UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 10-K

ANNUAL REPORT PURSUANT T for the fiscal year ended December 31, 2	O SECTION 13 OR 15(d) OF THE SE 2023	CURITIES EXCHANGE A	ACT OF 1934	
TRANSITION REPORT PURSUA		IE SECURITIES EXCHAN	IGE ACT OF 1934	
	nslogo	2015a04.jpg		
		THERN CORPORATION rant as specified in its chart		
Vir	ginia		52-1188014	
(State or other jurisdiction of	incorporation or organization)		(I.R.S Employer Identification No.)	
650 West Peacl	ntree Street NW			
Atlanta,	Georgia		30308-1925	
(Address of princip	al executive offices)		(Zip Code)	
	(85	5) 667-3655		
	(Registrant's telephone	e number, including area co	de)	
Securities registered pursuant to Section Title of ea		Trading Symbol(s)	Name of each exchange on which registered	
Norfolk Southern Corporation C	ommon Stock (Par Value \$1.00)	NSC	New York Stock Exchange	
Securities registered pursuant to Section Indicate by check mark if the registrant is		ned in Rule 405 of the Secu	rities Act. Yes ℤ No □	
Indicate by check mark if the registrant is	s not required to file reports pursuant to	Section 13 or 15(d) of the	Act. Yes □ No 🗷	
·	* * *	•	5(d) of the Securities Exchange Act of 1934 during the has been subject to such filing requirements for the past	90
,	, ,	•	red to be submitted pursuant to Rule 405 of Regulation S-s required to submit such files). Yes \blacksquare No \square	·T
,	•		ated filer, a smaller reporting company, or an emerging pany", and "emerging growth company" in Rule 12b-2 of	the
Large accelerated filer Accelerated f	iler Non-accelerated filer Small	ler reporting company Er	nerging growth company \square	
If an emerging growth company, indicat financial accounting standards provided	•		ded transition period for complying with any new or revi	isec

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.
If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements.
Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b).
Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Act). Yes □ No ☑
The aggregate market value of the voting common equity held by non-affiliates at June 30, 2023 was \$51,455,298,277 (based on the closing price as quoted on the New York Stock Exchange on June 30, 2023).
The number of shares outstanding of each of the registrant's classes of common stock, at January 31, 2024: 225,881,508 (excluding 20,320,777 shares held by the registrant's consolidated subsidiaries).
DOCUMENTS INCORPORATED BY REFERENCE: Portions of the Registrant's definitive proxy statement to be filed electronically pursuant to Regulation 14A not later than 120 days after the end of the fiscal year, are incorporated herein by reference in Part III.

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PART I

NORFOLK SOUTHERN CORPORATION AND SUBSIDIARIES

Item 1. Business and Item 2. Properties

GENERAL – Norfolk Southern Corporation (Norfolk Southern) is an Atlanta, Georgia-based company that owns a major freight railroad, Norfolk Southern Railway Company (NSR). We were incorporated on July 23, 1980, under the laws of the Commonwealth of Virginia. Our common stock (Common Stock) is listed on the New York Stock Exchange (NYSE) under the symbol "NSC."

Unless indicated otherwise, Norfolk Southern Corporation and its subsidiaries, including NSR, are referred to collectively as NS, we, us, and our.

We are primarily engaged in the rail transportation of raw materials, intermediate products, and finished goods primarily in the Southeast, East, and Midwest and, via interchange with rail carriers, to and from the rest of the United States (U.S.). We also transport overseas freight through several Atlantic and Gulf Coast ports. We offer the most extensive intermodal network in the eastern half of the U.S.

We make available free of charge through our website, www.norfolksouthern.com, our annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and all amendments to those reports as soon as reasonably practicable after such material is electronically filed with or furnished to the U.S. Securities and Exchange Commission (SEC). In addition, the following documents are available on our website and in print to any shareholder who requests them:

- Norfolk Southern Corporation Bylaws
- Charters of the Committees of the Board of Directors
- Corporate Governance Guidelines
- Categorical Independence Standards
- The Thoroughbred Code of Ethics
- Code of Ethical Conduct for Senior Financial Officers

RAILROAD OPERATIONS – At December 31, 2023, we operated approximately 19,100 route miles in 22 states and the District of Columbia.

Our system reaches many manufacturing plants, electric generating facilities, mines, distribution centers, transload facilities, and other businesses located in our service area.

426750 Stylized System Map for 10K_v2 FINAL.jpg

Corridors with heaviest freight volume:

- New York City area to Chicago (via Allentown and Pittsburgh)
- Chicago to Macon (via Cincinnati, Chattanooga, and Atlanta)
- Central Ohio to Norfolk (via Columbus and Roanoke)
- Cleveland to Kansas City
- Birmingham to Meridian
- Memphis to Chattanooga

K4

The miles operated, which include major leased lines between Cincinnati and Chattanooga, and an exclusive operating agreement for trackage rights over property owned by North Carolina Railroad Company, were as follows:

		3.50		21 2222	
		Mileage	Operated at Decemb	er 31, 2023	
	Route Miles	Second and Other Main Track	Passing Track, Crossovers and Turnouts	Way and Yard Switching	Total
Owned	14,312	2,676	1,953	8,142	27,083
Operated under lease, contract or trackage					
rights	4,825	1,889	406	841	7,961
-					
Total	19,137	4,565	2,359	8,983	35,044

In 2022, we entered into an asset purchase and sale agreement with the Board of Trustees of the Cincinnati Southern Railway (CSR) to purchase 337 miles of railway line that extends from Cincinnati, Ohio to Chattanooga, Tennessee that we currently operate under a lease. The transaction is scheduled to close on March 15, 2024. See further discussion in Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations" and Item 8 "Notes to Consolidated Financial Statements."

We operate freight service over lines with significant ongoing Amtrak and commuter passenger operations and conduct freight operations over trackage owned or leased by Amtrak, New Jersey Transit, Southeastern Pennsylvania Transportation Authority, Metro-North Commuter Railroad Company, and Michigan Department of Transportation.

The following table sets forth certain statistics relating to our operations for the past five years:

		Yes	ars ended December	r 31,	
	2023	2022	2021	2020	2019
Revenue ton miles (billions)	176	179	178	164	194
Revenue per thousand revenue ton miles	\$ 69.05	\$ 71.35	\$ 62.56	\$ 59.67	\$ 58.21
Revenue ton miles (thousands) per railroad employee	8,719	9,513	9,694	8,191	7,939
Ratio of railway operating expenses to railway					
operating revenues (railway operating ratio)	76.5%	62.3%	60.1%	69.3%	64.7%

RAILWAY OPERATING REVENUES – Total railway operating revenues were \$12.2 billion in 2023. Following is an overview of our three commodity groups. See the discussion of merchandise revenues by major commodity group, intermodal revenues, and coal revenues and tonnage in Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations."

MERCHANDISE – Our merchandise commodity group is composed of four groupings:

- Agriculture, forest and consumer products includes soybeans, wheat, corn, fertilizer, livestock and poultry feed, food products, food oils, flour, sweeteners, ethanol, lumber and wood products, pulp board and paper products, wood fibers, wood pulp, beverages, and canned goods.
- Chemicals includes sulfur and related chemicals, petroleum products (including crude oil), chlorine and bleaching compounds, plastics, rubber, industrial chemicals, chemical wastes, sand, and natural gas liquids.

- Metals and construction includes steel, aluminum products, machinery, scrap metals, cement, aggregates, minerals, clay, transportation equipment, and items for the U.S. military.
- Automotive includes finished motor vehicles and automotive parts.

In 2023, we handled 2.2 million merchandise carloads, which accounted for 61% of our total railway operating revenues.

INTERMODAL – Our intermodal commodity group consists of shipments moving in domestic and international containers and trailers. These shipments are handled on behalf of intermodal marketing companies, international steamship lines, premium customers and asset-owning companies. In 2023, we handled 3.8 million intermodal units, which accounted for 25% of our total railway operating revenues.

COAL – Coal revenues accounted for 14% of our total railway operating revenues in 2023. We handled 76 million tons, or 0.7 million carloads, most of which originated on our lines from major eastern coal basins, with the balance from major western coal basins received via the Memphis and Chicago gateways. Our coal franchise supports the electric generation market, directly serving approximately 30 coal-fired power plants, as well as the export, domestic metallurgical and industrial markets, primarily through direct rail and river, lake, and coastal facilities, including various terminals on the Ohio River, at Lamberts Point in Norfolk, Virginia, at the Port of Baltimore, and on Lake Erie.

FREIGHT RATES – Our predominant pricing mechanisms, private contracts and exempt price quotes, are not subject to regulation. In general, market forces are the primary determinant of rail service prices.

RAILWAY PROPERTY

Our railroad infrastructure makes us capital intensive with net properties of approximately \$33 billion on a historical cost basis.

Property Additions – Property additions for the past five years were as follows:

	2023	2022			2021	2020	2019
			((\$ i	n millions)		
Road and other property	\$ 1,547	\$ 1,345		\$	1,041	\$ 1,046	\$ 1,371
Equipment	802	603			429	448	648
Total	\$ 2,349	\$ 1,948		\$	1,470	\$ 1,494	\$ 2,019

Our capital spending and replacement programs are and have been designed to support our ability to provide safe, efficient, and reliable rail transportation services.

Equipment – Our equipment includes owned and leased locomotives and railcars; maintenance of way equipment and machinery; other equipment and tools used in our shops, offices and facilities; and vehicles and other equipment used for maintenance, transportation, and other activities. Our equipment includes both owned equipment acquired by us, and equipment held under lease arrangements. At December 31, 2023, we owned or leased the following revenue generating equipment:

	Owned	Leased	Total	Capacity of Equipment
Locomotives:				(Horsepower)
Multiple purpose	3,162	30	3,192	12,471,795
Auxiliary units	140		140	_
Switching	4	_	4	4,400
Total locomotives	3,306	30	3,336	12,476,195
Freight cars:				(Tons)
Gondola	18,011	3,741	21,752	2,443,624
Hopper	7,672	_	7,672	876,433
Covered hopper	5,384	_	5,384	598,451
Box	2,189	610	2,799	257,694
Flat	1,213	676	1,889	135,106
Other	1,086	_	1,086	46,815
Total freight cars	35,555	5,027	40,582	4,358,123
Intermodal equipment:				
Chassis	38,397	1,063	39,460	
Containers	17,662	_	17,662	
Roadrailers	1,110		1,110	
Total intermodal equipment	57,169	1,063	58,232	

The following table indicates the number and year built for locomotives and freight cars owned at December 31, 2023:

	2023	2022	2021	2020	2019	2014- 2018	2009- 2013	
Locomotives:								
No. of units	_	-	1	10	36	225	242	
% of fleet	%	— %	— %	— %	1 %	7 %	7 %	
Freight cars:								
No. of units	1,043	236	_		198	4,195	6,401	
% of fleet	3 %	1 %	— %	— %	— %	12 %	18 %	

The following table shows the average age of our owned locomotive and freight car fleets at December 31, 2023 and information regarding 2023 retirements:

	Locomotives	Freight Cars		
Average age – in service	28.5 years	25.4 years		
Retirements	2 units	1,744 units		
Average age – retired	23.0 years	40.8 years		

Track Maintenance – Of the 35,000 total miles of track on which we operate, we are responsible for maintaining 28,400 miles, with the remainder being operated under trackage rights from other parties responsible for maintenance.

Over 85% of the main line trackage (including first, second, third, and branch main tracks, all excluding rail operated pursuant to trackage rights) has rail ranging from 131 to 155 pounds per yard with the standard installation currently at 136 pounds per yard. Approximately 39% of our lines, excluding rail operated pursuant to trackage rights, carried 20 million or more gross tons per track mile during 2023.

The following table summarizes several measurements regarding our track roadway additions and replacements during the past five years:

	2023	2022	2021	2020	2019
Track miles of rail installed	584	541	458	418	449
Miles of track surfaced	4,013	4,155	4,225	4,785	5,012
Crossties installed (millions)	2.1	2.2	2.0	1.8	2.4

Traffic Control – Of the 16,200 route miles we dispatch, 11,300 miles incorporate signalization. This includes 8,500 miles governed by centralized traffic control (CTC) and 2,800 miles utilizing automatic block signals. Within the 8,500 miles of CTC, 7,600 miles are controlled by data radio systems originating from 355 base station radio sites.

ENVIRONMENTAL MATTERS – Compliance with federal, state, and local laws and regulations relating to the protection of the environment is one of our principal goals. With the exception of our response to the Eastern Ohio Incident (the "Incident" as defined in Note 17) such compliance has not had a material effect on our financial position, results of operations, liquidity, or competitive position. For further information on the Incident and environmental matters, see Note 17 in Item 8 "Notes to Consolidated Financial Statements."

HUMAN CAPITAL MANAGEMENT

Workforce – We employed an average of 20,300 employees during 2023, and 20,700 employees at the end of 2023. Approximately 80% of our railroad employees are covered by collective bargaining agreements with various labor unions, and referred to as "craft" employees. See the discussion of "Labor Agreements" in Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations." The remainder of our workforce is composed of management employees.

Craft Workforce Levels and Productivity – Maintaining appropriate headcount levels for our craft-employee workforce is critical to our on-time and consistent delivery of customers' goods and operational efficiency goals. We manage this human capital metric through forecasting tools designed to ensure the optimal level of staffing to meet business demands. We measure and monitor employee productivity based on various factors, including gross ton miles per train and engine employee.

Safety – We are dedicated to providing employees with a safe workplace and the knowledge and tools they need to work safely and return home safely every day. Our commitment to an injury-free workplace is outlined in our Foundation of Safety policy which focuses on rules compliance, responsibility, relationships, and responsiveness.

Our safety programs, practices, and messaging further reinforce the importance of working safely. We measure employee safety performance through internal metrics such as accidents, injuries, and serious injuries per 200,000 employee-hours. We also use metrics established by the Federal Railroad Administration (FRA) to measure FRA-reportable accidents per million train miles and injuries per 200,000 employee-hours. Given that safety continues to be a top priority, and the importance of safety among our workforce and to our business, our Board of Directors (Board) has a standing Safety Committee that, among other duties, reviews, monitors, and evaluates our compliance with our safety programs and practices.

Attracting and Retaining Management Employees – Our talent strategy for management employees is essential to attracting strong candidates in a competitive talent environment. We evaluate the effectiveness of that strategy by studying market trends, benchmarking the attractiveness of our employee value proposition, maintaining a competitive compensation package, and analyzing retention data.

We also focus on driving employee engagement, which is key to increasing employee productivity, retention, and safety. We take a data-centric approach, including the use of periodic surveys among employees, to identify new initiatives that will help boost engagement and drive business results.

Employee Development and Training – We provide a range of developmental programs, opportunities, skills, and resources for our employees to be successful in their careers. We provide classroom instruction, hands-on training and simulation-based training designed to improve on-the-job effectiveness and safety outcomes.

We also use modern learning and performance technologies to offer robust professional growth opportunities. Through on-demand digital course offerings, custom-built learning paths, and in-person facilitated content, our programs provide a holistic and inclusive approach to professional development throughout an employee's career.

Diversity, Equity, and Inclusion – As a leading transportation service company, we recognize that success in the global marketplace relies on the recruitment and retention of top-tier talent, as well as leveraging the expertise and experiences of individuals from all backgrounds.

In pursuit of this goal, we are dedicated to establishing a workplace that is diverse, equitable, and inclusive, where a broad spectrum of identities, perspectives, and experiences is not only represented but also valued and empowered to thrive.

Our Inclusion Leadership Council, comprised of senior leaders from all departments, our seven employee resource groups, and the Diversity, Equity, and Inclusion strategy team, collaborate closely to implement the plan, articulate measurable goals, and hold ourselves accountable.

GOVERNMENT REGULATION – In addition to environmental, safety, securities, and other regulations generally applicable to all business, our railroads are subject to regulation by the U.S. Surface Transportation Board (STB). The STB has jurisdiction to varying extents over rates, routes, customer access provisions, fuel surcharges, conditions of service, and the extension or abandonment of rail lines. The STB has jurisdiction to determine whether we are "revenue adequate" on an annual basis based on the results of the prior year. A railroad is "revenue adequate" on an annual basis under the applicable law when its return on net investment exceeds the rail industry's composite cost of capital. This determination is made pursuant to a statutory requirement. The STB also has jurisdiction over the consolidation, merger, or acquisition of control of and by rail common carriers.

The relaxation of economic regulation of railroads, following the Staggers Rail Act of 1980, included exemption from STB regulation of the rates and most service terms for intermodal business (trailer-on-flat-car, container-on-flat-car), rail boxcar shipments, lumber, manufactured steel, automobiles, and certain bulk commodities such as sand, gravel, pulpwood, and wood chips for paper manufacturing. Further, all shipments that we have under contract are effectively removed from commercial regulation for the duration of the contract. Approximately 90% of our revenues comes from either exempt shipments or shipments moving under transportation contracts; the remainder comes from shipments moving under public tariff rates.

Efforts have been made over the past several years to increase federal economic regulation of the rail industry, and such efforts are expected to continue in 2024. The Staggers Rail Act of 1980 substantially balanced the interests of shippers and rail carriers, and encouraged and enabled rail carriers to innovate, invest in their infrastructure, and compete for business, thereby contributing to the economic health of the nation and to the revitalization of the industry. Accordingly, we will continue to oppose efforts to reimpose increased economic regulation.

Railroads are also subject to the enactment of laws by Congress and regulation by the U.S. Department of Transportation (DOT) (including the FRA) and the U.S. Department of Homeland Security (DHS) (including the Transportation Security Administration (TSA)), which regulate most aspects of our operations related to safety, security and cybersecurity.

Government regulations are further discussed within Item 1A "Risk Factors" and the safety and security of our railroads are discussed within the "Security of Operations" section contained herein.

COMPETITION – There is continuing strong competition among rail, water, and highway carriers. Price is usually only one factor of importance as shippers and receivers choose a transport mode and specific hauling company. Inventory carrying costs, service reliability, ease of handling, and the desire to avoid loss and damage during transit are also important considerations, especially for higher-valued finished goods, machinery, and consumer products. Even for raw materials, semi-finished goods, and work-in-progress, users are increasingly sensitive to transport arrangements that minimize problems at successive production stages.

Our primary rail competitor is CSX Corporation (CSX); both we and CSX operate throughout much of the same territory. Other railroads also operate in parts of the territory. We also compete with motor carriers, water carriers, and with shippers who have the additional options of handling their own goods in private carriage, sourcing products from different geographic areas, and using substitute products.

Certain marketing strategies to expand reach and shipping options among railroads and between railroads and motor carriers enable railroads to compete more effectively in specific markets.

SECURITY OF OPERATIONS – We continue to enhance the security of our rail system. Our comprehensive security plan is modeled on and was developed in conjunction with the security plan prepared by the Association of American Railroads (AAR) post September 11, 2001. The AAR Security Plan defines four Alert Levels and details the actions and countermeasures that are being applied across the railroad industry as the risk of terrorist, extremist or seriously disruptive cyber-attack increases or decreases. The Alert Level actions include countermeasures that will be applied in three general areas: (1) operations (including transportation, engineering, and mechanical); (2) information technology and communications; and, (3) railroad police. All of our Operations Division employees are advised by their supervisors or train dispatchers, as appropriate, of any change in Alert Level and any additional responsibilities they may incur due to such change.

Our security plan also complies with DOT security regulations pertaining to training and security plans with respect to the transportation of hazardous materials. As part of the plan, security awareness training is given to all railroad employees who directly affect hazardous material transportation safety, and is integrated into hazardous material training programs. Additionally, location-specific security plans are in place for rail corridors in certain metropolitan areas referred to as High Threat Urban Areas (HTUA). Particular attention is aimed at reducing risk in a HTUA by: (1) the establishment of secure storage areas for rail cars carrying toxic-by-inhalation (TIH) materials; (2) the expedited movement of trains transporting rail cars carrying TIH materials; (3) reducing the number of unattended loaded tank cars carrying TIH materials; and (4) cooperation with federal, state, local, and tribal governments to identify those locations where security risks are the highest.

We also operate four facilities that are under U.S. Coast Guard (USCG) Maritime Security Regulations. With respect to these facilities, each facility's security plan has been approved by the applicable Captain of the Port and remains subject to inspection by the USCG.

Additionally, we continue to engage in close and regular coordination with numerous federal and state agencies, including the DHS, the TSA, the Federal Bureau of Investigation, the FRA, the USCG, U.S. Customs and Border Protection, the Department of Defense, and various state Homeland Security offices.

In 2023, through the Norfolk Southern Operation Awareness and Response Program as well as participation in the Transportation Community Awareness and Emergency Response Program, we provided rail accident response training to more than 5,000 emergency responders, such as local police and fire personnel, utilizing a combination of online training and face-to-face training sessions as well as the Norfolk Southern Safety Train. We also have ongoing programs to sponsor local emergency responders at the Security and Emergency Response Training Center.

We also continually evaluate ourselves for appropriate business continuity and disaster recovery planning, with test scenarios that include cybersecurity attacks. Our risk-based information security program helps ensure our defenses and resources are aligned to address the most likely and most damaging potential attacks, to provide support for our organizational mission and operational objectives, and to keep us in the best position to detect, mitigate, and recover from a wide variety of potential attacks in a timely fashion.

Item 1A. Risk Factors

The risks set forth in the following risk factors 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. The information set forth in this Item 1A "Risk Factors" should be read in conjunction with the rest of the information included in this annual report, including Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations" and Item 8 "Financial Statements and Supplementary Data." We have experienced a number of the risks described below over the past year in connection with the Incident and the Incident Proceedings (defined below). The risks described below should be read in conjunction with the information regarding the Incident and Incident Proceedings provided in Note 17 in Item 8 "Notes to Consolidated Financial Statements."

INCIDENT RISKS

As defined and as further described in Note 17 in Item 8 "Notes to Consolidated Financial Statements", there was an Incident that occurred in the first quarter that consisted of a February 3, 2023 train derailment in East Palestine, Ohio that included 11 non-Company-owned tank cars containing hazardous materials, fires associated with the derailment that threatened certain of the tank cars, and a controlled vent and burn procedure conducted on February 6, 2023 on five of the derailed tank cars, all of which contained vinyl chloride. As a result of the Incident, we have become subject to numerous legal, regulatory, legislative and other proceedings related thereto, including but not limited to, the National Transportation Safety Board (NTSB) Investigation, the FRA Incident Investigation, the FRA Safety Assessment, the U.S. Department of Justice (DOJ) Complaint, the Ohio Complaint, the Incident Lawsuits, the Shareholder Matters, and the Incident Inquiries and Investigations, (each as defined in Note 17 in Item 8 "Notes to Consolidated Financial Statements"), in addition to other proceedings, actions, or potential changes in response to the Incident, including but not limited to those related to, among other items, train size, train length, train composition, or crew size (collectively, the "Incident Proceedings"). Set forth below are additional risks pertaining to an investment in the Company that are related to the Incident and the Incident Proceedings.

The costs, liabilities, fines, penalties, and/or financial impact resulting from or related to the Incident or the Incident Proceedings have been significant to date, may exceed expected or accrued amounts, and have and can be expected to continue to negatively affect our financial results. We have incurred and will continue to remain subject to incurring significant costs, liabilities, fines, and penalties related to the Incident and the Incident Proceedings, including amounts that may have a material adverse effect on our financial position, results of operations, or liquidity.

In addition, while we have accrued estimates of probable and reasonably estimable liabilities with respect to the Incident and the Incident Proceedings (several of which are in early stages), we cannot predict the final outcome or estimate the reasonably possible range of loss with certainty and such estimates may change over time due to a variety of factors, including but not limited to those set forth in Note 17 in Item 8 "Notes to Consolidated Financial Statements" or other unfavorable or unexpected developments or outcomes which could result in our current estimates being insufficient. These estimated amounts also do not include any estimate of loss for specific items for which we believe a loss is either not probable or not reasonably estimable for the reasons set forth in Note 17 in Item 8 "Notes to Consolidated Financial Statements." As a result, our currently accrued amounts of estimated liabilities may be insufficient, and any additional, new or updated accruals could have a material adverse effect on our results of operations or financial position.

New or additional governmental regulation and/or operational changes resulting from or related to the Incident or the Incident Proceedings may negatively impact us, our customers, the rail industry, or the markets we serve. The legislative, regulatory, operational or other actions taken, protocols adopted (including by us), or changes resulting from the Incident or any of the Incident Proceedings may, either individually or in the aggregate, have a material adverse effect on us, our customers, the rail industry, or the markets we serve. We also face risks from requirements that may be imposed by the government in resolution of government actions, including, for example, restrictions on our methods of operations. Our inability to comply with the requirements of any new or additional laws, regulations or operating protocols resulting from or related to the Incident or the Incident Proceedings may have a material adverse effect on our financial position, results of operations, liquidity, or operations.

REGULATORY AND LEGISLATIVE RISKS

Governmental legislation, regulation, and Executive Orders over commercial, operational, tax, safety, security, or cybersecurity matters could negatively affect us, our customers, the rail industry or the markets we serve. Congress can enact laws, agencies can promulgate regulations, and Executive Orders can be issued that increase or alter regulation in a way that negatively affects us, our customers, the rail industry or the markets we serve. Railroads presently are subject to commercial and operational regulation by the STB, which has jurisdiction to varying extents over rates, routes, customer access provisions, fuel surcharges, conditions of service, and the extension or abandonment of rail lines.

The STB also has jurisdiction over the consolidation, merger, or acquisition of control of and by rail common carriers. Additional or updated regulation of the rail industry by Congress or the STB, whether under new, existing or amended laws or regulations, could have a significant negative impact on our ability to negotiate prices for rail services, on our railway operating revenues, and on the efficiency, conduct, or complexity of our operations. Such additional or updated industry regulation, as well as enactment of any new or updated tax laws, could also negatively impact cash flows from our operating activities and, therefore, result in reduced capital spending on our rail network or abandonment of lines.

Railroads are also subject to the enactment of laws by Congress and regulation by the DOT (including the FRA) and the DHS (including the TSA), which regulate many aspects of our operations related to safety, security and cybersecurity. Additional or updated safety, security, or cybersecurity regulation by Congress, the DOT or DHS could have a negative impact on our business and the efficiency, conduct, or complexity of our operations including (but not limited to) increased operating costs, capital expenditures, claims and litigation.

