UNITED STATES SECURITIES AND EXCHANGE COMMISSION WASHINGTON, D.C. 20549

FORM 10-K

(Mark One) MANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 For the fiscal year ended December 31, 2023 OR ☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 For the transition period from _____ to ____ Commission File Number 1-6075 UNION PACIFIC CORPORATION (Exact name of registrant as specified in its charter) Utah 13-2626465 (State or other jurisdiction of incorporation or organization) (I.R.S. Employer Identification No.) 1400 Douglas Street, Omaha, Nebraska 68179 (Address of principal executive offices) (Zip Code) Registrant's telephone number, including area code: (402) 544-5000 Securities registered pursuant to Section 12(b) of the Act: Title of each Class Trading Symbol Name of each exchange on which registered Common Stock (Par Value \$2.50 per share) **New York Stock Exchange** UNP Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. ☑Yes □ No Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Act. ☐Yes ☑ No Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. ✓Yes □ No. Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). ☑Yes □ No Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act. Large Accelerated Filer Accelerated Filer Non-Accelerated Filer \checkmark П Smaller Reporting Company **Emerging Growth Company** If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. 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. V 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 incentivebased 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 As of June 30, 2023, the aggregate market value of the registrant's Common Stock held by non-affiliates (using the New York

The number of shares outstanding of the registrant's Common Stock as of February 2, 2024, was 609,777,914.

Stock Exchange closing price) was \$123.0 billion.

Documents Incorporated by Reference – Portions of the registrant's definitive Proxy Statement for the Annual Meeting of Shareholders to be held on May 9, 2024, are incorporated by reference into Part III of this report. The registrant's Proxy Statement will be filed with the Securities and Exchange Commission (SEC) within 120 days after the end of the fiscal year that this report relates pursuant to Regulation 14A.

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Fellow Shareholders:

As Union Pacific shareholders, we own a piece of history. Over the course of 161 years, our Company is built to handle inevitable changes and challenges of business cycles while seeking ways to innovate and grow. 2023 was no different.

This year, I assumed the role of Chief Executive Officer, and Lance Fritz retired after a distinguished career. At that time, we also split the roles of Chairman and CEO and Mike McCarthy, was named Chairman of the Board of Directors. The transition was seamless, a credit to the Board, Lance, and the management team.

Since becoming CEO, I have focused the team on a multi-year strategy of "Safety + Service & Operational Excellence = Growth." Safety must always be our first area of focus, returning everyone home safely each day. Service is all about delivering what we sold our customers, committing to what we can do and doing it with excellence. Operational Excellence is about operating efficiently and productively while maintaining a buffer to handle ups and downs of railroading.

In the second half of 2023, we achieved great momentum as the team united to deliver a shared strategy. Our fourth quarter operating metrics were the best of the year. We exited the year with a stronger service product and fluid network. Our Fourth Quarter financial results also demonstrated momentum as we achieved sequential quarterly margin improvement. For 2023, we reported earnings per diluted share of \$10.45, a 7% decrease versus 2022, reflecting 1% lower volumes and an operating ratio increase of 220 basis points. To support our service product and growth, we invested \$3.7 billion back into our network. Soft consumer markets, continued inflationary pressures, and new labor agreements all impacted financial results.

As we turn the page to 2024, we are looking at the opportunities ahead. The entire Union Pacific team is focused on being the industry's best in safety, service, and operational excellence. That strategy leads to long-term growth and provides you with industry-leading returns on your investment. It's how we win.

We understand that we hold the keys to an iconic company that helped Build America. We are propelled by that history and recognize we have an important responsibility to deliver for our stakeholders. We are grateful for this opportunity and thank you for your ownership of Union Pacific

Chief Executive Officer

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DIRECTORS AND SENIOR MANAGEMENT

BOARD OF DIRECTORS

William J. DeLaney

Former Chief Executive Officer -Sysco Corporation Board Committees: Compensation and Benefits (Chair); Safety and Service Quality

David B. Dillon

Former Chairman and CEO - The Kroger Company Board Committees: Audit (Chair); Corporate Governance, Nominating, and Sustainability

Sheri H. Edison

Former Executive Vice President and General Counsel - Amcor plc Board Committees: Compensation and Benefits; Corporate Governance, Nominating, and Sustainability (Chair)

Teresa M. Finley

Former Chief Marketing and Business Services Officer - United Parcel Service, Inc. Board Committees: Audit; Finance

Deborah C. Hopkins

Former Chief Executive Officer - Citi Ventures and Former Chief Innovation Officer - Citi Board Committees: Compensation and Benefits; Finance (Chair)

Jane H. Lute

Strategic Advisor - SICPA, North America Board Committees: Audit; Safety and Service Quality (Chair)

Michael R. McCarthy

Chairman - Union Pacific Corporation and Union Pacific Railroad Company; Chairman - McCarthy Group, LLC; and Co-Chairman -Bridges Trust Company Board Committees: Corporate Governance, Nominating, and Sustainability; Finance

Doyle R. Simons

Former President and CEO -Weyerhaeuser Company Board Committees: Compensation and Benefits; Safety and Service Quality

John K. Tien, Jr.

Former Deputy Secretary - U.S. Department of Homeland Security Board Committees: Pending Assignment

V. James Vena

Chief Executive Officer - Union Pacific Corporation and Union Pacific Railroad Company

John P. Wiehoff

Former Chairman, President, and CEO - C.H. Robinson Worldwide, Inc.

Board Committees: Audit; Safety and Service Quality

Christopher J. Williams

Chairman - Siebert Williams Shank & Co.

Board Committees: Audit; Finance

SENIOR MANAGEMENT

V. James Vena

Chief Executive Officer

Prentiss W. Bolin, Jr.

Vice President - External Relations

Bryan L. Clark

Vice President - Tax

Eric J. Gehringer*

Executive Vice President - Operations

Rebecca B. Gregory*

Vice President and Chief of Staff

*For Union Pacific Railroad Company only.

Jennifer L. Hamann

Executive Vice President and Chief Financial Officer

Rahul Jalali

Executive Vice President and Chief Information Officer

Michael V. Miller

Vice President and Treasurer

Craig V. Richardson

Executive Vice President, Chief Legal Officer, and Corporate Secretary

Kenny G. Rocker*

Executive Vice President - Marketing and Sales

Todd M. Rynaski

Senior Vice President and Chief Accounting, Risk, and Compliance Officer

Elizabeth F. Whited

President

PARTI

Item 1. Business

GENERAL

Union Pacific Railroad Company is the principal operating company of Union Pacific Corporation. One of America's most recognized companies, Union Pacific Railroad Company connects 23 states in the western two-thirds of the country by rail, providing a critical link in the global supply chain. The Railroad's diversified business mix includes Bulk, Industrial, and Premium. Union Pacific serves many of the fastest-growing U.S. population centers, operates from all major West Coast and Gulf Coast ports to Eastern gateways, connects with Canada's rail systems, and is the only railroad serving all six major Mexico gateways. Union Pacific provides value to its roughly 10,000 customers by delivering products in a safe, reliable, fuel-efficient, and environmentally responsible manner.

Union Pacific Corporation was incorporated in Utah in 1969 and maintains its principal executive offices at 1400 Douglas Street, Omaha, NE 68179. The telephone number at that address is (402) 544-5000. The common stock of Union Pacific Corporation is listed on the New York Stock Exchange (NYSE) under the symbol "UNP".

For purposes of this report, unless the context otherwise requires, all references herein to "Union Pacific", "UPC", "Corporation", "Company", "we", "us", and "our" shall mean Union Pacific Corporation and its subsidiaries, including Union Pacific Railroad Company, which we separately refer to as "UPRR" or the "Railroad".

STRATEGY

Safety, Service, and Operational Excellence supports the Company's long term initiative to Grow its freight volumes (Safety + Service & Operational Excellence = Growth). Together as a team, the Company will focus on achieving the best safety record in the industry, being known for superior service, grounded in operational excellence which, in turn, drives growth.

Safety is paramount and, as our first area of focus, sets the foundation for achieving the Company's objectives. The mindset and culture are built around a personal commitment by all employees to prioritize safety so everyone goes home safely.

Service is all about delivering what we sold our customers. We work with our customers to understand the service they need to win in their markets and then drive how we win together. We commit to these service levels and do it with excellence.

Operational Excellence is about operating efficiently and productively. We will drive value with our available resources, but also maintain a buffer so our service is resilient, managing the inevitable ups and downs that come with weather, fluctuating volumes, and securing growth.

Execution of our strategy to be the industry leader in both safety and service leads to revenue growth with improved margins and greater cash generation, creating long term enterprise value. The result will be strong financial performance driving significant shareholder returns.

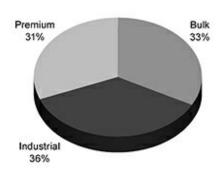
As we work to transform our railroad, our core values continue to guide us. Our passion for performance will help us win; our high ethical standards ensure we win in a way that supports all of our stakeholders; and our teamwork ensures we win together.

OPERATIONS

The Railroad, along with its subsidiaries and rail affiliates, is our one reportable operating segment. Although we provide and analyze revenues by commodity group, we treat the financial results of the Railroad as one segment due to the integrated nature of our rail network. Additional information regarding our business and operations, including revenues, financial information and data, and other information regarding environmental matters, is presented in Risk Factors, Item 1A; Legal Proceedings, Item 3; Management's Discussion and Analysis of Financial Condition and Results of Operations, Item 7; and the Financial Statements and Supplementary Data, Item 8.

Operations – UPRR is a Class I railroad operating in the U.S. We have 32,693 route miles, connecting Pacific Coast and Gulf Coast ports with the Midwest and Eastern U.S. gateways and providing several corridors to key Mexican and Canadian gateways. We serve the western two-thirds of the country and maintain coordinated schedules with other rail carriers to move freight to and from the Atlantic Coast, the Pacific Coast, the Southeast, the Southwest, Canada, and Mexico. Export and import traffic moves through Gulf Coast, Pacific Coast, and East Coast ports and across the Mexican and Canadian borders. In 2023, we generated freight revenues totaling \$22.6 billion from the following three commodity groups:

2023 Freight Revenues



Bulk – The Company's Bulk shipments consist of grain and grain products, fertilizer, food and refrigerated, and coal and renewables. In 2023, this group generated 33% of our freight revenues. We access most major grain markets, connecting the Midwest and Western U.S. producing areas to export terminals in the Pacific Northwest and Gulf Coast ports as well as Mexico. We also serve significant domestic markets, including grain processors, animal feeders, ethanol, and renewable biofuel producers in the Midwest and West. Fertilizer movements originate in the Gulf Coast region, Midwest, Western U.S., and Canada (through interline access) for delivery to major agricultural users in those areas as well as abroad. The Railroad's network supports the transportation of coal shipments to independent and regulated power companies and industrial facilities throughout the U.S. Through interchange gateways and ports, UPRR's reach extends to Eastern U.S. utilities as well as to Mexico and other international destinations. Coal traffic originating in the Powder River Basin (PRB) area of Wyoming is the largest portion of the Railroad's coal business. Renewable shipments for customers committed to sustainability consist primarily of biomass exports and wind turbine components.

