UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549 FORM 10-Q

☑ QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF For the quarterly period ended JUNE 30, 2022	THE SECURITIES EXCHANGE ACT OF	7 1934
☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) O For the transition period from to	F THE SECURITIES EXCHANGE ACT (DF 1934
Comm	nission File Number: 1-8339	
NORF	OLK SOUTHERN®	
	SOUTHERN CORPORATION registrant as specified in its charter)	
Virginia	52-118801	4
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Ident	ification No.)
650 West Peachtree Street NW		
Atlanta, Georgia		30308-1925
(Address of principal executive offices)		(Zip Code)
(Registrant's te	(855) 667-3655 lephone number, including area code)	
(registant 5 to	No change	
(Former name, former address	and former fiscal year, if changed since la	ast report)
Securities registered pursuant to Section 12(b) of the Act:		
Title of each class	Trading Symbol	Name of each exchange on which registered
Norfolk Southern Corporation Common Stock (Par Value \$1.0		New York Stock Exchange
Indicate by check mark whether the registrant (1) has filed all reports require 12 months (or for such shorter period that the registrant was required to file \boxtimes No \square		
Indicate by check mark whether the registrant has submitted electronically (§232.405 of this chapter) during the preceding 12 months (or for such short		
Indicate by check mark whether the registrant is a large accelerated filer, an company. See the definitions of "large accelerated filer," "accelerated filer, Act.		
Large accelerated filer \boxtimes Accelerated filer \square Non-accelerated filer \square Sr	naller reporting company Emerging gro	owth company
If an emerging growth company, indicate by check mark if the registrant ha financial accounting standards provided pursuant to Section 13(a) of the Ex		period for complying with any new or revised
Indicate by check mark whether the registrant is a shell company (as define	d in Rule 12b-2 of the Exchange Act). Yes	□ N ₀ ⊠
Indicate the number of shares outstanding of each of the issuer's classes of	common stock, as of the latest practicable of	date.
Common Stock (\$1.00 par value per share)	Dutstanding at June 30, 2022 234,873,651 (excluding 20,320,777 s consolidated subsidiaries)	shares held by the registrant's

TABLE OF CONTENTS

NORFOLK SOUTHERN CORPORATION AND SUBSIDIARIES

ъ . т	T		Page
Part I.		Information:	
	Item 1.	<u>Financial Statements:</u>	
		Consolidated Statements of Income	2
		Second Quarter and First Six Months of 2022 and 2021	<u>3</u>
		Consolidated Statements of Comprehensive Income	4
		Second Quarter and First Six Months of 2022 and 2021	<u>4</u>
		Consolidated Balance Sheets At June 30, 2022 and December 31, 2021	5
		Consolidated Statements of Cash Flows	<u>5</u>
		First Six Months of 2022 and 2021	<u>6</u>
		Consolidated Statements of Changes in Stockholders' Equity	<u> </u>
		Second Quarter and First Six Months of 2022 and 2021	7
		Notes to Consolidated Financial Statements	9
	Item 2.	Management's Discussion and Analysis of Financial Condition and Results of Operations	
	Item 3.	Quantitative and Qualitative Disclosures About Market Risk	<u>19</u> <u>27</u>
	Item 4.	Controls and Procedures	<u>27</u>
Part II.	Other Info	ormation:	
	Item 1.	Legal Proceedings	<u>28</u>
	Item 1A.	Risk Factors	<u>28</u>
	Item 2.	Unregistered Sales of Equity Securities and Use of Proceeds	28
	Item 3.	Defaults Upon Senior Securities	28 28
	Item 4.	Mine Safety Disclosures	<u>28</u>
		Other Information	
	Item 5.		<u>28</u>
	Item 6.	<u>Exhibits</u>	<u>29</u>
		<u>Signatures</u>	<u>30</u>

PART I. FINANCIAL INFORMATION

Item 1. Financial Statements

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

	Second Quarter					First Six Months					
		2022		2021		2022		2021			
	(\$ in millions, except per share amounts)										
Railway operating revenues	\$	3,250	\$	2,799	\$	6,165	\$	5,438			
Railway operating expenses											
Compensation and benefits		614		624		1,233		1,235			
Purchased services and rents		481		429		918		822			
Fuel		408		188		709		365			
Depreciation		304		294		606		586			
Materials and other		172		97		343		248			
Total railway operating expenses		1,979		1,632		3,809		3,256			
Income from railway operations		1,271		1,167		2,356		2,182			
Other income (expense) – net		(14)		35		(19)		42			
Interest expense on debt		170		161		338		317			
Income before income taxes		1,087		1,041		1,999		1,907			
Income taxes		268		222		477		415			
Net income	\$	819	\$	819	\$	1,522	\$	1,492			
Earnings per share											
Basic	\$	3.46	\$	3.29	\$	6.39	\$	5.96			
Diluted		3.45		3.28		6.37		5.94			

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

		Second Quarter		First Si		x Months				
		2022		2021		2022		2021		
	(\$ in millions)									
Net income	\$	819	\$	819	\$	1,522	\$	1,492		
Other comprehensive income, before tax:										
Pension and other postretirement benefits		5		10		11		21		
Other comprehensive income of equity investees		2				8				
Other comprehensive income, before tax		7		10		19		21		
Income tax expense related to items of other										
comprehensive income		(1)		(2)		(5)		(5)		
Other comprehensive income, net of tax		6		8		14		16		
Total comprehensive income	\$	825	\$	827	\$	1,536	\$	1,508		

Norfolk Southern Corporation and Subsidiaries Consolidated Balance Sheets (Unaudited)

	J	une 30, 2022	December 31, 2021		
		(\$ in milli	ions)		
Assets					
Current assets:					
Cash and cash equivalents	\$	1,259 \$	839		
Accounts receivable – net		1,208	976		
Materials and supplies		289	218		
Other current assets		101	134		
Total current assets		2,857	2,167		
Investments		3,671	3,707		
Properties less accumulated depreciation of \$12,267					
and \$12,031, respectively		31,787	31,653		
Other assets		1,021	966		
Total assets	\$	39,336 \$	38,493		
Liabilities and stockholders' equity					
Current liabilities:					
Accounts payable	\$	1,308 \$	1,351		
Income and other taxes		333	305		
Other current liabilities		363	312		
Current maturities of long-term debt		605	553		
Total current liabilities		2,609	2,521		
Long-term debt		14,449	13,287		
Other liabilities		1,843	1,879		
Deferred income taxes		7,281	7,165		
Total liabilities		26,182	24,852		
Stockholders' equity:					
Common stock \$1.00 per share par value, 1,350,000,000 shares authorized; outstanding 234,873,651 and 240,162,790 shares,					
respectively, net of treasury shares		236	242		
Additional paid-in capital		2,190	2,215		
Accumulated other comprehensive loss		(388)	(402)		
Retained income		11,116	11,586		
Total stockholders' equity		13,154	13,641		
Total liabilities and stockholders' equity	\$	39,336 \$	38,493		

