for the first six months as follows:

	Second Quarter 2016		First Six Months 2015	
	2016	2015	2016	2015
	(\$ in millions)			
Purchased services	\$309	\$363	\$609	\$704
Equipment rents	75	75	154	157
Total	\$384	\$438	\$763	\$861

Purchased services decreased in the second quarter reflecting lower TCS operational costs and decreased joint facility and haulage expenses. The decline for the first six months was primarily driven by lower TCS operational costs, decreased transportation activity expenses and lower repair and maintenance costs.

Materials and other expenses declined \$33 million, or 14%, and \$85 million, or 18%, for the first six months as follows:

	Second Quarter 2016		First Six Months 2015	
	2016	2015	2016	2015
	(\$ in millions)			
Materials	\$91	\$117	\$171	\$239
Casualties and other claims	32	26	65	62
Other	79	92	160	180
Total	\$202	\$235	\$396	\$481

Material usage costs decreased for the second quarter and first six months primarily due to a decline in locomotive, roadway and freight car repair costs associated with cost-control initiatives and improved asset utilization. Going forward, we expect continued favorability in the year-over-year comparison for materials expenses of about \$15

million per quarter. Casualties and other claims expenses include the estimates of costs related to personal injury, property damage, and environmental remediation matters. Cost associated with personal injury increased in the second quarter and first six months as a result of less favorable experience with respect to our personal injury

reserves. Lower travel and relocation costs drove the decrease in other expense in both periods. In 2015, we incurred higher than normal expenses relocating employees in connection with closure of the Roanoke, VA office.

Depreciation expense increased \$10 million, or 4%, in the second quarter and \$17 million, or 3%, for the first six months due to the effects of a larger capital base.

#### Other Income - Net

Other income - net decreased \$15 million in the second quarter and \$20 million for the first six months of 2016. Both periods reflect reduced income associated with our coal mining properties in addition to lower gains from the sales of property, and higher legal and advisory fees. For the first six months, increased returns from corporate-owned life insurance partially offset these declines.

#### Provision for Income Taxes

The second-quarter and year-to-date effective income tax rates were 36.3% and 35.9%, compared with 38.1% and 37.8% for the same periods last year. The lower effective tax rates this year reflect favorable tax benefits from higher corporate-owned life insurance proceeds, tax credits, and a favorable reduction in deferred taxes for state tax law changes. For the full year, we continue to expect about a 37% effective income tax rate.

IRS examinations have been completed for all years prior to 2013.

#### FINANCIAL CONDITION AND LIQUIDITY

Cash provided by operating activities, our principal source of liquidity, was \$1.4 billion for the first six months of 2016, compared with \$1.5 billion for the same period of 2015, reflecting higher income tax payments offset in part by improved operating results.

We had working capital of \$132 million at June 30, 2016, compared with working capital of \$281 million at December 31, 2015, reflecting a decrease of cash on hand. Cash and cash equivalents totaled \$866 million at June 30, 2016, and were invested in accordance with our corporate investment policy. The portfolio contains securities that are subject to market risk. There are no limits or restrictions on our access to the assets. We expect cash on hand combined with cash provided by operating activities will be sufficient to meet our ongoing obligations.

During the second quarter of 2016, we issued \$600 million of 2.9% senior notes due 2026. Other than this item, there have been no material changes to the information on future obligations contained in our Form 10-K for the year ended December 31, 2015.

Cash used in investing activities was \$912 million for the first six months of 2016, compared with \$852 million in the same period last year, primarily reflecting higher property additions. Property additions for 2016 are expected to total \$1.9 billion.

Cash used in financing activities was \$755 million in the first six months of 2016, compared with \$733 million in the same period last year, the increase being driven primarily by higher debt repayments offset in part by lower share repurchase activity and higher debt proceeds. We repurchased 5.0 million shares of Common Stock, totaling \$400 million, in the first six months of 2016, compared to 7.4 million shares, totaling \$765 million, in the same period last year. The timing and volume of future share repurchases will be guided by our assessment of market conditions and other pertinent factors. Any near-term purchases under the program are expected to be made with internally generated cash, cash on hand, or proceeds from borrowings.



Our total debt-to-total capitalization ratio was 45.1% at June 30, 2016, and 45.3% at December 31, 2015.

In May 2016, we renewed our five-year credit agreement, extending the facility until May 2021. The credit facility provides for borrowings at prevailing rates and includes covenants. We had no amounts outstanding under this facility at both June 30, 2016 and December 31, 2015, and are in compliance with all of its covenants. In June 2016, we renewed and amended our \$350 million accounts receivable securitization program with a two-year term to run until June 2018. There was \$100 million and \$200 million outstanding under this program at June 30, 2016, and December 31, 2015, respectively. Other than this, we have no other floating-rate debt instruments outstanding subject to market risk.