Industrial – Our extensive network facilitates the movement of numerous commodities between thousands of origin and destination points throughout North America. The Industrial group consists of several categories, including construction, industrial chemicals, plastics, forest products, specialized products (primarily waste, salt, and roofing), metals and ores, petroleum, liquid petroleum gases (LPG), soda ash, and sand. Transportation of these products accounted for 36% of our freight revenues in 2023. Commercial, residential, and governmental infrastructure investments drive shipments of steel, aggregates, cement, and wood products. Industrial and light manufacturing plants receive steel, nonferrous materials, minerals, and other raw materials.

The industrial chemicals market consists of a vast number of chemical compounds that support the manufacturing of more complex chemicals. Plastics shipments support automotive, housing, and the durable and disposable consumer goods markets. Forest product shipments include lumber and paper commodities. Lumber shipments originate primarily in the Pacific Northwest or Western Canada and move throughout the U.S. for use in new home construction and repairs and remodeling. Paper shipments primarily support packaging needs. Oil and gas drilling generates demand for raw steel, finished pipe, stone, and drilling fluid commodities. The Company's petroleum and LPG shipments are primarily impacted by refinery utilization rates, regional crude pricing differentials, pipeline capacity, and the use of asphalt for road programs. Soda ash originates in southwestern Wyoming and California, destined for chemical and glass producing markets in North America and abroad.

Premium – In 2023, Premium shipments generated 31% of Union Pacific's total freight revenues. Premium includes finished automobiles, automotive parts, and merchandise in intermodal containers, both domestic and international. International business consists of import and export traffic moving in 20 or 40-foot shipping containers, that mainly pass through West Coast ports, destined for one of the Company's many inland intermodal terminals. Domestic business includes container and trailer traffic picked up and delivered within North America for intermodal marketing companies (primarily shipper agents and logistics companies) as well as truckload carriers.

We are the largest automotive carrier west of the Mississippi River and operate or access 39 vehicle distribution centers. The Railroad's extensive franchise accesses six vehicle assembly plants and connects to West Coast ports, all six major Mexico gateways, and the Port of Houston to accommodate both import and export shipments. In addition to transporting finished vehicles, the Company provides expedited handling of automotive parts in both boxcars and intermodal containers destined for Mexico, the U.S., and Canada.

Seasonality – Some of the commodities we carry have peak shipping seasons, reflecting either or both the nature of the commodity (such as certain agricultural and food products that have specific growing and harvesting seasons) and the demand cycle for the commodity (such as intermodal traffic that generally peaks during the third quarter to meet back-to-school and holiday-related demand for consumer goods during the fourth quarter). The peak shipping seasons for these commodities can vary considerably each year depending upon various factors, including the strength of domestic and international economies and currencies; consumer demand; the strength of harvests, which can be adversely affected by severe weather; market prices for agricultural products; and supply chain disruptions.

Proud & Engaged Workforce – Our employees are central to our Safety + Service & Operational Excellence = Growth strategy, and investing in our workforce is key to our success.

<u>Our People:</u> Our award-winning, multigenerational workforce includes talented people from all walks of life, in many stages of life. Made up of management and craft professionals, we are focused on attracting, retaining, and developing talent across our entire system.

As of December 31, 2023, the Company employed 32,973 employees. Our workforce includes five generations from Traditionalists (born before 1946) to Generation Z (born after 1998). The average age is 46.6 with average tenure of 15.9 years.

Union Pacific works with 13 major rail unions, representing approximately 85% of our workforce. The National Carriers Conference Committee of the National Railway Labor Conference, consisting of the top labor officers in most Class I railroads, is the bargaining committee for the industry. Railroads are governed by the Railway Labor Act (RLA), a federal statute enacted in 1926 to bring the railroads and unions to agreement without disruptions to rail transportation. The RLA includes numerous safeguards to help overcome bargaining stalemates. The next round of negotiations begins on January 1, 2025, related to years 2025-2029.

<u>Our Culture:</u> We incorporate our commitment to safety, diversity and inclusion, high ethical standards, passion for performance, and teamwork into our day-to-day operations as we serve our customers.

Safety is central to everything we do at Union Pacific. Together, we are committed to cultivating a safety-focused culture, so our employees return home safely every day. To achieve this, our employees identify risks, initiate action to mitigate those risks, and have the courage to care to keep each other safe.

Our success is measured by our personal injury rate (the number of reportable injuries for every 200,000 employee-hours worked) and our derailment incident rate (the number of reportable derailment incidents per million train miles). Reportable personal injuries are defined as on duty incidents or occupational illnesses that result in employees losing time away from work, modifying or restricting their normal duties, or receiving any medical treatment above and beyond first aid. Reportable derailment incidents are defined as any occurrence where a wheel of a locomotive or rail car falls off the track and causes damage to track, equipment, or structures above the Federal Railroad Administration (FRA) reporting threshold, regardless of ownership (\$11,500 for 2023 and \$12,000 for 2024) per million train miles. Personal injuries and derailment incidents that meet reportable criteria are reported to the FRA.

Our 2023 personal injury rate of 1.17 deteriorated 4%, while our derailment incident rate of 2.72 improved 6% versus 2022. (See further discussion in Management's Discussion and Analysis of Financial Condition and Results of Operations, Item 7, of this report.)

<u>Diversity, Equity, and Inclusion</u>: Union Pacific's commitment to diversity and inclusion is based on our desire to create an environment where people can be their best, personally and professionally. We believe that a diverse and supportive culture increases employee engagement, improves morale, and allows qualified employees to succeed and contribute to Union Pacific's success. All of this supports our safety strategy and improves the quality of decision-making, problem-solving, and strategic thinking.

Union Pacific's commitment, today and for the future, is to further improve and strengthen performance through an inclusive workforce that reflects the diverse markets and communities we serve, where everyone is treated fairly, differences are valued, and talent is recognized and rewarded. To that end, Union Pacific intends to maintain its standards of hiring and promoting based on merit, while aspiring to reach 40% people of color and double our female representation to 11% in our workforce by 2030. As of December 31, 2023, workforce representation of people of color and females was approximately 33.8% and 5.5%, respectively.

<u>The Employee Journey:</u> From recruitment to retirement and milestones in between, we are relentlessly focused on supporting and engaging employees throughout their Union Pacific journey. We view it as imperative to invest in our employees with meaningful benefit offerings, developmental experiences, and career opportunities.

The process begins with recruitment, where we strive to attract the most talented and diverse employees to join our team. Then, we focus on training and development, which includes courses and programs designed to help our employees grow into new roles and/or learn a new skill in their current role so that we can retain our workforce over time.

Providing competitive compensation and meaningful benefits is key to attracting and retaining talented employees. Union Pacific is committed to continuously reviewing its compensation programs and comprehensive benefits programs to promote programs that are fair and competitive. Both are key to enhancing the value of working for Union Pacific and demonstrating the Company's commitment to the health and wealth of employees during their career. Benefits vary based on the applicable collective bargaining agreement or an employee's management status. The final stage of the employee journey is a fulfilling retirement, which is enabled during their UP career through our compensation and benefit programs, particularly contributions to 401(k) plans and the employee stock purchase plan (ESPP).

Our Board of Directors evaluates our non-union compensation plans and reviews recommendations from the Compensation and Benefits Committee, while collective bargaining agreements govern compensation for our union employees. The median annual compensation for all employees employed as of December 31, 2023, was \$108,244 (excluding the CEO).

Talent is critical - our ability to recruit and retain employees is directly tied to our railroad's fluidity. Without team members to dispatch, operate trains, and maintain our infrastructure, our network struggles to provide customers efficient, reliable service. We are focused on effectively managing workforce levels to the demands of the business and improving quality of life for our employees. Therefore, we continue to hire to backfill attrition and handle growth as needed.

Railroad Security – Our security efforts consist of a wide variety of measures, including employee training, engagement with our customers, training of emergency responders, and partnerships with numerous federal, state, and local government agencies. While federal law requires us to protect the confidentiality of our security plans designed to safeguard against terrorism and other security incidents, the following provides a general overview of our security initiatives.

UPRR Security Measures – We maintain a comprehensive security plan designed to both deter and respond to any potential or actual threats as they arise. The plan includes four levels of alert status, each with its own set of countermeasures. We employ our own police force, consisting of commissioned and highly-trained officers. The police are certified state law enforcement officers with investigative and arrest powers. The Union Pacific Police Department has achieved accreditation under the Commission on Accreditation for Law Enforcement Agencies, Inc. (CALEA) for complying with the highest law enforcement standards. Our employees undergo recurrent security and preparedness training as well as federally mandated hazardous materials and security training. We regularly review the sufficiency of our employee training programs. We maintain the capability to move critical operations to back-up facilities in different locations.

We operate an emergency response management center 24 hours a day. The center receives reports of emergencies, dangerous or potentially dangerous conditions, and other safety and security issues from our employees, the public, law enforcement, and other government officials. In cooperation with government officials, we monitor both threats and public events, and, as necessary, we may alter rail traffic flow at times of concern to minimize risk to communities and our operations. We comply with the hazardous materials routing rules and other requirements imposed by federal law. We design our operating plan to expedite the movement of hazardous material shipments to minimize the time rail cars remain idle at yards and terminals located in or near major population centers. Additionally, in compliance with Transportation Security Administration (TSA) regulations, we deployed information systems and instructed employees in tracking and documenting the handoff of Rail Security Sensitive Materials with customers and interchange partners.

We established a number of our own innovative safety and security-oriented initiatives ranging from various investments in technology to The Officer on Train program, which provides local law enforcement officers with the opportunity to ride with train crews to enhance their understanding of railroad operations and risks. Our staff of information security professionals continually assess cybersecurity risks and implement mitigation programs that evolve with the changing technology threat environment. To date, we have not experienced any material disruption of our operations due to a cyber threat or incident directed at us.

Cooperation with Federal, State, and Local Government Agencies – We work closely on physical and cybersecurity initiatives with government agencies, including the U.S. Department of Transportation (DOT); the Federal Bureau of Investigation (FBI); the Department of Homeland Security (DHS), along with its Cybersecurity and Infrastructure Security Agency (CISA) and the TSA; as well as local police departments, fire departments, and other first responders.