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

First Six Months

	2022	2021
	 (\$ in m	
Cash flows from operating activities		
Net income	\$ 1,522	\$ 1,492
Reconciliation of net income to net cash provided by operating activities:		
Depreciation	606	586
Deferred income taxes	111	107
Gains and losses on properties	(37)	(75)
Changes in assets and liabilities affecting operations:		•
Accounts receivable	(230)	(96)
Materials and supplies	(71)	(25)
Other current assets	30	30
Current liabilities other than debt	75	170
Other – net	5	(92)
Net cash provided by operating activities	 2,011	2,097
Cash flows from investing activities		
Property additions	(837)	(627)
Property sales and other transactions	100	66
Investment purchases	(7)	(5)
Investment sales and other transactions		
investment sales and other transactions	 30	 37
Net cash used in investing activities	(714)	(529)
Cash flows from financing activities		
Dividends	(591)	(496)
Common stock transactions	(14)	6
Purchase and retirement of common stock	(1,454)	(1,525)
Proceeds from borrowings	1,732	1,087
Debt repayments	 (550)	 (85)
Net cash used in financing activities	 (877)	 (1,013)
Net increase in cash and cash equivalents	420	555
Cash and cash equivalents		
At beginning of year	 839	 1,115
At end of period	\$ 1,259	\$ 1,670
Supplemental disclosures of cash flow information		
Cash paid during the period for:		
Interest (net of amounts capitalized)	\$ 294	\$ 281
	321	249

Norfolk Southern Corporation and Subsidiaries Consolidated Statements of Changes in Stockholders' Equity (Unaudited)

	mmon tock	Additional Paid-in Capital		ccum. Other imprehensive Loss		Retained Income	Total
		(\$ in mil	lions, e	except per share a	тои	nts)	
Balance at December 31, 2021	\$ 242	\$ 2,215	\$	(402)	\$	11,586	\$ 13,641
Comprehensive income:							
Net income						703	703
Other comprehensive income				8			8
Total comprehensive income							711
Dividends on common stock,							
\$1.24 per share						(297)	(297)
Share repurchases	(2)	(19)				(579)	(600)
Stock-based compensation	 	 7				(1)	 6
Balance at March 31, 2022	240	2,203		(394)		11,412	13,461
Comprehensive income:							
Net income						819	819
Other comprehensive income				6			6
Total comprehensive income							 825
Dividends on common stock,							
\$1.24 per share						(294)	(294)
Share repurchases	(4)	(29)				(821)	(854)
Stock-based compensation	 	 16					 16
Balance at June 30, 2022	\$ 236	\$ 2,190	\$	(388)	\$	11,116	\$ 13,154

Norfolk Southern Corporation and Subsidiaries Consolidated Statements of Changes in Stockholders' Equity (Unaudited)

	Common Stock		Additional Accum. Other Paid-in Comprehensive Capital Loss				Retained Income		Total
			(\$ in mil	lions,	except per share a	тои			
Balance at December 31, 2020	\$	254	\$ 2,248	\$	(594)	\$	12,883	\$	14,791
Comprehensive income: Net income Other comprehensive income Total comprehensive income					8		673		673 8 681
Dividends on common stock, \$0.99 per share Share repurchases Stock-based compensation		(3)	(19) 12				(249) (569) (1)		(249) (591) 11
Balance at March 31, 2021		251	2,241		(586)		12,737		14,643
Comprehensive income: Net income Other comprehensive income Total comprehensive income Dividends on common stock,					8		819		819 8 827
\$0.99 per share Share repurchases Stock-based compensation		(3)	 (28) 27				(247) (903) 1		(247) (934) 28
Balance at June 30, 2021	\$	248	\$ 2,240	\$	(578)	\$	12,407	\$	14,317

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, 2022 and December 31, 2021, our results of operations, comprehensive income and changes in stockholders' equity for the second quarters and first six months of 2022 and 2021, and our cash flows for the first six months of 2022 and 2021 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. Railway Operating Revenues

The following table disaggregates our revenues by major commodity group:

	Second Quarter					First Six Months				
	2022			2021		2022		2021		
				(\$ in n	nillions)					
Merchandise:										
Agriculture, forest and consumer products	\$	624	\$	578	\$	1,197	\$	1,117		
Chemicals		552		494		1,050		953		
Metals and construction		420		402		795		772		
Automotive		257		206		483		446		
Merchandise		1,853		1,680		3,525		3,288		
Intermodal		972		801		1,826		1,520		
Coal		425		318		814		630		
Total	\$	3,250	\$	2,799	\$	6,165	\$	5,438		

We recognize the amount of revenues to which we expect to be entitled for the transfer of promised goods or services to customers. A performance obligation is created when a customer under a transportation contract or public tariff submits a bill of lading to us for the transport of goods. These performance obligations are satisfied as the shipments move from origin to destination. As such, transportation revenues are recognized proportionally as a shipment moves, and related expenses are recognized as incurred. These performance obligations are generally short-term in nature with transit days averaging approximately one week or less for each commodity group. The customer has an unconditional obligation to pay for the service once the service has been completed. Estimated revenues associated with in-process shipments at period-end are recorded based on the estimated percentage of service completed. We had no material remaining performance obligations at June 30, 2022 and December 31, 2021.

We may provide customers ancillary services, such as switching, demurrage and other incidental activities, under their transportation contracts. These are distinct performance obligations that are recognized at a point in time when the services are performed or as contractual obligations are met. These revenues are included within each of the commodity groups and represent approximately 6% of total "Railway operating revenues" on the Consolidated Statements of Income for the second quarters of 2022 and 2021 and first six months of 2021 and 7% for the first six months of 2022.

Revenues related to interline transportation services that involve another railroad are reported on a net basis. Therefore, the portion of the amount that relates to another party is not reflected in revenues.