Our inability to comply with the requirements of existing or updated laws, regulations, or Executive Orders that govern our operations or the rail industry, including but not limited to those pertaining to commercial, operational, tax, safety, security, or cybersecurity matters, could have a material adverse effect on our financial position, results of operations or liquidity.

We are addressing multiple governmental actions as a result of the Incident, as noted in "Incident Risks" above.

Federal and state environmental laws and regulations could negatively impact us and our operations. Our operations are subject to extensive federal and state environmental laws and regulations concerning, among other things: emissions to the air; discharges to waterways or groundwater supplies; handling, storage, transportation, and disposal of waste and other materials; and, the cleanup of hazardous material or petroleum releases. The risk of incurring environmental liability, for acts and omissions, past, present, and future, is inherent in the railroad business. This risk includes property owned by us, whether currently or in the past, that is or has been subject to a variety of uses, including our railroad operations and other industrial activity by past owners or our past and present tenants.

Environmental problems that are latent or undisclosed may exist on these properties, and we could incur environmental liabilities or costs, the amount and materiality of which cannot be estimated reliably at this time, with respect to one or more of these properties. Moreover, lawsuits and claims involving other unidentified environmental sites and matters are likely to arise from time to time.

Our inability to comply with the extensive federal and state environmental laws and regulations to which we are subject could result in significant liabilities or otherwise adversely impact our operations.

As noted in "Incident Risks" above, in connection with the Incident, we are experiencing negative impacts related to environmental matters, including extensive cleanup costs and litigation related to alleged environmental impacts of the Incident.

OPERATIONAL RISKS

A significant cybersecurity incident or other disruption to our technology infrastructure could disrupt our business operations. To conduct business, we extensively rely on information and operational technology systems, and improvements in those technologies, in all aspects of our business. The threat landscape is vast and includes hobbyists, cybercriminals, nation-states and state-sponsored activities. Attacks from these entities include, but is not limited to, denial of service, unauthorized access, theft of money, and data and extortion. System upgrades, redundancy and other continuity measures may be ineffective or inadequate, and our business continuity and disaster recovery planning may not be sufficient for all eventualities. Regardless of the cause, significant disruption or failure of one or more of information or operational technology systems operated by us or under control of third parties, including computer hardware, software, cloud services and communications equipment, can result in us experiencing a service interruption, data breach, or other operational difficulties. Such failures or disruptions can adversely impact our business by, among other things, preventing intercompany communications and disrupting operations that may result in direct or indirect monetary losses, damage to equipment or property, or loss of confidence in corporate competency. These events could have a materially adverse effect on our business, reputation, results of operations and financial condition. Although we maintain comprehensive security programs designed to protect our information technology systems, including our risk-based approach to cybersecurity, our reliance on the Framework for Improving Critical Infrastructure Cybersecurity drafted by the U.S Department of Commerce's National Institute of Standards and Technology (NIST CSF) and our layered defense system, we are continually targeted by threat actors attempting to access our networks and we may be unable to detect or prevent a breach of our systems or disruption to our service in the future. While we have previously experienced technology outages and cybersecurity events that have impacted our systems and service, future events may result in more significant impacts to our operations, reputation or financial results. These potentially impactful future events could include service disruptions, unauthorized access to our systems, viruses, ransomware, and/or compromise, acquisition, or destruction of our data. We also could be impacted by cybersecurity events targeting third parties that we rely on for business operations, including third party vendors that have access to our systems or data and third parties who provide services and are in our supply chain. Such a direct or indirect cybersecurity incident could interrupt our service, cause safety failures or operational difficulties, decrease revenues, increase operating costs, impact our efficiency, damage our corporate reputation, and/or expose us to litigation or government action or increased regulation, which could result in penalties, fines or judgments. In addition, our failure to comply with or adhere to privacy-related or data protection laws and regulations could result in government investigations and proceedings against us, or litigation, resulting in adverse reputational impacts, penalties, and legal liability.

Our business may be seriously harmed if we fail to develop, implement, maintain, upgrade, enhance, protect and integrate our information technology systems. If we fail to develop, acquire or implement new technology, or otherwise fail to maintain, protect or integrate our information technology systems, we may suffer a competitive disadvantage within the rail industry and with companies providing alternative modes of transportation service.

As a common carrier by rail, we must offer to transport hazardous materials, which exposes us to significant costs and claims. Transportation of certain hazardous materials or third party-owned equipment (typically used to transport such materials) creates risks of significant losses in terms of personal injury and property (including environmental) damage and compromise critical parts of our rail network. The costs of a catastrophic rail accident involving hazardous materials or third party-owned equipment could exceed our insurance coverage. We have obtained insurance for potential losses for third-party liability and first-party property damages (see Note 17 in Item 8 "Notes to Consolidated Financial Statements"); however, insurance is available from a limited number of insurers and may not continue to be available or, if available, may not be obtainable on terms acceptable to us. Any future legislation preventing the transportation of hazardous materials through specific cities could have negative impacts including increased network congestion and operating costs, reduced operating efficiency, and increased risk of an accident involving hazardous materials.

With regard to the risks arising from the transportation of hazardous materials, the Incident and the Incident Proceedings have given rise to significant costs to us and impacts on our rail network, as noted in "Incident Risks" above. With respect to third party-owned equipment, the primary risk arises from the potential for a latent defect we are unable to identify despite robust safety inspection protocols.

We face competition from other transportation providers. We are subject to competition from motor carriers, railroads and, to a lesser extent, ships, barges, and pipelines, on the basis of transit time, pricing, and quality and reliability of service. While we have primarily used internal resources to build or acquire and maintain our rail system, trucks and barges have been able to use public rights-of-way maintained by public entities. Any future improvements, expenditures, legislation, or regulation changing or materially increasing the efficiency or reducing the cost of one or more alternative modes of transportation in the regions in which we operate (such as granting materially greater latitude for motor carriers with respect to size or weight limitations or adoption and utilization of autonomous commercial vehicles) could have a material adverse effect on our ability to compete with other modes of transportation.

Capacity constraints could negatively impact our service and operating efficiency. We have experienced and may again experience capacity constraints on our rail network related to employee or equipment shortages, increased demand for rail services, severe weather, congestion on other railroads, including passenger activities, or impacts from changes to our network structure or composition. Such constraints could result in operational inefficiencies or adversely affect our operations.

Significant increases in demand for rail services could result in the unavailability of qualified personnel and resources like locomotives. Changes in workforce demographics, training requirements, and availability of qualified personnel, particularly for engineers and conductors, have negatively impacted and may again negatively impact our ability to meet short-term demand for rail service. Unpredicted increases in demand for rail services may exacerbate such risks and could negatively impact our operational efficiency.

Constraints on the supply chain or the operations of carriers with which we interchange may adversely affect our operations. Our ability to provide rail service to our customers depends in large part upon a functioning global supply chain and our ability to maintain collaborative relationships with connecting carriers (including shortlines and regional railroads) with respect to, among other matters, freight rates, revenue division, car supply and locomotive availability, data exchange and communications, reciprocal switching, interchange, and trackage rights. Deterioration in the supply chain or service provided by connecting carriers, or in our relationship with those connecting carriers, could result in our inability to meet our customers' demands or require us to use alternate train

routes, which could result in significant additional costs and network inefficiencies. Additionally, any significant consolidations, mergers or operational changes among other railroads may alter our market access and reach.

We may be negatively affected by terrorism or war. Any terrorist attack, or other similar event, any government response thereto, and war or risk of war could cause significant business interruption. Because we play a critical role in the nation's transportation system, we could become the target of such an attack or have a significant role in the government's preemptive approach or response to an attack or war.

Although we currently maintain insurance coverage for third-party liability arising out of war and acts of terrorism, we maintain only limited insurance coverage for first-party property damage and damage to property in our care, custody, or control caused by certain acts of terrorism. In addition, premiums for some or all of our current insurance programs covering these losses could increase dramatically, or insurance coverage for certain losses could be unavailable to us in the future.

We may be negatively affected by supply constraints resulting from disruptions in the fuel markets or the nature of some of our supplier markets. We consumed approximately 377 million gallons of diesel fuel in 2023. Fuel availability could be affected by limitation in the fuel supply or by imposition of mandatory allocation or rationing regulations. A severe fuel supply shortage arising from production curtailments, increased demand in existing or emerging foreign markets, disruption of oil imports, disruption of domestic refinery production, damage to refinery or pipeline infrastructure, political unrest, war or other factors could impact us as well as our customers and other transportation companies.

Due to the capital-intensive nature, as well as the industry-specific requirements of the rail industry, high barriers of entry exist for potential new suppliers of core railroad items, such as locomotives and rolling stock equipment. Additionally, we compete with other industries for available capacity and raw materials used in the production of locomotives and certain track and rolling stock materials. Changes in the competitive landscapes of these limited supplier markets could result in increased prices or significant shortages of materials.

Pandemics, epidemics or endemic diseases could further negatively impact us, our customers, our supply chain and our operations. The magnitude and duration of a pandemic, epidemic or endemic disease, and its impact on our customers and general economic conditions can influence the demand for our services and affect our revenues. In addition, such outbreaks could affect our operations and business continuity if a significant number of our essential employees, overall or in a key location, are unable to work from contraction of or exposure to the disease or if governmental orders prevent our employees or critical suppliers from working. To the extent such diseases adversely affect our business and financial results, they may also have the effect of heightening many of the other risks described in the risk factors included herein, or may affect our operating and financial results in a manner that is not presently known to us.

LITIGATION RISKS

We may be subject to various claims and lawsuits that could result in significant expenditures. The nature of our business exposes us to the potential for various claims and litigation related to labor and employment, personal injury, commercial disputes, freight loss and other property damage, and other matters. Job-related personal injury and occupational claims are subject to the Federal Employer's Liability Act (FELA), which is applicable only to railroads. FELA's fault-based tort system produces results that are unpredictable and inconsistent as compared with a no-fault worker's compensation system. The variability inherent in this system could result in actual costs being different from the liability recorded.

A catastrophic rail accident, whether on our lines or another carrier's, involving any or all of release of hazardous materials, freight loss, property damage, personal injury, and environmental liability could compromise critical parts of our rail network. Losses associated with such an accident involving us could exceed our insurance coverage, resulting in a material adverse effect on our liquidity. Any material changes to current litigation trends could also have a material adverse effect on our liquidity to the extent not covered by insurance.

We have obtained insurance for potential losses for third-party liability and first-party property damages; however, insurance is available from a limited number of insurers and may not continue to be available or, if available, may not be obtainable on terms acceptable to us.

We are incurring significant expenditures as a result of claims and lawsuits arising from the Incident and the related Incident Proceedings, as described in "Incident Risks" above.

HUMAN CAPITAL RISKS

Failure to attract and retain key executive officers, or skilled professional or technical employees could adversely impact our business and operations. Our success depends on our ability to attract and retain skilled employees, including a sufficient number of craft employees to enable us to efficiently conduct our operations. Difficulties in recruiting and retaining skilled employees, including train and engine workers, key executives, and other skilled professional and technical employees; the unexpected loss of such individuals; and/or our inability to successfully transition key roles could each have a material adverse effect on our business and operations.

The vast majority of our employees belong to labor unions, and the renegotiation of labor agreements or any provisions thereof, or any strikes or work stoppages (including any entered into in connection with any such negotiations), could adversely affect our operations. Approximately 80% of our railroad employees are covered by collective bargaining agreements with various labor unions. We entered into updated labor agreements with these labor unions in December 2022 and future national labor agreements, or renegotiation of labor agreements or provisions of labor agreements, could significantly increase our costs for health care, wages, and other benefits. Additionally, if our craft employees were to engage in a strike, work stoppage, or other slowdown, including in connection with the renegotiation of any such agreements or any provisions thereof, we could experience a significant disruption in our operations, thereby adversely impacting our results of operations.

CLIMATE CHANGE RISKS

Severe weather and disasters have caused, and could again cause, significant business interruptions and expenditures. Severe weather conditions and other natural phenomena resulting from changing weather patterns and rising sea levels or other causes, including hurricanes, floods, fires, landslides, extreme temperatures, significant precipitation, and earthquakes, have caused, and may again cause damage to our network, our workforce to be unavailable and us to be unable to use our equipment. Additionally, shifts in weather patterns caused by climate change are expected to increase the frequency, severity or duration of certain adverse weather conditions, which could cause more significant business interruptions that result in increased costs, increased liabilities, and decreased revenues.

Concern over climate change has led to significant federal, state, and international legislative and regulatory efforts to limit greenhouse gas (GHG) emissions. Restrictions, caps, taxes, or other legislative or regulatory controls on GHG emissions, including diesel exhaust, could significantly increase our operating costs and decrease the amount of traffic we handle.

In addition, legislation and regulation related to climate change or GHG emissions could negatively affect the markets we serve and our customers. Even without legislation or regulation, government incentives and adverse publicity relating to climate change or GHG emissions could negatively affect the markets for certain of the commodities we carry, or our customers that use commodities we carry to produce energy (including coal), use significant amounts of energy in producing or delivering the commodities we carry, or manufacture or produce goods that consume significant amounts of energy associated with GHG emissions.

MACROECONOMIC AND MARKET RISKS

We may be negatively impacted by changes in general economic conditions. Negative changes in domestic and global economic conditions, including reduced import and export volumes, could affect the producers and consumers of the freight we carry. Economic conditions could also result in bankruptcies of one or more large customers.

We may be negatively affected by energy prices. Volatility in energy prices could have a significant effect on a variety of items including, but not limited to: the economy; demand for transportation services; business related to the energy sector, including crude oil, natural gas, and coal; fuel prices; and, fuel surcharges.

The state of capital markets could adversely affect our liquidity. We rely on the capital markets to provide some of our capital requirements, including the issuance of debt instruments and the sale of certain receivables. Significant instability or disruptions of the capital markets, including the credit markets, or deterioration of our financial position due to internal or external factors could restrict or eliminate our access to, and/or significantly increase the cost of, various financing sources, including bank credit facilities and issuance of corporate bonds. Instability or disruptions of the capital markets and deterioration of our financial position, alone or in combination, could also result in a reduction of our credit rating to below investment grade, which could prohibit or restrict us from accessing external sources of short- and long-term debt financing and/or significantly increase the associated costs.

Item 1B. Unresolved Staff Comments

None.

Item 1C. Cybersecurity

CYBERSECURITY RISK MANAGEMENT AND STRATEGY

Process

We use a multi-layered defensive cybersecurity strategy based on the cyber security framework drafted by the NIST. The NIST CSF is a voluntary framework of best practices to identify, protect, detect, respond to, and recover from cybersecurity matters. Based on the NIST CSF, our processes to identify, assess, and manage material risks from cybersecurity threats includes the following:

Identify

We identify risks from cybersecurity threats by first developing and maintaining an understanding of those assets essential to our operation and reputation, as well as assets that could provide value to threat actors. Any cyber act is considered a potential risk if a threat actor can use it to reduce the value of an asset, reduce our ability to utilize or otherwise access the value of an asset, or surreptitiously gain or increase their access to an asset or its value.

Assess

We assess risks from cybersecurity threats by evaluating exposure of our assets to identified cyber risks, as well as potential impacts to our operations or reputation from our inability to access or utilize an asset or realize its value, or a threat actor's ability to gain access to an asset or its value. We further evaluate the potential materiality of these risks based on the potential impact to our operations or reputation.

Manage

We mitigate risks from cybersecurity threats by applying multiple layers of defense to ensure we have the continued ability to access or utilize an asset or its value, and deny threat actors the ability to gain or increase their access to an asset or its value. We prioritize defensive mechanisms, including administrative,

procedural, and technical controls, according to their relative cost and reduction in risk based on the NIST CSF.

We further monitor, test, assess, and update these processes, including working with government agencies and peers to implement practices to guard against an evolving threat environment and to ensure we remain compliant with relevant regulatory requirements.

Integration into our Risk Management Framework

Our processes to assess, identify, and manage cybersecurity risks are expressly incorporated into our enterprise risk management (ERM) framework, which includes technology as one of the five primary risk categories addressed by the ERM framework, with cybersecurity risks being one of the three subcategories within the technology risk category. As a result, our ERM leadership team works with the Chief Information Officer (CIO) and Chief Information Security Officer (CISO) to define the top areas of risk in both the technology and cybersecurity areas, with such risks incorporated into our ERM framework and mapped to the NIST CSF. Our internal ERM leadership also meets on a quarterly basis with our technology risk working group, comprised of leaders across the information technology, information security and law departments, to monitor developments in the threat landscape so that key cybersecurity threats impacting the Company continue to be identified and prioritized.

Third-Party Engagement

We employ multiple service providers from time to time to perform periodic reviews and evaluations of our cybersecurity framework, the results of which are provided to and reviewed with management, with appropriate reporting to the Finance and Risk Management Committee (F&RM Committee) of the Board. These reviews encompass a broad range of areas, including information technology system resilience, cybersecurity risk assessments, information security program assessments, external threat environment reviews, internal cybersecurity policy compliance, and near-term incident response to identify or disconfirm potential involvement of a threat actor.

Oversight of Third-Party Providers

Within our purchasing and third-party vendor management programs, we require all vendors who handle our data as well as vendors who provide technology and data services – including hardware, software, staffing, and support – to maintain certain security protections including, but not limited to, compliance with applicable data protection laws, and implementation of administrative, physical and technical safeguards to protect our data, including how our data is stored, accessed and transmitted. In addition, all providers within these service categories must sign our data security attachment that articulates the specific security standards, cybersecurity insurance, and mandatory incident reporting protocols applicable to the underlying provision of services.

Risks

Please see Item 1A. Risk Factors – Operational Risks – "A significant cybersecurity incident or other disruption to our technology infrastructure could disrupt our business operations" for our disclosures regarding the most pertinent risks we may experience from cybersecurity threats.

As noted therein, regardless of the cause, a significant disruption or failure of one or more information or operational technology systems operated by us or under control of third parties can result in service disruptions, unauthorized access to our systems, viruses, ransomware, and/or compromise, acquisition, or destruction of our data.

Such a direct or indirect cybersecurity incident could interrupt our service, cause safety failures or operational difficulties, decrease revenues, increase operating costs, impact our efficiency, damage our corporate reputation, and/or expose us to litigation, government action, increased regulation, penalties, fines or judgments, any or all

which may ultimately have a materially adverse effect on our results of operations, financial condition, reputation, and business (including our strategy of operating a resilient freight railroad).

While we have previously experienced technology outages and cybersecurity events that have impacted our systems and service, future events may result in more significant impacts to our operations, reputation or financial results. As a result of these prior events, and given the potential risks that a technology outage or cybersecurity event would result in a materially adverse effect on our results of operations, financial condition, reputation, or business, we have conducted and will continue conducting, internal and third-party assessments of information technology and cybersecurity vulnerabilities, information technology resiliency, and our related processes and procedures, so that we can continue to identify and address key cybersecurity risks.

CYBERSECURITY GOVERNANCE

Board Oversight

The Norfolk Southern Board, through the F&RM Committee, has direct oversight of cybersecurity risks. The F&RM Committee receives periodic reports from the CIO and CISO regarding the primary technology risks impacting the company, including risks impacting our information and operational systems, service resiliency, cybersecurity risks, and the related threat environment. Agendas for these periodic updates may be further adjusted to address any emerging risks or key topics in greater detail, including emerging regulations, best practices, cyber readiness, and third-party assessment results. Regular updates are also provided to the F&RM Committee regarding all material or potentially material cybersecurity incidents, including root causes, and identification of and progress towards, remediation activities through completion.

The Board receives a periodic update from the Chair of the F&RM Committee regarding the matters addressed by the F&RM Committee, as well as an annual report from the CISO highlighting the emerging threat landscape, our progress executing on our defensive cybersecurity strategy, and a review of our cybersecurity incident investigation and response processes.

Management's Role

The CISO, reporting to the CIO, is directly responsible for the assessment, oversight, and management of our enterprise-wide cybersecurity strategy and governance. Our CISO has significant relevant experience in the area, including graduate and postgraduate engineering technology degrees, along with 20 years of information security experience in critical infrastructure, as well as seven years with Norfolk Southern where he guided the Company through the implementation of our multi-layered defensive cybersecurity strategy that aligns with the NIST CSF. As noted above, our technology risk working group, comprised of leaders across the information technology, information security and law departments, including our CIO, CISO and Data Privacy Officer (DPO), among others, further monitor developments in the threat landscape so that key cybersecurity threats impacting the Company continue to be identified and prioritized.

Management and Board Reporting

Cybersecurity incidents are reported directly to the CISO in accordance with the applicable incident response plan. The CISO, together with the DPO, determine incident severity and response, and in turn report material or potentially material incidents to our internal 8-K subcommittee (comprised of senior leaders from the law, accounting, finance, investor relations, and communications departments), our CEO, and our Executive Vice President Corporate Affairs and Chief Legal Officer, who in turn notify the Chairs of the Board and the F&RM Committee. The Board is promptly notified prior to filing any 8-K disclosing any material or potentially material cybersecurity incidents, with the F&RM Committee provided further updates regarding root causes and remediation efforts.

We also have a cybersecurity incident response plan including specific responsive protocols administered by a predesignated incident response team, led by our CISO and DPO and comprised of other members of management. This incident response team also conducts periodic table-top exercises with management to ensure adherence to our cybersecurity incident response plan.

In an effort to deter and detect cyber threats, we also periodically provide all employees with a data protection and cybersecurity awareness training program, which covers timely and relevant topics, including phishing, password protection, confidential data protection, asset use and mobile security, and further educates employees on the importance of and process for reporting all potential incidents immediately. We also use technology-based tools to mitigate cybersecurity risks and to bolster employee-based cybersecurity programs.

Item 3. Legal Proceedings

For information on our legal proceedings, see Note 17 "Commitments and Contingencies" in Item 8 "Notes to Consolidated Financial Statements."

Item 4. Mine Safety Disclosures

Not applicable.

Information About Our Executive Officers

Our executive officers generally are elected and designated annually by the Board at its first meeting held after the annual meeting of stockholders, and they hold office until their successors are elected. Executive officers also may be elected and designated throughout the year as the Board considers appropriate. There are no family relationships among our officers, nor any arrangement or understanding between any officer and any other person pursuant to which the officer was selected. The following table sets forth certain information, at February 1, 2024, relating to our officers.

Name, Age, Present Position	Business Experience During Past Five Years				
Alan H. Shaw, 56, President and Chief Executive Officer	Present position since May 1, 2022. Served as President from December 1, 2021 to May 1, 2022. Serve as Executive Vice President and Chief Marketing Officer from May 16, 2015 to December 1, 2021.				
Ann A. Adams, 53, Executive Vice President and Chief Transformation Officer	Present position since April 1, 2019. Served as Vice President Human Resources from April 1, 2016 to April 1, 2019.				
Paul B. Duncan, 44, Executive Vice President and Chief Operating Officer	Present position since January 1, 2023. Served as Senior Vice President Transportation and Network Operations from September 1, 2022 to January 1, 2023. Served as Vice President Network Planning and Operations from March 1, 2022 to September 1, 2022. Prior to joining Norfolk Southern, served as Vice President of Service Design and Performance for BNSF Railway from October 1, 2018 to March 1, 2022.				
Claude E. Elkins, Jr., 58, Executive Vice President and Chief Marketing Officer	Present position since December 1, 2021. Served as Vice President Industrial Products from April 1, 2018 to December 1, 2021.				
Mark R. George, 56, Executive Vice President and Chief Financial Officer	Present position since November 1, 2019. Prior to joining Norfolk Southern, served as Vice President, Finance and Chief Financial Officer at segments of United Technologies Corporation. The positions were Vice President Finance, Strategy, IT and Chief Financial Officer at Otis Elevator Company from October 2015 to May 2019, and Vice President Finance and Chief Financial Officer at Carrier Corporation from June 2019 until joining Norfolk Southern.				
Nabanita C. Nag, 48, Executive Vice President and Chief Legal Officer	Present position since July 1, 2022. Served as Senior Vice President and Chief Legal Officer from March 1, 2022 to July 1, 2022. Served as General Counsel - Corporate from August 31, 2020 to March 1, 2022. Prior to joining Norfolk Southern, served as Vice President and Corporate Counsel in the Financial Management Law Group at Prudential Financial from March 3, 2014 to August 1, 2020.				
Claiborne L. Moore, 44, Vice President and Controller	Present position since March 1, 2022. Served as Assistant Vice President Corporate Accounting from March 15, 2019 to March 1, 2022. Served as Director Investor Relations from July 1, 2017 to March 15, 2019.				

PART II

NORFOLK SOUTHERN CORPORATION AND SUBSIDIARIES

<u>Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities</u>

STOCK INFORMATION

Common Stock is owned by 18,962 stockholders of record as of December 31, 2023, and is traded on the New York Stock Exchange under the symbol "NSC."

ISSUER PURCHASES OF EQUITY SECURITIES

Period	Total Number of Shares (or Units) Purchased ⁽¹⁾	Average Price Paid per Share (or Unit)	Total Number of Shares (or Units) Purchased as Part of the Publicly Announced Plans or Programs ⁽²⁾	Approximate Dollar Value of Shares that may yet be Purchased under the Publicly Announced Plans or Programs ⁽²⁾	
October 1-31, 2023	270,465	\$ 197.70	269,938	\$ 6,933,309,430	
November 1-30, 2023	159,957	202.48	156,646	6,901,566,364	
December 1-31, 2023	145,664	229.80	145,398	6,868,152,575	
Total	576,086		571,982		

Of this amount, 4,104 represent shares tendered by employees in connection with the exercise of stock options under the stockholder-approved Long-Term Incentive Plan (LTIP).

Item 6. [Reserved]

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 December 31, 2023, \$6.9 billion remains authorized for repurchase, until such amount is exhausted.

Item 7. 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. Refer to Item 8 "Notes to Consolidated Financial Statements" for all "Note" references.

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.

Our 2023 financial results were impacted by a February 2023 derailment in Eastern Ohio. The derailment of 38 railcars resulted in the release of certain chemicals that were being transported for our customers. Following the Incident (as defined and as further described in Note 17) and throughout the remainder of the year, we have worked to clean the derailment site safely and thoroughly and to monitor for any impact on public health and the environment. As a result of the Incident, we incurred \$1.1 billion of expenses primarily related to our environmental cleanup and remediation efforts at and around the site, related legal proceedings, and other Incident-related costs. As a result, income from railway operations, net income, and diluted earnings per share declined compared to 2022, most significantly as a result of the direct costs from the Incident. Our financial results were further impacted by lower revenues and higher non-Incident-related operating expenses.