Based on guidance from the TSA, starting from January 1, 2022, we were obligated to report cyber incidents to CISA. Additionally, we appointed cybersecurity coordinators, conducted a self-assessment of our cyber vulnerabilities, and put in place a plan to respond to cyber incidents. We are currently awaiting approval of our security plan before progressing with the establishment of a cybersecurity assessment plan, which will describe how the Company proactively and regularly evaluates the effectiveness of our cybersecurity measures as well as identify and address any weaknesses in our devices, networks, and systems.

In conjunction with the Association of American Railroads (AAR), we sponsor Ask Rail, a mobile application that provides first responders with secure links to electronic information, including commodity and emergency response information required by emergency personnel to respond to accidents and other situations. We also participate in the National Joint Terrorism Task Force, a multi-agency effort established by the U.S. Department of Justice and the Federal Bureau of Investigation to combat and prevent terrorism.

We work with the Coast Guard, U.S. Customs and Border Protection (CBP), and the Military Transport Management Command, which monitor shipments entering the UPRR rail network at U.S. border crossings and ports. We were the first railroad in the U.S. to be named a partner in CBP's Customs-Trade Partnership Against Terrorism, a partnership designed to develop, enhance, and maintain effective security processes throughout the global supply chain.

Cooperation with Customers and Trade Associations – Through TransCAER (Transportation Community Awareness and Emergency Response), we work with the AAR, the American Chemistry Council, the American Petroleum Institute, and other chemical trade groups to provide communities with preparedness tools, including the training of emergency responders. In cooperation with the FRA and other interested groups, we are also working to develop additional improvements to tank car design that will further limit the risk of releases of hazardous materials.

Sustainable Future – Union Pacific believes it is important that we act as environmental stewards, reducing greenhouse gas (GHG) emissions and supporting the transition to a more sustainable future. While we work to further reduce our environmental footprint, it is important to note that railroads already are one of the most fuel-efficient means of transportation. Freight rail leads other forms of surface transportation when it comes to minimizing GHG emissions, and we expect rail will continue to play a critical role in mitigating and abating the impacts of climate change. According to the AAR, moving freight by rail instead of truck reduces GHG emissions by up to 75%. Therefore, converting freight transportation from truck to rail typically results in an immediate reduction in our customers' scope 3 GHG emissions.

Competition – see "We Face Competition from Other Railroads and Other Transportation Providers" in the Risk Factors in Item 1A of this report.

Key Suppliers – see "We Are Dependent on Certain Key Suppliers of Locomotives and Rail" in the Risk Factors in Item 1A of this report.

Available Information – Our Internet website is www.up.com. We make available free of charge on our website (under the "Investors" caption link) our Annual Reports on Form 10-K; our Quarterly Reports on Form 10-Q; our current reports on Form 8-K; our proxy statements; Forms 3, 4, and 5, filed on behalf of our directors and certain executive officers; and amendments to such reports filed or furnished pursuant to the Securities Exchange Act of 1934, as amended (the Exchange Act). We provide these reports and statements as soon as reasonably practicable after such material is electronically filed with, or furnished to, the SEC. We also make available on our website previously filed SEC reports and exhibits via a link to EDGAR on the SEC's Internet site at www.sec.gov. Additionally, our corporate governance materials, including By-Laws, Board Committee charters, governance guidelines and policies, and codes of conduct and ethics for directors, officers, and employees are available on our website. From time to time, the corporate governance materials on our website may be updated as necessary to comply with rules issued by the SEC and the NYSE or as desirable to promote the effective and efficient governance of our Company. Any security holder wishing to receive, without charge, a copy of any of our SEC filings or corporate governance materials should send a written request to: Secretary, Union Pacific Corporation, 1400 Douglas Street, Omaha, NE 68179.

References to our website address, in this report, including references in Management's Discussion and Analysis of Financial Condition and Results of Operations, Item 7, are provided as a convenience and do not constitute, and should not be deemed, an incorporation by reference of the information contained on, or available through, the website. Therefore, such information should not be considered part of this report.

GOVERNMENTAL AND ENVIRONMENTAL REGULATION

Governmental Regulation – Our operations are subject to a variety of federal, state, and local regulations, generally applicable to all businesses. (See also the discussion of certain regulatory proceedings in Legal Proceedings, Item 3.)

The operations of the Railroad are subject to the regulations of the FRA and other federal and state agencies as well as the regulatory jurisdiction of the Surface Transportation Board (STB). The STB has jurisdiction over rates charged on certain regulated rail traffic; common carrier service of regulated traffic; freight car compensation; transfer, extension, or abandonment of rail lines; and acquisition of control of rail common carriers. The STB continues its efforts to explore expanding rail regulation and is reviewing proposed rulemaking in various areas, including reciprocal switching and commodity exemptions, and has finalized rules creating new procedures for smaller rate complaints that are being reviewed in appellate courts. The STB also continues to explore changes to the methodology for determining railroad revenue adequacy, the possible uses of revenue adequacy in regulating railroad rates, and ways to regulate service, including by use of emergency service orders. The STB posts quarterly reports on rate reasonableness cases, maintains a database on service complaints, and has the authority to initiate investigations, among other things.

DOT, the Occupational Safety and Health Administration, the Pipeline and Hazardous Materials Safety Administration, and DHS, along with other federal agencies, have jurisdiction over certain aspects of safety, movement of hazardous materials and hazardous waste, emissions requirements, and equipment standards. Additionally, various state and local agencies have jurisdiction over disposal of hazardous waste and seek to regulate movement of hazardous materials in ways not preempted by federal law.

Environmental Regulation – We are subject to extensive federal and state environmental statutes and regulations pertaining to public health and the environment. The statutes and regulations are administered and monitored by the Environmental Protection Agency (EPA) and by various state environmental agencies, such as the California Air Resources Board (CARB) and the Texas Commission on Environmental Quality (TCEQ), among others. The primary laws affecting our operations are the Resource Conservation and Recovery Act, regulating the management and disposal of solid and hazardous wastes; the Comprehensive Environmental Response, Compensation, and Liability Act, regulating the cleanup of contaminated properties; the Clean Air Act, regulating air emissions; and the Clean Water Act, regulating wastewater discharges.

Information concerning environmental claims and contingencies and estimated remediation costs is set forth in Management's Discussion and Analysis of Financial Condition and Results of Operations - Critical Accounting Estimates - Environmental, Item 7, and Note 17 to the Financial Statements and Supplementary Data, Item 8.

Item 1A. Risk Factors

The following discussion addresses significant factors, events, and uncertainties that make an investment in our securities risky and provides important information for the understanding of our "forward-looking statements," which are discussed immediately preceding Item 7A of this Form 10-K and elsewhere. The risk factors set forth in this Item 1A should be read in conjunction with the rest of the information included in this report, including Management's Discussion and Analysis of Financial Condition and Results of Operations, Item 7, and Financial Statements and Supplementary Data, Item 8.

We urge you to consider carefully the factors described below and the risks that they present for our operations as well as the risks addressed in other reports and materials that we file with the SEC and the other information included or incorporated by reference in this Form 10-K. When the factors, events, and contingencies described below or elsewhere in this Form 10-K materialize, our business, reputation, financial condition, results of operations, cash flows, or prospects can be materially adversely affected. In such case, the trading price of our common stock could decline and you could lose part or all of your investment. Additional risks and uncertainties not currently known to us or that we currently deem immaterial may also materially adversely affect our business, reputation, financial condition, results of operations, cash flows, and prospects.

Strategic and Operational Risks

We Must Manage Fluctuating Demand for Our Services and Network Capacity - Significant reductions in demand for rail services with respect to one or more commodities or changes in consumer preferences that affect the businesses of our customers can lead to increased costs associated with resizing our operations, including higher unit operating costs and costs for the storage of locomotives, rail cars, and other equipment; workforce adjustments; and other related activities, which could have a material adverse effect on our results of operations, financial condition, and liquidity. If there is significant demand for our services that exceeds the designed capacity of our network or shifts in traffic flow that are contrary to the designed capacity of our network, we may experience network difficulties, including congestion and reduced velocity, that could compromise the level of service we provide to our customers. This level of demand also may compound the impact of weather and weather-related events on our operations and velocity. Although we continue to work to improve our transportation plan, add capacity, improve operations at our yards and other facilities, and improve our ability to address surges in demand for any reason by carrying a resource buffer, we cannot be sure that these measures will fully or adequately address any service shortcomings resulting from demand exceeding our planned capacity. We may experience other operational or service difficulties related to network capacity, dramatic and unplanned fluctuations in our customers' demand for rail service with respect to one or more commodities or operating regions, or other events that could negatively impact our operational efficiency, which could all have a material adverse effect on our results of operations, financial condition, and liquidity.

We Transport Hazardous Materials – We transport certain hazardous materials and other materials, including crude oil, ethanol, and toxic inhalation hazard (TIH) materials, such as chlorine, that pose certain risks in the event of a release or combustion. Additionally, U.S. laws impose common carrier obligations on railroads that require us to transport certain hazardous materials regardless of risk or potential exposure to loss. A rail accident or other incident or accident on our network, at our facilities, or at the facilities of our customers involving the release or combustion of hazardous materials could involve significant costs and claims for personal injury, property damage, and environmental penalties and remediation in excess of our insurance coverage for these risks, which could have a material adverse effect on our results of operations, financial condition, and liquidity.

We Rely on Technology and Technology Improvements in Our Business Operations – We rely on information technology in all aspects of our business, including technology systems operated by us or under control of third-parties. If we do not have sufficient capital or do not deploy sufficient capital in a timely manner to acquire, develop, or implement new technology or maintain or upgrade current systems, such as Positive Train Control (PTC) or the latest version of our transportation control systems, we may suffer a rail service outage or competitive disadvantage within the rail industry and with companies providing other modes of transportation service, which could have a material adverse effect on our results of operations, financial condition, and liquidity.

We Are Subject to Cybersecurity Risks – We rely on information technology in all aspects of our business, including technology systems operated by us (whether created by us or purchased), under control of third-parties, and open-source software. Although we devote significant resources to protect our technology systems and proprietary data, we have experienced and will likely continue to experience varying degrees of cyber incidents in the normal course of business. There can be no assurance that the systems we have designed to identify, prevent, or limit the effects of cyber incidents will be sufficient to prevent or detect such incidents, or to avoid a material adverse impact on our systems after such incidents do occur. Furthermore, due to the rising numbers and increasing sophistication of cyber-attacks, an increasingly complex information technology supply chain, and the nature of zero-day exploits, we may be unable to anticipate or implement adequate measures to prevent a security breach, including by ransomware or as a result of human error or other cyber-attack methods, from materially affecting our systems or the systems of third-parties upon which we rely. A cyber incident that results in significant service interruption; safety failure; other operational difficulties; unauthorized access to (or the loss of access to) competitively sensitive, confidential, or other critical data or systems; loss of customers; financial losses; regulatory fines; reputational harm; or misuse or corruption of critical data and proprietary information, could have a material adverse impact on our results of operations, financial condition, and liquidity. We may experience security breaches that could remain undetected for an extended period and, therefore, have a greater impact on us. Additionally, we may be exposed to increased cybersecurity risk because we are a component of the critical U.S. infrastructure.