Under the typical terms of our freight contracts, payment for services is due within fifteen days of billing the customer, thus there are no significant financing components. "Accounts receivable – net" on the Consolidated Balance Sheets includes both customer and non-customer receivables as follows:

		June 30, 2022	Decemb	er 31, 2021
		(\$ in n	nillions)	
Customer	\$	924	\$	741
Non-customer		284		235
Accounts receivable – net	<u>\$</u>	1,208	\$	976

Non-customer receivables include non-revenue related amounts due from other railroads, governmental entities, and others. There were no non-current customer receivables at June 30, 2022, while "Other assets" on the Consolidated Balance Sheets included \$23 million at December 31, 2021. We do not have any material contract assets or liabilities at June 30, 2022 and December 31, 2021.

2. Stock-Based Compensation

	Second Quarter			First Six Months				
	 2022	2021		2022	2		2021	
			(\$ in mi	llions)				
Stock-based compensation expense	\$ 13	\$	16	\$	36	\$		32
Total tax benefit	4		8		17			25

During 2022, we granted stock options, restricted stock units (RSUs) and performance share units (PSUs) pursuant to the Long-Term Incentive Plan (LTIP), as follows:

	Second	x Months			
	Granted	ighted-Average rant-Date Fair Value	Granted		ghted-Average ant-Date Fair Value
Stock options	1,640	\$ 84.01	133,810	\$	60.69
RSUs	9,090	265.31	163,991		268.31
PSUs	2,430	271.83	51,455		274.70

Stock Options

	Second Qu	ıarter	First Si	iths	
	 2022	2021	2022		2021
		(\$ in n	nillions)		
Options exercised	39,546	128,934	158,889		341,480
Cash received upon exercise	\$ 4 \$	12	\$ 14	\$	31
Related tax benefits realized	1	5	6		12

Restricted Stock Units

RSUs granted primarily have a four-year ratable restriction period and will be settled through the issuance of shares of Norfolk Southern common stock (Common Stock). Certain RSU grants include cash dividend equivalent payments during the restriction period in an amount equal to the regular quarterly dividends paid on Common Stock.

	Second Quar	rter	First Six Months					
	 2022	2021	2022		2021			
		(\$ in millio	ons)					
RSUs vested	3,652	1,730	246,953		259,127			
Common Stock issued net of tax withholding	2,612	1,222	174,976		183,511			
Related tax benefits realized	\$ — \$	— \$	5	\$	7			

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. 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 during the second quarters of 2022 or 2021.

	First Six	x Months				
	2022	2021				
	(\$ in millions)					
PSUs earned	86,420	78,727				
Common Stock issued net of tax withholding	54,651	49,967				
Related tax benefits realized	\$ 1	\$ 1				

3. Earnings Per Share

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

	Ba		Diluted				
			Second	Quar	ter		
	2022		2021		2022		2021
	 (\$ i	n mili	ions, excep shares in		share amo ons)	unts,	
Net income	\$ 819	\$	819	\$	819	\$	819
Dividend equivalent payments	 (1)		<u> </u>		(1)		
Income available to common stockholders	\$ 818	\$	819	\$	818	\$	819
Weighted-average shares outstanding	236.7		248.9		236.7		248.9
Dilutive effect of outstanding options and share-settled awards					0.8		1.1
Adjusted weighted-average shares outstanding					237.5		250.0
Earnings per share	\$ 3.46	\$	3.29	\$	3.45	\$	3.28
	 Ba	asic			Dilı	uted	
			First Six	k Mor	nths		
	 2022		2021		2022		2021
	(\$ i	n mill	ions, excep shares in		share amo ons)	unts,	
Net income	\$ 1,522	\$	1,492	\$	1,522	\$	1,492
Dividend equivalent payments	 (1)		(1)		(1)		
Income available to common stockholders	\$ 1,521	\$	1,491	\$	1,521	\$	1,492
Weighted-average shares outstanding	238.0		250.1		238.0		250.1
Dilutive effect of outstanding options and share-settled awards	 	_			0.9		1.2
Adjusted weighted-average shares outstanding					238.9		251.3
Earnings per share	\$ 6.39	\$	5.96	\$	6.37	\$	5.94

During the second quarters and first six months of 2022 and 2021, dividend equivalent payments were made to certain holders of stock options and RSUs. For purposes of computing basic earnings per share, dividend equivalent payments made to holders of 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 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: 0.1 million in the second quarter and first six months ended June 30, 2021 and none in the second quarter and first six months ended June 30, 2021.

4. Accumulated Other Comprehensive Loss

The changes in the cumulative balances of "Accumulated other comprehensive loss" reported in the Consolidated Balance Sheets consisted of the following:

	Be	ance at ginning f Year		Net come		ssification estments	E	ance at and of eriod
				in millions,)			
Six months ended June 30, 2022								
Pensions and other postretirement liabilities	\$	(356)	\$		\$	8	\$	(348)
Other comprehensive income (loss) of equity investees		(46)		6				(40)
Accumulated other comprehensive loss	\$	(402)	\$	6	\$	8	\$	(388)
Six months ended June 30, 2021								
Pensions and other postretirement liabilities	\$	(526)	\$		\$	16	\$	(510)
Other comprehensive loss of equity investees		(68)						(68)
Accumulated other comprehensive loss	\$	(594)	\$		\$	16	\$	(578)

5. Stock Repurchase Program

We repurchased and retired 5.7 million shares of Common Stock under our stock repurchase program at a cost of \$1.5 billion during the first six months of both 2022 and 2021. On March 29, 2022, our Board of Directors authorized a new program for the repurchase of up to \$10.0 billion of Common Stock beginning April 1, 2022. Our previous share repurchase program terminated on March 31, 2022.

6. 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 \$1.6 billion and \$1.5 billion at June 30, 2022 and December 31, 2021, respectfully.

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 payable to CRC for operation of the Shared Assets Areas totaling \$36 million and \$37 million for the second quarters of 2022 and 2021, respectively, and \$74 million and \$71 million for the first six months of 2022 and 2021, respectively. Our equity in Conrail's earnings, net of amortization, was \$11 million and \$14 million for the second quarters of 2022 and 2021, respectively, and \$25 million and \$28 million for the first six months of 2022 and 2021, respectively. These amounts partially offset the costs of operating the Shared Assets Areas and are included in "Purchased services and rents."

"Other liabilities" includes \$534 million at both June 30, 2022 and December 31, 2021 for long-term advances from Conrail, maturing in 2050 that bear interest at an average rate of 1.31%.

Investment in TTX

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

Expenses incurred for use of TTX equipment are included in "Purchased services and rents." These expenses amounted to \$66 million and \$61 million for the second quarters of 2022 and 2021, respectively, and \$130 million and \$124 million for the first six months of 2022 and 2021, respectively. Our equity in TTX's earnings partially offsets these costs and totaled \$11 million and \$14 million for the second quarters of 2022 and 2021, respectively, and \$21 million and \$31 million for the first six months of 2022 and 2021, respectively.