SUMMARIZED RESULTS OF OPERATIONS

								202	3	2022	2
		2023			2022		2021	vs. 20	22	vs. 20	21
		(\$ in	millions,	ех	cept per sha	re amoui	ıts)	(% change)			
Income from railway operations	\$	2,851		\$	4,809	\$	4,447	(41	%)	8	%
Net income	\$	1,827		\$	3,270	\$	3,005	(44	%)	9	%
Diluted earnings per share	\$	8.02		\$	13.88	\$	12.11	(42	%)	15	%
Railway operating ratio (percent))	76.5			62.3		60.1	23	%	4	%

Income from railway operations, net income and diluted earnings per share declined in 2023 compared to 2022, driven by expenses incurred with our response efforts to the Incident (Note 17), lower railway operating revenues, and higher non-Incident-related railway operating expenses. Railway operating revenues declined 5% due to lower average revenue per unit, the result of lower fuel surcharge revenue and decreased intermodal storage service revenues partially offset by favorable pricing and mix. Additionally, lower volumes contributed to the decline in revenues. Expenses associated with the Incident for the year were \$1.1 billion. In addition to costs resulting from the Incident, railway operating expenses increased due to inflationary pressures, investments in operational resiliency, and higher service-related costs, offset partially by lower fuel prices. The decline in net income and diluted earnings per share also reflects

the absence of a prior year \$136 million deferred tax benefit, a result of an enactment of a change in the corporate
income tax rate in the Commonwealth of Pennsylvania in 2022. Railway operating ratio (a measure of the amount of
operating revenues consumed by operating expenses) deteriorated to 76.5 percent.

Income from railway operations increased in 2022 compared to 2021, driven by higher railway operating revenues. Revenue growth was the result of higher fuel surcharge revenues and pricing gains, which more than offset the impact of volume declines. The rise in revenues was partly offset by increased railway operating expenses, driven by higher fuel prices, other inflationary pressures, service-related costs, increased labor-related costs primarily resulting from labor union negotiations, and higher claims-related expenses. Incremental expenses incurred in 2022 that resulted from finalized labor agreements for wages earned in 2021 and prior periods lowered diluted earnings per share by \$0.18. Additionally, net income included a \$136 million deferred tax benefit resulting from a state corporate income tax rate change, which increased diluted earnings per share by \$0.58. Our share repurchase activity resulted in the percentage increase in diluted earnings per share that exceeded that of net income. Railway operating ratio deteriorated to 62.3 percent.

The following table adjusts our 2023 U.S. Generally Accepted Accounting Principles (GAAP) financial results to exclude the effects of the Incident. The income tax effects of this non-GAAP adjustment were calculated based on the applicable tax rates to which the non-GAAP adjustment related. We use these non-GAAP financial measures internally and believe this information provides useful supplemental information to investors to facilitate making period-to-period comparisons by excluding the 2023 costs arising from the Incident. While we believe that these non-GAAP financial measures are useful in evaluating our business, this information should be considered as supplemental in nature and is not meant to be considered in isolation from, or as a substitute for, the related financial information prepared in accordance with GAAP. In addition, these non-GAAP financial measures may not be the same as similar measures presented by other companies.

]	Non-GAAP	Reconciliation for	2023				
	Reported (GAAP)	E	astern Ohio Incident	Adjusted (non-GAAP)				
	(\$	in millions,	except per share ar	nounts)	· .			
Income from railway operations	\$ 2,851	\$	1,116	\$	3,967			
Income taxes	\$ 493	\$	270	\$	763			
Net income	\$ 1,827	\$	846	\$	2,673			
Diluted earnings per share	\$ 8.02	\$	3.72	\$	11.74			
Railway operating ratio (percent)	76.5		(9.1)		67.4			

In the table below, references to 2023 results and related comparisons use the adjusted, non-GAAP results from the reconciliation in the table above.

										Adjusto	ed			
										2023				
	1	Adjusted								(non- GAAP			2022	;
		2023								vs.			vs.	
		(non- GAAP)			2022			2021		2022			2021	
		(\$ in m	illions	, ех	ccept per sho	are an	ount	s)			(%	6 change)		
Income from railway operations	\$	3,967		\$	4,809		\$	4,447		(18	%)		8	%
Net income	\$	2,673		\$	3,270		\$	3,005		(18	%)		9	%
Diluted earnings per share	\$	11.74		\$	13.88		\$	12.11		(15	%)		15	%
Railway operating ratio (percent)		67.4			62.3			60.1		8	%		4	%

On a non-GAAP basis excluding the impact of direct costs resulting from the Incident, income from railway operations decreased in 2023 due to lower railway operating revenues and higher railway operating expenses. Railway operating revenues declined due to decreased fuel surcharge revenue, decreased intermodal storage revenues, and lower volume, partially offset by increased pricing and favorable mix compared to the prior year. Railway operating expenses increased due to inflationary pressures, investments in operational resiliency, and higher service-related costs, partially offset by lower fuel prices.

DETAILED RESULTS OF OPERATIONS

Railway Operating Revenues

The following tables present a three-year comparison of revenues, volumes (units), and average revenue per unit by commodity group.

	Revenues								2023			2022		
2023			2022			2021			vs. 20	vs. 2021				
			(\$ in millions)					(% change)						
Merchandise:														
Agriculture, forest and consumer products	\$	2,530		\$	2,493	\$		2,251		1	%	11	%	
Chemicals		2,054			2,148			1,951		(4	%)	10	%	
Metals and construction		1,634			1,652			1,562		- '	%)		%	
Automotive	L	1,135			1,038			905		9	%	15	%	
Merchandise		7,353			7,331			6,669		_	%	10	%	
Intermodal		3,090			3,681			3,163		(16	%)	16	%	
Coal		1,713			1,733			1,310		(1	%)	32	%	
Total	\$	12,156		\$	12,745	\$		11,142		(5	%)	14	%	

		Units	2023	2022	
	2023	2022	2021	vs. 2022	vs. 2021
		(in thousands)	(% ch	ange)	
Merchandise:					
Agriculture, forest and consumer products	734.3	723.0	725.5	2 %	— %
Chemicals	515.0	540.1	529.7	(5 %)	2 %
Metals and construction	634.1	634.6	669.0	%	(5 %)
Automotive	361.5	339.1	345.4	7 %	(2 %)
Merchandise	2,244.9	2,236.8	2,269.6	%	(1 %)
Intermodal	3,822.4	3,913.1	4,104.1	(2 %)	(5 %)
Coal	677.1	684.6	658.0	(1 %)	4 %
Total	6,744.4	6,834.5	7,031.7	(1 %)	(3 %)

		R	eve	nue pei	Unit	;		202	3	2022		2	
	2023			2022			2021	vs. 20)22	v	s. 20	21	
			(\$	8 per un	it)				(% c	change)			
Merchandise:													
Agriculture, forest and consumer products	\$ 3,445		\$	3,448			\$ 3,102		%		11	%	
Chemicals	3,989			3,978			3,684	_	%		8	%	
Metals and construction	2,577			2,604			2,334	(1	%)		12	%	
Automotive	3,140			3,059			2,621	3	%		17	%	
Merchandise	3,275			3,277			2,938	_	%		12	%	
Intermodal	808			941			771	(14	%)		22	%	
Coal	2,530			2,532			1,991	_	%		27	%	
Total	1,802			1,865			1,584	(3	%)		18	%	

Revenues decreased \$589 million in 2023 but increased \$1.6 billion in 2022 compared to the prior years. Revenues declined in 2023 as a result of lower average revenue per unit, driven by decreases in fuel surcharge revenue and intermodal storage revenues, and volume declines. Higher revenue for 2022 was the result of increased average revenue per unit, driven by higher fuel surcharge revenue, pricing gains, improved mix, and increased intermodal storage service charges, partially offset by volume declines.

The table below reflects the components of the revenue change by major commodity group.

			2023	vs. 2022				2022	vs. 2021	
		Ir	icrease	(Decrease)			I	ncrease	(Decrease)	
					(\$ in	millions)				
	Me	rchandise	Int	termodal	Coal	Me	erchandise	In	termodal	Coal
Volume	\$	26	\$	(85)	\$ (19)	\$	(96)	\$	(147)	\$ 53
Fuel surcharge										
revenue		(119)		(208)	(23)		455		417	79
Rate, mix and										
other		115		(298)	22		303		248	291
Total	\$	22	\$	(591)	\$ (20)	\$	662	\$	518	\$ 423

Approximately 95% of our revenue base is covered by contracts that include negotiated fuel surcharges. Fuel surcharge revenues totaled \$1.2 billion, \$1.6 billion, and \$622 million in 2023, 2022, and 2021, respectively. The change in fuel surcharge revenues in each period was primarily driven by fluctuations in fuel commodity prices.

For 2024, we expect that revenue will increase modestly driven by higher volumes.

MERCHANDISE revenues increased in both 2023 and 2022 compared with the prior years. In 2023, revenues were slightly higher as pricing and volume gains were nearly offset by lower fuel surcharge revenue and unfavorable mix. Increased volumes in automotive and agriculture, forest and consumer shipments were partially offset by decreased chemicals shipments. In 2022, revenues rose due to higher average revenue per unit, driven by higher fuel surcharge revenue and increased pricing, partially offset by lower volume. Decreased volumes in metal and construction and automotive shipments more than offset higher chemical shipments.

Agriculture, forest and consumer products revenues increased in both 2023 and 2022 compared with the prior years. In 2023, the rise was the result of increased volume. Average revenue per unit was flat, the result of lower fuel surcharge revenue offset by pricing gains. Increases in ethanol and fertilizer shipments more than offset declines in shipments of wood chips and graphic paper. Increased market demand led to volume gains in ethanol and fertilizer. Volume declines in wood chips were due to customer mill closures, while lower market demand led to the decline in graphic paper. In 2022, the rise was the result of increased average revenue per unit, the result of higher fuel surcharge revenue and pricing gains, while volumes were nearly flat. Declines in pulpboard, fertilizer, and pulp, were offset by increases in soybeans, feed, and corn. Pulpboard and pulp shipments declined due to decreased demand, equipment availability, service disruptions, and production down time. Lower fertilizer shipments were driven by high fertilizer prices causing customers to draw down on existing inventories or delay purchases as well as production disruptions. Soybean volumes were higher due to increased opportunity for exports. Feed shipments were higher due to increased customer demand. Increased corn shipments were due to improved equipment cycle times.

Chemicals revenues decreased in 2023 but increased in 2022 compared with the prior years. In 2023, the decrease was as a result of volume declines. Reduced shipments of crude oil, organic chemicals, and natural gas liquids, more than

offset the increases in solid waste and other petroleum products. Volume declines for crude oil were driven by so	oft
demand in the energy markets. Organic chemicals and natural gas liquids volume declined as a result	

of lower demand. Volume gains in solid waste were due to growth with existing customers, while the gains in petroleum products were due to growth with existing customers and new business opportunities. In 2022, the increase was the result of higher average revenue per unit, driven by fuel surcharge revenue and pricing gains, and volume growth. Increases in sand and solid waste shipments were partially offset by declines in plastics, inorganic chemicals, organic chemicals, and natural gas liquids. The increase in sand was due to greater demand resulting from sustained high natural gas prices. Solid waste shipments increased due to growth with existing customers. Plastics shipments decreased due to softening of the housing market. Declines in inorganic chemicals, organic chemicals, and natural gas liquids shipments were due to decreased demand and reduced production.

Metals and construction revenues were lower in 2023 but higher in 2022 compared with the prior years. In 2023, the decline in revenue was driven by lower average revenue per unit, the result of decreased fuel surcharge revenue partially offset by increased price. Volumes were nearly unchanged as reduced shipments of kaolin and construction materials were offset by volume gains in coil steel and scrap metal. The volume declines in kaolin were largely driven by lower demand, while the declines in construction materials were due to lower demand, extended cycle times and service challenges. Gains in coil steel volume were due to increased equipment available to handle demand, while scrap metal volume increased due to higher demand. In 2022, revenue growth was driven by higher average revenue per unit, the result of higher fuel surcharge revenue and pricing gains, partially offset by lower volume. Volumes fell largely as a result of decreased shipments of coil steel, iron and steel, and scrap metal driven by service disruptions and slower equipment cycle times.

Automotive revenues rose in both 2023 and 2022 compared with the prior years. The increase in revenues in 2023 was driven by increased volume and higher average revenue per unit, driven by favorable price. Volume increases were due to higher finished vehicle inventory levels available for rail transportation and improved equipment cycle times. The increase in revenues in 2022 was driven by higher average revenue per unit, due to higher fuel surcharge revenue and pricing gains, partially offset by volume declines. Volume declines were the result of slower equipment cycle times partially offset by fewer parts supply issues due to easing supply chain congestion when compared to the prior year.

INTERMODAL revenues decreased in 2023 but increased in 2022 compared with the prior years. The decrease in 2023 was the result of lower average revenue per unit, driven by reduced storage service charges and lower fuel surcharge revenue, and decreased volume. The increase in 2022 was the result of higher average revenue per unit, due to higher fuel surcharge revenue, pricing gains, and increased storage service charges, partially offset by decreased volume.

Intermodal units by market were as follows:

				2023	2022
	2023	2022	2021	vs. 2022	vs. 2021
		(units in thousands))	(% ch	ange)
Domestic	2,371.6	2,573.6	2,630.6	(8 %)	(2 %)
International	1,450.8	1,339.5	1,473.5	8 %	(9 %)
Total	3,822.4	3,913.1	4,104.1	(2 %)	(5 %)

Domestic volume decreased in both 2023 and 2022 compared with the prior years. In 2023, volume declined due to a decrease in freight demand as a result of reduced consumer consumption combined with high inventories, and increased truck competition. In 2022, volume declined due to service disruptions, terminal congestion, strong over-the-road competition, and increased truck availability.

International volume increased in 2023 but decreased in 2022. The increase in 2023 was driven by ocean carriers favoring inland point intermodal traffic, partially offset by a decrease in imports. The decline in 2022 was the result of supply chain constraints, chassis shortages, and excess retail inventory.

COAL revenues decreased in 2023 but increased in 2022 compared with the prior years. The decrease in 2023 was a result of decreased volumes. Average revenue per unit was flat as lower fuel surcharge revenue and pricing declines were offset by positive mix. The increase in 2022 was due to higher average revenue per unit, driven by pricing gains and higher fuel surcharge revenue, and increased volumes.

As shown in the following table, total tonnage decreased in 2023 but increased 2022.

	2022	2022	2021	2023	2022		
	2023	2022	2021	vs. 2022	vs. 2021		
		(tons in thousands)		(% change)			
Utility	30,419	35,705	33,169	(15 %)	8 %		
Export	31,005	25,887	24,886	20 %	4 %		
Domestic metallurgical	11,096	11,307	11,804	(2 %)	(4 %)		
Industrial	3,372	3,765	3,595	(10 %)	5 %		
Total	75,892	76,664	73,454	(1 %)	4 %		

Utility coal tonnage decreased in 2023 but increased in 2022 compared with the prior years. The decrease in 2023 was due to low natural gas prices, high stockpiles, and unplanned customer outages. The increase in 2022 was due to increased demand and service improvements.

Export coal tonnage increased in both periods compared with prior years. The increases in both years were a result of increased demand and coal supply.

Domestic metallurgical coal tonnage decreased in both 2023 and 2022 compared with the prior years. The decrease in 2023 was due to reduced coke shipments resulting from idled customer facilities. The decrease in 2022 was the result of reduced coke shipments related to customer sourcing changes and idled customer facilities.

Industrial coal tonnage decreased in 2023 but increased in 2022 compared with the prior years. The decrease in 2023 was due to reduced coal shipments related to customer sourcing changes. The increase in 2022 was the result of increased demand.

Railway Operating Expenses

Railway operating expenses summarized by major classifications were as follows:

						202	3	202	2
	2023		2022		2021	vs. 20)22	vs. 20	21
		(\$ i1	n millions)			(% change)			
Compensation and benefits	\$ 2,819	\$	2,621	\$	2,442	8	%	7	%
Purchased services and rents	2,070		1,922		1,726	8	%	11	%
Fuel	1,170		1,459		799	(20	%)	83	%
Depreciation	1,298		1,221		1,181	6	%	3	%
Materials and other	832		713		547	17	%	30	%
Eastern Ohio incident	1,116				_				
Total	\$ 9,305	\$	7,936	\$	6,695	17	%	19	%

In 2023, expenses increased as we incurred \$1.1 billion of costs related to environmental matters and legal proceedings resulting from the Incident (Note 17). Additionally, railway operating expenses reflected higher costs due to inflationary pressures, investments in operational resiliency, and higher service-related costs. Partially offsetting these increases were the impacts of lower fuel prices and the absence of retroactive wage increases recorded in 2022. In 2022, expenses increased primarily as a result of higher fuel prices, other inflationary pressures, service-related costs, increased labor-related costs resulting from labor union negotiations, and higher claims expense.

Compensation and benefits increased in 2023, reflecting changes in:

- employee activity levels (up \$138 million),
- pay rates (up \$86 million),
- overtime (up \$9 million),
- incentive and stock-based compensation (down \$30 million), and
- other (down \$5 million).

In 2022, compensation and benefits increased, a result of changes in:

- pay rates (up \$188 million),
- employee activity levels (up \$51 million),
- overtime (up \$18 million),
- incentive and stock-based compensation (down \$79 million), and
- other (up \$1 million).

Pay rates in 2022 were impacted by the outcome of completed labor negotiations, which resulted in retroactive wage increases and other benefits pertaining to prior years. These wage increases and benefits increased compensation and benefits by \$54 million.

Our employment averaged 20,300 in 2023, compared with 18,900 in 2022, and 18,500 in 2021.

Purchased services and rents includes the costs of services purchased from external vendors and contractors, including the net costs of operating joint facilities with other railroads and the net cost of equipment rentals.

				2023	2022		
	2023	2022	2021	vs. 2022	vs. 2021		
		(\$ in millions)		(% change)			
Purchased services	\$ 1,683	\$ 1,565	\$ 1,409	8 %	11 %		
Equipment ents	387	357	317	8 %	13 %		
Total	\$ 2,070	\$ 1,922	\$ 1,726	8 %	11 %		

The increase in purchased services in 2023 was due to higher technology-related costs, increased operational and transportation expenses, and higher engineering activity. The increase in purchased services in 2022 was due to inflationary pressures which resulted in higher intermodal-related expenses, and increased operational and transportation expenses, as well as higher technology-related costs.

Equipment rents, which includes our cost of using equipment (mostly freight cars) owned by other railroads or private owners less the rent paid to us for the use of our equipment, increased in both periods. In 2023, the increase was due to increased intermodal equipment expenses, higher freight car lease costs, and decreased equity in TTX Company's (TTX) earnings. In 2022, the increase was the result of lower network fluidity which led to greater time-and-mileage expenses, increased automotive and intermodal equipment expenses, and higher short-term locomotive resource costs.

Fuel expense, which includes the cost of locomotive fuel as well as other fuel used in railway operations, decreased in 2023 but increased in 2022. The decrease in 2023 was due to lower locomotive fuel prices (down 20%), which decreased fuel expense by \$275 million. The increase in 2022 was due to higher locomotive fuel prices (up 87%) which increased expenses by \$634 million. Locomotive fuel consumption was nearly flat in 2023 and decreased 2% in 2022. We consumed 377 million gallons of diesel fuel in 2023, compared with 376 million gallons in 2022 and 384 million gallons in 2021.

Depreciation expense increased in both periods. In both periods, the increase was a reflection of reinvestment in our infrastructure, rolling stock, and technology. The increase in 2023 also reflects the impact of changes in group depreciable lives as a result of our periodic roadway study.

Materials and other expenses increased in both 2023 and 2022 as shown in the following table.

						2023	3	2022	
	2023		2022		2021		22	vs. 2021	
		(\$ in	n millions)				(% ch	ange)	
Materials	\$ 364	\$	283	\$	250	29	%	13 %	
Claims	242		270		165	(10	%)	64 %	
Other	226		160		132	41	%	21 %	
Total	\$ 832	\$	713	\$	547	17	%	30 %	

Materials expense increased in both 2023 and 2022	. The increases in both years we	ere due to increased locomotive,
freight car, and track materials costs.		

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Claims expense includes costs related to personal injury, property damage, and environmental matters. The decrease in 2023 was primarily the result of lower personal injury case development, lower costs related to environmental remediation matters unrelated to the Incident, and a claims-related recovery. The increase in 2022 was primarily the result of higher costs associated with unfavorable personal injury case development, increased environmental remediation expenses, and higher lading and property damage costs.

Other expense increased in 2023 primarily due to lower gains from operating property sales and increased travel-related expenses. In 2022, other expense increased primarily due to higher travel-related expenses, increased non-income-based taxes, and lower gains from sales of operating property, partially offset by lower relocation expenses. Gains from operating property sales amounted to \$43 million, \$76 million, and \$82 million in 2023, 2022, and 2021, respectively.

Eastern Ohio incident

During 2023, we recorded \$1.1 billion for costs primarily associated with environmental matters and legal proceedings. We recorded \$101 million of recoveries from claims made under our insurance policies, which are included in the total amount recorded in 2023. For further details regarding the Incident, see Note 17 in Item 8 "Notes to Consolidated Financial Statements."

Other Income - Net

Other income – net increased in 2023 but decreased in 2022. The increase in 2023 was the result of higher net returns on corporate-owned life insurance (COLI) and increased interest income, partially offset by lower gains from non-operating property sales. The decrease in 2022 was driven by lower net returns on COLI partially offset by a higher net pension benefit and increased interest income.

Income Taxes

The effective income tax rate was 21.3% in 2023, compared with 20.8% in 2022 and 22.5% in 2021. The current year benefited from tax credits and higher COLI returns offset by reduced benefits from stock-based compensation. The effective income tax rate in 2022 and 2021 reflects favorable benefits associated with stock-based compensation and various state law changes (Note 4), while 2021 also benefited from higher COLI returns.

For 2024, we expect an effective income tax rate between 23% and 24%.

FINANCIAL CONDITION, LIQUIDITY, AND CAPITAL RESOURCES

Cash provided by operating activities, our principal source of liquidity, was \$3.2 billion in 2023, \$4.2 billion in 2022, and \$4.3 billion in 2021. The decrease in 2023 reflects lower operating results, offset in part by changes in working capital. The decrease in 2022 reflected changes in working capital, offset in part by improved operating results. We had working capital of \$639 million at December 31, 2023 and negative working capital of \$642 million at December 31, 2022. Cash and cash equivalents totaled \$1.6 billion and \$456 million at December 31, 2023, and 2022, respectively. We expect that 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, ability to reduce shareholder distributions, including share repurchases, and ability to moderate or defer property additions provide additional flexibility to meet our ongoing obligations in the short- and long-term.

Contractual obligations at December 31, 2023, including those that may have material cash requirements, include interest on fixed-rate long-term debt, long-term debt (Note 9), asset purchase of CSR (Note 17), unconditional purchase obligations (Note 17), long-term advances from Conrail Inc. (Conrail) (Note 6), operating leases (Note 10), agreements with Consolidated Rail Corporation (CRC) (Note 6), and unrecognized tax benefits (Note 4).

	Total	2024	2025 - 2026	2027 - 2028	2029 and Subsequen
			(\$ in millions)		
Interest on fixed- rate long-term debt	\$ 20,184	\$ 772	\$ 1,524	\$ 1,429	\$ 16,459
Long-term debt principal	18,112	4	1,158	1,223	15,727
Asset purchase of CSR	1,662	1,662	_	_	_
Unconditional purchase obligations	1,405	687	455	79	184
Long-term advances from Conrail	534	_	_	_	534
Operating leases	444	116	190	72	66
Agreements with CRC	237	44	88	88	17
Unrecognized tax benefits*	55				55
Total	\$ 42,633	\$ 3,285	\$ 3,415	\$ 2,891	\$ 33,042

^{*} This amount is shown in the 2029 and Subsequent column because the year of settlement cannot be reasonably estimated.

Off balance sheet arrangements consist primarily of unrecognized obligations, including future interest payments on fixed-rate long-term debt, the pending purchase of the assets of CSR, and unconditional purchase obligations which are included in the table above.

Cash used in investing activities was \$2.2 billion in 2023, \$1.6 billion in 2022, and \$1.2 billion in 2021. The increase in 2023 was primarily driven by higher property additions and lower proceeds from property sales. In 2022, the increase is due to higher property additions partially offset by increased proceeds from property sales.

Capital spending and track and equipment statistics can be found within the "Railway Property" section of Part I of this report on Form 10-K. For 2024, we expect property additions, excluding the purchase of the CSR, to approximate \$2.3 billion.

In November 2022, we entered into an asset purchase and sale agreement with the Board of Trustees of the CSR, which was amended and restated in June 2023, to purchase approximately 337 miles of railway line that extends from Cincinnati, Ohio to Chattanooga, Tennessee. We currently operate this railway line under a lease agreement. Following the June 2023 amendment, the total purchase price for the line and other associated real and personal property included in the transaction is expected to be approximately \$1.7 billion. The agreement was conditioned upon the following,

among other items: (i) Cincinnati Voter Approval, which was obtained in November 2023, and (ii) the receipt of regulatory approval from the STB, which occurred in September 2023. The transaction is scheduled to close on March 15, 2024.

Cash provided by financing activities was \$115 million in 2023, while cash used in financing activities was \$3.0 billion in 2022 and \$3.3 billion in 2021. The increase in cash provided by financing activities in 2023 reflects lower repurchases of Common Stock and increased proceeds from borrowings, partially offset by higher debt repayments. In 2022, the decrease in cash used in financing activities reflects lower repurchases of Common Stock and increased proceeds from borrowings, partially offset by higher dividends.

Share repurchases of \$622 million in 2023, \$3.1 billion in 2022, and \$3.4 billion in 2021 resulted in the retirement of 2.8 million, 12.6 million, and 12.7 million shares, respectively. As of December 31, 2023, \$6.9 billion remains authorized by our Board of Directors for repurchase. 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.

In November 2023, we issued \$400 million of 5.55% senior notes due 2034 and \$600 million of 5.95% senior notes due 2064.

In August 2023, we issued \$600 million of 5.05% senior notes due 2030 and \$1.0 billion of 5.35% senior notes due 2054.

In February 2023, we issued \$500 million of 4.45% senior notes due 2033.