Severe Weather Could Result in Significant Business Interruptions and Expenditures – As a railroad with a vast network, we are exposed to severe weather conditions and other natural phenomena, including earthquakes, hurricanes, fires, floods, mudslides or landslides, extreme temperatures, avalanches, and significant precipitation, and climate change may cause or contribute to the severity or frequency of such weather conditions. Line outages and other interruptions caused by these conditions has in the past and can in the future adversely affect parts or all of our entire rail network, potentially negatively affecting revenues, costs, and liabilities, despite efforts we undertake to plan for these events. Our revenues can also be adversely affected by severe weather that causes damage and disruptions to our customers. These impacts caused by severe weather could have a material adverse effect on our results of operations, financial condition, and liquidity.

A Significant Portion of Our Revenues Involves Transportation of Commodities to and from International Markets – Although revenues from our operations are attributable to transportation services provided in the U.S., a significant portion of our revenues involves the transportation of commodities to and from international markets, including Mexico, Canada, and Southeast Asia, by various carriers and, at times, various modes of transportation. Significant and sustained interruptions of trade with Mexico, Canada, or countries in Southeast Asia, including China, could adversely affect customers and other entities that, directly or indirectly, purchase or rely on rail transportation services in the U.S. as part of their operations, and any such interruptions, including international armed conflicts such as the Russia-Ukraine and Israel-Hamas wars, could have a material adverse effect on our results of operations, financial condition, and liquidity. Any one or more of the following could cause a significant and sustained interruption of trade with Mexico, Canada, or countries in Southeast Asia: (a) a deterioration of security for international trade and businesses; (b) the adverse impact of new laws, rules, and regulations or the interpretation of laws, rules, and regulations by government entities, courts, or regulatory bodies, including the United States-Mexico-Canada Agreement (USMCA) or other international trade agreements; (c) actions of taxing authorities that affect our customers doing business in foreign countries; (d) any significant adverse economic developments, such as extended periods of high inflation, material disruptions in the banking sector or in the capital markets of these foreign countries, and significant changes in the valuation of the currencies of these foreign countries that could materially affect the cost or value of imports or exports; (e) shifts in patterns of international trade that adversely affect import and export markets; (f) a material reduction in foreign direct investment in these countries; and (g) public health crises, including the outbreak of pandemic or contagious disease, such as the coronavirus and its variant strains (COVID).

We Are Dependent on Certain Key Suppliers of Locomotives and Rail – Due to the capital-intensive nature and sophistication of locomotive equipment, parts, and maintenance, potential new suppliers face high barriers to entry. Therefore, if one of the domestic suppliers of locomotives discontinues manufacturing locomotives, supplying parts, or providing maintenance for any reason, including bankruptcy or insolvency or the inability to manufacture locomotives that meet efficiency or regulatory emissions standards, we could experience significant cost increases and reduced availability of the locomotives that are necessary for our operations. Additionally, we utilize a limited number of steel producers that meet our specifications. Rail is critical to our operations for rail replacement programs, maintenance, and for adding additional network capacity, new rail and storage yards, and expansions of existing facilities. This industry similarly has high barriers to entry, and if one of these suppliers discontinues operations for any reason, including bankruptcy or insolvency, we could experience both significant cost increases for rail purchases and difficulty obtaining sufficient rail for maintenance and other projects. Changes to trade agreements or policies that result in increased tariffs on goods imported into the United States could also result in significant cost increases for rail purchases and difficulty obtaining sufficient rail.

Workforce Risks

Strikes or Work Stoppages Could Adversely Affect Our Operations – The U.S. Class I railroads are party to collective bargaining agreements with various labor unions. The majority of our employees belong to labor unions and are subject to these agreements. Disputes over the terms of these agreements or our potential inability to negotiate acceptable contracts with these unions can lead to, among other things, strikes, work stoppages, slowdowns, or lockouts, which could cause a significant disruption of our operations and have a material adverse effect on our results of operations, financial condition, and liquidity. Additionally, future national labor agreements, or renegotiation of labor agreements or provisions of labor agreements, could compromise our service reliability or significantly increase our costs for health care, wages, and other benefits, which could have a material adverse impact on our results of operations, financial condition, and liquidity. Labor disputes, work stoppages, slowdowns, or lockouts at loading/unloading facilities, ports, or other transport access points could compromise our service reliability and have a material adverse impact on our results of operations, financial condition, and liquidity. Labor disputes, work stoppages, slowdowns, or lockouts by employees of our customers or our suppliers could compromise our service reliability and have a material adverse impact on our results of operations, financial condition, and liquidity.

The Availability of Qualified Personnel Could Adversely Affect Our Operations – Changes in demographics, training requirements, and pandemic illnesses or restrictions could negatively affect the availability of qualified personnel for us, our customers, and throughout the supply chain. Our ability to quickly react to other factors that affect our ability to attract and retain employees may be restricted due to limited flexibility to make unilateral changes to collective bargaining agreements, which cover the majority of our workforce. Unpredictable increases in demand for rail services and a lack of network fluidity may exacerbate our risks, which could have a negative impact on our operational efficiency and otherwise have a material adverse effect on our results of operations, financial condition, and liquidity.

Legal and Regulatory Risks

We Are Subject to Significant Governmental Regulation – We are subject to governmental regulation by a significant number of federal, state, and local authorities covering a variety of health, safety, labor, environmental, economic (as discussed below), tax, and other matters. Many laws and regulations require us to obtain and maintain various licenses, permits, and other authorizations, and we cannot guarantee that we will continue to be able to do so. Our failure to comply with applicable laws and regulations could have a material adverse effect on us. Governments or regulators may change the legislative or regulatory frameworks that we operate in without providing us any recourse to address any adverse effects on our business, including, without limitation, regulatory determinations or rules regarding dispute resolution, increasing the amount of our traffic subject to common carrier regulation, business relationships with other railroads, use of embargoes, calculation of our cost of capital or other inputs relevant to computing our revenue adequacy, the prices we charge, changes in tax rates, enactment of new tax laws, and revision in tax regulations. Significant legislative activity in Congress or regulatory activity by the STB could expand regulation of railroad operations and pricing for rail services, which could reduce capital spending on our rail network, facilities, and equipment, and have a material adverse effect on our results of operations, financial condition, and liquidity.

We May Be Subject to Various Claims and Lawsuits That Could Result in Significant Expenditures – As a railroad with operations in densely populated urban areas and a vast rail network, we are exposed to the potential for various claims and litigation related to labor and employment, personal injury, property damage, environmental liability, and other matters. Any material changes to litigation trends or a catastrophic rail accident or series of accidents involving any or all of property damage, personal injury, and environmental liability that exceed our insurance coverage for such risks could have a material adverse effect on our results of operations, financial condition, and liquidity. In addition, some of these matters could impact the cost of obtaining, or availability in general, of insurance coverage meant to cover these types of risks.

We Are Subject to Significant Environmental Laws and Regulations – Due to the nature of the railroad business, our operations are subject to extensive federal, state, and local environmental laws and regulations concerning, among other things, emissions to the air; discharges to waters; handling, storage, transportation, and disposal of waste and other materials; and hazardous material or petroleum releases. We generate and transport hazardous and non-hazardous waste in our operations. Environmental liability can extend to previously owned or operated properties, leased properties, properties owned by third-parties, as well as properties we currently own. Environmental liabilities have arisen and may also arise from claims asserted by adjacent landowners or other third-parties in toxic tort litigation. We have been and may be subject to allegations or findings that we have violated, or are strictly liable under, these laws or regulations. We currently have certain obligations at existing sites for investigation, remediation, and monitoring, and we likely will have obligations at other sites in the future. We maintain adequate reserves for liabilities for these obligations, but fluctuations of potential costs affect our estimates based on our experience and, as necessary, the advice and assistance of our consultants. However, actual costs may vary from our estimates due to any or all of several factors, including changes to environmental laws or interpretations of such laws, technological changes affecting investigations and remediation, the participation and financial viability of other parties responsible for any such liability, and the corrective action or change to corrective actions required to remediate any existing or future sites. We could incur significant costs as a result of any of the foregoing, and we may be required to incur significant expenses to investigate and remediate known, unknown, or future environmental contamination, which could have a material adverse effect on our results of operations, financial condition, and liquidity.

Macroeconomic and Industry Risks

We Face Competition from Other Railroads and Other Transportation Providers – We face competition from other railroads, motor carriers, ships, barges, and pipelines. Our main railroad competitor is Burlington Northern Santa Fe LLC. Its primary subsidiary, BNSF Railway Company (BNSF), operates parallel routes in many of our main traffic corridors. In addition, we operate in corridors served by other railroads and motor carriers. Motor carrier competition exists in all three of our commodity groups. Because of the proximity of our routes to major inland and Gulf Coast waterways, barges can be particularly competitive, especially for grain and bulk commodities in certain areas where we operate. In addition to price competition, we face competition with respect to transit times, quality, and reliability of service from motor carriers and other railroads. Motor carriers in particular can have an advantage over railroads with respect to transit times and timeliness of service. However, railroads are much more fuel-efficient than trucks, which reduces the impact of transporting goods on the environment and public infrastructure, and we have been making efforts to convert truck traffic to rail. Additionally, we must build or acquire and maintain our rail system, while trucks, barges, and maritime operators are able to use public rights-ofway maintained by public entities. Any of the following could also affect the competitiveness of our transportation services for some or all of our commodities, which could have a material adverse effect on our results of operations, financial condition. and liquidity: (a) improvements or expenditures materially increasing the quality or reducing the costs of these alternative modes of transportation, such as autonomous or more fuel efficient trucks, (b) legislation that eliminates or significantly increases the size or weight limitations applied to motor carriers, or (c) legislation or regulatory changes that impose operating restrictions on railroads or that adversely affect the profitability of some or all railroad traffic. Many movements face product or geographic competition where our customers can use different products (e.g., natural gas instead of coal, sorghum instead of corn) or commodities from different locations (e.g., grain from states or countries that we do not serve, crude oil from different regions). Sourcing different commodities or different locations allows shippers to substitute different carriers and such competition may reduce our volume or constrain prices. Additionally, any future consolidation of the rail industry could materially affect our competitive environment.