7. Debt

In June 2022, we issued \$750 million of 4.55% senior notes due 2053.

In May 2022, we renewed our accounts receivable securitization program with a maximum borrowing capacity of \$400 million. The term expires in May 2023. We had no amounts outstanding under this program and our available borrowing capacity was \$400 million at both June 30, 2022, and December 31, 2021.

In February 2022, we issued \$600 million of 3.00% senior notes due 2032 and \$400 million of 3.70% senior notes due 2053.

8. Pensions and Other Postretirement Benefits

We have both funded and unfunded defined benefit pension plans covering eligible employees. We also provide specified health care 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, certain health care expenses are covered for retired employees and their dependents, reduced by any deductibles, coinsurance, and, in some cases, coverage provided under other group insurance policies. Eligible retired participants and their spouses 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 were as follows:

	Pension	Ber	efits	Other Postretirement Benefit					
			Second	Qua	rter				
	2022		2021		2022	2021			
			(\$ in m	illior	ns)				
Service cost	\$ 10	\$	11	\$	2	\$	1		
Interest cost	17		14		2		2		
Expected return on plan assets	(54)		(48)		(3)		(3)		
Amortization of net losses	12		16				1		
Amortization of prior service benefit	 				(7)		(7)		
Net benefit	\$ (15)	\$	(7)	\$	(6)	\$	(6)		

	Pension Benefits				Other Postretirement Benefi					
			First Si	x Mon	iths					
	2022		2021		2022		2021			
			(\$ in n	ıillion	s)					
Service cost	\$ 20	\$	22	\$	3	\$	3			
Interest cost	34		27		4		4			
Expected return on plan assets	(107)		(96)		(6)		(6)			
Amortization of net losses	24		33				1			
Amortization of prior service benefit	 				(13)		(13)			
Net benefit	\$ (29)	\$	(14)	\$	(12)	\$	(11)			

The service cost component of defined benefit pension cost and postretirement benefit cost are reported within "Compensation and benefits" and all other components of net benefit cost are presented in "Other income (expense) – net" on the Consolidated Statements of Income.

9. Fair Values of Financial Instruments

The fair values of "Cash and cash equivalents," "Accounts receivable – net," and "Accounts payable," 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. There are no other assets or liabilities measured at fair value on a recurring basis at June 30, 2022 or December 31, 2021. The carrying amounts and estimated fair values, based on Level 1 inputs, of long-term debt consist of the following:

	June 30, 2	2022	December 3	1, 2021
	Carrying Amount	Fair Value	Carrying Amount	Fair Value
		(\$ in mi	llions)	
Long-term debt, including current maturities	\$ (15,054) \$	(14,571)	\$ (13,840) \$	(17,033)

10. 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 and, if material, disclosed below. 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. For lawsuits and other claims where a loss may be reasonably possible, but not probable, or is probable but not reasonably estimable, no accrual is established but the matter, if potentially material, is disclosed below. We routinely review relevant information with respect to our lawsuits and other claims and update our accruals, disclosures and estimates of reasonably possible loss based on such reviews.

In 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. In 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. On October 10, 2017, the District Court denied class certification. The decision was upheld by the Court of Appeals on August 16, 2019. Since that decision, various individual cases have been filed in multiple jurisdictions and also consolidated in the District of Columbia. 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.

In 2018, a lawsuit was filed against one of our subsidiaries by the minority owner in a jointly-owned terminal railroad company in which our subsidiary has the majority ownership. The lawsuit alleged violations of various state laws and federal antitrust laws. Summary judgment has been briefed but not decided, and trial is likely to occur in the first quarter of 2023. We continue to vigorously defend the lawsuit and, although it is reasonably possible we could incur a loss in the case, we believe that we will prevail. However, given that litigation is inherently unpredictable and subject to uncertainties, there can be no assurances that the final outcome of the litigation or a litigation settlement will not be material. We cannot reasonably estimate the potential loss or range of loss associated with the litigation at this time.

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 actuarial consulting firm. Job-related personal injury and occupational claims are subject to the Federal Employer's Liability Act (FELA), which is applicable only to railroads. The variability inherent in FELA's fault-based tort 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 claims expense is employee personal injury costs. The independent actuarial firm we engage 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. We adjust the liability quarterly based upon our assessment and the results of the study. The accuracy of our estimate of the liability is subject to inherent limitation given the difficulty of predicting future events such as jury decisions, court interpretations, or legislative changes. As a result, actual claim settlements may vary from the estimated liability recorded.

Occupational claims – Occupational claims include injuries and illnesses alleged to be caused by exposures which occur over time as opposed to injuries or illnesses caused by a specific accident or event. Types of occupational claims commonly seen allege exposure to asbestos and other claimed toxic substances resulting in respiratory diseases or cancer. 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. Our 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. 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, 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. 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 reasonably estimable. Environmental specialists regularly participate in ongoing evaluations of all known sites and in determining any necessary adjustments to liability estimates.

Our Consolidated Balance Sheets include liabilities for environmental exposures of \$56 million at June 30, 2022 and \$49 million at December 31, 2021, of which \$15 million is classified as a current liability at the end of both periods. At June 30, 2022, the liability represents our estimates of the probable cleanup, investigation, and remediation costs based on available information at 91 known locations and projects compared with 88 locations and projects at December 31, 2021. At June 30, 2022, nineteen sites accounted for \$45 million of the liability, and no individual site was considered to be material. We anticipate that most of this liability will be paid out over five years; however, some costs will be paid out over a longer period.

At eight 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 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.

Labor Agreements

Approximately 80% of our railroad employees are covered by collective bargaining agreements with various labor unions. Pursuant to the Railway Labor Act, these agreements remain in effect until new agreements are reached, or until the bargaining procedures mandated by the Railway Labor Act are completed. Bargaining procedures, which began in November 2019, are ongoing, with the ultimate outcome unknown. The ultimate changes in our labor agreements resulting from this process could significantly increase our costs for health care, wages, and other benefits.

Insurance

We purchase insurance covering legal liabilities for bodily injury and property damage to third parties. This insurance provides coverage above \$75 million and below \$800 million (\$1.1 billion for specific perils) per occurrence and/or policy year. In addition, we purchase insurance covering damage to property owned by us or in our care, custody, or control. This insurance covers approximately 82% of potential losses above \$75 million and below \$275 million per occurrence and/or policy year.