In May 2023, we renewed our accounts receivable securitization program with a maximum borrowing capacity of \$400 million. Amounts under our accounts receivable securitization program are borrowed and repaid from time to time in the ordinary course for general corporate and cash management purposes. The term of our accounts receivable securitization program expires in May 2024. We had no amounts outstanding under this program at December 31, 2023 and \$100 million outstanding at December 31, 2022. Our available borrowing capacity was \$400 million at December 31, 2023 and \$300 million at December 31, 2022.

In January 2024, we renewed and amended our \$800 million credit agreement. The amended agreement expires in January 2029, and provides for borrowings at prevailing rates and includes covenants. We had no amounts outstanding under this facility at either December 31, 2023 or December 31, 2022, and we are in compliance with all of its covenants.

In January 2024, we also entered into a term loan credit agreement that established a 364-day, \$1.0 billion, unsecured delayed draw term loan facility under which we can borrow for general corporate purposes. The term loan credit agreement provides for borrowing at prevailing rates and includes covenants that align with the \$800 million credit agreement.

In addition, we have investments in general purpose COLI policies and had the ability to borrow against these policies up to \$640 million and \$610 million at December 31, 2023 and December 31, 2022, respectively.

Our debt-to-total capitalization ratio was 57.3% at December 31, 2023, compared with 54.4% at December 31, 2022. We discuss our credit agreement and our accounts receivable securitization program in Note 9. Upcoming annual debt maturities are also disclosed in Note 9. Overall, our goal is to maintain a capital structure with appropriate leverage to support our business strategy and provide flexibility through business cycles.

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 revenues 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.

Incident Contingencies

We are currently involved in certain environmental response and remediation activities and subject to numerous legal proceedings and regulatory inquiries and investigations relating to the Incident. We have accrued estimates of the probable and reasonably estimable costs for the resolution of these matters. Our environmental estimates are based upon types of remediation efforts currently anticipated, the volume of contaminants in the impacted areas, and governmental oversight and other costs, amongst other factors. Estimates associated with the legal proceedings to which we are subject are based on information that is currently available, including but not limited to an assessment of the proceedings and the potential and likely results of such proceedings.

Our current estimates of future environmental cleanup and remediation liabilities related to the Incident may change over time due to various factors, including but not limited to, the nature and extent of required future cleanup and removal activities (including those resulting from soil, water, sediment, and air assessment and investigative activities that are and will continue to be conducted at the site), and the extent and duration of governmental oversight, amongst other factors. Additionally, the final outcome of any of the legal proceedings and regulatory inquiries and investigations cannot be predicted with certainty, and developments related to the progress of such legal proceedings, inquiries, or investigations or other unfavorable or unexpected outcomes could result in additional costs or new or additionally accrued amounts that could be material to our results of operations in any particular year. Furthermore, certain costs may be recoverable under our insurance policies in effect at the date of the Incident or from third parties. Any amounts that are recoverable under our insurance policies or from third parties will be reflected in the period in which recovery is considered probable.

See Note 17 for more detailed information as it pertains to these contingencies.

Pensions and Other Postretirement Benefits

Accounting for pensions and other postretirement benefit plans requires us to make several estimates and assumptions (Note 12). These include the expected rate of return from investment of the plans' assets and the expected retirement age of employees as well as their projected earnings and mortality. In addition, the amounts recorded are affected by changes in the interest rate environment because the associated liabilities are discounted to their present value. We make these estimates based on our historical experience and other information we deem pertinent under the circumstances (for example, expectations of future stock market performance). We utilize an independent actuarial consulting firm's studies to assist us in selecting appropriate actuarial assumptions and valuing related liabilities.

For 2023, we assumed a long-term investment rate of return of 8.0%, which was supported by our long-term total rate of return on pension plan assets since inception, as well as our expectation of future returns. A one-percentage point decrease to this rate of return assumption would result in a \$25 million increase in annual pension expense. We review assumptions related to our defined benefit plans annually, and while changes are likely to occur in assumptions concerning retirement age, projected earnings, and mortality, they are not expected to have a material effect on our net pension expense or net pension liability in the future. The net pension liability is recorded at net present value using discount rates that are based on the current interest rate environment in light of the timing of expected benefit payments. We utilize analyses in which the projected annual cash flows from the pension and postretirement benefit plans are matched with yield curves based on an appropriate universe of high-quality corporate bonds. We use the results of the yield curve analyses to select the discount rates that match the payment streams of the benefits in these plans. A one-percentage point decrease to this discount rate assumption would result in a \$15 million increase in annual pension expense.

Properties and Depreciation

Most of our assets are long-lived railway properties (Note 7). "Properties" are stated principally at cost and are depreciated using the group method whereby assets with similar characteristics, use, and expected lives are grouped

together in asset classes and depreciated using a composite depreciation rate. See Note 1 for a more detailed discussion of assumptions and estimates.

Expenditures, including those on leased assets, that extend an asset's useful life or increase its utility are capitalized. Expenditures capitalized include those that are directly related to a capital project and may include materials, labor, and other direct costs, in addition to an allocable portion of indirect costs that relate to a capital project. A significant portion of our annual capital spending relates to self-constructed assets. Costs related to repairs and maintenance activities that, in our judgment, do not extend an asset's useful life or increase its utility are expensed when such repairs are performed.

Depreciation expense for 2023 totaled \$1.3 billion. Our composite depreciation rates for 2023 are disclosed in Note 7; a one-year increase (or decrease) in the estimated average useful lives of depreciable assets would have resulted in an approximate \$47 million decrease (or increase) to annual depreciation expense.

Personal Injury

Claims expense, included in "Materials and other" in the Consolidated Statements of Income, includes our estimate of costs for personal injuries.

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. The actuarial firm studies our historical patterns of reserving for claims and subsequent settlements, taking into account relevant outside influences. 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 and, as such, the ultimate loss sustained may vary from the estimated liability recorded.

See Note 17 for a more detailed discussion of the assumptions and estimates we use for personal injury.

Income Taxes

Our net deferred tax liability totaled \$7.2 billion at December 31, 2023 (Note 4). This liability is estimated based on the expected future tax consequences of items recognized in the financial statements. After application of the federal statutory tax rate to book income, judgment is required with respect to the timing and deductibility of expenses in our income tax returns. For state income and other taxes, judgment is also required with respect to the apportionment among the various jurisdictions. A valuation allowance is recorded if we expect that it is more likely than not that deferred tax assets will not be realized. We have a \$31 million valuation allowance on \$570 million of deferred tax assets as of December 31, 2023, reflecting the expectation that substantially all of these assets will be realized.

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.

The latest round of national bargaining concluded in December 2022, when agreements were either ratified or enacted through legislative action for all twelve of our unions. With the conclusion of national bargaining, neither party can compel mandatory bargaining around any new proposals until November 1, 2024.

In addition, we understand the imperative to continue improving quality of life for our craft employees and remain actively engaged with our unions in voluntary local discussions (none of which carry the risk of a work stoppage) on this important issue.

Market Risks

We manage overall exposure to fluctuations in interest rates by issuing both fixed- and floating- rate debt instruments. At December 31, 2023, we have no outstanding debt subject to interest rate fluctuations. Market risk for fixed-rate debt is estimated as the potential increase in fair value resulting from a one-percentage point decrease in interest rates as of December 31, 2023 and amounts to an increase of approximately \$1.7 billion to the fair value of our debt at December 31, 2023. We consider it unlikely that interest rate fluctuations applicable to these instruments will result in a material adverse effect on our financial position, results of operations, or liquidity.

New Accounting Pronouncements

For a detailed discussion of new accounting pronouncements, see Note 1.

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 in Item 1A "Risk Factors," 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

Annual Report on Form 10-K.

Investors and others should note that we routinely use the Investor Relations, Performance Metrics and Sustainability sections of our website (norfolksouthern.investorroom.com/key-investor-information, norfolksouthern.investorroom.com/weekly-performance-reports & www.norfolksouthern.com/sustainability) 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 X (formerly known as 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

Item 7A. Quantitative and Qualitative Disclosures About Market Risk

The information required by this item is included in Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations" under the heading "Market Risks."

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<u>Item 8. Financial Statements and Supplementary Data</u>

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Report of Management

February 5, 2024

To the Stockholders Norfolk Southern Corporation:

Management is responsible for establishing and maintaining adequate internal control over financial reporting. In order to ensure that Norfolk Southern's internal control over financial reporting is effective, management regularly assesses such controls and did so most recently as of December 31, 2023. This assessment was based on criteria for effective internal control over financial reporting described in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this assessment, management has concluded that we maintained effective internal control over financial reporting as of December 31, 2023.

KPMG LLP, independent registered public accounting firm, has audited our financial statements and issued an opinion on our internal control over financial reporting as of December 31, 2023.

/s/ Alan H. Shaw	/s/ Mark R. George	/s/ Claiborne L. Moore
Alan H. Shaw	Mark R. George	Claiborne L. Moore
President and	Executive Vice President	Vice President and
Chief Executive Officer	and Chief Financial Officer	Controller

Report of Independent Registered Public Accounting Firm

To the Stockholders and Board of Directors Norfolk Southern Corporation:

Opinions on the Consolidated Financial Statements and Internal Control Over Financial Reporting

We have audited the accompanying consolidated balance sheets of Norfolk Southern Corporation and subsidiaries (the Company) as of December 31, 2023 and 2022, the related consolidated statements of income, comprehensive income, cash flows, and changes in stockholders' equity for each of the years in the three-year period ended December 31, 2023, and the related notes and financial statement schedule of valuation and qualifying accounts as listed in Item 15(A)2 (collectively, the consolidated financial statements). We also have audited the Company's internal control over financial reporting as of December 31, 2023, based on criteria established in *Internal Control – Integrated Framework* (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2023 and 2022, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2023, in conformity with U.S. generally accepted accounting principles. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2023 based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

Basis for Opinions

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

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control Over Financial Reporting

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

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

Critical Audit Matters

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

Sufficiency of audit evidence related to the capitalization of property expenditures

As discussed in Note 1 to the consolidated financial statements, expenditures that extend an asset's useful life or increase its utility are capitalized. The Company has recorded \$33,326 million in net book value of properties at December 31, 2023 and has recorded \$2,349 million in property additions for the year ended December 31, 2023. Expenditures capitalized include those that are directly related to a capital project and may include materials, labor and other direct costs, in addition to an allocable portion of indirect costs that relate to a capital project. A significant portion of the Company's annual capital spending relates to self-constructed assets. Costs related to repair and maintenance activities, that in the Company's judgment, do not extend an asset's useful life or increase its utility are expensed when such repairs are performed.

We identified the evaluation of the sufficiency of audit evidence related to capitalization of property expenditures as a critical audit matter. Subjective auditor judgment was required in determining procedures and evaluating audit results related to the capitalization of purchased services and compensation due to their usage for both self-constructed assets and repairs and maintenance.

The following are the primary procedures we performed to address the critical audit matter. We applied auditor judgment to determine the nature and extent of procedures to be performed over capitalized property expenditures. We evaluated the design and tested the operating effectiveness of certain internal controls over the Company's process to capitalize property expenditures, including controls over the determination of whether purchased services and compensation expenditures extend an asset's useful life or increase its utility. For a sample of property additions expenditures, we inquired and inspected support to evaluate that the expenditure extended an asset's useful life or increased its utility. We evaluated the sufficiency of audit evidence obtained by assessing the results of the procedures performed, including the appropriateness of the nature of such evidence.

Eastern Ohio Incident

As discussed in Note 17 to the consolidated financial statements, the Company has recognized \$464 million of liabilities attributable to the Eastern Ohio Incident (the Incident) as of December 31, 2023. For the year-ended December 31, 2023, the Company has recognized \$1,116 million of expenses for costs directly attributable to the Incident, which is presented net of \$101 million in insurance recoveries in the Consolidated Statements of Income. As of December 31, 2023, the Company recognized probable and reasonably estimable liabilities for environmental matters and legal proceedings and claims (non-environmental). The Company also disclosed certain legal proceedings and claims (non-environmental) where a loss is reasonably possible, but not probable, or is probable but not reasonably estimable, for which no accrual was established. In addition, as a result of the Incident, the Company disclosed that it is subject to inquiries and investigations by various government authorities and regulatory agencies.

We identified the evaluation of the recognition and measurement of liabilities for environmental matters, legal proceedings and claims (non-environmental) and inquiries and investigations arising from the Incident and the sufficiency of the related disclosures as a critical audit matter. A high degree of subjective auditor judgment was required to evaluate certain judgments and assumptions made by management when assessing the likelihood and magnitude of losses incurred and determining whether reasonable estimates of losses can be made. Specifically, the key judgments and assumptions related to the following:

- the nature and extent of future cleanup and removal activities and the extent and duration of governmental oversight
- the final outcome of the legal proceedings and claims (non-environmental)
- the final outcome of any current or future inquiries and investigations arising from the Incident.

The following are the primary procedures that we performed to address this critical audit matter. We evaluated the design and tested the operating effectiveness of certain internal controls over the Company's processes to 1) recognize and measure liabilities associated with environmental matters, legal proceedings and claims (non-environmental), and inquiries and investigations and 2) prepare the related financial statement disclosures. We evaluated the Company's assessment of the likelihood and magnitude of losses being incurred including whether the estimates of losses are reasonably estimable for liabilities associated with the Incident by:

- assessing the estimates of environmental cleanup and remediation liabilities by comparing them to incurred
 costs
- inquiring of management regarding the expected timeline for both probable and reasonably estimable costs for soil and water disposal and air monitoring activities as well as related governmental oversight
- obtaining a legal confirmation letter from external legal counsel, and inquiring of the Company's internal and external legal counsel regarding the likelihood and magnitude of losses related to environmental matters, legal proceedings and claims (non-environmental) and inquiries and investigations
- obtaining and inspecting correspondence with government authorities and regulatory agencies for environmental matters, legal proceedings and claims (non-environmental) and inquiries and investigations.

We evaluated whether the Company's disclosures were appropriate and consistent with the information obtained in our procedures.

/s/ KPMG LLP KPMG LLP

We have served as the Company's auditor since 1982.

Atlanta, Georgia February 5, 2024

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Norfolk Southern Corporation and Subsidiaries Consolidated Statements of Income

	Years ended December 31,						
		2023	1ears en	2022	·		
	(\$ in millions, except per share amounts)						
D.:!	¢.				\$		
Railway operating revenues	\$	12,156	\$	12,745	\$	11,142	
Railway operating expenses							
Compensation and benefits		2,819	2,621		2,442		
Purchased services and rents		2,070		1,922		1,726	
Fuel		1,170	1,459		799		
Depreciation		1,298		1,221		1,181	
Materials and other		832	713		547		
Eastern Ohio incident		1,116		_			
Total railway operating expenses		9,305		7,936		6,695	
Income from railway operations		2,851		4,809		4,447	
Other income – net		191		13		77	
Interest expense on debt		722		692		646	
Income before income taxes	2,320		4,130		3,878		
Income taxes		493		860		873	
Net income	\$	1,827	\$	3,270	\$	3,005	
Earnings per share							
Basic	\$	8.04	\$	13.92	\$	12.16	
Diluted		8.02		13.88	12.11		

See accompanying notes to consolidated financial statements.

Norfolk Southern Corporation and Subsidiaries Consolidated Statements of Comprehensive Income

	Years ended December 31,						
	2023	2022	2021				
	(\$ in millions)						
Net income	\$ 1,827	\$ 3,270	\$ 3,005				
Other comprehensive income, before tax:							
Pension and other postretirement benefits	36	51	226				
Other comprehensive income of equity investees	4	17	24				
Other comprehensive income, before tax	40	68	250				
Income tax expense related to items of							
other comprehensive income	(9)	(17)	(58)				
Other comprehensive income, net of tax	31	51	192				
Total comprehensive income	\$ 1,858	\$ 3,321	\$ 3,197				

See accompanying notes to consolidated financial statements.

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Norfolk Southern Corporation and Subsidiaries Consolidated Balance Sheets

	At December 31,			
	2023	2022		
	(\$ in	nillions)		
Assets				
Current assets:				
Cash and cash equivalents	\$ 1,568	\$ 456		
Accounts receivable – net	1,147	1,148		
Materials and supplies	264	253		
Other current assets	292	150		
Total current assets	3,271	2,007		
Investments	3,839	3,694		
Properties less accumulated depreciation of \$13,265 and				
\$12,592, respectively	33,326	32,156		
Other assets	1,216	1,028		
Total assets	\$ 41,652	\$ 38,885		
Liabilities and stockholders' equity				
Current liabilities:				
Accounts payable	\$ 1,638	\$ 1,293		
Short-term debt	_	100		
Income and other taxes	262	312		
Other current liabilities	728	341		
Current maturities of long-term debt	4	603		
Total current liabilities	2,632	2,649		
Long-term debt	17,175	14,479		
Other liabilities	1,839	1,759		
Deferred income taxes	7,225	7,265		
Total liabilities	28,871	26,152		
Stockholders' equity:				
Common Stock \$1.00 per share par value, 1,350,000,000 shares				
authorized; outstanding 225,681,254 and 228,076,415 shares,				
respectively, net of treasury shares	227	230		
Additional paid-in capital	2,179	2,157		
Accumulated other comprehensive loss	(320)	(351		
Retained income	10,695	10,697		
Total stockholders' equity	12,781	12,733		
Total liabilities and stockholders' equity	\$ 41,652	\$ 38,885		

Norfolk Southern Corporation and Subsidiaries

Consolidated Statements of Cash Flows

	Years ended December 31,				
	2023		2022		2021
		(\$	in millions)	•	
Cash flows from operating activities					
Net income	\$ 1,827	\$	3,270	\$	3,005
Reconciliation of net income to net cash provided by operating activities:					
Depreciation	1,298		1,221		1,181
Deferred income taxes	(49)		83		184
Gains and losses on properties	(49)		(82)		(86)
Changes in assets and liabilities affecting operations:					
Accounts receivable	(2)		(171)		(133)
Materials and supplies	(11)		(35)		3
Other current assets	(54)		(18)		(6)
Current liabilities other than debt	435		23		283
Other – net	(216)		(69)		(176)
Net cash provided by operating activities	3,179		4,222		4,255
Cash flows from investing activities					
Property additions	(2,349)		(1,948)		(1,470)
Property sales and other transactions	86		263		159
Investment purchases	(124)		(12)		(10)
Investment sales and other transactions	205		94		99
Net cash used in investing activities	(2,182)		(1,603)		(1,222)
Cash flows from financing activities					
Dividends	(1,225)		(1,167)		(1,028)
Common Stock transactions	3		(4)		17
Purchase and retirement of Common Stock	(622)		(3,110)		(3,390)
Proceeds from borrowings	3,293		1,832		1,676
Debt repayments	(1,334)		(553)		(584)
Net cash provided by (used in) financing activities	115		(3,002)		(3,309)
Net increase (decrease) in cash and cash equivalents	1,112		(383)		(276)
Cash and cash equivalents					
At beginning of year	456		839		1,115
At end of year	\$ 1,568	\$	456	\$	839
Supplemental disclosures of cash flow information					
Cash paid during the year for:					
Interest (net of amounts capitalized)	\$ 653	\$	619	\$	579
Income taxes (net of refunds)	681		750		654

See	accompanying	notes to	consolidated	financial	statements.
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Norfolk Southern Corporation and Subsidiaries

Consolidated Statements of Changes in Stockholders' Equity

		Additional	Accum. Other		
	Common Stock	Paid-in Capital	Comprehensive Loss	Retained Income	Total
		(\$ in millions, except per share amounts)			
Balance at December 31, 2020	\$ 254	\$ 2,248	\$ (594)	\$ 12,883	\$ 14,791
Comprehensive income:					
Net income				3,005	3,005
Other comprehensive income			192		192
Total comprehensive income					3,197
Dividends on Common Stock,					
\$4.16 per share				(1,028)	(1,028)
Share repurchases	(13)	(106)		(3,271)	(3,390)
Stock-based compensation	1	73		(3)	71
Balance at December 31, 2021	242	2,215	(402)	11,586	13,641
Comprehensive income:					
Net income				3,270	3,270
Other comprehensive income			51		51
Total comprehensive income					3,321
Dividends on Common Stock,					
\$4.96 per share				(1,167)	(1,167)
Share repurchases	(13)	(108)		(2,989)	(3,110)
Stock-based compensation	1	50		(3)	48
Balance at December 31, 2022	230	2,157	(351)	10,697	12,733
Comprehensive income:					
Net income				1,827	1,827
Other comprehensive					Page 71 of 1

Norfolk Southern Corporation and Subsidiaries Notes to Consolidated Financial Statements

The following Notes are an integral part of the Consolidated Financial Statements. Certain prior year information has been reclassified to conform to current year presentation.

1. Summary of Significant Accounting Policies

Description of Business

Norfolk Southern Corporation is a Georgia-based holding company engaged principally in the rail transportation business, operating 19,100 route miles primarily in the Southeast, East, and Midwest. These consolidated financial statements include Norfolk Southern and its majority-owned and controlled subsidiaries (collectively, NS, we, us, and our). Norfolk Southern's major subsidiary is NSR. All significant intercompany balances and transactions have been eliminated in consolidation.

NSR and its railroad subsidiaries transport raw materials, intermediate products, and finished goods classified in the following commodity groups (percent of total railway operating revenues in 2023): intermodal (25%); agriculture, forest and consumer products (21%); chemicals (17%); coal (14%); metals and construction (14%); and automotive (9%). Although most of our customers are domestic, ultimate points of origination or destination for some of the products transported (particularly coal bound for export and some intermodal shipments) may be outside the U.S. Approximately 80% of our railroad employees are covered by collective bargaining agreements with various labor unions.

Use of 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 revenues and expenses during the reporting period. We periodically review our estimates, including those related to the recoverability and useful lives of assets, as well as liabilities for litigation, environmental remediation, casualty claims, income taxes and pension and other postretirement benefits. Changes in facts and circumstances may result in revised estimates.

Revenue Recognition

Transportation revenues are recognized proportionally as a shipment moves from origin to destination, and related expenses are recognized as incurred. Certain of our contract refunds (which are primarily volume-based incentives) are recorded as a reduction to revenues on the basis of our best estimate of projected liability, which is based on historical activity, current shipment counts and expectation of future activity. Certain ancillary services, such as switching, demurrage and other incidental activities, may be provided to customers under their transportation contracts. The revenues associated with these distinct performance obligations are recognized when the services are performed or as contractual obligations are met.

Cash Equivalents

"Cash equivalents" are highly liquid investments purchased three months or less from maturity.

Allowance for Doubtful Accounts

Our allowance for doubtful accounts was \$7 million and \$9 million at December 31, 2023 and 2022, respectively. To determine our allowance for doubtful accounts, we evaluate historical loss experience (which has not been significant), the characteristics of current accounts, and general economic conditions and trends.

Materials and Supplies

"Materials and supplies," consisting mainly of items for maintenance of property and equipment, are stated at the lower of average cost or net realizable value. The cost of materials and supplies expected to be used in property additions or improvements is included in "Properties."

Investments

Investments in entities over which we have the ability to exercise significant influence but do not control the entity are accounted for using the equity method, whereby the investment is carried at the cost of the acquisition plus our equity in undistributed earnings or losses since acquisition.

Properties

"Properties" are stated principally at cost and are depreciated using the group method whereby assets with similar characteristics, use, and expected lives are grouped together in asset classes and depreciated using a composite depreciation rate. This methodology treats each asset class as a pool of resources, not as singular items. We use approximately 75 depreciable asset classes.

Depreciation expense is based on our assumptions concerning expected service lives of our properties as well as the expected net salvage that will be received upon their retirement. In developing these assumptions, we utilize periodic depreciation studies that are performed by an independent outside firm of consulting engineers and approved by the STB. Our depreciation studies are conducted about every three years for equipment and every six years for track assets and other roadway property. The frequency of these studies is consistent with guidelines established by the STB. We adjust our rates based on the results of these studies and implement the changes prospectively. The studies may also indicate that the recorded amount of accumulated depreciation is deficient (or in excess) of the amount indicated by the study. Any such deficiency (or excess) is amortized as a component of depreciation expense over the remaining service lives of the affected class of property, as determined by the study.

Key factors that are considered in developing average service life and salvage estimates include:

- statistical analysis of historical retirement data and surviving asset records,
- review of historical salvage received and current market rates,
- review of our operations including expected changes in technology, customer demand, maintenance practices and asset management strategies,
- review of accounting policies and assumptions, and
- industry review and analysis.

The composite depreciation rate for rail in high density corridors is derived based on consideration of annual gross tons as compared to the total or ultimate capacity of rail in these corridors. Our experience has shown that traffic density is a leading factor in the determination of the expected service life of rail in high density corridors. In developing the respective depreciation rate, consideration is also given to several rail characteristics including age, weight, condition (new or second-hand) and type (curved or straight).

We capitalize interest on major projects during the period of their construction. Expenditures, including those on leased assets, that extend an asset's useful life or increase its utility are capitalized. Expenditures capitalized include those that are directly related to a capital project and may include materials, labor, and other direct costs, in addition to an allocable portion of indirect costs that relate to a capital project. A significant portion of our annual capital spending relates to self-constructed assets. Removal activities occur in conjunction with replacement and are estimated based on the average percentage of time employees replacing assets spend on removal functions. Costs related to repairs and maintenance activities that, in our judgment, do not extend an asset's useful life or increase its utility are expensed when such repairs are performed.

When depreciable operating road and equipment assets are sold or retired in the ordinary course of business, the cost of the assets, net of sales proceeds or salvage, is charged to accumulated depreciation, and no gain or loss is recognized in earnings. Actual historical cost values are retired when available, such as with most equipment assets. The use of estimates in recording the retirement of certain roadway assets is necessary based on the impracticality of tracking individual asset costs. When retiring rail, ties and ballast, we use statistical curves that indicate the relative distribution of the age of the assets retired. The historical cost of other roadway assets is estimated using a combination of inflation indices specific to the rail industry and those published by the U.S. Bureau of Labor Statistics. The indices are applied to the replacement value based on the age of the retired assets. These indices are used because they closely correlate with the costs of roadway assets. Gains and losses on disposal of operating land are included in "Materials and other" expenses. Gains and losses on disposal of non-operating land and non-rail assets are included in "Other income – net" since such income is not a product of our railroad operations.