#### APPLICATION OF CRITICAL ACCOUNTING ESTIMATES

The preparation of financial statements in accordance with GAAP requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenue and expenses during the reporting period. These estimates and assumptions may require significant judgment about matters that are inherently uncertain, and future events are likely to occur that may require us to make changes to these estimates and assumptions. Accordingly, we regularly review these estimates and assumptions based on historical experience, changes in the business environment, and other factors we believe to be reasonable under the circumstances. We regularly discuss the development, selection, and disclosures concerning critical accounting estimates with the Audit Committee of our Board of Directors. There have been no significant changes to the application of critical accounting estimates disclosure contained in our Form 10-K at December 31, 2015.

#### OTHER MATTERS

##### Labor Agreements

More than 80% of our railroad employees are covered by collective bargaining agreements with various labor unions. Pursuant to the Railway Labor Act (Act), these agreements remain in effect until new agreements are reached, or until the bargaining procedures mandated by the Act are completed. We largely bargain nationally in concert with other major railroads, represented by the National Carriers Conference Committee (NCCC). Moratorium provisions in the labor agreements govern when the railroads and unions may propose changes to the agreements.

Beginning in late 2014, the NCCC and the various unions exchanged new proposals to begin the current round of national negotiations. The unions have formed three separate bargaining coalitions and negotiations with each are ongoing. In the case of the Transportation Communications Union-led coalition, the negotiations are being assisted by mediators from the National Mediation Board. Separately, in January 2015 we reached an agreement covering wages and work rules through 2019 with the Brotherhood of Locomotive Engineers and Trainmen (BLET) which represents approximately 20% of our union workforce. Changes to the BLET benefit plan will be bargained nationally through the NCCC.

##### New Accounting Pronouncements

For a detailed discussion of new accounting pronouncements, see Note 10.

##### Inflation

In preparing financial statements, GAAP requires the use of historical cost that disregards the effects of inflation on the replacement cost of property. As a capital-intensive company, we have most of our capital invested in long-lived assets. The replacement cost of these assets, as well as the related depreciation expense, would be substantially greater than the amounts reported on the basis of historical cost.



## FORWARD-LOOKING STATEMENTS

Certain statements in Management's Discussion and Analysis of Financial Condition and Results of Operations are "forward-looking statements" within the meaning of the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995, as amended. These statements relate to future events or our future financial performance and involve known and unknown risks, uncertainties, and other factors that may cause our actual results, levels of activity, performance, or our achievements or those of our industry to be materially different from those expressed or implied by any forward-looking statements. In some cases, forward-looking statements can be identified by terminology such as "may," "will," "could," "would," "should," "expect," "plan," "anticipate," "intend," "believe," "estimate," "project," "consider," "potential," "feel," or other comparable terminology. We have based these forward-looking statements on our current expectations, assumptions, estimates, beliefs, and projections. While we believe these expectations, assumptions, estimates, beliefs, and projections are reasonable, such forward-looking statements are only predictions and involve known and unknown risks and uncertainties, many of which involve factors or circumstances that are beyond our control. These and other important factors, including those discussed under "Risk Factors" in our latest Form 10-K, as well as our subsequent filings with the Securities and Exchange Commission, may cause actual results, performance, or achievements to differ materially from those expressed or implied by these forward-looking statements. The forward-looking statements herein are made only as of the date they were first issued, and unless otherwise required by applicable securities laws, we disclaim any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events, or otherwise. Copies of our press releases and additional information about us is available at [www.norfolksouthern.com](http://www.norfolksouthern.com), or you can contact Norfolk Southern Corporation Investor Relations by calling 757-629-2861.

### Item 3. Quantitative and Qualitative Disclosures About Market Risk.

The information required by this item is included in Part I, Item 2., "Management's Discussion and Analysis of Financial Condition and Results of Operations" under the heading "Financial Condition and Liquidity."

### Item 4. Controls and Procedures.

#### Evaluation of Disclosure Controls and Procedures

Our Chief Executive Officer and Chief Financial Officer, with the assistance of management, evaluated the effectiveness of our disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (Exchange Act)) at June 30, 2016. Based on such evaluation, our officers have concluded that, at June 30, 2016, our disclosure controls and procedures are effective in alerting them on a timely basis to material information required to be included in our periodic filings under the Exchange Act.