11. New Accounting Pronouncements

In November 2021, the Financial Accounting Standards Board issued Accounting Standards Update 2021-10, "Government Assistance (Topic 832): Disclosures by Business Entities about Government Assistance," which requires annual disclosures when an entity has received government assistance. Entities are required to disclose the types of government assistance received, the accounting treatment for that government assistance, and the effect of the government assistance on the financial statements. The new standard is effective for annual periods beginning after December 15, 2021, and early adoption is permitted. We do not expect this standard to have a material effect on our disclosures. We did not adopt the standard early.

12. Subsequent Events

On July 8, 2022, House Bill 1342 was signed into law in the Commonwealth of Pennsylvania, making significant changes to its corporate income tax rate. The bill reduces its corporate income tax rate from 9.99% to 4.99%, with reductions occurring in phases beginning each tax year from January 1, 2023 through January 1, 2031. GAAP requires companies to recognize the effect of tax law changes in the period of enactment. As a result, it is expected that there will be a decrease in "Deferred income taxes" on the Consolidated Balance Sheet and a corresponding decrease in "Income taxes" on the Income Statement in the third quarter of 2022. We currently estimate that the impact will be approximately \$135 million.

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, moving goods and materials that help drive the U.S. economy. We connect customers to markets and communities to economic opportunity with safe, reliable, and cost-effective shipping solutions. Our Norfolk Southern Railway Company subsidiary operates in 22 states and the District of Columbia. We are a major transporter of industrial products, including agriculture, forest and consumer products, chemicals, and metals and construction materials. In addition, in the East we serve every major container port and operate the most extensive intermodal network. We are also a principal carrier of coal, automobiles, and automotive parts.

Strong revenue growth drove operating income improvement in the second quarter. Although lower network velocity contributed to volume declines compared to prior year, higher fuel surcharge revenues and pricing gains led to revenue per unit growth that more than offset the impact of lower volume. The increase in fuel commodity prices also led to higher fuel expense. The net impact of fuel prices on revenues and expenses, coupled with lower current-year gains on operating property sales, contributed to the degradation of the railway operating ratio (a measure of the amount of operating revenues consumed by operating expenses). While network fluidity remained challenged, we are taking the steps necessary for service restoration. These efforts include recruiting, training, and retaining our transportation crews as well as evolving our operating plan, with the goal of improving service for our customers.

The COVID-19 pandemic continues to impact the U.S. and global economies and has resulted in ongoing supply chain challenges. We are monitoring and reacting to the evolving nature of the pandemic, governmental responses, and their impacts on our business, including employee availability. We remain committed to protecting our employees, operating safely, and providing excellent transportation service products for our customers.

SUMMARIZED RESULTS OF OPERATIONS

		Seco	nd Quartei	•		First Six Months							
	 2022		2021 % change			2022		2021	% change				
	(\$ in millions, except per share amounts)												
Income from railway operations	\$ 1,271	\$	1,167	9%	\$	2,356	\$	2,182	8%				
Net income	\$ 819	\$	819	<u> % </u>	\$	1,522	\$	1,492	2%				
Diluted earnings per share	\$ 3.45	\$	3.28	5%	\$	6.37	\$	5.94	7%				
Railway operating ratio (percent)	60.9		58.3	4%		61.8		59.9	3%				

Income from railway operations increased in both periods due to higher railway operating revenues. Revenue growth was driven by higher fuel surcharge revenues and pricing gains, which exceeded the impact of a 3% and 4% volume decline in the second quarter and first six months, respectively. The rise in revenues was offset in part by increased railway operating expenses, driven by higher fuel prices, other inflationary pressures, service-related costs, lower gains on the sale of operating properties, and higher claims-related expenses. Offsetting the growth in income from railway operations were lower net returns on corporate-owned life insurance (COLI) and higher income taxes. Our share repurchase activity resulted in the percentage increase in diluted earnings per share that exceeded that of net income.

DETAILED RESULTS OF OPERATIONS

Railway Operating Revenues

The following tables present a comparison of revenues (\$ in millions), units (in thousands), and average revenue per unit (\$ per unit) by commodity group.

		Sec	ond Quarter			First Six Months							
Revenues	2022		2021	% change	_	2022		2021	% change				
Merchandise:					_								
Agriculture, forest and consumer products	\$ 624	\$	578	8%	\$	1,197	\$	1,117	7%				
Chemicals	552		494	12%		1,050		953	10%				
Metals and construction	420		402	4%		795		772	3%				
Automotive	257		206	25%		483		446	8%				
Merchandise	1,853		1,680	10%		3,525		3,288	7%				
Intermodal	972		801	21%		1,826		1,520	20%				
Coal	425		318	34%		814		630	29%				
Total	\$ 3,250	\$	2,799	16%	\$	6,165	\$	5,438	13%				
Units													
Merchandise:													
Agriculture, forest and consumer products	183.6		187.7	(2%)		361.2		366.0	(1%)				
Chemicals	140.0		133.7	5%		269.4		260.7	3%				
Metals and construction	163.9		176.3	(7%)		311.9		331.3	(6%)				
Automotive	85.7		82.3	4%		166.9		176.0	(5%)				
Merchandise	573.2		580.0	(1%)		1,109.4		1,134.0	(2%)				
Intermodal	1,016.5		1,062.6	(4%)		1,973.0		2,079.0	(5%)				
Coal	 166.1		173.2	(4%)		331.7		339.7	(2%)				
Total	1,755.8		1,815.8	(3%)		3,414.1	_	3,552.7	(4%)				
Revenue per Unit													
Merchandise:													
Agriculture, forest and consumer products	\$ 3,398	\$	3,076	10%	\$	3,314	\$	3,051	9%				
Chemicals	3,941		3,691	7%		3,897		3,654	7%				
Metals and construction	2,560		2,285	12%		2,548		2,332	9%				
Automotive	3,007		2,507	20%		2,894		2,534	14%				
Merchandise	3,233		2,896	12%		3,177		2,899	10%				
Intermodal	955		754	27%		925		731	27%				
Coal	2,562		1,837	39%		2,455		1,854	32%				
Total	1,851		1,542	20%		1,806		1,531	18%				

Railway operating revenues increased \$451 million in the second quarter and \$727 million for the first six months compared with the same periods last year. The table below reflects the components of the revenue change by major commodity group (\$ in millions).