A retirement is considered abnormal if it does not occur in the ordinary course of business, if it relates to disposition of a large segment of an asset class and if the retirement varies significantly from the retirement profile identified through our depreciation studies, which inherently consider the impact of normal retirements on expected service lives and depreciation rates. Gains or losses from abnormal retirements are recognized in income from railway operations.

We review the carrying amount of properties whenever events or changes in circumstances indicate that such carrying amount may not be recoverable based on future undiscounted cash flows. Assets that are deemed impaired as a result of such review are recorded at the lower of carrying amount or fair value.

New Accounting Pronouncements

In November 2021, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 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. We adopted the new standard on January 1, 2022 and there was no material impact to the financial statements upon adoption.

In November 2023, the FASB issued ASU 2023-07, "Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures." This update requires additional reportable segment disclosures, primarily through enhanced disclosures about significant segment expenses and information used to assess performance. The ASU is effective for fiscal years beginning after December 15, 2023 and interim periods within fiscal years beginning after December 15, 2024. We will not early adopt the standard and are currently evaluating the effect on our financial statements.

In December 2023, the FASB issued ASU 2023-09, "Income Taxes (Topic 740): Improvements to Income Tax Disclosures." This update requires additional disclosures including greater disaggregation of information in the reconciliation of the statutory rate to the effective rate and income taxes paid disaggregated by jurisdiction. The ASU is effective for fiscal years ending after December 15, 2024. We will not early adopt the standard and are currently evaluating the effect on our financial statements.

2. Railway Operating Revenues

The following table disaggregates our revenues by major commodity group:

	2023	2022	2021
		(\$ in millions)	
Merchandise:			
Agriculture, forest and consumer products	\$ 2,530	\$ 2,493	\$ 2,251
Chemicals	2,054	2,148	1,951
Metals and construction	1,634	1,652	1,562
Automotive	1,135	1,038	905
Merchandise	7,353	7,331	6,669
Intermodal	3,090	3,681	3,163
Coal	1,713	1,733	1,310
Total	\$ 12,156	\$ 12,745	\$ 11,142

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 December 31, 2023 and 2022.

We may provide customers ancillary services, such as switching, demurrage and other incidental activities, under their transportation contracts. The revenues associated with these distinct performance obligations are recognized when the services are performed or as contractual obligations are met. These revenues are included within each of the commodity groups and represent approximately 5%, 7% and 7%, respectively, of total "Railway operating revenues" on the Consolidated Statements of Income for the years ended December 31, 2023, 2022, and 2021.

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:

	Decei	nber 31,	
	2023		2022
	(\$ in 1	millions)	
Customer	\$ 882	\$	895
Non-customer	265		253
Accounts receivable – net	\$ 1,147	\$	1,148

Non-customer receivables include non-revenue-related amounts due from other railroads, governmental entities, and others. We do not have any material contract assets or liabilities at December 31, 2023 and 2022.

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3. Other Income – Net

	2023		2022		2021
		(\$	in millions,)	
Pension and other postretirement benefits (Note 12)	\$ 117	\$	126	\$	102
COLI – net	65		(77)		17
Other	9		(36)		(42)
Total	\$ 191	\$	13	\$	77

4. Income Taxes

	2023	2022	2021
		(\$ in millions)	
Current:			
Federal	\$ 437	\$ 645	\$ 553
State	105	132	136
Total current taxes	542	777	689
Deferred:			
Federal	(27)	206	186
State	(22)	(123)	(2)
Total deferred taxes	(49)	83	184
Income taxes	\$ 493	\$ 860	\$ 873

Reconciliation of Statutory Rate to Effective Rate

"Income taxes" on the Consolidated Statements of Income differs from the amounts computed by applying the statutory federal corporate tax rate as follows:

	20	23	20	22	202	21
	Amount	%	Amount	%	Amount	%
			(\$ in m	illions)		
Federal income tax at statutory rate	\$ 487	21.0	\$ 867	21.0	\$ 814	21.0
State income taxes, net of federal tax effect	65	2.9	143	3.5	139	3.6
Tax credits	(27)	(1.2)	(10)	(0.2)	(10)	(0.3)
State law changes	_	_	(136)	(3.3)	(34)	(0.8)
Other, net	(32)	(1.4)	(4)	(0.2)	(36)	(1.0)
Income taxes	\$ \$ 493	21.3	\$ 860	20.8	\$ 873	22.5

On July 8, 2022, House Bill 1342 was signed into law in the Commonwealth of Pennsylvania, which reduced its corporate income tax rate from 9.99% to 4.99%, through a series of phased reductions 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, in 2022, we recognized a \$136 million benefit in "Income taxes" with a corresponding reduction in "Deferred income taxes."

Deferred Tax Assets and Liabilities

Certain items are reported in different periods for financial reporting and income tax purposes. Deferred tax assets and liabilities are recorded in recognition of these differences. The tax effects of temporary differences that give rise to significant portions of the deferred tax assets and deferred tax liabilities are as follows:

	December 31,			
	2023 20			2022
	(\$ in millions)			
Deferred tax assets:				
Accruals, including casualty and other claims	\$	360	\$	110
Compensation and benefits, including postretirement benefits		55		
Other	155		164	
Total gross deferred tax assets		570		373
Less valuation allowance		(31)		(41)
Net deferred tax assets		539		332
Deferred tax liabilities:				
Property		(7,218)		(7,050)
Other		(546)		(547)
Total deferred tax liabilities		(7,764)		(7,597)
Deferred income taxes	\$	(7,225)	\$	(7,265)

Except for amounts for which a valuation allowance has been provided, we believe that it is more likely than not that the results of future operations will generate sufficient taxable income to realize the deferred tax assets. The valuation allowance at the end of each year primarily relates to subsidiary state income tax net operating losses and state investment tax credits that may not be utilized prior to their expiration. The total valuation allowance decreased by \$10 million in 2023, decreased by \$19 million in 2022, and increased by \$3 million in 2021.

Uncertain Tax Positions

A reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows:

	December 31,				
	2023 2022				
	(\$ in millions)				
Balance at beginning of year	\$ 22	\$ 21			
Additions based on tax positions related to the current year	30	3			
Additions for tax positions of prior years	9	1			
Reductions for tax positions of prior years	(1)	_			
Settlements with taxing authorities	_	(2)			
Lapse of statutes of limitations	(5)	(1)			
Balance at end of year	\$ 55	\$ 22			

Included in the balance of unrecognized tax benefits at December 31, 2023 are potential benefits of \$45 million that would affect the effective tax rate if recognized. Unrecognized tax benefits are adjusted in the period in which new information about a tax position becomes available or the final outcome differs from the amount recorded.

The statute of limitations on Internal Revenue Service examinations has expired for all years prior to 2020. State income tax returns are generally subject to examination for a period of three to four years after the return. In addition, we are generally obligated to report changes in taxable income arising from federal income tax examinations to the states within a period of up to two years from the date the federal examination is final. We have various state income tax returns either under examination, administrative appeal, or litigation.

5. Fair Value Measurements

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, and 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 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.

Fair Values of Financial Instruments

The fair values of "Cash and cash equivalents," "Accounts receivable – net," "Accounts payable," and "Short-term debt" approximate carrying values because of the short maturity of these financial instruments. The carrying value of COLI 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 December 31, 2023 or 2022. The carrying amounts and estimated fair values, based on Level 1 inputs, of long-term debt consist of the following at December 31:

	2	2023			2	022	
	Carrying Amount		Fair Value		Carrying Amount		Fair Value
	(\$ in r			millions			
Long-term debt, including current maturities	\$ (17,179)	\$	(16,631)	\$	(15,082)	\$	(13,846)

6. Investments

	n _e ,	cember 31,	
	2023	2022	
	(\$ in millions)		
Long-term investments:			
Equity method investments:			
Conrail	\$ 1,656	\$ 1,584	
TTX	964	918	
Other	428	421	
Total equity method investments	3,048	2,923	
COLI at net cash surrender value	774	752	
Other investments	17	19	
Total long-term investments	\$ 3,839	\$ 3,694	

Investment in Conrail

Through a limited liability company, we and CSX jointly own Conrail, whose primary subsidiary is 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. We are amortizing the excess of the purchase price over Conrail's net equity using the principles of purchase accounting, based primarily on the estimated useful lives of Conrail's depreciable property and equipment, including the related deferred tax effect of the differences in book and tax accounting bases for such assets, as all of the purchase price at acquisition was allocable to Conrail's tangible assets and liabilities. At December 31, 2023, our investment in Conrail exceeds our share of Conrail's underlying net equity by \$480 million.

CRC owns and operates certain properties (the Shared Assets Areas) for the joint and exclusive benefit of 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 \$164 million in 2023, \$156 million in 2022, and \$147 million in 2021. Future payments for access fees due to CRC under the Shared Assets Areas agreements are as follows: \$44 million in each of 2024 through 2028 and \$17 million thereafter. We provide certain general and administrative support functions to Conrail, the fees for which are billed in accordance with several service-provider arrangements and approximate \$6 million annually.

"Accounts payable" includes \$198 million at December 31, 2023, and \$173 million at December 31, 2022, due to Conrail for the operation of the Shared Assets Areas. "Other liabilities" includes \$534 million at December 31, 2023 and 2022, respectively, for long-term advances from Conrail, maturing in 2050 that bear interest at an average rate of 1.31%.

Our equity in Conrail's earnings, net of amortization, was \$70 million for 2023, \$58 million for 2022, and \$56 million for 2021. These amounts partially offset the costs of operating the Shared Assets Areas and are included in "Purchased services and rents." Equity in Conrail's earnings is included in the "Other – net" line item within operating activities in the Consolidated Statements of Cash Flows.

Investment in TTX

We and six other North American railroads collectively own 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 19.78% ownership interest in TTX.

Expenses incurred for use of TTX equipment are included in "Purchased services and rents." This amounted to \$274 million, \$256 million, and \$246 million, respectively, for the years ended December 31, 2023, 2022 and 2021. Our equity in TTX's earnings partially offsets these costs and totaled \$47 million for 2023 and \$53 million for both 2022 and 2021. Equity in TTX's earnings is included in the "Other – net" line item within operating activities in the Consolidated Statements of Cash Flows.

7. Properties

		Accumulated	Net Book	Depreciation		
December 31, 2023	Cost	Depreciation	Value	Rate (1)		
		(\$ in millions)				
Land	\$ 2,439	\$	\$ 2,439	_		
Roadway:						
Rail and other track material	8,011	(2,006)	6,005	2.41 %		
Ties	6,205	(1,773)	4,432	3.42 %		
Ballast	3,224	(937)	2,287	2.80 %		
Construction in process	522	_	522	_		
Other roadway	14,663	(4,290)	10,373	2.72 %		
Total roadway	32,625	(9,006)	23,619	·		
Equipment:						
Locomotives	6,091	(2,105)	3,986	3.64 %		
Freight cars	2,792	(1,037)	1,755	2.42 %		
Computers and software	1,042	(542)	500	9.36 %		
Construction in process	271	_	271	_		
Other equipment	1,241	(501)	740	4.61 %		
Total equipment	11,437	(4,185)	7,252			
Other property	90	(74)	16	2.48 %		
Total properties	\$ 46,591	\$ (13,265)	\$ 33,326			

		Accumulated	Net Book	Depreciation
December 31, 2022	Cost	Depreciation	Value	Rate (1)
		(\$ in millions)		
Land	\$ 2,405	\$ —	\$ 2,405	_
Roadway:				
Rail and other track material	7,589	(1,971)	5,618	2.42 %
Ties	5,981	(1,696)	4,285	3.49 %
Ballast	3,126	(873)	2,253	2.84 %
Construction in process	431	_	431	_
Other roadway	14,270	(3,948)	10,322	2.69 %
Total roadway	31,397	(8,488)	22,909	·
Equipment:				
Locomotives	5,878	(2,060)	3,818	3.66 %
Freight cars	2,701	(1,033)	1,668	2.51 %
Computers and software	926	(476)	450	9.10 %
Construction in process	206	_	206	_
Other equipment	1,145	(463)	682	4.51 %
Total equipment	10,856	(4,032)	6,824	·
Other property	90	(72)	18	2.26 %
Total properties	\$ 44,748	\$ (12,592)	\$ 32,156	

⁽¹⁾ Composite annual depreciation rate for the underlying assets, excluding the effects of the amortization of any deficiency (or excess) that resulted from our depreciation studies.

Capitalized Interest

Total interest cost incurred on debt was \$743 million, \$708 million, and \$657 million during 2023, 2022 and 2021, respectively, of which \$21 million, \$16 million, and \$11 million was capitalized during 2023, 2022 and 2021, respectively.

8. Current Liabilities

	Dec	ember 31,		
	2023			
		n millions)	2022	
Accounts payable:	,			
Accounts and wages payable	\$ 997	\$	712	
Due to Conrail (Note 6)	198		173	
Casualty and other claims (Note 17)	186		170	
Vacation liability	144		136	
Other	113		102	
Total	\$ 1,638	\$	1,293	
Other current liabilities:				
Current Eastern Ohio incident liability (Note 17)	\$ 346	\$		
Interest payable	193		157	
Current operating lease liability (Note 10)	105		94	
Pension benefit obligations (Note 12)	21		20	
Other	63		70	
Total	\$ 728	\$	341	

9. Debt

Debt maturities are presented below:

		3,094 1,99 11,247 9,24				
		2023			2022	
	(\$ in millions)					
Notes and debentures, with weighted-average interest rates as of December 31, 2023:						
4.20% maturing to 2028	\$	2,370		\$	3,370	
4.03% maturing 2029 to 2033		3,094			1,995	
4.32% maturing 2034 to 2064		11,247			9,247	
5.22% maturing 2097 to 2121		1,384			1,384	
Securitization borrowings and finance leases		17			116	
Discounts, premiums, and debt issuance costs		(933)			(930)	
Total debt		17,179			15,182	
Less current maturities and short-term debt		(4)			(703)	
Long-term debt excluding current maturities and short-term debt	\$	17,175		\$	14,479	

Long-term debt maturities subsequent to 2024 are as follows:				
2025			\$	556
2026				602
2027				621
2028				602
2029 and subsequent years				14,794
Total			\$	17,175

In November 2023, we issued \$400 million of 5.55% senior notes due 2034 and \$600 million of 5.95% senior notes due 2064.

In August 2023, we issued \$600 million of 5.05% senior notes due 2030 and \$1.0 billion of 5.35% senior notes due 2054.

In February 2023, we issued \$500 million of 4.45% senior notes due 2033.

In May 2023, we renewed our accounts receivable securitization program with a maximum borrowing capacity of \$400 million. Amounts under our accounts receivable securitization program are borrowed and repaid from time to time in the ordinary course for general corporate and cash management purposes. The term of our accounts receivable securitization program expires in May 2024. Amounts received under this facility are accounted for as borrowings. We had no amounts outstanding at December 31, 2023 and \$100 million (at an average variable interest rate of 5.05%) outstanding under this program at December 31, 2022, which is included within "Short-term debt". Our available borrowing capacity was \$400 million and \$300 million at December 31, 2023 and December 31, 2022, respectively. Our accounts receivable securitization program was supported by \$903 million and \$883 million in receivables at December 31, 2023 and December 31, 2022, respectively, which are included in "Accounts receivable – net".

Credit Agreement and Debt Covenants

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 either December 31, 2023 or December 31, 2022, and we are in compliance with all of its covenants.

Subsequent Events

In January 2024, we renewed and amended our \$800 million credit agreement. The amended agreement expires in January 2029, and provides for borrowings at prevailing rates and includes covenants.

In January 2024, we also entered into a term loan credit agreement that established a 364-day, \$1.0 billion, unsecured delayed draw term loan facility under which we can borrow for general corporate purposes. The term loan credit agreement provides for borrowing at prevailing rates and includes covenants that align with the \$800 million credit agreement.

10. Leases

We are committed under long-term lease agreements for equipment, lines of road, and other property. We combine lease and non-lease components for new and reassessed leases. Some of these agreements are variable lease agreements that include usage-based payments. These agreements contain payment provisions that depend on an index or rate, initially measured using the index or rate at the lease commencement date, and are therefore not included in our future minimum lease payments. Our long-term lease agreements do not contain any material restrictive covenants.

Our equipment leases have remaining terms of less than 1 year to 7 years and our lines of road and land leases have remaining terms of less than 1 year to 134 years. Some of these leases include options to extend the leases for up to 99 years and some include options to terminate the leases within 30 days. Because we are not reasonably certain to exercise these renewal options, the options are not considered in determining the lease term, and associated payments are excluded from future minimum lease payments.

Leases with an initial term of twelve months or less are not recorded on the balance sheet. We recognize lease expense for these leases on a straight-line basis over the lease term.

Operating lease amounts included on the Consolidated Balance Sheets are as follows:

		December 31,				
				2022		
		(\$ in millions)				
	Classification					
Assets						
Right-of-use (ROU) assets	Other assets	\$	390	\$	407	
Liabilities						
Current lease liabilities	Other current liabilities	\$	105	\$	94	
Non-current lease liabilities	Other liabilities		287		316	
Total lease liabilities		\$	392	\$	410	

The components of total lease expense, primarily included in "Purchased services and rents," are as follows:

		2023	20	22		2021	
	(\$ in millions)						
Operating lease expense	\$	115	\$	101	\$	106	
Variable lease expense		84	55				
Short-term lease expense	15 18			9			
Total lease expense	\$	214	\$	174	\$	159	

In March 2019, we entered into a non-cancellable lease for an office building. In 2021, the construction of the office building was completed and the lease commenced. The initial lease term is five years with options to renew, purchase,

or sell the office building at the end of the lease term.	The lease contains a residual	value guarantee of up	to eighty-
three percent of the total construction cost of \$499 mi	llion.		

We currently operate approximately 337 miles of railway that extends from Cincinnati, Ohio to Chattanooga, Tennessee under an operating lease agreement. Lease expense associated with this agreement totaled \$26 million, \$25 million, and \$24 million in 2023, 2022, and 2021, respectively. In 2022, we entered into an asset purchase and sale agreement with the Board of Trustees of the Cincinnati Southern Railway to purchase this line (see further discussion in Note 17). The total purchase price is expected to be approximately \$1.7 billion and will close on March 15, 2024. At close, the existing lease arrangement will terminate and the assets purchased will be reflected in "Properties."

Other information related to operating leases is as follows:

	Decen	aber 31,
	2023	2022
Weighted-average remaining lease term (years) on operating leases	6.12	6.67
Weighted-average discount rates on operating leases	3.78 %	3.16 %

As the rates implicit in most of our leases are not readily determinable, we use a collateralized incremental borrowing rate based on the information available at the lease commencement date in determining the present value of future payments. We use the portfolio approach and group leases into short-, medium-, and long-term categories, applying the corresponding incremental borrowing rates to these categories.

During 2023 and 2022, respectively, ROU assets obtained in exchange for new operating lease liabilities were \$65 million and \$57 million, respectively. Cash paid for amounts included in the measurement of lease liabilities was \$117 million and \$100 million in 2023 and 2022, respectively, and is included in operating cash flows.

Future minimum lease payments under non-cancellable operating leases are as follows:

	Decen	December 31, 2023			
	(\$ i	(\$ in millions)			
2024	\$	116			
2025		105			
2026		85			
2027		42			
2028		30			
2029 and subsequent years		66			
Total lease payments		444			
Less: Interest		52			
		202			
Present value of lease liabilities	\$	392			

	Decem	December 31, 2022			
	(\$ ii	(\$ in millions)			
2023	\$	103			
2024		95			
2025		87			
2026		69			
2027		27			
2028 and subsequent years		81			
Total lease payments		462			
Less: Interest		52			
Present value of lease liabilities	\$	410			

11. Other Liabilities

			1 21			
	December 31, 2023 2022					
				2022		
		(\$ in	millions)			
Long-term advances from Conrail (Note 6)	\$	534	\$	534		
Non-current operating lease liability (Note 10)	·	287		316		
Net pension benefit obligations (Note 12)		279		255		
Casualty and other claims (Note 17)		221		218		
Net other postretirement benefit obligations (Note 12)		172		204		
Non-current Eastern Ohio incident liability (Note 17)		118		_		
Deferred compensation		80		91		
Other		148		141		
Total	\$	1,839	\$	1,759		

12. 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 Other Postretirement Benefit Obligations and Plan Assets

	Pen	sion Benefi	ts	Other Postreti Benefit			ient
	2023		2022		2023		2022
			(\$ in 1	millions)			
Change in benefit obligations:							
Benefit obligation at beginning of year	\$ 2,051	\$	2,777	\$	326	\$	417
Service cost	25		40		4		6
Interest cost	108		67		17		9
Actuarial losses (gains)	122		(677)		1		(70)
Plan amendments	_		(4)		(5)		_
Benefits paid	(155)		(152)		(33)		(36)
Benefit obligation at end of year	2,151		2,051		310		326
Change in plan assets:							
Fair value of plan assets at beginning of year	2,260		2,861		122		173
Actual return on plan assets	375		(470)		21		(28)
Employer contributions	23		21		28		13
Benefits paid	(155)		(152)		(33)		(36)
Fair value of plan assets at end of year	2,503		2,260		138		122
Funded status at end of year	\$ 352	\$	209	\$	(172)	\$	(204)
Amounts recognized in the Consolidated Balance Sheets:							
Other assets	\$ 652	\$	484	\$	_	\$	
Other current liabilities	(21)		(20)		_		_
Other liabilities	(279)		(255)		(172)		(204)
Net amount recognized	\$ 352	\$	209	\$	(172)	\$	(204)
Amounts included in accumulated other comprehensive							
loss (before tax):							
Net (gain) loss	\$ 574	\$	623	\$	(28)	\$	(19)
Prior service benefit	(5)		(6)		(156)		(177)

Our accumulated benefit obligation for our defined benefit pension plans is \$2.0 billion and \$1.9 billion at December 31, 2023 and 2022, respectively. Our unfunded pension plans, included above, which in all cases have no assets, had projected benefit obligations of \$300 million and \$275 million at December 31, 2023 and 2022, respectively, and had accumulated benefit obligations of \$273 million and \$249 million at December 31, 2023 and 2022, respectively.

Pension and Other Postretirement Benefit Cost Components

	2023	2022	2021
		(\$ in millions)	
Pension benefits:			
Service cost	\$ 25	\$ 40	\$ 43
Interest cost	108	67	55
Expected return on plan assets	(208)	(213)	(193)
Amortization of net losses	4	49	66
Amortization of prior service benefit	(1)		
Net benefit	\$ (72)	\$ (57)	\$ (29)
Other postretirement benefits:			
Service cost	\$ 4	\$ 6	\$ 6
Interest cost	17	9	7
Expected return on plan assets	(11)	(13)	(12)
Amortization of net losses	_	_	1
Amortization of prior service benefit	(26)	(25)	(26)
Net benefit	\$ (16)	\$ (23)	\$ (24)

Other Changes in Plan Assets and Benefit Obligations Recognized in Other Comprehensive Income

	2023			
	_	Pension Benefits	Po	Other ostretirement Benefits
	(\$ in millions)			
Net gains arising during the year	\$	(45)	\$	(9)
Prior service effect of plan amendment		_		(5)
Amortization of net losses	(4)			_
Amortization of prior service benefit	1			26
Total recognized in other comprehensive income	\$	(48)	\$	12
Total recognized in net periodic cost and other comprehensive income	\$	(120)	\$	(4)

Net gains arising during the year for both pension benefits and other postretirement benefits were due primarily to higher actual returns on plan assets offset by a decrease in discount rates.

The estimated net losses and prior service credits for the pension plans that will be amortized from accumulated other comprehensive loss into net periodic cost over the next year are \$16 million. The estimated net gains and prior service benefit for the other postretirement benefit plans that will be amortized from accumulated other comprehensive loss into net periodic benefit over the next year is \$26 million.

Pension and Other Postretirement Benefits Assumptions

Costs for pension and other postretirement benefits are determined based on actuarial valuations that reflect appropriate assumptions as of the measurement date, ordinarily the beginning of each year. The funded status of the plans is determined using appropriate assumptions as of each year end. A summary of the major assumptions follows:

	2022	2022	2021
	2023	2022	2021
Pension funded status:			
Discount rate	5.23 %	5.56 %	2.97 %
Future salary increases	4.44 %	4.44 %	4.44 %
Other postretirement benefits funded status:			
Discount rate	5.11 %	5.45 %	2.72 %
Pension cost:			
Discount rate - service cost	5.75 %	3.25 %	3.14 %
Discount rate - interest cost	5.40 %	2.45 %	1.95 %
Return on assets in plans	8.00 %	8.00 %	8.00 %
Future salary increases	4.44 %	4.44 %	4.44 %
Other postretirement benefits cost:			
Discount rate - service cost	5.56 %	3.01 %	2.71 %
Discount rate - interest cost	5.23 %	2.13 %	1.57 %
Return on assets in plans	7.75 %	7.75 %	7.75 %
Health care trend rate	7.00 %	6.50 %	6.00 %

To determine the discount rates used to measure our benefit obligations, we utilize analyses in which the projected annual cash flows from the pension and other postretirement benefit plans were matched with yield curves based on an appropriate universe of high-quality corporate bonds. We use the results of the yield curve analyses to select the discount rates that match the payment streams of the benefits in these plans.

We use a spot rate approach to estimate the service cost and interest cost components of net periodic benefit cost for our pension and other postretirement benefit plans.

Health Care Cost Trend Assumptions

For measurement purposes at December 31, 2023, increases in the per capita cost of pre-Medicare covered health care benefits were assumed to be 6.5% for 2024. We assume the rate will ratably decrease to an ultimate rate of 5.0% for 2030 and remain at that level thereafter.

Asset Management

Thirteen investment firms manage our defined benefit pension plan's assets under investment guidelines approved by our Benefits Investment Committee that is composed of members of our management. Investments are restricted to domestic and international equity securities, domestic and international fixed income securities, and unleveraged exchange-traded options and financial futures. Limitations restrict investment concentration and use of certain derivative investments. The target asset allocation for equity is 75% of the pension plan's assets. Fixed income investments must consist predominantly of securities rated investment grade or higher. Equity investments must be in liquid securities listed on national exchanges. No investment is permitted in our securities (except through commingled pension trust funds).