We May Be Affected by Climate Change and Market or Regulatory Responses to Climate Change – Climate change, including the impact of global warming and transition risks involving policy, legal risks, and market risks, could have a material adverse effect on our results of operations, financial condition, and liquidity over both a long-term and near-term basis. Restrictions, caps, taxes, or other controls on emissions of GHGs, including diesel exhaust, could significantly increase our operating costs. Restrictions on emissions could also affect our customers that (a) use commodities that we carry to produce energy, (b) use significant amounts of energy in producing or delivering the commodities we carry, or (c) manufacture or produce goods that consume significant amounts of energy or burn fossil fuels, including chemical producers, farmers and food producers, and automakers and other manufacturers. Significant cost increases, government regulation, or changes of consumer preferences for goods or services relating to alternative sources of energy, emissions reductions, and GHG emissions could materially affect the markets for the commodities we carry and demand for our services, which in turn could have a material adverse effect on our results of operations, financial condition, and liquidity. Government incentives encouraging the use of alternative sources of energy also could affect certain of our customers and the markets for certain of the commodities we carry in an unpredictable manner that could alter our traffic patterns, including, for example, increasing royalties charged to producers of PRB coal by the U.S. Department of Interior and the impacts of ethanol incentives on farming and ethanol producers. We could face increased costs related to defending and resolving legal claims and other litigation or complying with laws or regulations related to climate change and the alleged impact of our operations on climate change. Violent weather caused by climate change, including hurricanes, fires, floods, extreme temperatures, avalanches, and significant precipitation has in the past and could in the future cause line outages and other interruptions to our infrastructure. Any of these factors, individually or in operation with one or more of the other factors, or other unpredictable impacts of climate change could reduce the amount of traffic we handle and have a material adverse effect on our results of operations, financial condition, and liquidity. Our efforts to achieve emission reduction targets could significantly increase our operational costs and capital expenditures. In addition, stakeholder expectations regarding some of these matters may be evolving and there may be differing views among stakeholders, which could harm our reputation or increase our costs.

Our Business, Financial Condition, and Results of Operations have been Adversely Affected, and in the Future, Could be Materially Adversely Affected by Pandemics or Other Public Health Crises - Pandemics, epidemics, and other outbreaks of disease can have significant and widespread impacts. As we saw during the peaks of the COVID pandemic, outbreaks of disease can cause a global slowdown of economic activity (including the decrease in demand for a broad variety of goods), disruptions in global supply chains, and significant volatility and disruption of financial markets, resulting further in adverse effects on workforces, customers, and regional and local economies. The impact of pandemics or public health crises on our results of operations and financial condition may depend on numerous evolving factors, including, but not limited to: governmental, business, and individuals' actions that have been and continue to be taken in response to a global pandemic or other public health crises (including restrictions on travel and transport, workforce pressures, social distancing, and shelter-inplace orders); the effect of a pandemic or other public health crises on economic activity and actions taken in response; the effect on our customers and their demand for our services; the effect of a pandemic or other public health crises on the creditworthiness of our customers; national or global supply chain challenges or disruption; facility closures; commodity cost volatility; general macroeconomic uncertainty in key global markets and financial market volatility; global economic conditions and levels of economic growth; and the pace of recovery as the pandemic subsides as well as response to a potential reoccurrence. Further, a pandemic or other public health crises, and the volatile regional and global economic conditions stemming from such an event, could also precipitate and aggravate the other risk factors that we identify, which could materially adversely affect our business, financial condition, results of operations (including revenues and profitability), and/or stock price. Additionally, a pandemic or other public health crises also may affect our operating and financial results in a manner that is not presently known to us or that we currently do not consider to present significant risks to our operations.

Financial Risks

We Are Affected By Fluctuating Fuel Prices – Fuel costs constitute a significant portion of our transportation expenses. Diesel fuel prices can be subject to dramatic fluctuations, and significant price increases could have a material adverse effect on our operating results. Although we currently are able to recover a significant amount of our fuel expenses from our customers through revenues from fuel surcharges, we cannot be certain that we will always be able to mitigate rising or elevated fuel costs through our fuel surcharges. Additionally, future market conditions or legislative or regulatory activities could adversely affect our ability to apply fuel surcharges or adequately recover increased fuel costs through fuel surcharges. As fuel prices fluctuate, our fuel surcharge programs trail such fluctuations in fuel prices by approximately two months, and may be a significant source of quarter-over-quarter and year-over-year volatility, particularly in periods of rapidly changing prices. International, political, and economic factors, events and conditions, including international armed conflicts such as the Russia-Ukraine and Israel-Hamas wars, affect the volatility of fuel prices and supplies. Weather can also affect fuel supplies and limit domestic refining capacity. A severe shortage of, or disruption to, domestic fuel supplies could have a material adverse effect on our results of operations, financial condition, and liquidity. Alternatively, lower fuel prices could have a positive impact on the economy by increasing consumer discretionary spending that potentially could increase demand for various consumer products we transport. However, lower fuel prices could have a negative impact on other commodities we transport, such as coal and domestic drilling-related shipments, which could have a material adverse effect on our results of operations, financial condition, and liquidity.

We Rely on Capital Markets – Due to the significant capital expenditures required to operate and maintain a safe and efficient railroad, we rely on the capital markets to provide some of our capital requirements. We utilize long-term debt instruments, bank financing, and commercial paper, and we pledge certain amount of our receivables as collateral for credit. Significant instability or disruptions of the capital markets, including, among other things, elevated interest rates in the credit markets and/or changes in interest rates, or deterioration of our financial condition due to internal or external factors could restrict or prohibit our access to, and significantly increase the cost of, commercial paper and other financing sources, including bank credit facilities and the issuance of long-term debt, including corporate bonds. A significant deterioration of our financial condition could result in a reduction of our credit rating to below investment grade, which could restrict us from utilizing our current receivables securitization facility (Receivables Facility). This may also limit our access to external sources of capital and significantly increase the costs of short and long-term debt financing.

General Risk Factors

We Are Affected by General Economic Conditions – Prolonged, severe adverse domestic and global macroeconomic conditions or disruptions of financial and credit markets, including, for example, the recessionary fears, inflationary pressures, and elevated interest rates we are seeing in the current economic environment, may affect the producers and consumers of the commodities we carry and may have a material adverse effect on our access to liquidity, results of operations, and financial condition.

We May Be Affected by Acts of Terrorism, War, or Risk of War – Our rail lines, facilities, and equipment, including rail cars carrying hazardous materials, could be direct targets or indirect casualties of terrorist attacks. Terrorist attacks, or other similar events, any government response thereto, and war or risk of war may adversely affect our results of operations, financial condition, and liquidity. In addition, insurance premiums for some or all of our current coverages could increase dramatically, or certain coverages may not be available to us in the future.

Item 1B. Unresolved Staff Comments

None.

Item 1C. Cybersecurity

Risk Management and Strategy

The Company is subject to cybersecurity threats that could have a material adverse impact on our results of operations, financial condition, and liquidity. See also our discussion in the Risk Factors in Item 1A of this report. As a component of our Company-wide enterprise risk management framework, we implemented a cybersecurity program whose objective is to assess, identify, and manage risks from cybersecurity threats that may result in adverse effects on the confidentiality, integrity, and availability of the electronic information systems that we own. We regularly perform internal security assessments, engage third-party consultants to conduct external security assessments, and participate in, conduct, and/or administer exercises, drills, and recovery tests as part of this program. We also maintain training programs and policies and procedures designed to safeguard employee handling and use of data, internet usage, controlled access measures, and physical protections. We consult with industry groups, monitor threat intelligence reports, and communicate with various government agencies in an effort to stay up-to-date on changes in the cybersecurity threat landscape. This program, in addition to addressing our own information systems, is also designed to oversee, identify, and reduce the potential impact of a security incident at a third-party service provider or that otherwise impacts third-party technology and systems we use.

Internal Cybersecurity Team

The Company's internal information security organization (Internal Cybersecurity Team), led by our Executive Vice President and Chief Information Officer (CIO) as well as the Assistant Vice President and Chief Information Security Officer (CISO), is responsible for coordinating all aspects of the Company's electronic information security systems, including prevention, detection, mitigation, and remediation of cybersecurity incidents, as well as implementing, monitoring, and maintaining our enterprise-wide security strategy, standards, architecture, policies, and processes. Our CIO reports directly to our Chief Executive Officer, our CISO reports to our CIO, and reporting to our CISO are our Deputy Chief Information Security Officer (Deputy CISO) and other experienced information security personnel responsible for various parts of our business. In addition to our internal cybersecurity capabilities, we also periodically engage assessors, consultants, auditors, and other third parties to assist with assessing, identifying, and managing cybersecurity risks. When the Company learns of a cybersecurity incident at a third-party service provider, the Company's respective department contacts maintain communication with the third-party service provider and communicate any cybersecurity incidents to the CISO.

Security Policy and Requirements

As part of the Company's Crisis Management Plan, the Company's cybersecurity Incident Response Plan (the IRP) provides a framework for responding to cybersecurity incidents. The IRP sets out a coordinated approach to discovering, investigating, containing, tracking, mitigating, and remediating cybersecurity incidents, including a framework for elevating and reporting findings and keeping senior management and other key stakeholders informed and involved, based on assessments regarding the scope or significance of incidents. The IRP applies to the Company's extended computing environment, including electronic information resources that are owned or used by the Company and are routinely relied on to support our operations.

The Internal Cybersecurity Team has robust processes and redundancies in place designed with the objective of deterring, detecting, mitigating, and responding to potential cybersecurity threats, which includes a vulnerability assessment, prioritization, and remediation program. The Internal Cybersecurity Team also performs regular system penetration testing to validate our security controls and assess our infrastructure and applications. All management employees take mandatory periodic security awareness training on the Company's data security policies and procedures, which is supplemented by Company-wide testing initiatives, including periodic phishing tests. Additionally, in 2023, our Board of Directors and certain management employees participated in a tabletop exercise to simulate a response to a cybersecurity incident, and our Internal Cybersecurity Team incorporated the findings from this exercise into our processes.

Our information security program is designed to align our defenses and resources to identify, assess, and address more likely and more damaging cyber events, to provide support for our organizational mission and operational objectives, and to position us to deter, detect, mitigate, and respond to a wide variety of potential attacks in a timely fashion. Our information security program employs quantitative and qualitative approaches to evaluate the effectiveness of controls and assess the resiliency of critical computing resources. This data is combined with knowledge of common attack techniques to assess the likelihood of components being compromised and assess potential financial implications under different scenarios. The results are used to help identify potentially material risks and provide insights which are taken into account when prioritizing our security initiatives.