			Se	econd Quarter					Fi	rst Six Months	
		Merchandise		Intermodal		Coal		Merchandise		Intermodal	Coal
						Increase	(De	crease)			
Volume	\$	(20)	\$	(35)	\$	(13)	\$	(71)	\$	(77)	\$ (15)
Fuel surcharge revenue		121		136		16		188		209	23
Rate, mix and other	_	72		70	_	104		120		174	 176
Total	\$	173	\$	171	\$	107	\$	237	\$	306	\$ 184

Approximately 95% of our revenue base is covered by contracts that include negotiated fuel surcharges. Revenues associated with these surcharges totaled \$421 million and \$148 million in the second quarters of 2022 and 2021, respectively, and \$665 million and \$245 million for the first six months of 2022 and 2021, respectively. The increase in fuel surcharge revenues is driven by higher fuel commodity prices. Should the current fuel price environment persist for the remainder of 2022, we expect fuel surcharge revenue to continue to be higher than 2021.

Merchandise

Merchandise revenues increased in both periods due to higher average revenue per unit, driven by higher fuel surcharge revenue and increased pricing, partially offset by decreased volume. Volumes fell in both periods as declines in metals and construction and agriculture, forest, and consumer products shipments more than offset higher chemical shipments.

Agriculture, forest and consumer products volume decreased in both periods, as declines in corn, fertilizers, and pulp more than offset increases in soybeans and feed. Decreased corn and pulp shipments were due to service disruptions. Lower fertilizer shipments were due to high fertilizer prices causing customers to draw down on existing inventories or delay purchases. Soybean volumes were higher due to increased opportunity for exports and feed shipments were up because of increased customer demand.

Chemicals volume rose in both periods due to growth in shipments of sand and solid waste, driven by growth with existing customers.

Metals and construction volume fell in both periods, largely the result of decreased shipments of coil steel, iron and steel, aggregates, scrap metal, and cement driven by commodity pricing, service disruptions and slower equipment cycle times.

Automotive volume increased in the second quarter but decreased for the first six months. Higher shipments in the second quarter were primarily due to production shutdowns in the prior year caused by parts supply issues. Volumes for the first six months were impacted by plant shutdowns, as a result of the global microchip shortage, and slower equipment cycle times.

Merchandise revenues for the remainder of the year are expected to be higher due to increased average revenue per unit, driven by higher fuel surcharge revenue and pricing gains, and volume growth.

Intermodal

Intermodal revenues increased in both periods, driven by higher average revenue per unit, a result of higher fuel surcharge revenues, pricing gains and storage service charges, partially offset by lower volume.

Intermodal units (in thousands) by market were as follows:

	Se	econd Quarter		Fir	rst Six Months	;
	2022	2021	% change	2021	% change	
Domestic International	670.4 346.1	661.9 400.7	1% (14%)	1,323.8 649.2	1,300.9 778.1	2% (17%)
Total	1,016.5	1,062.6	(4%)	1,973.0	2,079.0	(5%)

Domestic volume rose slightly due to strong demand, partially offset by service disruptions and limited chassis availability. International volume decreased as supply chain constraints with terminals, ports, labor, and chassis availability, as well as excess inventory in the warehousing retail sector more than offset strong consumer demand.

Intermodal revenues for the remainder of the year are expected to rise, driven by increased fuel surcharge revenue, volume growth, and pricing gains, partially offset by lower storage service revenues.

Coal

Coal revenues increased in both periods due to higher average revenue per unit, driven by pricing gains and higher fuel surcharge revenue, partially offset by lower volume.

Coal tonnage (in thousands) by market was as follows:

	Se	econd Quarter		First Six Months				
	2022	2021	% change	2022	2021	% change		
Utility	8,267	8,563	(3%)	17,228	17,109	1%		
Export	6,514	6,580	(1%)	12,928	13,273	(3%)		
Domestic metallurgical	2,782	3,325	(16%)	5,212	5,812	(10%)		
Industrial	1,083	871	24%	1,886	1,770	7%		
Total	18,646	19,339	(4%)	37,254	37,964	(2%)		

Coal tonnage declined in both periods primarily due to decreased domestic metallurgical tonnage. While utility tonnage increased slightly for the first six months, it experienced a decrease in the second quarter due to service disruptions and tight coal supply. Export tonnage decreased due to service disruptions and tight coal supply. Domestic metallurgical coal tonnage fell due to reduced coke shipments related to customer sourcing changes. Industrial coal tonnage increased in both periods due to increased demand.

Coal revenues for the remainder of the year are expected to rise due to increased volumes.

Railway Operating Expenses

Railway operating expenses summarized by major classifications follow (\$ in millions):

	Second Quarter						First Six Months				
	2022		2021		% change	2022		2021		% change	
Compensation and benefits	\$	614	\$	624	(2%)	\$	1,233	\$	1,235	%	
Purchased services and rents		481		429	12%		918		822	12%	
Fuel		408		188	117%		709		365	94%	
Depreciation		304		294	3%		606		586	3%	
Materials and other		172		97	77%		343		248	38%	
Total	\$	1,979	\$	1,632	21%	\$	3,809	\$	3,256	17%	

Compensation and benefits expense decreased in both periods as follows:

- incentive and stock-based compensation (down \$32 million for the quarter and \$24 million for the first six months),
- employee activity levels (up \$2 million for the quarter but down \$15 million for the first six months),
- overtime (up \$4 million for the quarter and \$13 million for the first six months),
- increased pay rates (up \$11 million for the quarter and \$21 million for the first six months), and
- other (up \$5 million for the quarter and \$3 million for the first six months).

Average rail headcount for the quarter was up by over 100 compared with the second quarter of 2021, and up over 600 compared with the fourth quarter of 2021.

Purchased services and rents increased in both periods as follows (\$ in millions):

		Second Quarter							First Six Months				
	2022		2021		% change	2022		2021		% change			
Purchased services	\$	387	\$	352	10%	\$	736	\$	670	10%			
Equipment rents		94		77	22%		182		152	20%			
Total	\$	481	\$	429	12%	\$	918	\$	822	12%			

Purchased services increased in both periods due to inflationary pressures which resulted in higher intermodal-related expenses, increased operational and transportation expenses, as well as, higher technology-related costs. Equipment rents increased in both periods as lower network fluidity led to greater time-and-mileage expenses and increased automotive equipment expenses. Additionally, both periods had lower equity in TTX earnings.

Fuel expense, which includes the cost of locomotive fuel as well as other fuel used in railway operations, increased in both periods due to higher locomotive fuel prices (up 124% in the second quarter and 102% in the first six months), partially offset by decreased consumption (down 3% in both the second quarter and first six months). Should the current fuel price environment persist for the remainder of 2022, we expect fuel expenses to continue to be higher compared to 2021.