Our pension plan's weighted-average asset allocations, by asset category, were as follows:

		Percentage of Plan Assets at December 31,			
	2023	2022			
Domestic equity securities	50 %	53 %			
Debt securities	24 %	26 %			
International equity securities	24 %	20 %			
Cash and cash equivalents	2 %	1 %			
Total	100 %	100 %			

The other postretirement benefit plan assets consist primarily of trust-owned variable life insurance policies with an asset allocation at December 31, 2023 of 66% in equity securities and 34% in debt securities compared with 64% in equity securities and 36% in debt securities at December 31, 2022. The target asset allocation for equity is between 50% and 75% of the plan's assets.

The plans' assumed future returns are based principally on the asset allocations and historical returns for the plans' asset classes determined from both actual plan returns and, over longer time periods, expected market returns for those asset classes. For 2024, we assume an 8.00% return on pension plan assets.

Fair Value of Plan Assets

The following is a description of the valuation methodologies used for pension plan assets measured at fair value.

Common stock: Shares held by the plan at year end are valued at the official closing price as defined by the exchange or at the most recent trade price of the security at the close of the active market.

Common collective trusts: The readily determinable fair value is based on the published fair value per unit of the trusts. The common collective trusts hold equity securities, fixed income securities and cash and cash equivalents.

Fixed income securities: Valued based on quotes received from independent pricing services or at an estimated price at which a dealer would pay for the security at year end using observable market-based inputs.

Commingled funds: The readily determinable fair value is based on the published fair value per unit of the funds. The commingled funds hold equity securities.

Cash and cash equivalents: Short-term Treasury bills or notes are valued at an estimated price at which a dealer would pay for the security at year end using observable market-based inputs; money market funds are valued at the closing price reported on the active market on which the funds are traded.

The following table sets forth the pension plan's assets by valuation technique level, within the fair value hierarchy. There were no level 3 valued assets at December 31, 2023 or 2022.

	December 31, 2023			
	Level 1	Level 2	Total	
	(\$ in millions)			
Common stock	\$ 1,192	\$ -	\$ 1,192	
Common collective trusts:				
International equity securities	_	371	371	
Debt securities	_	310	310	
Domestic equity securities	_	166	166	
Fixed income securities:				
Government and agencies securities	_	170	170	
Corporate bonds	_	93	93	
Mortgage and other asset-backed securities	_	32	32	
Commingled funds	_	122	122	
Cash and cash equivalents	47		47	
Total investments	\$ 1,239	\$ 1,264	\$ 2,503	

	December 31, 2022			
	Level 1	Level 2	Total	
	(\$ in millions)			
Common stock	\$ 1,011	\$ —	\$ 1,011	
Common collective trusts:				
International equity securities	_	336	336	
Debt securities	_	291	291	
Domestic equity securities	_	160	160	
Fixed income securities:				
Government and agencies securities	_	158	158	
Corporate bonds	_	100	100	
Mortgage and other asset-backed securities	_	28	28	
Commingled funds	_	121	121	
Cash and cash equivalents	55		55	
Total investments	\$ 1,066	\$ 1,194	\$ 2,260	

The following is a description of the valuation methodologies used for other postretirement benefit plan assets measured at fair value.

Trust-owned life insurance: Valued at our interest in trust-owned life insurance issued by a major insurance company. The underlying investments owned by the insurance company consist of a U.S. stock account and a

U.S. bond account but may retain cash at times as well.	The U.S. stock account and U.S. bond account are
valued based on readily determinable fair values.	

The other postretirement benefit plan assets consisted of trust-owned life insurance with fair values of \$138 million and \$122 million at December 31, 2023 and 2022, respectively, and are valued under level 2 of the fair value hierarchy. There were no level 1 or level 3 valued assets.

Contributions and Estimated Future Benefit Payments

In 2024, we expect to contribute approximately \$22 million to our unfunded pension plans for payments to pensioners and approximately \$31 million to our other postretirement benefit plans for retiree health and death benefits. We do not expect to contribute to our funded pension plan in 2024.

Benefit payments, which reflect expected future service, as appropriate, are expected to be paid as follows:

	Pension Benefits		Postr	Other etirement enefits
		(\$ in millions)		
2024	\$ 15	51	\$	31
2025	14	19	30	
2026	14	18	29	
2027	14	18	28	
2028	14	18		27
Years 2029 – 2033	74	13		127

Other Postretirement Coverage

Under collective bargaining agreements, Norfolk Southern and certain subsidiaries participate in a multi-employer benefit plan, which provides certain postretirement health care and life insurance benefits to eligible craft employees. Premiums under this plan are expensed as incurred and totaled \$11 million, \$13 million, and \$21 million in 2023, 2022, 2021, respectively.

Section 401(k) Plans

Norfolk Southern and certain subsidiaries provide Section 401(k) savings plans for employees. Under the plans, we match a portion of employee contributions, subject to applicable limitations. Our matching contributions, recorded as an expense, totaled \$25 million, \$22 million, and \$23 million in 2023, 2022, 2021, respectively.

13. Stock-Based Compensation

Under the stockholder-approved LTIP, the Human Capital Management and Compensation Committee (Committee), which is made up of nonemployee members of the Board, or the Chief Executive Officer (when delegated authority by such Committee), may grant stock options, stock appreciation rights (SARs), restricted stock units (RSUs), restricted shares, performance share units (PSUs), and performance shares, up to a maximum of 104,125,000 shares of our Common Stock, of which 7,731,573 remain available for future grants as of December 31, 2023.

The number of shares remaining for issuance under the LTIP is reduced (i) by 1 for each award granted as a stock option or stock-settled SAR, or (ii) by 1.61 for an award made in the form other than a stock option or stock-settled SAR. Under the Board-approved Thoroughbred Stock Option Plan (TSOP), the Committee may grant stock options up to a maximum of 6,000,000 shares of Common Stock. We use newly issued shares to satisfy any exercises and awards under the LTIP and the TSOP.

The LTIP also permits the payment, on a current or a deferred basis and in cash or in stock, of dividend equivalents on shares of Common Stock covered by stock options, RSUs, or PSUs in an amount commensurate with regular quarterly dividends paid on Common Stock. With respect to stock options, if employment of the participant is terminated for any reason, including retirement, disability, or death, we have no further obligation to make any dividend equivalent payments. Regarding RSUs, we have no further obligation to make any dividend equivalent payments unless employment of the participant is terminated as a result of qualifying retirement or disability. Should an employee terminate employment, they are not required to forfeit dividend equivalent payments already received. Outstanding PSUs do not receive dividend equivalent payments.

The Committee granted stock options, RSUs and PSUs pursuant to the LTIP for the last three years as follows:

		22		022		021
		023		022		021
	Granted	Weighted- Average Grant- Date Fair Value	Granted	Weighted- Average Grant- Date Fair Value	Granted	Weighted- Average Grant- Date Fair Value
Stock options	69,580	\$ 77.60	140,080	\$ 61.32	42,770	\$ 62.49
RSUs	214,936	230.12	180,306	265.21	183,093	240.09
PSUs	59,200	236.16	58,945	272.22	50,100	240.72

Recipients of certain RSUs and PSUs pursuant to the LTIP who retire prior to October 1st will forfeit awards received in the current year. Receipt of certain LTIP awards is contingent on the recipient having executed a non-compete agreement with the company.

We account for our grants of stock options, RSUs, PSUs, and dividend equivalent payments in accordance with FASB ASC 718, "Compensation - Stock Compensation." Accordingly, all awards result in charges to net income while dividend equivalent payments, which are all related to equity classified awards, are charged to retained income. Compensation cost for the awards is recognized on a straight-line basis over the requisite service period for the entire award. Related compensation costs and tax benefits during the years were:

	2023	2	2022	2	2021
		(\$ in	millions)		
Stock-based compensation expense	\$ 40	\$	53	\$	54
Total tax benefit	15		27		34

Stock Options

Option exercise prices will be at least the higher of (i) the average of the high and low prices at which Common Stock is traded on the grant date, or (ii) the closing price of Common Stock on the grant date. All options are subject to a vesting period of at least one year, and the term of the option will not exceed ten years. Holders of the options granted under the LTIP who remain actively employed receive cash dividend equivalent payments for four years in an amount equal to the regular quarterly dividends paid on Common Stock.

For all years, 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 that 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.

The fair value of each option awarded was measured on the date of grant using the Black-Scholes 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. Historical exercise data is used to estimate the average expected option term. 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. For 2023, 2022, and 2021, a dividend yield of 2.24%, 1.85%, and 1.64%, respectively, was used for the vested period during the remaining expected option term for LTIP options.

The assumptions for the LTIP grants for the last three years are shown in the following table:

	2023	2022	2021
Average expected volatility	27 %	27 %	26 %
Average risk-free interest rate	3.54 %	1.80 %	0.75 %
Average expected option term	7.0 years	6.5 years	7.5 years

A summary of changes in stock options is presented below:

	Stock Options	Weighted- Average Exercise Price		
Outstanding at December 31, 2022	880,002	\$	134.66	
Granted	69,580		241.18	
Exercised	(206,016)		96.68	
Forfeited	(169)		69.83	
Outstanding at December 31, 2023	743,397		155.17	

The aggregate intrinsic value of options outstanding at December 31, 2023 was \$66 million with a weighted-average remaining contractual term of 4.0 years. Of these options outstanding, 570,428 were exercisable and had an aggregate intrinsic value of \$66 million with a weighted-average exercise price of \$123.27 and a weighted-average remaining contractual term of 1.6 years.

The following table provides information related to options exercised for the last three years:

	2023		2022	2021
	(\$ in millions)			
Options exercised	 206,016	3	307,660	470,632
Total intrinsic value	\$ 27	\$	54	\$ 83
Cash received upon exercise	19		25	42
Related tax benefits realized	6		12	17

At December 31, 2023, total unrecognized compensation related to options granted under the LTIP was \$3 million, and is expected to be recognized over a weighted-average period of approximately 2.4 years.

Restricted Stock Units

RSUs granted primarily have a four-year ratable restriction period and will be settled through the issuance of shares of Common Stock. Certain RSU grants include cash dividend equivalent payments during the restriction period in an amount equal to regular quarterly dividends paid on Common Stock. The fair value of each RSU was measured on the date of grant as the average of the high and low prices at which Common Stock is traded on the grant date, adjusted for the impact of dividend equivalent payments as applicable.

		2023				2022		2021
	(\$ in millions)							
RSUs vested		157,417				249,138		260,307
Common Stock issued net of tax withholding		110,069				175,781		184,319
Related tax benefits realized	\$	1		\$;	5	\$	7

A summary of changes in RSUs is presented below:

	RSUs	(Weighted- Average Grant-Date Fair Value		
Nonvested at December 31, 2022	387,381	\$	236.53		
Granted	214,936		230.12		
Vested	(157,417)		220.04		
Forfeited	(11,042)		241.50		
Nonvested at December 31, 2023	433,858		239.21		

At December 31, 2023, total unrecognized compensation related to RSUs was \$45 million, and is expected to be recognized over a weighted-average period of approximately 2.5 years.

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.

	2023		2022		2021
		((\$ in million	s)	
PSUs earned	58,599		86,420		78,727
Common Stock issued net of tax withholding	40,255		54,651		49,967
Related tax benefits realized	\$ _	\$	1		\$ 1

A summary of changes in PSUs is presented below:

	PSUs	Weighted- Average Grant-Date Fair Value		
Balance at December 31, 2022	142,437	\$ 236.70		
Granted	59,200	236.16		
Earned	(58,599)	213.12		
Unearned	(4,751)	213.12		
Forfeited	(1,578)	246.64		
Balance at December 31, 2023	136,709	247.28		

At December 31, 2023, total unrecognized compensation related to PSUs granted under the LTIP was \$2 million, and is expected to be recognized over a weighted-average period of approximately 1.7 years.

Shares Available and Issued

Shares of Common Stock available for future grants and issued in connection with all features of the LTIP and the TSOP at December 31, were as follows:

'	2023	2022	2021		
Available for future grants:					
LTIP	7,731,573	8,238,993	8,609,075		
TSOP	436,571	436,402	435,867		
Issued:					
LTIP	315,700	503,090	632,279		
TSOP	40,640	35,002	72,639		

14. Stockholders' Equity

Common Stock

Common Stock is reported net of shares held by our consolidated subsidiaries (Treasury Shares). Treasury Shares at December 31, 2023 and 2022 amounted to 20,320,777, 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:

	Balance at Beginning of Year	Net Income	Reclassification Adjustments	Balance at End of Year
Year ended December 31, 2023		(\$ i	in millions)	
Pensions and other postretirement liabilities	\$ (319)	\$ 44	\$ (17)	\$ (292)
Other comprehensive income of equity investees	(32)	4		(28)
Accumulated other comprehensive loss	\$ (351)	\$ 48	\$ (17)	\$ (320)
Year ended December 31, 2022				
Pensions and other postretirement liabilities	\$ (356)	\$ 20	\$ 17	\$ (319)
Other comprehensive income of equity investees	(46)	14		(32)
Accumulated other comprehensive loss	\$ (402)	\$ 34	\$ 17	\$ (351)

Other Comprehensive Income

"Other comprehensive income" reported in the Consolidated Statements of Comprehensive Income consisted of the following:

	Pretax Amount	Tax (Expense) Benefit	Net-of-Tax Amount
		(\$ in millions)	
Year ended December 31, 2023			
Net gain arising during the year:			
Pensions and other postretirement benefits	\$ 59	\$ (15)	\$ 44
Reclassification adjustments for costs included in net income	(23)	6	(17)
Subtotal	36	(9)	27
Other comprehensive income of equity investees	4	_	4
Other comprehensive income	\$ 40	\$ (9)	\$ 31
Year ended December 31, 2022			
Net gain arising during the year:			
Pensions and other postretirement benefits	\$ 27	\$ (7)	\$ 20
Reclassification adjustments for costs included in net income	24	(7)	17
Subtotal	51	(14)	37
Other comprehensive income of equity investees	17	(3)	14
Other comprehensive income	\$ 68	\$ (17)	\$ 51
Year ended December 31, 2021			
Net gain arising during the year:			
Pensions and other postretirement benefits	\$ 185	\$ (46)	\$ 139
Reclassification adjustments for costs included in net income	41	(10)	31
Subtotal	226	(56)	170
Other comprehensive income of equity investees	24	(2)	22
Other comprehensive income	\$ 250	\$ (58)	\$ 192

15. Stock Repurchase Programs

We repurchased and retired 2.8 million, 12.6 million, and 12.7 million shares of Common Stock under our stock repurchase programs in 2023, 2022, and 2021, respectively, at a cost of \$627 million, \$3.1 billion, and \$3.4 billion, respectively, inclusive of excise taxes in 2023.

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 December 31, 2023, \$6.9 billion remains authorized for repurchase. Our previous share repurchase program terminated on March 31, 2022.

16. Earnings Per Share

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

	Basic					Diluted					
	2023		2022		2021		2023		2022		202
		•	(\$ in m	illions e.	xcept per sho	are amou	ınts, shares i	n million	ıs)		
Net income	\$ 1,827		\$ 3,270	\$	3,005	\$	1,827	\$	3,270	\$	3,00
Dividend equivalent payments	(3)		(2)		(2)		(3)		(1)		_
Income available to common stockholders	\$ 1,824		\$ 3,268	\$	3,003	\$	1,824	\$	3,269	\$	3,00
Weighted- average shares outstanding	226.9		234.8		246.9		226.9		234.8		246
Dilutive effect of outstanding options											
and share- settled awards							0.5		0.8		1.
Adjusted weighted- average shares outstanding							227.4		235.6		248
Earnings per share	\$ 8.04		\$ 13.92	\$	12.16	\$	8.02	\$	13.88	\$	12.1

In each year, 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 for the years ended December 31, 2023 and 2022, and none for the year ended December 31, 2021.

17. Commitments and Contingencies

Eastern Ohio Incident

Summary

On February 3, 2023, a train operated by us derailed in East Palestine, Ohio. The derailed equipment included 38 railcars, 11 of which were non-Company-owned tank cars containing hazardous materials. Fires associated with the derailment threatened certain of the tank cars. There was concern about the risk that the contents of five of the tank cars carrying vinyl chloride might polymerize, which would have posed the risk of a catastrophic explosion. As a

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consequence, on February 6, 2023, the local incident commander (the East Palestine Fire Chief)—in consultation with the incident command that included, among others, federal, state and local officials and Norfolk Southern—opted to conduct a controlled vent and burn of five derailed tank cars, all of which contained vinyl chloride. This procedure involved creating holes in the five tank cars to drain the vinyl chloride into adjacent trenches that had been dug into the ground where such vinyl chloride was then burned, with any material remaining after burning of the vinyl chloride being remediated. The February 3rd derailment, the associated fire, and the resulting vent and burn of the tank cars containing vinyl chloride on February 6th is hereinafter referred to as the "Incident."

In response to the Incident, we have been working to clean the site safely and thoroughly, including those activities described in the Environmental Matters section below with respect to potentially impacted air, soil and water and to monitor for any impact on public health and the environment. We are working with federal, state, and local officials to mitigate impacts from the Incident, including, among other efforts, conducting environmental monitoring and clean-up activities (as more fully described below), operating a family assistance center to provide financial support to affected members of the East Palestine and surrounding communities, and committing additional financial support to the community.

Financial Impact

Although we cannot predict the final outcome or estimate the reasonably possible range of loss with certainty, we recognized \$1.1 billion of expense in 2023 for costs directly attributable to the Incident (including amounts accrued for the probable and reasonably estimable liabilities for those environmental and non-environmental matters described below) which is presented in "Eastern Ohio incident" on the Consolidated Statements of Income. The total expense recognized includes the impact of \$101 million in insurance recoveries received in 2023 from claims made under our insurance policies. We recorded a deferred tax asset (Note 4) of \$249 million related to the Incident expecting that certain expenses will be deductible for tax purposes in future periods or offset with insurance recoveries. During 2023, our cash expenditures attributable to the Incident, net of insurance proceeds received, were \$652 million, which are presented in "Net cash provided by operating activities" on the Consolidated Statements of Cash Flows. The difference between the recognized expense and cash expenditures during 2023 of \$464 million comprises primarily of our current estimates of probable and reasonably estimable liabilities principally associated with environmental matters and legal proceedings, which are discussed in further detail below.

Certain costs recorded in 2023 may be recoverable under our insurance policies in effect at the date of the Incident or from third parties. To date, we have recognized \$101 million in insurance recoveries. Any additional amounts recoverable under our insurance policies or from third parties will be reflected in future periods in which recovery is considered probable. For additional information about our insurance coverage, see "Insurance" below.

Environmental Matters – In response to the Incident, we have been working with federal, state, and local officials such as the U.S. Environmental Protection Agency (EPA), the Ohio EPA, the Pennsylvania Department of Environmental Protection (DEP), and the Columbiana County Health District to conduct environmental response and remediation activities, including but not limited to, air monitoring, indoor air quality screenings, municipal water and private water well testing, residential, commercial, and agricultural soil sampling, surface water and groundwater sampling, re-routing a local waterway around the affected site, capturing and shipping stormwater that enters the impacted derailment site to proper disposal facilities, and excavating and disposing of potentially affected soil at hazardous waste landfills or incinerators. The U.S. EPA issued a Unilateral Administrative Order (UAO) on February 21, 2023 containing various requirements, including the submission of numerous work plans to assess and remediate various environmental media and performance of certain removal actions at the affected site. On February 24, 2023, we submitted to the U.S. EPA our Notice of Intent to Comply with the UAO and are currently cooperating with U.S. EPA as well as the Ohio EPA and Pennsylvania DEP, pursuant to the UAO and the directives issued thereunder. On October 18, 2023, the U.S. EPA issued a second unilateral order under Section 311(c) of the Clean Water Act (CWA), requiring preparation of additional environmental work

plans. We timely submitted our Notice of Intent to Comply with the CWA order and continue to cooperate with the U.S. EPA, as well as state agencies, in compliance with the CWA order.

We are also subject to the following legal proceedings that principally relate to the environmental impact of the Incident:

• The DOJ and the U.S. EPA filed a civil complaint (the DOJ Complaint) in the Northern District of Ohio (Eastern Division) seeking injunctive relief, cost recovery and civil penalties for violations of the Clean Water Act and seeking cost recovery under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). The Ohio Attorney General (AG) also filed a CERCLA lawsuit (the Ohio Complaint) in the Northern District of Ohio (Eastern Division) seeking statutory damages for a variety of tort and environmental claims under CERCLA and various state laws. The DOJ and Ohio AG cases have been consolidated for discovery purposes. We have filed an answer, and on June 30, 2023, we filed a third-party complaint bringing in numerous parties involved in the Incident.

In connection with the foregoing items, we recognized \$836 million of expense during 2023, of which \$517 million was paid during 2023, related to probable obligations that are reasonably estimable, in accordance with FASB ASC 410-30, "Environmental Obligations." Our current estimate includes ongoing and future environmental cleanup activities and remediation efforts, governmental oversight costs (including those incurred by the U.S. EPA and the Ohio EPA), and other related costs, including those in connection with the DOJ Complaint (including potential civil penalties related to violations of the Clean Water Act). Our current estimates of future environmental cleanup and remediation liabilities related to the Incident may change over time due to various factors, including but not limited to, the nature and extent of required future cleanup and removal activities (including those resulting from soil, water, sediment, and air assessment and investigative activities that are currently being, and will continue to be, conducted at the site), and the extent and duration of governmental oversight, amongst other factors. As clean-up efforts progress and more information is available, we will review these estimates and revise as appropriate.

Legal Proceedings and Claims (Non-Environmental) – To date, numerous non-environmental legal actions have commenced with respect to the Incident, including those more specifically set forth below.

There is a consolidated putative class action pending in the Northern District of Ohio (Eastern Division) in which plaintiffs allege various claims, including negligence, gross negligence, strict liability, and nuisance, and seeking as relief compensatory and punitive damages, medical monitoring and business losses. The putative class is defined by reference to a class area covering a 30-mile radius. On July 12, 2023, we filed a third-party complaint bringing in multiple parties involved in the Incident. The court in the putative class action has established a fact discovery deadline of February 5, 2024. Another putative class action is pending in the Western District of Pennsylvania, brought by Pennsylvania school districts and students. On August 22, 2023, three school districts voluntarily dismissed their actions, then individual lawsuits. On the same day, six Pennsylvania school districts and students filed a putative class action lawsuit alleging negligence, strict liability, nuisance, and trespass, and seeking damages and health monitoring. On December 8, 2023, the school districts amended their complaint to add additional companies as defendants in the action. The putative class action and individual lawsuits are collectively referred to herein as the Incident Lawsuits. In accordance with FASB ASC 450, "Contingencies," we have recognized a \$116 million loss during 2023 with respect to the Incident Lawsuits and related contingencies, of which \$34 million has been paid. At this time, we are unable to estimate the possible loss or range of loss in excess of the amounts accrued regarding the Incident Lawsuits. However, for the reasons set forth below, our estimated loss or range of loss with respect to the Incident Lawsuits may change from time to time, and it is reasonably possible that we will incur actual losses in excess of the amounts currently accrued and such additional amounts may be material. While we continue to

work with parties with respect to potential resolution pathways, no assurance can be given that we will be successful in doing so and we cannot predict the outcome of these matters.

• We have received securities and derivative litigation and multiple shareholder document and litigation demand letters, including a securities class action lawsuit under the Securities Exchange Act of 1934 initially filed in the Southern District of Ohio alleging multiple securities law violations but since transferred to the Northern District of Georgia, a securities class action lawsuit under the Securities Act of 1933 filed in the Southern District of New York alleging misstatements in association with our debt offerings, and a shareholder derivative complaint in Virginia state court asserting claims for breach of fiduciary duties, waste of corporate assets, and unjust enrichment in connection with safety of the Company's operations (collectively, the Shareholder Matters). On February 2, 2024, defendants filed a motion to dismiss the amended complaint in the Securities Act lawsuit. No responsive pleadings have been filed yet with respect to the other Shareholder Matters.

With respect to the Incident-related litigation and regulatory matters, we record a liability for loss contingencies through a charge to earnings when we conclude that it is probable that a liability has been incurred and the amount of the liability can be reasonably estimated, and disclose such liability if we conclude it to be material. Any adjustments to the recorded liability will be reflected in earnings in the periods in which such adjustments become known. Because the final outcome of any of these legal proceedings cannot be predicted with certainty, developments related to the progress of such legal proceedings or other unfavorable or unexpected developments or outcomes could result in additional costs or new or additionally accrued amounts that could be material to our results of operations in a particular year or quarter. In addition, if it is reasonably possible that we will incur Incident-related losses in excess of the amounts currently recorded as a loss contingency, we disclose the potential range of loss, if reasonably estimable, or we disclose that we cannot reasonably estimate such an amount at this time. For Incident-related litigation and regulatory matters where a loss may be reasonably possible, but not probable, or probable but not reasonably estimable, no accrual is established but the matter, if potentially material, is disclosed.

Our estimates of probable losses and reasonably possible losses are based upon currently available information and involve significant judgement and a variety of assumptions, given that (1) these legal and regulatory proceedings are in early stages; (2) discovery may not be completed; (3) damages sought in these legal and regulatory proceedings can be unsubstantiated or indeterminate; (4) there are often significant facts in dispute; and/or (5) there is a wide range of possible outcomes. Accordingly, our estimated range of loss with respect to these matters may change from time to time, and actual losses may exceed current estimates. At this time, we are unable to estimate the possible loss or range of loss in excess of the amounts accrued with respect to the matters described above.

In addition to the costs associated with environmental matters and legal proceedings and claims, we incurred \$265 million in other expenses directly related to the Incident in 2023 pertaining to legal fees, community support, and other response-related activities. The amounts recorded by us in 2023 do not include any estimate of loss for the following additional items, for which we believe a loss is either not probable or not reasonably estimable for the reasons noted: (i) the overall cost to us for the healthcare fund being developed in conjunction with relevant stakeholders, including the Ohio AG, for affected residents (given the preliminary nature of such discussions), which amount will impact our loss contingency analysis with respect to the Incident Lawsuits described above, or (ii) any fines or penalties (in excess of the liabilities established for Clean Water Actrelated civil penalties) that may be imposed as a result of the Incident Inquiries and Investigations, as more specifically set forth and defined below (the outcome of which are uncertain at this time). Additionally, with the exception of amounts recognized during 2023, potential recoveries under our insurance coverage, which may apply to various Incident-related expenses or liabilities as more specifically set forth further below, have not yet been recorded (given the preliminary nature of discussions with our insurers). No amounts have been recorded related to potential recoveries

from other third parties, which may reduce amounts payable by our insurers under our applicable insurance coverage.