Material Cybersecurity Risks, Threats, and Incidents

Due to the evolving nature of cybersecurity threats, it has and will continue to be difficult to prevent, detect, mitigate, and remediate cybersecurity incidents. While we are not aware of having experienced any material effects or reasonably likely material effects on our Company, its business strategy, results of operations, or financial condition resulting from cybersecurity threats or incidents to date, as a critical infrastructure provider, we may be a target of well-funded and sophisticated adverse actors. There can be no guarantee that we will not be the subject of future risks or incidents that have such an effect, or that we are not currently the subject of an undetected risk or incident that may have such an effect.

We also rely on information technology and third-party vendors to support our operations, including our secure processing of personal, confidential, sensitive, proprietary, and other types of information. Despite ongoing efforts to continue improvement of our and our vendors' ability to protect against cyber incidents, we may not be able to protect all of the information systems we use. Incidents may lead to reputational harm, revenue and client loss, legal actions, or statutory penalties, among other consequences. For a more detailed discussion of these risks, see our discussion in the Risk Factors in Item 1A of this report.

Governance

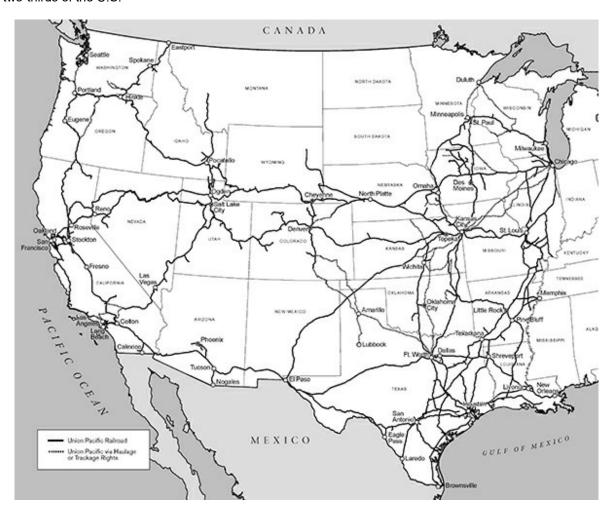
The Board of Directors has delegated primary oversight of the Company's cybersecurity risk to the Audit Committee, which receives updates on cybersecurity risks and incidents at each regularly scheduled Audit Committee meeting from the CIO, CISO, and other members of management, as needed. When making decisions regarding director appointments and committee assignments, the Board of Directors takes into consideration the cybersecurity experience of directors and director candidates and strives to maintain cybersecurity expertise on the Board of Directors and Audit Committee. We have protocols by which certain cybersecurity incidents are reported to the Audit Committee and Board of Directors.

At the management level, our CIO, CISO, and Deputy CISO, each of whom has extensive cybersecurity knowledge and skills gained from over 27 years, 28 years, and 19 years of relevant work experience, respectively, head the Internal Cybersecurity Team that is responsible for implementing and maintaining cybersecurity and data protection practices across our business, with our CIO reporting directly to our Chief Executive Officer. In 2023, our CIO was appointed to serve as a member of the U.S. Cybersecurity Advisory Committee (CSAC) of the Cybersecurity and Infrastructure Security Agency (CISA), which provides recommendations to CISA on a range of cybersecurity issues, including corporate cyber responsibility, technology product safety, and efforts to raise the baseline of cybersecurity practices for a variety of entities to enhance the United States' cyber defense. Our CISO and Deputy CISO receive reports on cybersecurity threats from a number of experienced information security professionals for various parts of our business on an ongoing basis and, in conjunction with other management personnel, regularly consult on risk management measures implemented by the Company to identify and mitigate data protection and cybersecurity risks.

In addition, our Risk and Compliance Committee (RCC) is responsible for oversight and support of the Company's Enterprise Risk Management and Compliance and Ethics programs and is comprised of the Executive Leadership Team and the Senior Vice President and Chief Accounting, Risk, and Compliance Officer (Compliance Officer). The RCC also created a subcommittee, the Enterprise Risk Management Committee (ERMC), who is charged with continually monitoring, evaluating, and managing enterprise risks. The ERMC includes the Compliance Officer, General Auditor, Vice President Law - Finance and Compliance, Vice President and Chief Safety Officer, CISO, and Assistant Vice President - Corporate Strategy. The RCC and ERMC both meet throughout the year and receive periodic updates on cybersecurity from the CISO and Deputy CISO.

Item 2. Properties

We employ a variety of assets in the management and operation of our rail business. Our rail network covers 23 states in the western two-thirds of the U.S.



TRACK

Our rail network includes 32,693 route miles. We own 26,110 miles and operate on the remainder pursuant to trackage rights or leases. The following table describes track miles:

As of December 31,	2023	2022
Route	32,693	32,534
Other main line	7,117	7,113
Passing lines and turnouts	3,466	3,454
Switching and classification yard lines	8,852	8,853
Total miles	52,128	51,954

HEADQUARTERS BUILDING

We own our headquarters building in Omaha, Nebraska. The facility has 1.2 million square feet of space that can accommodate approximately 4,000 employees.

HARRIMAN DISPATCHING CENTER

The Harriman Dispatching Center (HDC), located in Omaha, Nebraska, is our primary dispatching facility. It is linked to regional dispatching and locomotive management facilities at various locations along our network. HDC employees coordinate moves of locomotives and trains, manage traffic and train crews on our network, and coordinate interchanges with other railroads. Generally, around 500 employees work on-site in the facility. In the event of a disruption of operations at HDC due to a cyber-attack, flooding or severe weather, pandemic outbreak, or other event, we maintain the capability to conduct critical operations at back-up facilities in different locations.

RAIL FACILITIES

In addition to our track structure, we operate numerous facilities, including terminals for intermodal and other freight; rail yards for building trains (classification yards), switching, storage-in-transit (the temporary storage of customer goods in rail cars prior to shipment), and other activities; offices to administer and manage our operations; dispatching centers to direct traffic on our rail network; crew on duty locations for train crews along our network; and shops and other facilities for fueling, maintenance, and repair of locomotives and repair and maintenance of rail cars and other equipment. The following table includes the major yards and terminals on our system:

Major Classification Yards	Major Intermodal Terminals
North Platte, Nebraska	Joliet (Global 4), Illinois
Englewood (Houston), Texas	Global II (Chicago), Illinois
North Little Rock, Arkansas	East Los Angeles, California
Livonia, Louisiana	ICTF (Long Beach), California
Fort Worth, Texas	Mesquite, Texas
Roseville, California	Lathrop, California
Houston, Texas	City of Industry, California
West Colton, California	Salt Lake City, Utah

RAIL EQUIPMENT

Our equipment includes owned and leased locomotives and rail cars; heavy maintenance equipment and machinery; other equipment and tools in our shops, offices, and facilities; and vehicles for maintenance, transportation of crews, and other activities. As of December 31, 2023, we owned or leased the following units of equipment:

				Average
Locomotives	Owned	Leased	Total	Age (yrs.)
Multiple purpose	5,971	1,037	7,008	24.3
Switching	132	-	132	43.5
Other	14	-	14	51.2
Total locomotives	6,117	1,037	7,154	N/A
				Average
Freight cars	Owned	Leased	Total	Age (yrs.)
Covered hoppers	13,761	9,474	23,235	21.3
Open hoppers	4,846	775	5,621	36.4
Gondolas	6,396	4,492	10,888	23.1
Boxcars	3,389	7,572	10,961	32.7
Refrigerated cars	2,444	1,199	3,643	21.8
Flat cars	2,216	2,254	4,470	32.6
Other	-	371	371	35.2
Total freight cars	33,052	26,137	59,189	N/A
				Average
Highway revenue equipment	Owned	Leased	Total	Age (yrs.)
Containers	47,439	545	47,984	12.2
Chassis	30,635	17,705	48,340	13.2
Total highway revenue equipment	78,074	18,250	96,324	N/A

We continuously assess our need for equipment to run an efficient and reliable network. Many factors cause us to adjust the size of our active fleets, including changes in carload volume, weather events, seasonality, customer preferences, and operational efficiency initiatives. As some of these factors are difficult to assess or can change rapidly, we maintain a buffer to remain agile. Without the surge fleet, our ability to react quickly is hindered as equipment suppliers are limited and lead times to acquire equipment are long and may be in excess of a year. We believe our locomotive and freight car fleets are appropriately sized to meet our current and future business requirements. These fleets serve as the most reliable and efficient equipment to facilitate growth without additional acquisitions. Locomotive and freight car in service utilization percentages for the year ended December 31, 2023, were 69% and 74%, respectively.

CAPITAL EXPENDITURES

Our rail network requires significant annual capital investments for replacement, improvement, and expansion. These investments enhance safety, support the transportation needs of our customers, improve our operational efficiency, and support emission reduction initiatives. Additionally, we add new equipment to our fleet to replace older equipment and to support growth and customer demand.

2023 Capital Program – During 2023, our capital program totaled approximately \$3.7 billion. (See the cash capital investments table in Management's Discussion and Analysis of Financial Condition and Results of Operations - Liquidity and Capital Resources, Item 7, of this report.)

2024 Capital Plan – In 2024, we expect our capital plan to be approximately \$3.4 billion, down 8% from 2023. (See further discussion of our 2024 capital plan in Management's Discussion and Analysis of Financial Condition and Results of Operations - Liquidity and Capital Resources, Item 7, of this report.)

OTHER

Equipment Encumbrances - See Note 14 and 16 to the Financial Statements and Supplementary Data, Item 8.

Environmental Matters – Certain of our properties are subject to federal, state, and local laws and regulations governing the protection of the environment. (See discussion within this report of environmental issues in Business - Governmental and Environmental Regulation, Item 1; Management's Discussion and Analysis of Financial Condition and Results of Operations - Critical Accounting Estimates - Environmental, Item 7; and Note 17 to the Financial Statements and Supplementary Data, Item 8.)

Item 3. Legal Proceedings

From time to time, we are involved in legal proceedings, claims, and litigation that occur in connection with our business. We routinely assess our liabilities and contingencies in connection with these matters based upon the latest available information and, when necessary, we seek input from our third-party advisors when making these assessments. Consistent with SEC rules and requirements, we describe below material pending legal proceedings (other than ordinary routine litigation incidental to our business), material proceedings known to be contemplated by governmental authorities, other proceedings arising under federal, state, or local environmental laws and regulations (including governmental proceedings involving potential fines, penalties, or other monetary sanctions in excess of \$1,000,000), and such other pending matters that we may determine to be appropriate.