Materials and other expenses increased in both periods as follows (\$ in millions):

		Second Quarter						First Six Months					
	20	22		2021	% change		2022		2021	% change			
Materials	\$	70	\$	61	15%	\$	132	\$	122	8%			
Claims		64		43	49%		113		81	40%			
Other		38		(7)	643%		98		45	118%			
Total	\$	172	\$	97	77%	\$	343	\$	248	38%			

Materials expense increased in both periods due to increased track and freight car materials costs. Locomotive maintenance costs were also higher in the second quarter. Claims expense increased in both periods as a result of higher costs associated with personal injuries, environmental remediation matters, and derailments. Other expense increased in both periods due to lower gains from operating property sales and litigation-related expenses. Gains from operating property sales totaled \$28 million and \$67 million for the second quarters of 2022 and 2021, respectively, and \$34 million and \$71 million in the first six months of 2022 and 2021, respectively.

Other income (expense) - net

Other income (expense) – net decreased \$49 million in the second quarter and \$61 million for the first six months. Both periods experienced lower net returns on COLI partially offset by a higher net pension benefit.

Income taxes

The second-quarter and six month effective tax rates for 2022 were 24.7% and 23.9%, compared with 21.3% and 21.8%, respectively, for the same periods last year. The increases in the effective rates for 2022 reflect lower returns on COLI and lower tax benefits on stock-based compensation. Additionally, in 2021, we recognized a \$23 million reduction in deferred taxes associated with a state tax law change.

On July 8, 2022, House Bill 1342 was signed into law in the Commonwealth of Pennsylvania, making significant changes to its corporate income tax rate. The bill reduces its corporate income tax rate from 9.99% to 4.99%, with reductions occurring in phases beginning each tax year from January 1, 2023 through January 1, 2031. GAAP requires companies to recognize the effect of tax law changes in the period of enactment. As a result, it is expected that there will be a decrease in "Deferred income taxes" on the Consolidated Balance Sheet and a corresponding decrease in "Income taxes" on the Income Statement in the third quarter of 2022. We currently estimate that the impact will be approximately \$135 million.

FINANCIAL CONDITION AND LIQUIDITY

Cash provided by operating activities, our principal source of liquidity, was \$2.0 billion for the first six months of 2022, compared with \$2.1 billion for the same period of 2021. We had working capital of \$248 million and negative working capital of \$354 million at June 30, 2022 and December 31, 2021, respectively. Cash and cash equivalents totaled \$1.3 billion at June 30, 2022.

Cash used in investing activities was \$714 million for the first six months of 2022, compared with \$529 million for the same period last year. The increase was primarily driven by higher property additions.

Cash used in financing activities was \$877 million for the first six months of 2022, while \$1.0 billion was used in financing activities for the same period last year, reflecting increased proceeds from borrowing partially offset by higher debt repayments and dividends. We repurchased \$1.5 billion of Common Stock in the first six months of both 2022 and 2021. On March 29, 2022, our Board of Directors authorized a new program for the repurchase of

up to an additional \$10.0 billion of Common Stock beginning April 1, 2022. Our previous share repurchase program terminated on March 31, 2022. The timing and volume of future share repurchases will be guided by our assessment of market conditions and other pertinent factors. Repurchases may be executed in the open market, through derivatives, accelerated repurchase and other negotiated transactions and through plans designed to comply with Rule 10b5-1(c) and Rule 10b-18 under the Securities and Exchange Act of 1934. Any near-term purchases under the program are expected to be made with internally-generated cash, cash on hand, or proceeds from borrowings.

Our debt-to-total capitalization ratio was 53.4% at June 30, 2022, and 50.4% at December 31, 2021.

In June 2022, we issued \$750 million of 4.55% senior notes due 2053.

In May 2022, we renewed our accounts receivable securitization program with a maximum borrowing capacity of \$400 million. The term expires in May 2023. We had no amounts outstanding under this program and our available borrowing capacity was \$400 million at both June 30, 2022, and December 31, 2021.

In February 2022, we issued \$600 million of 3.00% senior notes due 2032 and \$400 million of 3.70% senior notes due 2053.

We also have in place and available an \$800 million credit agreement expiring in March 2025, which provides for borrowings at prevailing rates and includes covenants. We had no amounts outstanding under this facility at June 30, 2022 or December 31, 2021.

In addition, we have investments in general purpose corporate-owned life insurance policies and had the ability to borrow against these policies up to \$630 million and \$715 million at June 30, 2022 and December 31, 2021, respectively.

We expect cash on hand combined with cash provided by operating activities will be sufficient to meet our ongoing obligations. In addition, we believe our currently-available borrowing capacity, access to additional financing, and ability to reduce or defer expenditures on property additions and decrease shareholder distributions, including share repurchases, provide additional flexibility to meet our ongoing obligations. Nonetheless, we are monitoring the ongoing impacts of the COVID-19 pandemic, which could lead to a decline of cash inflows from operations. There have been no material changes to the information on future contractual obligations, including those that may have material cash requirements, contained in our Form 10-K for the year ended December 31, 2021, with the exception of additional senior notes (see Note 7) and approximately \$1.0 billion of additional unconditional purchase obligations, which extend through 2025.

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 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. There have been no significant changes to the critical accounting estimates contained in our Form 10-K at December 31, 2021.

OTHER MATTERS

Labor Agreements

Approximately 80% of our railroad employees are covered by collective bargaining agreements with various labor unions. Pursuant to the Railway Labor Act, these agreements remain in effect until new agreements are reached, or until the bargaining procedures mandated by the Railway Labor Act are completed. Moratorium provisions in the labor agreements govern when the railroads and unions may propose changes to the agreements. We largely bargain nationally in concert with other major railroads, represented by the National Carriers' Conference Committee. After management and the unions served their formal proposals in November 2019 for changes to the collective bargaining agreements, negotiations began in 2020 following the expiration of the last moratorium. On June 17, 2022, the National Mediation Board notified the parties that all practical methods of ending the dispute had been exhausted without effecting a settlement and that its mediation services had been terminated. Although negotiations between the parties continue, this release allowed either party to engage in self-help (strike or lockout) after a 30-day cooling off period. However, because the dispute threatens to interrupt commerce and deprive certain segments of the domestic economy of essential transportation service, President Biden created Presidential Emergency Board (PEB) No. 250, effective July 18, 2022, to investigate the facts of the dispute and make recommendations. The creation of the PEB delays any potential self-help for 60 days while the PEB makes recommendations (expected 30 days from the date the PEB was created) and the parties engage in further negotiations (for a period of 30 days). The outcome of the negotiations cannot be determined at this time; however, if the dispute is not resolved during this final period of negotiations and either party rejects the recommendations of the PEB, self-help could occur in mid-September. As has occurred during prior labor agreement negotiations, the parties could potentially reach an agreement during post-PEB negotiations, or Congress could take legislative action to preempt self-help and avert a service disruption. A service disruption, depending on the duration, could have a material adverse effect on our financial position, results of operations, or liquidity. In addition, changes in our labor agreements could significantly increase our costs for health care, wages, and other benefits.