Inquiries and Investigations

As set forth above, we are subject to inquiries and investigations by numerous federal, state, and local government authorities and regulatory agencies regarding the Incident, including but not limited to, the DOJ and the U.S. EPA, the Ohio EPA, the NTSB, the FRA, the Occupational Safety and Health Administration, the Ohio AG, and the Pennsylvania AG. Further details regarding the NTSB and FRA investigations are set forth below. We are cooperating with all inquiries and investigations, including responding to civil and criminal subpoenas and other requests for information (the aforementioned inquiries and investigations, as well as the civil and criminal subpoenas are collectively referred to herein as the Incident Inquiries and Investigations). Aside from the FRA Safety Assessment (defined and described below), the outcome of any current or future Incident Inquiries and Investigations is uncertain at this time, including any related fines, penalties or settlements. Therefore, our expenses for 2023 do not include estimates of the total amount that we may incur for any such fines, penalties or settlements.

Subsequent to the Incident, investigators from the NTSB examined railroad equipment and track conditions; reviewed data from the signal system, wayside defect detectors, local surveillance cameras, and the lead locomotive's event recorder and forward-facing and inward-facing image recorders; and completed certain interviews (the NTSB Investigation). The NTSB issued a preliminary report indicating that one of the cars involved in the derailment appeared to have a wheel bearing in the final stage of overheat failure moments before the derailment. Their preliminary report also indicates that the rail crew was operating the train within our rules; the rail crew operated the train below the track speed limit, the wayside heat detectors were operating as designed; and once the rail crew was alerted by the wayside detector, they immediately began to stop the train. The NTSB conducted a subsequent investigative field hearing in East Palestine, Ohio on June 22 and 23, 2023. The NTSB's investigation remains ongoing. We expect the NTSB to issue a final report, with a probable cause determination and safety recommendations, in 2024.

Concurrent with the NTSB Investigation, the FRA is also investigating the Incident. Similar in scope to the NTSB Investigation, the FRA is examining railroad equipment, track conditions, hazardous materials train placement and routing, and emergency response (the FRA Incident Investigation). The FRA Incident Investigation may result in the assessment of civil penalties. In addition to the FRA Incident Investigation, the FRA completed a 60-day supplemental safety assessment (the FRA Safety Assessment). The FRA Safety Assessment included a review of findings from a previously completed 2022 system audit and an assessment of operational elements including, but not limited to: track, signal, and rolling stock maintenance, inspection and repair practices; protection of employees; communications between transportation departments and mechanical and engineering staff; operation control center procedures and dispatcher training. The overall scope of the FRA Safety Assessment was to examine our safety culture. The FRA issued a public report in early August and included its findings and recommended corrective actions. The FRA Incident Investigation remains ongoing.

Other 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 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. On January 3, 2023, the court granted summary judgment to us on all of the compensatory claims but denied summary judgment for all equitable relief claims. On January 18, 2023, the court dismissed the federal equitable relief claims, leaving the state equitable relief claims as the sole remaining issue under consideration. On April 19, 2023, the court disposed of all remaining state equitable relief claims. The court's dismissals were appealed and the case is currently before the United States Court of Appeals for the Fourth Circuit. We will 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 (including the related appeal) will not be material. Until such appeal is final, we cannot reasonably estimate the potential loss or range of loss associated with this matter.

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 personal injury and occupational claims are subject to the 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 – Other than Incident-related matters noted above, 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.

In addition to environmental claims associated with the Incident, our Consolidated Balance Sheets include liabilities for other environmental exposures of \$60 million at December 31, 2023, and \$66 million at December 31, 2022, of which \$15 million is classified as a current liability at the end of both periods. At December 31, 2023, the liability represents our estimates of the probable cleanup, investigation, and remediation costs based on available information at 81 known locations and projects compared with 85 locations and projects at December 31, 2022. At December 31, 2023, twenty-one sites accounted for \$48 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 CERCLA 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.

As set forth above, with respect to known environmental sites (whether identified by us or by the U.S. EPA 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. 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.

The latest round of national bargaining concluded in December 2022, when agreements were either ratified or enacted through legislative action for all twelve of our unions. With the conclusion of national bargaining, neither party can compel mandatory bargaining around any new proposals until November 1, 2024.

In addition, we understand the imperative to continue improving quality of life for our craft employees and remain actively engaged with our unions in voluntary local discussions (none of which carry the risk of a work stoppage) on this important issue.

Insurance

We purchase insurance covering legal liabilities for bodily injury and property damage to third parties. Our current liability insurance provides limits for approximately 93% of covered losses above \$75 million and below \$734 million per occurrence and/or policy year. In addition, we purchase insurance for damage to property owned by us or in our care, custody, or control. Our current property insurance provides limits for approximately 82% of covered losses above \$75 million and below \$275 million per occurrence and/or policy year.

Insurance coverage with respect to the Incident is subject to certain conditions, including but not limited to our insurers' reservation of rights to further investigate and contest coverage, the express restrictions and sub-limits of coverage, and various policy exclusions, including those for some governmental fines or penalties. Some (re)insurers have disputed certain payments we have made, for example, as part of our effort to respond to, mitigate, and compensate for the impact to the community and affected residents and businesses. We are pursuing coverage with respect to the Incident, and we have recognized \$101 million in insurance recoveries in 2023, principally from excess liability (re)insurers.

Purchase Commitments

At December 31, 2023, we had outstanding purchase commitments totaling \$1.4 billion through 2053 for locomotive modernizations, long-term technology support and development contracts, track material, and vehicles.

Asset Purchase and Sale Agreement

In November 2022, we entered into an asset purchase and sale agreement with the Board of Trustees of the Cincinnati Southern Railway to purchase approximately 337 miles of railway line that extends from Cincinnati, Ohio to Chattanooga, Tennessee which we currently operate under a lease agreement. The agreement is conditioned upon the following, among other items: (i) approval by the voters of the City of Cincinnati (Cincinnati Voter Approval), which was obtained in November 2023, and (ii) the receipt of regulatory approval from the U.S. Surface

Transportation Board (STB), which occurred in September 2023. In June 2023, we entered into an amended and restated asset purchase and sale agreement which increased the purchase price by \$500,000 and clarified the impact of Cincinnati Voter Approval on the closing timeline. Following the June 2023 amendment, the total purchase price for the line and other associated real and personal property included in the transaction is expected to be approximately \$1.7 billion. The transaction is scheduled to close on March 15, 2024.

Change-In-Control Arrangements

We have compensation agreements with certain officers and key employees that become operative only upon a change in control of Norfolk Southern, as defined in those agreements. The agreements provide generally for payments based on compensation at the time of a covered individual's involuntary or other specified termination and for certain other benefits.

Indemnifications

In a number of instances, we have agreed to indemnify lenders for additional costs they may bear as a result of certain changes in laws or regulations applicable to their loans. Such changes may include impositions or modifications with respect to taxes, duties, reserves, liquidity, capital adequacy, special deposits, and similar requirements relating to extensions of credit by, deposits with, or the assets or liabilities of such lenders. The nature and timing of changes in laws or regulations applicable to our financings are inherently unpredictable, and therefore our exposure in connection with the foregoing indemnifications cannot be quantified. No liability has been recorded related to these indemnifications.

Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure

Not applicable.

Item 9A. Controls and Procedures

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 December 31, 2023. Based on such evaluation, our officers have concluded that, at December 31, 2023, our disclosure controls and procedures were effective to ensure that information required to be disclosed in our reports under the Exchange Act is recorded, processed, summarized, and reported, within the time period specified in the SEC's rules and forms, and that such information is accumulated and communicated to management, including the Chief Executive Officer and the Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

Management's Annual Report on Internal Control Over Financial Reporting

We are responsible for establishing and maintaining adequate internal control over financial reporting. Our internal control over financial reporting includes those policies and procedures that pertain to our ability to record, process, summarize, and report reliable financial data. We recognize that there are inherent limitations in the effectiveness of any internal control over financial reporting, including the possibility of human error and the circumvention or overriding of internal control. Accordingly, even effective internal control over financial reporting can provide only reasonable assurance with respect to financial statement preparation. Further, because of changes in conditions, the effectiveness of internal control over financial reporting may vary over time.

Our Board of Directors, acting through its Audit Committee, is responsible for the oversight of our accounting policies, financial reporting, and internal control. The Audit Committee of our Board of Directors is comprised of outside directors who are independent of management. The independent registered public accounting firm and our internal auditors have full and unlimited access to the Audit Committee, with or without management, to discuss the adequacy of internal control over financial reporting, and any other matters which they believe should be brought to the attention of the Audit Committee.

We have issued a report of our assessment of internal control over financial reporting, and our independent registered public accounting firm has issued an opinion on our internal control over financial reporting at December 31, 2023. These reports appear in Item 8 of this report on Form 10-K.

Changes in Internal Control Over Financial Reporting

During the fourth quarter of 2023, we have not identified any changes in internal control over financial reporting that have materially affected, or are reasonably likely to materially effect, our internal control over financial reporting.

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Item 9B. Other Information

Director and Officer Trading Arrangements

None of our directors or officers (as defined in Rule 16a-1(f) of the Exchange Act) adopted or terminated a Rule 10b5-1 trading arrangement (as defined in Item 408(c) of Regulation S-K) during the fourth quarter of 2023.

Item 9C. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

Not applicable.

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PART III

NORFOLK SOUTHERN CORPORATION AND SUBSIDIARIES

Item 10. Directors, Executive Officers and Corporate Governance

In accordance with General Instruction G(3), information called for by Part III, Item 10, is incorporated herein by reference to our definitive Proxy Statement for our 2024 Annual Meeting of Stockholders, which definitive Proxy Statement will be filed electronically with the SEC pursuant to Regulation 14A. The information regarding executive officers called for by Item 401 of Regulation S-K is included in Part I hereof beginning under "Information about our Executive Officers."

Item 11. Executive Compensation

In accordance with General Instruction G(3), information called for by Part III, Item 11, is incorporated herein by reference to our definitive Proxy Statement for our 2024 Annual Meeting of Stockholders, which definitive Proxy Statement will be filed electronically with the SEC pursuant to Regulation 14A.

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Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

In accordance with General Instruction G(3), information on security ownership of certain beneficial owners and management called for by Part III, Item 12, is incorporated herein by reference to our definitive Proxy Statement for our 2024 Annual Meeting of Stockholders, which definitive Proxy Statement will be filed electronically with the SEC pursuant to Regulation 14A.

Equity Compensation Plan Information (at December 31, 2023)

Plan Category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted- average exercise price of outstanding options, warrants and rights			Number of securities remaining available for future issuance under equity compensation plans (1)		
T	(a)			(b)		(c)	
Equity compensation plans							
approved by securities holders ⁽²⁾	1,507,054	(3)	\$	165.30	(5)	7,731,573	
Equity compensation plans							
not approved by securities holders	109,206	(4)		96.35		436,571	(6)
Total	1,616,260					8,168,144	

- (1) Excludes securities reflected in column (a).
- (2) LTIP.
- (3) Includes options, RSUs and PSUs granted under LTIP that will be settled in shares of Common Stock.
- (4) TSOP
- (5) Calculated without regard to 872,863 outstanding RSUs and PSUs at December 31, 2023.
- (6) Reflects shares remaining available for grant under TSOP.

Norfolk Southern Corporation Long-Term Incentive Plan

Established on June 28, 1983, and approved by our stockholders at their Annual Meeting held on May 10, 1984, LTIP was adopted to promote the success of our company by providing an opportunity for non-employee Directors, officers, and other key employees to acquire a proprietary interest in Norfolk Southern Corporation (the Corporation). The Board of Directors amended LTIP on January 23, 2015, which amendment was approved by shareholders on May 14, 2015, to include the reservation for issuance of an additional 8,000,000 shares of authorized but unissued Common Stock.

The amended LTIP adopted a fungible share reserve ratio so that, for awards granted after May 13, 2010, the number of shares remaining for issuance under the amended LTIP will be reduced (i) by 1 for each award granted as an option or stock-settled SAR, or (ii) by 1.61 for an award made in the form other than an option or stock-settled SAR. Any shares of Common Stock subject to options, PSUs, restricted shares, or RSUs which are not issued as Common Stock will again be available for award under LTIP after the expiration or forfeiture of an award.

Non-employee Directors, officers, and other key employees residing in the U.S. or Canada are eligible for selection to receive LTIP awards. Under LTIP, the Committee, or the Corporation's chief executive officer to the extent the Committee delegates award-making authority pursuant to LTIP, may grant incentive stock options, nonqualified stock options, SARs, RSUs, restricted shares, PSUs and performance shares. In addition, dividend equivalent payments may be awarded for options, RSUs and PSUs. Awards under LTIP may be made subject to forfeiture under certain circumstances and the Committee may establish such other terms and conditions for the awards as provided in LTIP.

The option price is at least the higher of (i) the average of the high and low prices at which Common Stock is traded on the date of grant, or (ii) the closing price of Common Stock on the date of the grant. All options are subject to a vesting period of at least one year, and the term of the option will not exceed ten years. LTIP specifically prohibits option repricing without stockholder approval, except that adjustments may be made in the event of changes in our capital structure or Common Stock.

PSUs entitle a recipient to receive performance-based compensation at the end of a three-year cycle based on our performance during that period. For the 2023 PSU awards, corporate performance will be based directly on return on average capital invested, with total return to stockholders and revenue growth serving as modifiers, and will be settled in shares of Common Stock.

RSUs are payable in cash or in shares of Common Stock at the end of a restriction period. During the restriction period, the holder of the RSUs has no beneficial ownership interest in the Common Stock represented by the RSUs and has no right to vote the shares represented by the units or to receive dividends (except for dividend equivalent payment rights that may be awarded with respect to the RSUs). The Committee at its discretion may waive the restriction period, but settlement of any RSUs will occur on the same settlement date as would have applied absent a waiver of restrictions, if no performance goals were imposed. RSUs will be settled in shares of Common Stock.

Norfolk Southern Corporation Thoroughbred Stock Option Plan

Our Board of Directors adopted TSOP on January 26, 1999, to promote the success of our company by providing an opportunity for management employees to acquire a proprietary interest in our company and thereby to provide an additional incentive to management employees to devote their maximum efforts and skills to the advancement, betterment, and prosperity of our company and our stockholders. Under TSOP there were 6,000,000 shares of authorized but unissued Common Stock reserved for issuance. TSOP has not been and is not required to have been approved by our stockholders.

Active full-time management employees residing in the U.S. or Canada are eligible for selection to receive TSOP awards. Under TSOP, the Committee, or the Corporation's chief executive officer to the extent the Committee delegates award-making authority pursuant to TSOP, may grant nonqualified stock options subject to such terms and conditions as provided in TSOP.

The option price may not be less than the average of the high and low prices at which Common Stock is traded on the date of the grant. All options are subject to a vesting period of at least one year, and the term of the option will not exceed ten years. TSOP specifically prohibits repricing without stockholder approval, except for capital adjustments.

Norfolk Southern Corporation Directors' Restricted Stock Plan

The Plan was adopted on January 1, 1994, and was designed to increase ownership of Common Stock by our non-employee Directors so as to further align their ownership interest in our company with that of our stockholders. The Plan has not been and is not required to have been approved by our stockholders.

Effective January 23, 2015, the Board amended the Plan to provide that no additional awards will be made under the Plan. Prior to that amendment, only non-employee Directors who are not and never have been employees of our company were eligible to participate in the Plan. Upon becoming a Director, each eligible Director received a one-time grant of 3,000 restricted shares of Common Stock. No additional shares may be granted under the Plan. No individual member of the Board exercised discretion concerning the eligibility of any Director or the number of shares granted.

The restriction period applicable to restricted shares granted under the Plan begins on the date of the grant and ends on the earlier of the recipient's death or the day after the recipient ceases to be a Director by reason of disability or retirement. During the restriction period, shares may not be sold, pledged, or otherwise encumbered. Directors forfeit the restricted shares if they cease to serve as a Director of our company for reasons other than their disability, retirement, or death.

Item 13. Certain Relationships and Related Transactions, and Director Independence

In accordance with General Instruction G(3), information called for by Part III, Item 13, is incorporated herein by reference to our definitive Proxy Statement for our 2024 Annual Meeting of Stockholders, which definitive Proxy Statement will be filed electronically with the SEC pursuant to Regulation 14A.

Item 14. Principal Accountant Fees and Services

Our independent registered public accounting firm is KPMG LLP, Atlanta, GA, Auditor Firm ID: 185.

In accordance with General Instruction G(3), information called for by Part III, Item 14, is incorporated herein by reference to our definitive Proxy Statement for our 2024 Annual Meeting of Stockholders, which definitive Proxy Statement will be filed electronically with the SEC pursuant to Regulation 14A.

PART IV

NORFOLK SOUTHERN CORPORATION AND SUBSIDIARIES

Item 15. Exhibits and Financial Statement Schedules

			Page
(A)	The fol	llowing documents are filed as part of this report:	
	1.	Index to Financial Statements	
		Report of Management	<u>K40</u>
		Report of Independent Registered Public Accounting Firm	<u>K41</u>
		Consolidated Statements of Income, Years ended December 31, 2023, 2022, and 2021	<u>K45</u>
		Consolidated Statements of Comprehensive Income, Years ended December 31, 2023, 2022, and 2021	K46
		Consolidated Balance Sheets at December 31, 2023 and 2022	K47
		Consolidated Statements of Cash Flows, Years ended December 31, 2023, 2022, and 2021	<u>K48</u>
		Consolidated Statements of Changes in Stockholders' Equity, Years ended December 31, 2023, 2022, and 2021	<u>K49</u>
		Notes to Consolidated Financial Statements	<u>K50</u>
	2.	Financial Statement Schedules:	
		The following consolidated financial statement schedule should be read in connection with the consolidated financial statements:	
		Index to Consolidated Financial Statement Schedules	
		Schedule II – Valuation and Qualifying Accounts	<u>K104</u>
		Schedules other than the one listed above are omitted either because they are not required or are inapplicable, or because the information is included in the consolidated financial statements or related notes.	
	3.	Exhibits	
Exhibit Number		Description	
2.1		Distribution Agreement, dated as of July 26, 2004, by and among CSX Corporation, CSX Transportation, Inc., CSX Rail Holding Corporation, CSX Northeast Holdings Corporation, Norfolk Southern Corporation, Norfolk Southern Railway Company, CRR Holdings LLC, Green Acquisition Corp., Conrail Inc., Consolidated Rail Corporation, New York Central Lines LLC, Pennsylvania Lines LLC, NYC Newco, Inc., and PRR Newco, Inc., is incorporated by reference to Exhibit 2.1 to Norfolk Southern Corporation's Form 8-K filed on September 2, 2004. (SEC File No. 001-08339)	
3		Articles of Incorporation and Bylaws –	
(i)(a)		The Restated Articles of Incorporation of Norfolk Southern Corporation are incorporated by reference to Exhibit 3(i) to Norfolk Southern Corporation's 10-K filed on March 5, 2001. (SEC File No. 001-08339)	
(i)(b)		An amendment to the Articles of Incorporation of Norfolk Southern Corporation is incorporated by reference to Exhibit 3(i) to Norfolk Southern Corporation's Form 8-K filed on May 18, 2010. (SEC File No. 001-08339)	
(i)(c)		An amendment to the Articles of Incorporation of Norfolk Southern Corporation is incorporated by reference to Exhibit 3(i) to Norfolk Southern Corporation's Form 10-Q filed on July 29, 2020. (SEC File No. 001-08339)	
(ii)		The Bylaws of Norfolk Southern Corporation, as amended July 25, 2023, are incorporated by reference to Exhibit 3(ii) to the Registrant's Form 8-K filed on July 27, 2023. (SEC File No. 001-08339)	

4	Instruments Defining the Rights of Security Holders, Including Indentures:
(a)	Indenture, dated as of January 15, 1991, from Norfolk Southern Corporation to First Trust of New York, National Association, as Trustee, is incorporated by reference to Exhibit 4.1 to Norfolk Southern Corporation's Registration Statement on Form S-3 (No. 33-38595).
(b)	First Supplemental Indenture, dated May 19, 1997, between Norfolk Southern Corporation and First Trust of New York, National Association, as Trustee, related to the issuance of notes in the principal amount of \$4.3 billion, is incorporated by reference to Exhibit 1.1(d) to Norfolk Southern Corporation's Form 8-K filed on May 21, 1997. (SEC File No. 001-08339)
(c)	Fourth Supplemental Indenture, dated as of February 6, 2001, between Norfolk Southern Corporation and U.S. Bank Trust National Association, as Trustee, related to the issuance of notes in the principal amount of \$1 billion, is incorporated by reference to Exhibit 4.1 to Norfolk Southern Corporation's Form 8-K filed on February 7, 2001. (SEC File No. 001-08339)
(d)	Indenture, dated August 27, 2004, among PRR Newco, Inc., as Issuer, and Norfolk Southern Railway Company, as Guarantor, and The Bank of New York, as Trustee, is incorporated by reference to Exhibit 4(1) to Norfolk Southern Corporation's Form 10-Q filed on October 28, 2004. (SEC File No. 001-08339)
(e)	First Supplemental Indenture, dated August 27, 2004, among PRR Newco, Inc., as Issuer, and Norfolk Southern Railway Company, as Guarantor, and The Bank of New York, as Trustee, related to the issuance of notes in the principal amount of approximately \$451.8 million, is incorporated by reference to Exhibit 4(m) to Norfolk Southern Corporation's Form 10-Q filed on October 28, 2004. (SEC File No. 001-08339)
(f)	Ninth Supplemental Indenture, dated as of March 11, 2005, between Norfolk Southern Corporation and U.S. Bank Trust National Association, as Trustee, related to the issuance of notes in the principal amount of \$300 million, is incorporated by reference to Exhibit 4.1 to Norfolk Southern Corporation's Form 8-K filed on March 15, 2005. (SEC File No. 001-08339)
(g)	Tenth Supplemental Indenture, dated as of May 17, 2005, between Norfolk Southern Corporation and U.S. Bank Trust National Association, as Trustee, related to the issuance of notes in the principal amount of \$366.6 million, is incorporated by reference to Exhibit 99.1 to Norfolk Southern Corporation's Form 8-K filed on May 18, 2005. (SEC File No. 001-08339)
(h)	Eleventh Supplemental Indenture, dated as of May 17, 2005, between Norfolk Southern Corporation and U.S. Bank Trust National Association, as Trustee, related to the issuance of notes in the principal amount of \$350 million, is incorporated by reference to Exhibit 99.2 to Norfolk Southern Corporation's Form 8-K filed on May 18, 2005. (SEC File No. 001-08339)
(i)	Twelfth Supplemental Indenture, dated as of August 26, 2010, between Norfolk Southern Corporation and U.S. Bank Trust National Association, as Trustee, related to the issuance of notes in the principal amount of \$250 million, is incorporated by reference to Exhibit 4.2 to Norfolk Southern Corporation's Form 8-K filed on August 26, 2010. (SEC File No. 001-08339)
(j)	Indenture, dated as of June 1, 2009, between Norfolk Southern Corporation and U.S. Bank Trust National Association, as Trustee, is incorporated by reference to Exhibit 4.1 to Norfolk Southern Corporation's Form 8-K filed on June 1, 2009. (SEC File No. 001-08339)
(k)	Second Supplemental Indenture, dated as of May 23, 2011, between the Registrant and U.S. Bank Trust National Association, as Trustee, related to the issuance of notes in the principal amount of \$400 million, is incorporated by reference to Exhibit 4.1 to Norfolk Southern Corporation's Form 8-K filed on May 23, 2011. (SEC File No. 001-08339)
(1)	Indenture, dated as of September 14, 2011, between the Registrant and U.S. Bank Trust National Association, as Trustee, related to the issuance of notes in the principal amount of \$595,504,000, is incorporated by reference to Exhibit 4.1 to Norfolk Southern Corporation's Form 8-K filed on September 15, 2011. (SEC File No. 001-08339)
(m)	Third Supplemental Indenture, dated as of September 14, 2011, between the Registrant and U.S. Bank Trust National Association, as Trustee, related to the issuance of notes in the principal amount of \$4,492,000, is incorporated by reference to Exhibit 4.2 to Norfolk