ENVIRONMENTAL MATTERS

We receive notices from the EPA and state environmental agencies alleging that we are or may be liable under federal or state environmental laws for remediation costs at various sites throughout the U.S., including sites on the Superfund National Priorities List or state superfund lists. We cannot predict the ultimate impact of these proceedings and suits because of the number of potentially responsible parties involved, the degree of contamination by various wastes, the scarcity and quality of volumetric data related to many of the sites, and the speculative nature of remediation costs.

Information concerning environmental claims and contingencies and estimated remediation costs is set forth in this report in Management's Discussion and Analysis of Financial Condition and Results of Operations - Critical Accounting Estimates - Environmental, Item 7, and Note 17 to the Financial Statements and Supplementary Data, Item 8.

OTHER MATTERS

Antitrust Litigation – As we reported in our Quarterly Report on Form 10-Q for the quarter ended June 30, 2007, 20 rail shippers (many of whom were represented by the same law firms) filed virtually identical antitrust lawsuits in various federal district courts against us and four other Class I railroads in the U.S. Currently, UPRR and three other Class I railroads are the named defendants in the lawsuits. The original plaintiff filed the first of these claims in the U.S. District Court in New Jersey on May 14, 2007. These suits alleged that the named railroads engaged in price-fixing by establishing common fuel surcharges for certain rail traffic.

On August 16, 2019, the U.S. Court of Appeals for the District of Columbia Circuit (D.C. Circuit) affirmed the decision of U.S. District Court for the District of Columbia (U.S. District Court) denying class certification (the Certification Denial). Only five plaintiffs remain in this multidistrict litigation (MDL) originally filed in 2007, which remains pending. They are proceeding on a consolidated basis in the U.S. District Court before the Honorable Paul L. Friedman (MDL I). Since the Certification Denial, approximately 106 lawsuits are pending in federal court based on claims identical to those alleged in the class certification case. The Judicial Panel on Multidistrict Litigation consolidated these suits for pretrial proceedings in the U.S. District Court before the Honorable Beryl A. Howell (MDL II).

As we reported in our Current Report on Form 8-K, filed on June 10, 2011, the Railroad received a complaint filed in the U.S. District Court for the District of Columbia on June 7, 2011, by Oxbow Carbon & Minerals LLC and related entities (Oxbow). In 2019, Oxbow dismissed certain claims and the claims that remain are the same as the Plaintiffs' claims in MDL I.

We continue to deny the allegations that our fuel surcharge programs violate the antitrust laws or any other laws. We believe that these lawsuits are without merit, and we will vigorously defend our actions. Therefore, we currently believe that these matters will not have a material adverse effect on any of our results of operations, financial condition, and liquidity.

Item 4. Mine Safety Disclosures

Not applicable.

Information About Our Executive Officers and Principal Executive Officers of Our Subsidiaries

The Board of Directors typically elects and designates our executive officers on an annual basis at the board meeting held in conjunction with the Annual Meeting of Shareholders, and they hold office until their successors are elected. Executive officers also may be elected and designated throughout the year, as the Board of Directors considers appropriate. There are no family relationships among the officers, nor is there any arrangement or understanding between any officer and any other person pursuant to officer selection. The following table sets forth certain information current as of February 9, 2024, relating to the executive officers.

			Business Experience During
Name	Position	Age	Past Five Years
V. James Vena	Chief Executive Officer of UPC and the Railroad	65	[1]
Elizabeth F. Whited	President of UPC and the Railroad	58	[2]
Jennifer L. Hamann	Executive Vice President and Chief Financial Officer of UPC and the Railroad	56	[3]
Eric J. Gehringer	Executive Vice President - Operations of the Railroad	44	[4]
Rahul Jalali	Executive Vice President and Chief Information Officer of UPC and the Railroad	50	[5]
Craig V. Richardson	Executive Vice President, Chief Legal Officer, and Corporate Secretary of UPC and the Railroad	62	[6]
Kenny G. Rocker	Executive Vice President - Marketing and Sales of the Railroad	52	Current Position
Todd M. Rynaski	Senior Vice President and Chief Accounting, Risk, and Compliance Officer of UPC and the Railroad	53	[7]

- [1] Mr. Vena was elected Chief Executive Officer of UPC and the Railroad effective August 14, 2023. He previously served as a Senior Advisor to the Chairman of UPC (January 2021 June 2021) and Chief Operating Officer (January 2019 December 2020).
- [2] Ms. Whited was elected President of UPC and the Railroad effective August 14, 2023. Ms. Whited most recently served as Executive Vice President Sustainability and Strategy of UPC and the Railroad (February 2022 August 2023). She previously served as Executive Vice President and Chief Human Resources Officer (August 2018 February 2022).
- [3] Ms. Hamann was elected Executive Vice President and Chief Financial Officer of UPC and the Railroad effective January 1, 2020. She previously served as Senior Vice President Finance (April 2019 December 2019) and Vice President Planning & Analysis (October 2017 March 2019).
- [4] Mr. Gehringer was elected Executive Vice President Operations of the Railroad effective January 1, 2021. Mr. Gehringer previously served as Senior Vice President Transportation (July 2020 December 2020), Vice President Mechanical and Engineering (January 2020 July 2020), and Vice President Engineering (March 2018 January 2020).
- [5] Mr. Jalali was elected Executive Vice President and Chief Information Officer of UPC and the Railroad effective June 1, 2023. Mr. Jalali most recently served as Senior Vice President and Chief Information Officer (November 2020 May 2023).
- [6] Mr. Richardson was elected Executive Vice President, Chief Legal Officer, and Corporate Secretary of UPC and the Railroad effective December 8, 2020. He most recently served as Interim Executive Vice President, Chief Legal Officer, and Corporate Secretary of UPC and the Railroad (September 2020 November 2020) and Vice President Commercial and Regulatory Law (July 2018 August 2020).
- [7] Mr. Rynaski was elected Senior Vice President and Chief Accounting, Risk, and Compliance Officer of UPC and the Railroad effective July 1, 2022. Mr. Rynaski previously served as Vice President and Controller (September 2015 June 2022).

PART II

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

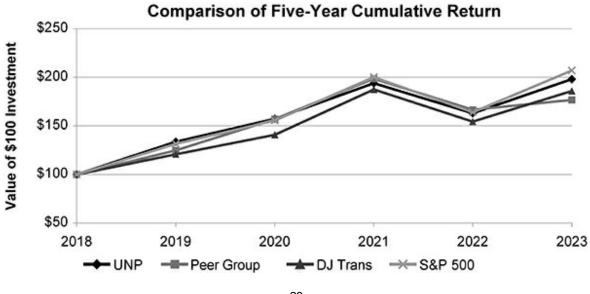
Our common stock is traded on the NYSE under the symbol "UNP".

At February 2, 2024, there were 609,777,914 shares of common stock outstanding and 27,949 common shareholders of record. On that date, the closing price of the common stock on the NYSE was \$248.33. We paid dividends to our common shareholders during each of the past 124 years.

Comparison Over One- and Three-Year Periods – The following table presents the cumulative total shareholder returns, assuming reinvestment of dividends, over one- and three-year periods for the Corporation (UNP), a peer group index (comprised of CSX Corporation and Norfolk Southern Corporation), the Dow Jones Transportation Index (DJ Trans), and the Standard & Poor's 500 Stock Index (S&P 500).

Period	UNP	Peer Group	DJ Trans	S&P 500
1 Year (2023)	21.5%	6.9%	20.4%	26.3%
3 Year (2021 - 2023)	26.0%	12.9%	32.1%	33.0%

Five-Year Performance Comparison – The following graph provides an indicator of cumulative total shareholder returns for the Corporation as compared to the peer group index (described above), the DJ Trans, and the S&P 500. The graph assumes that \$100 was invested in the common stock of Union Pacific Corporation and each index on December 31, 2018, and that all dividends were reinvested. The information below is historical in nature and is not necessarily indicative of future performance.



Purchases of Equity Securities – During 2023, we repurchased 3,657,484 shares of our common stock at an average price of \$202.67. The following table presents common stock repurchases during each month for the fourth quarter of 2023:

			Total Number of Shares Purchased as Part of a	Maximum Number of Shares Remaining
	Total Number of	Average Price	Publicly Announced Plan	Under the Plan or
Period	Shares Purchased [a]	Paid Per Share	or Program	Program [b]
Oct. 1 through Oct. 31	166	\$ 222.76	-	80,392,027
Nov. 1 through Nov. 30	3,069	219.57	-	80,392,027
Dec. 1 through Dec. 31	3,573	235.05	-	80,392,027
Total	6,808	\$ 227.77	-	N/A

- [a] Total number of shares purchased during the quarter includes approximately 6,808 shares delivered or attested to UPC by employees to pay stock option exercise prices, satisfy excess tax withholding obligations for stock option exercises or vesting of retention units, and pay withholding obligations for vesting of retention shares.
- [b] Effective April 1, 2022, our Board of Directors authorized the repurchase of up to 100 million shares of our common stock by March 31, 2025, replacing our previous repurchase program. These repurchases may be made on the open market or through other transactions. Our management has sole discretion with respect to determining the timing and amount of these transactions.

Item 6. [Reserved]

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

The following discussion should be read in conjunction with the Consolidated Financial Statements and applicable notes to the Financial Statements and Supplementary Data, Item 8, and other information in this report, including Risk Factors set forth in Item 1A and Critical Accounting Estimates and Cautionary Information at the end of this Item 7. The following section generally discusses 2023 and 2022 items and year-to-year comparisons between 2023 and 2022. Discussions of 2021 items and year-to-year comparisons between 2022 and 2021 that are not included in this Form 10-K can be found in "Management's Discussion and Analysis of Financial Condition and Results of Operations" in Part II, Item 7, of the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2022.

The Railroad, along with its subsidiaries and rail affiliates, is our one reportable operating segment. Although we provide and analyze revenues by commodity group, we treat the financial results of the Railroad as one segment due to the integrated nature of our rail network.

EXECUTIVE SUMMARY

2023 Results

Safety – We initiated changes to our safety program that focused on training, culture, and refreshing how teams
communicate and look out for each other. An analysis of historical injury data identified a large portion of our reportable
injuries involve a failure to comply with a small number of critical operating rules. These critical rules are the foundation of
our new program that is being implemented. While our reportable personal injury incidents rate per 200,000 employeehours deteriorated 4% from 2022, we improved in the latter part of the year.

We continued to refine our proprietary software called Precision Train Builder to evaluate train and route characteristics to enable proactive intervention by our Operating Practices Command Center to prevent derailments. In addition, the software allows the team to simulate in-train forces to avoid train handling that would generate forces greater than tolerance limits. These efforts helped to drive our reportable derailment incident rate per million train miles down 6% year-over-year.