New Accounting Pronouncements

For a detailed discussion of new accounting pronouncements, see Note 11.

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," "predict," "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.

Additional Information

Investors and others should note that we routinely use the Investor Relations, Performance Metrics, and Sustainability sections of our website (www.norfolksouthern.com/content/nscorp/en/investor-relations.html, http://www.nscorp.com/content/nscorp/en/investor-relations/performance-metrics.html & www.nscorp.com/content/nscorp/en/about-ns/sustainability.html) to post presentations to investors and other important information, including information that may be deemed material to investors. Information about us, including information that may be deemed material, may also be announced by posts on our social media channels, including Twitter (www.twitter.com/nscorp) and LinkedIn (www.linkedin.com/company/norfolk-southern). We may also use our website and social media channels for the purpose of complying with our disclosure obligations under Regulation FD. As a result, we encourage investors, the media, and others interested in Norfolk Southern to review the information posted on our website and social media channels. The information posted on our website and social media channels is not incorporated by reference in this Quarterly Report on Form 10-Q.

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, 2022. Based on such evaluation, our officers have concluded that, at June 30, 2022, our disclosure controls and procedures were 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 2022, 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

For information on our legal proceedings, see Note 10 "Commitments and Contingencies" in the Consolidated Financial Statements.

Item 1A. Risk Factors

The risks set forth in "Risk Factors" included in our 2021 Form 10-K could have a material adverse effect on our financial position, results of operations, or liquidity in a particular year or quarter, and could cause those results to differ materially from those expressed or implied in our forward-looking statements. Those risks 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 (1)	(b) A Paid _I	verage Price per Share (or Unit)	(c) Total Number of Shares (or Units) Purchased as Part of Publicly Announced Plans or Programs (2)	(or A Val Unit pur	Maximum Number pproximate Dollar lue) of Shares (or las) that may yet be chased under the las or Programs (2)
April 1-30, 2022	907,332	\$	262.17	907,332	\$	9,762,127,094
May 1-31, 2022	1,266,662		244.19	1,266,662		9,452,824,147
June 1-30, 2022	1,327,298		230.97	1,327,298		9,146,255,336
Total	3,501,292			3,501,292		

⁽¹⁾ Of this amount, no shares were tendered by employees in connection with the exercise of options under the stockholder-approved LTIP.

Item 3. Defaults Upon Senior Securities

None.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

None.

On March 29, 2022, our Board of Directors authorized a new program for the repurchase of up to \$10.0 billion of Common Stock beginning April 1, 2022. As of June 30, 2022, \$9.1 billion remains authorized for repurchase. Our previous share repurchase program terminated on March 31, 2022.

Item 6. Exhibits

- 4.1 Ninth Supplemental Indenture, dated June 13, 2022, between the Registrant and U.S. Bank Trust Company, National Association (as successor to U.S. Bank National Association), as trustee, is incorporated by reference to Exhibit 4.1 of the Registrant's Current Report on Form 8-K filed on June 15, 2022.
- 10.1* Amendment No. 1 dated as of May 29, 2022, to the Amended and Restated Transfer and Administration Agreement, dated as of May 28, 2021.
- 10.2* <u>Amendment No. 2 dated as of June 30, 2022, to the Amended and Restated Transfer and Administration Agreement, dated as of May 28, 2021.</u>
- 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.
- The following financial information from Norfolk Southern Corporation's Quarterly Report on Form 10-Q for the second quarter of 2022, formatted in Inline Extensible Business Reporting Language (iXBRL) includes (i) the Consolidated Statements of Income for the second quarter and first six months of 2022 and 2021; (ii) the Consolidated Statements of Comprehensive Income for the second quarter and first six months of 2022 and 2021; (iii) the Consolidated Balance Sheets at June 30, 2022 and December 31, 2021; (iv) the Consolidated Statements of Cash Flows for the first six months of 2022 and 2021; (v) the Consolidated Statements of Changes in Stockholders' Equity for the second quarter and first six months of 2022 and 2021; and (vi) the Notes to Consolidated Financial Statements.
- 104* Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101).

^{*} Filed herewith.

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

Date: July 27, 2022 /s/ Claiborne L. Moore

Claiborne L. Moore

Vice President and Controller

(Principal Accounting Officer) (Signature)

Date: July 27, 2022 /s/ Denise W. Hutson

Denise W. Hutson

Corporate Secretary (Signature)

CERTIFICATIONS

I, Alan H. Shaw, certify that:

- 1. I have reviewed this Quarterly Report on Form 10-Q of Norfolk Southern Corporation;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: July 27, 2022	
	/s/ Alan H. Shaw
	Alan H. Shaw
	President and Chief Executive Officer

CERTIFICATIONS

I, Mark R. George, certify that:

- 1. I have reviewed this Quarterly Report on Form 10-Q of Norfolk Southern Corporation;
- 2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
- 3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
- 4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, 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;
 - c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
- 5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
 - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Dated: July 27, 2022	
	/s/ Mark R. George
	Mark R. George
	Executive Vice President Finance and Chief Financial Officer

CERTIFICATIONS OF CEO AND CFO REQUIRED BY RULE 13a-14(b) OR RULE 15d-14(b) AND SECTION 1350 OF CHAPTER 63 OF TITLE 18 OF THE U.S. CODE

I certify, to the best of my knowledge, that the Quarterly Report on Form 10-Q for the period ended June 30, 2022, of Norfolk Southern Corporation fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that the information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of Norfolk Southern Corporation.

Signed: /s/ Alan H. Shaw

Alan H. Shaw

President and Chief Executive Officer Norfolk Southern Corporation

Dated: July 27, 2022

I certify, to the best of my knowledge, that the Quarterly Report on Form 10-Q for the period ended June 30, 2022, of Norfolk Southern Corporation fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that the information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of Norfolk Southern Corporation.

Signed: /s/ Mark R. George

Mark R. George

Executive Vice President Finance and Chief Financial Officer

Norfolk Southern Corporation

Dated: July 27, 2022