(12)	Equal Complemental Industrial dated on a Navious and 17, 2011, historian the Designment and
(n)	Fourth Supplemental Indenture, dated as of November 17, 2011, between the Registrant and U.S. Bank Trust National Association, as Trustee, related to the issuance of two series of notes, one in the principal amount of \$500 million and one in the principal amount of \$100 million, is incorporated by reference to Exhibit 4.1 to Norfolk Southern Corporation's Form 8-K filed on November 17, 2011. (SEC File No. 001-08339)
(0)	Indenture, dated as of March 15, 2012, between the Registrant and U.S. Bank Trust National Association, as Trustee, is incorporated by reference to Exhibit 4.1 to Norfolk Southern Corporation's Form 8-K filed on March 15, 2012. (SEC File No. 001-08339)
(p)	Second Supplemental Indenture, dated as of September 7, 2012, between the Registrant and U.S. Bank Trust National Association, as Trustee, is incorporated by reference to Exhibit 4.1 to Norfolk Southern Corporation's Form 8-K filed on September 7, 2012. (SEC File No. 001-08339)
(q)	Third Supplemental Indenture, dated as of August 13, 2013, between the Registrant and U.S. Bank Trust National Association, as Trustee, related to the issuance of notes in the principal amount of \$500,000,000, is incorporated by reference to Exhibit 4.1 to Norfolk Southern Corporation's Form 8-K filed on August 13, 2013. (SEC File No. 001-08339)
(r)	Indenture, dated as of June 2, 2015, between Registrant and U.S. Bank National Association, as Trustee, is incorporated by reference to Exhibit 4.1 to Norfolk Southern Corporation's Form 8-K filed on June 2, 2015. (SEC File No. 001-08339)
(s)	First Supplemental Indenture, dated as of June 2, 2015, between the Registrant and U.S. Bank National Association, as Trustee, is incorporated by reference to Exhibit 4.2 to Norfolk Southern Corporation's Form 8-K filed on June 2, 2015. (SEC File No. 001-08339)
(t)	Second Supplemental Indenture, dated as of November 3, 2015, between the Registrant and U.S. Bank National Association, as Trustee, is incorporated by reference to Exhibit 4.1 to Norfolk Southern Corporation's Form 8-K filed on November 3, 2015. (SEC File No. 001-08339)
(u)	Third Supplemental Indenture, dated as of June 3, 2016, between the Registrant and U.S. Bank National Association, as Trustee, is incorporated by reference to Exhibit 4.1 to Norfolk Southern Corporation's Form 8-K filed on June 3, 2016. (SEC File No. 001-08339)
(v)	Fourth Supplemental Indenture, dated as of May 31, 2017, between the Registrant and U.S. Bank National Association, as Trustee, is incorporated by reference to Exhibit 4.1 to the Corporation's Form 8-K filed May 31, 2017. (SEC File No. 001-08339)
(w)	Indenture, dated as of August 15, 2017, between the Registrant and U.S. Bank National Association, as Trustee, is incorporated by reference herein to Exhibit 4.1 to Norfolk Southern Corporation's Form 8-K filed August 15, 2017. (SEC File No. 001-08339)
(x)	Indenture, dated as of February 28, 2018 between the Registrant and U.S. Bank National Association, as Trustee. The Indenture is incorporated by reference herein to Exhibit 4.1 to Norfolk Southern Corporation's Form 8-K filed February 28, 2018. (SEC File No. 001-08339)
(y)	First Supplemental Indenture, dated as of February 28, 2018, between the Registrant and U.S. Bank National Association, as Trustee. The Indenture is incorporated by reference herein to Exhibit 4.2 to Norfolk Southern Corporation's Form 8-K filed February 28, 2018. (SEC File No. 001-08339)
(z)	Second Supplemental Indenture, dated as of August 2, 2018, between the Registrant and U.S. Bank National Association, as Trustee. The Indenture is incorporated by reference herein to Exhibit 4.1 to Norfolk Southern Corporation's Form 8-K filed August 2, 2018. (SEC File No. 001-08339)
(aa)	Third Supplemental Indenture, dated as of May 8, 2019, between the Registrant and U.S. Bank National Association, as Trustee, is incorporated by reference to Exhibit 4.1 to the Registrant's Form 8-K filed on May 8, 2019 (SEC File No. 001-08339).
(bb)	Fourth Supplemental Indenture, dated as of November 4, 2019, between the Registrant and U.S. Bank National Association, as Trustee, is incorporated by reference to Exhibit 4.1 to the Registrant's Form 8-K filed on November 4, 2019. (SEC File No. 001-08339)
(cc)	Description of the Registrant's Common Stock Registered Under Section 12 of the Securities

(dd)	Fifth Supplemental Indenture, dated as of May 11, 2020, between the Registrant and U.S. Bank National Association, as Trustee, is incorporated by reference to Exhibit 4.1 to the Registrant's Form 8-K filed on May 11, 2020. (SEC File No. 001-08339)
(ee)	Indenture dated as of May 15, 2020, between the Registrant and U.S. Bank National Association, as Trustee is incorporated by reference to Exhibit 4.1 to the Registrant's Form 8-K filed on May 15, 2020. (SEC File No. 001-08339)
(ff)	Sixth Supplemental Indenture, dated as of May 12, 2021, between the Registrant and U.S. Bank National Association, as Trustee, is incorporated by reference to Exhibit 4.2 to the Registrant's Form 8-K filed on May 12, 2021. (SEC File No. 001-08339)
(gg)	Seventh Supplemental Indenture, dated as of August 25, 2021, between the Registrant and U.S. Bank National Association, as trustee, is incorporated by reference to Exhibit 4.1 to the Registrant's Form 8-K filed on August 25, 2021. (SEC File No. 001-08339)
(hh)	Eighth Supplemental Indenture, dated as of February 25, 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 Form 8-K filed on February 25, 2022. (SEC File No. 001-08339)
(ii)	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 Form 8-K filed on June 15, 2022. (SEC File No. 001-08339).
(jj)	Tenth Supplemental Indenture, dated as of February 2, 2023, 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 February 2, 2023. (SEC File No. 001-08339)
(kk)	Eleventh Supplemental Indenture, dated as of August 2, 2023, 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 August 2, 2023. (SEC File No. 001-08339)
(11)	Twelfth Supplemental Indenture, dated as of November 22, 2023, 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 November 22, 2023. (SEC File No. 001-08339)
	In accordance with Item 601(b)(4)(iii) of Regulation S-K, copies of other instruments of Norfolk Southern Corporation and its subsidiaries with respect to the rights of holders of long-term debt are not filed herewith, or incorporated by reference, but will be furnished to the Commission upon request.
10	Material Contracts -
(a)	The Transaction Agreement, dated as of June 10, 1997, by and among CSX and CSX Transportation, Inc., Registrant, Norfolk Southern Railway Company, Conrail Inc., Consolidated Rail Corporation, and CRR Holdings LLC, with certain schedules thereto, previously filed, is incorporated by reference to Exhibit 10(a) to Norfolk Southern Corporation's Form 10-K filed on February 24, 2003. (SEC File No. 001-08339)
(b)	Amendment No. 1 dated as of August 22, 1998, to the Transaction Agreement, dated as of June 10, 1997, by and among CSX Corporation, CSX Transportation, Inc., Norfolk Southern Corporation, Norfolk Southern Railway Company, Conrail, Inc., Consolidated Rail Corporation, and CRR Holdings LLC, is incorporated by reference from Exhibit 10.1 to Norfolk Southern Corporation's Form 10-Q filed on August 11, 1999. (SEC File No. 001-08339)
(c)	Amendment No. 2 dated as of June 1, 1999, to the Transaction Agreement, dated June 10, 1997, by and among CSX Corporation, CSX Transportation, Inc., Norfolk Southern Corporation, Norfolk Southern Railway Company, Conrail, Inc., Consolidated Rail Corporation, and CRR Holdings LLC, is incorporated by reference from Exhibit 10.2 to Norfolk Southern Corporation's Form 10-Q filed on August 11, 1999. (SEC File No. Page 147 of 1001-08339)

(d)	Amendment No. 3 dated as of June 1, 1999, and executed in April 2004, to the Transaction Agreement, dated June 10, 1997, by and among CSX Corporation, CSX Transportation, Inc., Norfolk Southern Corporation, Norfolk Southern Railway Company, Conrail, Inc., Consolidated Rail Corporation, and CRR Holdings LLC, is incorporated by reference from Exhibit 10(dd) to Norfolk Southern Corporation's Form 10-Q filed on July 30, 2004. (SEC File No. 001-08339)
(e)	Amendment No. 5 to the Transaction Agreement, dated as of August 27, 2004, by and among CSX Corporation, CSX Transportation, Inc., Norfolk Southern Corporation, Norfolk Southern Railway Company, Conrail, Inc., Consolidated Rail Corporation, and CRR Holdings LLC, is incorporated by reference to Exhibit 10.1 to Norfolk Southern Corporation's Form 8-K filed on September 2, 2004. (SEC File No. 001-08339)
(f)	Amendment No. 6 dated as of April 1, 2007, to the Transaction Agreement, dated June 10, 1997, by and among CSX Corporation, CSX Transportation, Inc., Norfolk Southern Railway Company, Conrail, Inc., Consolidated Rail Corporation, and CRR Holdings LLC, is incorporated by reference to Exhibit 10.5 to Norfolk Southern Corporation's Form 10-Q filed on July 27, 2007. (SEC File No. 001-08339)
(g)	Shared Assets Area Operating Agreement for North Jersey, dated as of June 1, 1999, by and among Consolidated Rail Corporation, CSX Transportation, Inc., and Norfolk Southern Railway Company, with exhibit thereto, is incorporated by reference from Exhibit 10.4 to Norfolk Southern Corporation's Form 10-Q filed on August 11, 1999. (SEC File No. 001-08339)
(h)	Shared Assets Area Operating Agreement for Detroit, dated as of June 1, 1999, by and among Consolidated Rail Corporation, CSX Transportation, Inc., and Norfolk Southern Railway Company, with exhibit thereto, is incorporated by reference from Exhibit 10.6 to Norfolk Southern Corporation's Form 10-Q filed on August 11, 1999. (SEC File No. 001-08339)
(i)	Shared Assets Area Operating Agreement for South Jersey/Philadelphia, dated as of June 1, 1999, by and among Consolidated Rail Corporation, CSX Transportation, Inc., and Norfolk Southern Railway Company, with exhibit thereto, is incorporated by reference from Exhibit 10.5 to Norfolk Southern Corporation's Form 10-Q filed on August 11, 1999. (SEC File No. 001-08339)
(j)	Amendment No. 1, dated as of June 1, 2000, to the Shared Assets Area Operating Agreements for North Jersey, South Jersey/Philadelphia, and Detroit, dated as of June 1, 1999, by and among Consolidated Rail Corporation, CSX Transportation, Inc., and Norfolk Southern Railway Company, with exhibits thereto, is incorporated by reference to Exhibit 10(h) to Norfolk Southern Corporation's Form 10-K filed on March 5, 2001. (SEC File No. 001-08339)
(k)	Amendment No. 2, dated as of January 1, 2001, to the Shared Assets Area Operating Agreements for North Jersey, South Jersey/Philadelphia, and Detroit, dated as of June 1, 1999, by and among Consolidated Rail Corporation, CSX Transportation, Inc., and Norfolk Southern Railway Company, with exhibits thereto, is incorporated by reference to Exhibit 10(j) to Norfolk Southern Corporation's Form 10-K filed on February 21, 2002. (SEC File No. 001-08339)
(1)	Amendment No. 3, dated as of June 1, 2001, and executed in May of 2002, to the Shared Assets Area Operating Agreements for North Jersey, South Jersey/Philadelphia, and Detroit, dated as of June 1, 1999, by and among Consolidated Rail Corporation, CSX Transportation, Inc., and Norfolk Southern Railway Company, with exhibits thereto, is incorporated by reference to Exhibit 10(k) to Norfolk Southern Corporation's Form 10-K filed on February 24, 2003. (SEC File No. 001-08339)
(m)	Amendment No. 4, dated as of June 1, 2005, and executed in late June 2005, to the Shared Assets Area Operating Agreements for North Jersey, South Jersey/Philadelphia, and Detroit, dated as of June 1, 1999, by and among Consolidated Rail Corporation, CSX Transportation, Inc., and Norfolk Southern Railway Company, with exhibits thereto, is incorporated by reference to Exhibit 99 to Norfolk Southern Corporation's Form 8-K filed on July 1, 2005. (SEC File No. 001-08339)
(n)	Monongahela Usage Agreement, dated as of June 1, 1999, by and among CSX Transpagetasions Inc. Norfolk Southern Railway Company, Pennsylvania Lines LLC, and New York Central

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(p)	Second Amendment, dated December 28, 2009, to the Master Agreement dated July 27, 1999, by and between North Carolina Railroad Company and Norfolk Southern Railway Company, is incorporated by reference to Exhibit 10(q) to Norfolk Southern Corporation's Form 10-K filed on February 17, 2010 (Exhibits, annexes and schedules omitted. The Registrant will furnish supplementary copies of such materials to the SEC upon request). (SEC File No. 001-08339) The Supplementary Agreement, entered into as of January 1, 1987, between the Trustees of the Cincinnati Southern Railway and The Cincinnati, New Orleans and Texas Pacific Railway Company (the latter a wholly owned subsidiary of Norfolk Southern Railway Company) – extending and amending a Lease, dated as of October 11, 1881 – is incorporated by reference to Exhibit 10(k) to Norfolk Southern Corporation's Form 10-K filed on March 5, 2001. (SEC File No. 001-08339)									
(q)										
(r)*,**	Norfolk Southern Corporation Executive Management Incentive Plan, as approved by shareholders May 14, 2015, and as amended effective March 27, 2018, November 17, 2020, and November 17, 2023.									
(s)*	The Norfolk Southern Corporation Directors' Restricted Stock Plan, adopted January 1, 1994, and amended and restated effective as of January 23, 2015, is incorporated by reference to Exhibit 10.1 to Norfolk Southern Corporation's Form 10-Q filed on October 25, 2017. (SEC File No. 001-08339)									
(t)*,**	Supplemental Benefit Plan of Norfolk Southern Corporation and Participating Subsidiary Companies, adopted June 1, 1982, as amended and restated effective as of December 31, 2023.									
(u)*	The Norfolk Southern Corporation Directors' Charitable Award Program, as amended effective July 2007, is incorporated by reference to Exhibit 10.6 to Norfolk Southern Corporation's Form 10-Q filed on July 27, 2007. (SEC File No. 001-08339)									
(v)	The Norfolk Southern Corporation Thoroughbred Stock Option Plan, as amended effective July 22, 2013, is incorporated by reference to Exhibit 10.2 to Norfolk Southern Corporation's Form 10-Q filed on July 24, 2013. (SEC File No. 001-08339)									
(w)*	The Norfolk Southern Corporation Executive Life Insurance Plan, as amended and restated effective November 30, 2022 and executed as of February 21, 2023, is incorporated by reference to Exhibit 10.1 to Norfolk Southern Corporation's Form 10-Q filed on April 26, 2023. (SEC File No. 001-08339)									
(x)*,**	The Norfolk Southern Corporation Long-Term Incentive Plan, as approved by shareholders May 14, 2015, and as amended July 29, 2016, November 29, 2016, November 28, 2017, November 27, 2018, and November 19, 2019, November 17, 2023, and December 20, 2023.									
(y)	Amended and Restated Transfer and Administration Agreement dated as of May 28, 2021 is incorporated by reference to Exhibit 10.1 on Norfolk Southern Corporation's Form 8-K filed on May 28, 2021. (SEC File No. 001-08339)									
(z)	Amendment No. 1 dated as of May 27, 2022, to the Amended and Restated Transfer and Administration Agreement, dated as of May 28, 2021 is incorporated by reference to Exhibit 10.1 on Norfolk Southern Corporation's Form 10-Q filed on October 26, 2022. (SEC File No. 001-08339)									
(aa)	Amendment No. 2 dated as of June 30, 2022, to the Amended and Restated Transfer and Administration Agreement, dated as of May 28, 2021 is incorporated by reference to Exhibit 10.2 on Norfolk Southern Corporation's Form 10-Q filed on October 26, 2022. (SEC File No. 001-08339)									
(bb)	Commitment Termination Date Extension Request effective as of May 26, 2023 to the Amended and Restated Transfer and Administrative Agreement dated as of May 28, 2021 is incorporated by reference to Exhibit 10.2 on the Registrant's Form 10-Q filed on July 27, 2023. (SEC File No. 001-08339)									
(cc)	Asset Purchase and Sale Agreement dated November 21, 2022, by and among the Registrant as purchaser, the Cincinnati, New Orleans and Texas Pacific Railway Company, and the Board of Trustees of the Cincinnati Southern Railway as seller is incorporated by reference to Exhibit 2.1 on Norfolk Southern Corporation's Form 8-K filed on November 21, 2022. (SEC									

(dd)	First Amended and Restated Asset Purchase and Sale Agreement dated as of June 28, 2023 between Board of Trustees of the Cincinnati Southern Railway, Norfolk Southern Railway Company and The Cincinnati, New Orleans and Texas Pacific Railway Company is incorporated by reference to Exhibit 10.3 on the Registrant's Form 10-Q filed on July 27, 2023. (SEC File No. 001-08339)
(ee)*	Directors' Deferred Fee Plan of Norfolk Southern Corporation, adopted June 1, 1982 and as amended and restated effective December 1, 2019, is incorporated by referenced to Exhibit 10(xx) to Norfolk Southern Corporation's Form 10-K filed on February 6, 2020. (SEC File No. 001-08339)
(ff)*	Norfolk Southern Corporation Executives' Deferred Compensation Plan, as amended and restated effective January 1, 2019, is incorporated by reference to Exhibit 10(ww) to Norfolk Southern Corporation's Form 10-K filed on February 8, 2019. (SEC File No. 001-08339)
(gg)*	Form of Norfolk Southern Corporation Long-Term Incentive Plan, Award Agreement for Outside Directors for Restricted Stock Units and deferral election form as approved by the Human Capital Management and Compensation Committee on November 18, 2021, is incorporated by reference to Exhibit 10(cc) to Norfolk Southern Corporation's Form 10-K filed on February 4, 2022. (SEC File No. 001-08339)
(hh)*,**	Form of Norfolk Southern Corporation Long-Term Incentive Plan, Award Agreement for Non-Qualified Stock Options approved by the Human Capital Management and Compensation Committee on November 16, 2023.
(ii)*,**	Form of Norfolk Southern Corporation Long-Term Incentive Plan, Award Agreement for Restricted Stock Units approved by the Human Capital Management and Compensation Committee on November 16, 2023.
(jj)*,**	Form of Norfolk Southern Corporation Long-Term Incentive Plan, Award Agreement for Performance Share Units approved by the Human Capital Management and Compensation Committee on January 22, 2024.
(kk)*	Form of Change in Control Agreement between Norfolk Southern Corporation and executive officers who entered into a change in control agreement after 2015 is incorporated by reference to Exhibit 10.2 to Norfolk Southern Corporation's Form 10-Q filed on July 29, 2020. (SEC File No. 001-08339)
(11)	Amended and Restated Credit Agreement dated as of January 26, 2024, establishing a 5-year, \$800 million unsecured revolving credit facility of the Registrant, is incorporated by reference to Exhibit 10.1 to Norfolk Southern Corporation's Form 8-K filed on January 26, 2024. (SEC File No. 001-08339)
(mm)*	Offer Letter for Mark R. George, dated August 26, 2019, is incorporated by reference to Exhibit 99.1 to Norfolk Southern Corporation's Form 8-K filed on August 28, 2019. (SEC File No. 001-08339)
(nn)*	Norfolk Southern Corporation Long-Term Incentive Plan Inducement Award Agreement for Performance-Based Restricted Stock Units is incorporated by reference to Exhibit 99.2 to Norfolk Southern Corporation's Form 8-K filed on August 28, 2019. (SEC File No. 001-08339)
(00)*	Norfolk Southern Corporation Long-Term Incentive Plan Inducement Award Agreement for Restricted Stock Units is incorporated by reference to Exhibit 99.3 to Norfolk Southern Corporation's Form 8-K filed on August 28, 2019. (SEC File No. 001-08339)
(pp)*	Norfolk Southern Corporation Long-Term Incentive Plan Inducement Award Agreement for Non-Qualified Stock Options is incorporated by reference to Exhibit 99.4 to Norfolk Southern Corporation's Form 8-K filed on August 28, 2019. (SEC File No. 001-08339)
(qq)	A Lease Agreement, dated March 1, 2019, between NSRC and BA Leasing BSC, LLC. This Agreement is incorporated by reference herein to Exhibit 10.2 to Norfolk Southern Corporation's Form 8-K filed March 5, 2019. (SEC File No. 001-08339)
(rr)	A Participation Agreement, dated March 1, 2019, between NSRC, BA Leasing BSC, LLC, Bank of America, N.A. as Administrative Agent, and each of the Rent Assignees listed on Schedule II thereto. This Agreement is incorporated by reference herein to Exhibit 10 age 656 of 16 Norfolk Southern Corporation's Form 8-K filed March 5, 2019, (SEC File No. 001-08339)

(ss)	Guaranty of NSRC's obligations under the Participation Agreement, Construction Agency Agreement, Lease Agreement and related documents by Norfolk Southern Corporation. This Agreement is incorporated by reference herein to Exhibit 10.4 to Norfolk Southern Corporation's Form 8-K filed March 5, 2019. (SEC File No. 001-08339)
(tt)	Consent and First Omnibus Amendment dated May 14, 2021 between NSRC, BA Leasing, BSC, LLC, Bank of America, N.A as Administrative Agent, and each of the Rent Assignees (the Registrant will furnish supplementally to the Securities and Exchange Commission upon request, a copy of any omitted exhibit or schedule). (SEC File No. 001-08339)
(uu)	Consent and Second Omnibus Amendment dated September 10, 2021 between NSRC, BA Leasing, BSC, LLC, Bank of America, N.A as Administrative Agent, and each of the Rent Assignees (the Registrant will furnish supplementally to the Securities and Exchange Commission upon request, a copy of any omitted exhibit or schedule). (SEC File No. 001-08339)
(vv)	Third Omnibus Amendment Agreement dated January 23, 2023 between NSRC, BA Leasing, BSC, LLC, Bank of America, N.A as Administrative Agent, and each of the Rent Assignees is incorporated by reference herein to Exhibit 10.2 to the Registrant's Form 10-Q files on April 26, 2023. (SEC File No. 001-08339)
(ww)*	Norfolk Southern Executive Severance Plan as adopted on May 14, 2020, and as amended July 28, 2020, and November 17, 2022, is incorporated by reference herein to Exhibit 10.1 to Norfolk Southern Corporation's Form 8-K filed on November 21, 2022. (SEC File No. 001-08339)
(xx)	Term Loan Credit Agreement dated as of January 26, 2024, establishing a \$1,000 million unsecured delayed draw term loan credit facility of the Registrant, is incorporated by reference to Exhibit 10.2 to Norfolk Southern Corporation's Form 8-K filed on January 26, 2024. (SEC File No. 001-08339)
21**	Subsidiaries of the Registrant.
23**	Consent of Independent Registered Public Accounting Firm.
31-A**	Rule 13a-14(a)/15d-014(a) CEO Certification.
31-B**	Rule 13a-14(a)/15d-014(a) CFO Certification.
32**	Section 1350 Certifications.
97*,**	Norfolk Southern Corporation Incentive-Based Compensation Recovery Policy as adopted by Human Capital Management and Compensation Committee on November 17, 2023.
101**	The following financial information from Norfolk Southern Corporation's Annual Report on Form 10-K for the year ended December 31, 2023, formatted in Inline Extensible Business Reporting Language (iXBRL) includes: (i) the Consolidated Statements of Income for each of the years ended December 31, 2023, 2022, and 2021; (ii) the Consolidated Statements of Comprehensive Income for each of the years ended December 31, 2023, 2022, and 2021; (iii) the Consolidated Balance Sheets at December 31, 2023 and 2022; (iv) the Consolidated Statements of Cash Flows for each of the years ended December 31, 2023, 2022, and 2021; (v) the Consolidated Statements of Changes in Stockholders' Equity for each of the years ended December 31, 2023, 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).
	* Management contract or compensatory arrangement.
	** Filed herewith.

(B)	Exhibits.
	The Exhibits required by Item 601 of Regulation S-K as listed in Item 15(A)3 are filed herewith or incorporated by reference.
(C)	Financial Statement Schedules.
	Financial statement schedules and separate financial statements specified by this Item are included in Item 15(A)2 or are otherwise not required or are not applicable.
	Exhibits 23, 31, and 32 are included in copies assembled for public dissemination. All exhibits are included in the 2023 Form 10-K posted on our website at www.norfolksouthern.com under "Investors" "Financial Reports" and "SEC Filings" or you may request copies by writing to:
	Office of Corporate Secretary Norfolk Southern Corporation 650 West Peachtree Street NW Atlanta, Georgia 30308-1925

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Not applicable.			

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Item 16. Form 10-K Summary

POWER OF ATTORNEY

Each person whose signature appears on the next page under SIGNATURES hereby authorizes Nabanita C. Nag and Mark R. George, or any one of them, to execute in the name of each such person, and to file, any amendments to this report, and hereby appoints Nabanita C. Nag and Mark R. George, or any one of them, as attorneys-in-fact to sign on her or his behalf, individually and in each capacity stated below, and to file, any and all amendments to this report.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, Norfolk Southern Corporation has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on this 5th day of February, 2024.

	/s/ Alan H. Shaw	
By:	Alan H. Shaw	
	(President and Chief Executive Officer)	

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Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below on this 5th day of February, 2024, by the following persons on behalf of Norfolk Southern Corporation and in the capacities indicated.

Signature	Title									
/s/ Alan H. Shaw (Alan H. Shaw)	President and Chief Executive Officer (Principal Executive Officer)									
/s/ Mark R. George (Mark R. George)	Executive Vice President and Chief Financial Officer (Principal Financial Officer)									
/s/ Claiborne L. Moore (Claiborne L. Moore)	Vice President and Controller (Principal Accounting Officer)									
/s/ Amy E. Miles (Amy E. Miles)	Independent Chair and Director									
/s/ Thomas D. Bell, Jr. (Thomas D. Bell, Jr.)	Director									
/s/ Mitchell E. Daniels, Jr. (Mitchell E. Daniels, Jr.)	Director									
/s/ Philip S. Davidson (Philip S. Davidson)	Director									
/s/ Francesca A. DeBiase (Francesca A. DeBiase)	Director									
/s/ Marcela E. Donadio (Marcela E. Donadio)	Director									
/s/ John C. Huffard, Jr. (John C. Huffard, Jr.)	Director									
/s/ Christopher T. Jones (Christopher T. Jones)	Director									
/s/ Thomas C. Kelleher (Thomas C. Kelleher)	Director									
/s/ Steven F. Leer (Steven F. Leer)	Director									
/s/ Michael D. Lockhart (Michael D. Lockhart)	Director									
/s/ Claude Mongeau (Claude Mongeau)	Director									
/s/ Jennifer F. Scanlon (Jennifer F. Scanlon)	Director									
/s/ John R. Thompson (John R. Thompson)	Director									

Norfolk Southern Corporation and Subsidiaries Valuation and Qualifying Accounts Years ended December 31, 2023, 2022, and 2021 (\$ in millions)

				Ad	dit	ions cl	narge	d to	:						
	ginnii Salanc		Expenses			Other Accounts			Deductions			Ending Balance			
Year ended December 31, 2023															
Current portion of casualty and															
other claims included in															
accounts payable	\$ 170		\$	51			\$		84	(2)	\$	(119)	(3)	\$	186
Casualty and other claims												1			
included in other liabilities	218			153		(1)						(150)	(4)		221
Year ended December 31, 2022															
Current portion of casualty and															
other claims included in															
accounts payable	\$ 166		\$	43			\$		88	(2)	\$	127	(3)	\$	170
Casualty and other claims															
included in other liabilities	170			147		(1)						99	(4)		218
Year ended December 31, 2021															
Current portion of casualty and															
other claims included in															
accounts payable	\$ 182		\$	20			\$		80	(2)	\$	116	(3)	\$	166
Casualty and other claims															
included in other liabilities	169			77		(1)						76	(4)		170

⁽¹⁾ Includes adjustments for changes in estimates for prior years' claims.

⁽²⁾ Includes revenue refunds and overcharges provided through deductions from operating revenues and transfers from other accounts.

- (3) Payments and reclassifications to/from accounts payable.
- (4) Payments and reclassifications to/from other liabilities.

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