#### Changes in Internal Control Over Financial Reporting

During the second quarter of 2016, we have not identified any changes in internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

## PART II. OTHER INFORMATION

### Item 1. Legal Proceedings.

On November 6, 2007, various antitrust class actions filed against us and other Class I railroads in various Federal district courts regarding fuel surcharges were consolidated in the District of Columbia by the Judicial Panel on Multidistrict Litigation. On June 21, 2012, the court certified the case as a class action. The defendant railroads appealed this certification, and the Court of Appeals for the District of Columbia vacated the District Court's decision and remanded the case for further consideration. We believe the allegations in the complaints are without merit and intend to vigorously defend the cases. We do not believe the outcome of these proceedings will have a material effect on our financial position, results of operations, or liquidity. A lawsuit containing similar allegations against us and four other major railroads that was filed on March 25, 2008, in the U.S. District Court for the District of Minnesota, was voluntarily dismissed by the plaintiff subject to a tolling agreement entered into in August 2008, and most recently extended in August 2013.

In 2012, we received a Notice of Violation (NOV) issued by the Tennessee Department of Environmental Conservation concerning soil runoff in connection with construction of the Memphis Regional Intermodal Facility in Rossville, Tennessee. Although we will contest liability and the imposition of any penalties - which could exceed \$100,000 - this matter is described here consistent with SEC rules and requirements concerning governmental proceedings with respect to environmental laws and regulations. We do not believe that the outcome of this proceeding will have a material effect on our financial position, results of operations, or liquidity.

### Item 1A. Risk Factors.

The risk factors included in our 2015 Form 10-K remain unchanged and are incorporated herein by reference.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

Period	(a) Total Number of Shares (or Units) Purchased <sup>(1)</sup>	(b) Average Price Paid per Share (or Unit)	(c) Total Number of Shares (or Units) Purchased as Part of Publicly Announced Plans or Programs <sup>(2)</sup>	(d) Maximum Number (or Approximate Dollar Value) of Shares (or Units) that may yet be purchased under the Plans or Programs <sup>(2)</sup>
April 1-30, 2016	795,258	84.31	788,793	20,492,642
May 1-31 2016	751,211	86.80	751,211	19,741,431
June 1-30, 2016	813,711	83.95	813,711	18,927,720
Total	2,360,180		2,353,715	

(1) Of this amount, 6,465 represent shares tendered by employees in connection with the exercise of options under the stockholder-approved Long-Term Incentive Plan.

(2) Our Board of Directors authorized a share repurchase program, pursuant to which up to 50 million shares of Common Stock could be purchased through December 31, 2017.

Item 6. Exhibits.

See Exhibit Index beginning on page 31 for a description of the exhibits filed as part of this report.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

NORFOLK SOUTHERN CORPORATION  
Registrant

/s/ Thomas E. Hurlbut  
Date: July 27, 2016 Thomas E. Hurlbut  
Vice President and Controller  
(Principal Accounting Officer) (Signature)

/s/ Denise W. Hutson  
Date: July 27, 2016 Denise W. Hutson  
Corporate Secretary (Signature)

EXHIBIT INDEX

4.1 Third Supplemental Indenture, dated as of June 3, 2016, between the Registrant and U.S. Bank National Association, as Trustee is incorporated by reference herein from Exhibit 4.1 to Norfolk Southern Corporation's Form 8-K filed on June 3, 2016.

10.1 Credit Agreement dated as of May 26, 2016, establishing a 5-year, \$750 million, unsecured revolving credit facility of the Registrant is incorporated by reference herein from Exhibit 10.1 to Norfolk Southern Corporation's Form 8-K filed on May 27, 2016.

10.2 Amendment No. 12 to Transfer and Administration Agreement dated as of June 3, 2016 is incorporated by reference herein from Exhibit 10.1 to Norfolk Southern Corporation's Form 8-K filed on June 6, 2016 (Schedules III and IV omitted. The Registrant will furnish supplementary copies of such materials to the SEC upon request).

31-A\* Rule 13a-14(a)/15d-014(a) CEO Certifications.

31-B\* Rule 13a-14(a)/15d-014(a) CFO Certifications.

32\* Section 1350 Certifications.

101\* The following financial information from Norfolk Southern Corporation's Quarterly Report on Form 10-Q for the second quarter of 2016, formatted in Extensible Business Reporting Language (XBRL) includes (i) the Consolidated Statements of Income for the second quarters and first six months of 2016 and 2015; (ii) the Consolidated Statements of Comprehensive Income for the second quarters and first six months of 2016 and 2015; (iii) the Consolidated Balance Sheets at June 30, 2016, and December 31, 2015; (iv) the Consolidated Statements of Cash Flows for the first six months of 2016 and 2015; and (v) the Notes to Consolidated Financial Statements.

\* Filed herewith.