Further supporting our efforts, in March, the AAR announced a set of key safety actions. These include the installation of additional hot wheel bearing wayside detectors and enhanced standards for how we proactively use and share critical data. In addition, the industry is expanding efforts in first responder training and deploying technology to provide real-time railcar condition monitoring.

Service – Car trip plan compliance for both intermodal and manifest/automotive products improved compared to 2022.
 Throughout the year we improved network fluidity as reflected in faster freight car velocity and lower terminal dwell. We graduated over 1,900 train, engine, and yard employees to backfill attrition, cover absences resulting from recently negotiated sick leave benefits, and added employees in areas of critical need to address operational challenges and support our service product.

- Operational Excellence The year began with weather disruptions across the network that impacted our operations.
 We deployed additional locomotives and aggressively hired train, engine, and yard employees to alleviate these operational challenges. Despite the challenges, we continued to focus on using our resources effectively and productively, which resulted in sequential improvement in many of our operating metrics.
- **Financial Results** Soft consumer markets, inflationary pressures, new labor agreements, fluctuating fuel prices, operational issues, and first quarter weather disruptions negatively impacted our financial results. Operating income of \$9.1 billion declined 8% from 2022, and operating ratio was 62.3%, deteriorating 2.2 points from 2022. Net income of \$6.4 billion translated into earnings of \$10.45 per diluted share, down 7% from 2022.

Despite the challenging year, we generated \$8.4 billion of cash provided by operating activities, yielded free cash flow of \$1.5 billion after reductions of \$3.7 billion for cash used in investing activities and \$3.2 billion in dividends. Both cash provided by operating activities and free cash flow were lowered by \$454 million of payments related to the 2022 one-time charge for agreements reached with our labor unions and the ratification charge for a crew staffing agreement reached in the second quarter of 2023.

Free cash flow is defined as cash provided by operating activities less cash used in investing activities and dividends paid. Free cash flow is not considered a financial measure under GAAP by SEC Regulation G and Item 10 of SEC Regulation S-K and may not be defined and calculated by other companies in the same manner. We believe free cash flow is important to management and investors in evaluating our financial performance and measures our ability to generate cash without additional external financing. Free cash flow should be considered in addition to, rather than as a substitute for, cash provided by operating activities. The following table reconciles cash provided by operating activities (GAAP measure) to free cash flow (non-GAAP measure):

Millions	2023	2022	2021
Cash provided by operating activities	\$ 8,379	\$ 9,362	\$ 9,032
Cash used in investing activities	(3,667)	(3,471)	(2,709)
Dividends paid	(3,173)	(3,159)	(2,800)
Free cash flow	\$ 1,539	\$ 2,732	\$ 3,523

2024 Outlook

- Safety Our goal is to be an industry leader in safety. We plan to improve the safety culture through our Courage to Care program. Courage to Care is reflected in actions such as giving and receiving feedback on unsafe behavior, finding and eliminating risk, and improving the safety of the work environment, so that everyone returns home safely. An enhanced safety management program focused on the critical rules that most impact safety will be rolled out to all employees in 2024. In addition, train, engine, and yard employees will be expected to attend a full day safety training class to reinforce these critical rules. We will continue using a comprehensive safety management approach utilizing technology, hazard identification and risk assessments, employee engagement, training, quality control, and targeted capital investments. In addition, our Operating Practices Command Center will help position us to implement predictive technology to reduce variability by seeking to identify causes of mainline service interruptions and develop solutions in addition to assisting employees with understanding best practices for handling trains. We plan to utilize data to identify and mitigate exposure to risk, detect rail defects, improve or close crossings, and educate the public and law enforcement agencies about crossing safety through a combination of our own programs (including risk assessment strategies), industry programs, and local community activities across the network. Operating a safe railroad benefits all our stakeholders: employees, customers, shareholders, and the communities we serve, while protecting the environment for future generations.
- Service We are committed to delivering the service we sold to our customers. As we meet with customers to agree on their specific needs and outcomes, we will measure ourselves against the best service we provided them over the past three years and use that as a guide for meeting their expectations. We will engage with customers to understand how we win together.
- Operational Excellence To provide our customers with the service we sold, we must run a fluid network. Network fluidity enables us to effectively utilize all our resources and provides the capacity to respond in an ever-changing environment. We will continue to transform our railroad to further improve our service product, improve resource utilization, and lower our overall cost structure.

• Business Volumes – Macroeconomic uncertainties remain in 2024 that could have a material impact on our 2024 financial and operating results. Current forecasts for 2024 industrial production are flat versus 2023. In addition, other factors, such as changes in domestic and foreign monetary policy (including rising interest rates), may affect economic activity and demand for rail transportation; natural gas prices, weather conditions, and demand for other energy sources may impact the coal market; crude oil prices and spreads may drive demand for petroleum products and drilling materials; available truck capacity could impact our intermodal business; and international trade agreements could promote or hinder trade. Lower coal demand and some lost international intermodal business are expected to negatively impact volume. Fuel prices may continue to fluctuate in the current economic environment. As prices fluctuate, there will be a timing impact on earnings, as our fuel surcharge programs trail increases or decreases in fuel prices by approximately two months. Regardless of external factors, we will focus on operating a safe railroad and delivering the service we sold to our customers as well as effective asset utilization, cost control, and seeking new business opportunities.

RESULTS OF OPERATIONS

Operating Revenues

				% Change	% Change
Millions	2023	2022	2021	2023 v 2022	2022 v 2021
Freight revenues	\$ 22,571	\$ 23,159	\$ 20,244	(3)%	14%
Other subsidiary revenues	872	884	741	(1)	19
Accessorial revenues	584	779	752	(25)	4
Other	92	53	67	74	(21)
Total	\$ 24,119	\$ 24,875	\$ 21,804	(3)%	14%

We generate freight revenues by transporting products from our three commodity groups. Freight revenues vary with volume (carloads) and average revenue per car (ARC). Changes in price, traffic mix, and fuel surcharges drive ARC. Customer incentives, which are primarily provided for shipping to/from specific locations or based on cumulative volumes, are recorded as a reduction to operating revenues. Customer incentives that include variable consideration based on cumulative volumes are estimated using the expected value method, which is based on available historical, current, and forecasted volumes, and recognized as the related performance obligation is satisfied. We recognize freight revenues over time as shipments move from origin to destination. The allocation of revenues between reporting periods is based on the relative transit time in each reporting period with expenses recognized as incurred.

Other subsidiary revenues (primarily logistics and commuter rail operations) are generally recognized over time as shipments move from origin to destination. The allocation of revenues between reporting periods is based on the relative transit time in each reporting period with expenses recognized as incurred. Accessorial revenues are recognized at a point in time as performance obligations are satisfied.

Freight revenues decreased 3% year-over-year to \$22.6 billion driven by lower fuel surcharge revenues, negative mix of traffic (decreased lumber shipments and increased short haul rock shipments), and a 1% decrease in volume, partially offset by core pricing gains. Volume decreases were primarily driven by weaker demand for intermodal and coal shipments. These declines were partially offset by a domestic intermodal contract win, increased production and inventory replenishment in the automotive industry, growth in petroleum and LPG shipments, and strength in rock shipments.

Our fuel surcharge programs generated freight revenues of \$3.0 billion and \$3.7 billion in 2023 and 2022, respectively. Fuel surcharge revenues in 2023 decreased \$0.7 billion due to a 15% decrease in fuel prices and lower volume, partially offset by the impact of fluctuating fuel prices (it can generally take up to two months for changing fuel prices to affect fuel surcharge recoveries).

In 2023, other subsidiary revenues decreased compared to 2022 primarily driven by weaker demand for intermodal shipments at our Loup subsidiary. Accessorial revenues decreased in 2023 compared to 2022 driven by decreased intermodal accessorial and container revenues due to lower volume and improvements in the global supply chain as reflected in better equipment cycle times. Other revenues increased year-over-year.

The following tables summarize the year-over-year changes in freight revenues, revenue carloads, and ARC by commodity type:

Freight Revenues				% Change	% Change
Millions	2023	2022	2021	2023 v 2022	2022 v 2021
Grain & grain products	\$ 3,644	\$ 3,598	\$ 3,181	1 %	13 %
Fertilizer	757	712	697	6	2
Food & refrigerated	1,041	1,093	998	(5)	10
Coal & renewables	1,916	2,134	1,780	(10)	20
Bulk	7,358	7,537	6,656	(2)	13
Industrial chemicals & plastics	2,176	2,158	1,943	1	11
Metals & minerals	2,194	2,196	1,811	-	21
Forest products	1,347	1,465	1,357	(8)	8
Energy & specialized markets	2,521	2,386	2,212	6	8
Industrial	8,238	8,205	7,323	-	12
Automotive	2,421	2,257	1,761	7	28
Intermodal	4,554	5,160	4,504	(12)	15
Premium	6,975	7,417	6,265	(6)	18
Total	\$ 22,571	\$ 23,159	\$ 20,244	(3)%	14%

Revenue Carloads				% Change	% Change
Thousands	2023	2022	2021	2023 v 2022	2022 v 2021
Grain & grain products	798	798	805	-%	(1)%
Fertilizer	191	190	201	1	(5)
Food & refrigerated	175	187	189	(6)	(1)
Coal & renewables	867	885	819	(2)	8
Bulk	2,031	2,060	2,014	(1)	2
Industrial chemicals & plastics	645	637	606	1	5
Metals & minerals	793	785	697	1	13
Forest products	213	241	250	(12)	(4)
Energy & specialized markets	582	552	559	5	(1)
Industrial	2,233	2,215	2,112	1	5
Automotive	820	778	701	5	11
Intermodal [a]	3,028	3,116	3,211	(3)	(3)
Premium	3,848	3,894	3,912	(1)	-
Total	8,112	8,169	8,038	(1)%	2%

				% Change	% Change
Average Revenue per Car	2023	2022	2021	2023 v 2022	2022 v 2021
Grain & grain products	\$ 4,567	\$ 4,509	\$ 3,953	1%	14%
Fertilizer	3,962	3,749	3,470	6	8
Food & refrigerated	5,929	5,844	5,279	1	11
Coal & renewables	2,211	2,410	2,173	(8)	11
Bulk	3,623	3,658	3,305	(1)	11
Industrial chemicals & plastics	3,374	3,388	3,207	-	6
Metals & minerals	2,765	2,797	2,598	(1)	8
Forest products	6,310	6,092	5,424	4	12
Energy & specialized markets	4,335	4,320	3,956	-	9
Industrial	3,689	3,704	3,467	-	7
Automotive	2,955	2,902	2,511	2	16
Intermodal [a]	1,504	1,656	1,403	(9)	18
Premium	1,813	1,905	1,601	(5)	19
Average	\$ 2,782	\$ 2,835	\$ 2,519	(2)%	13%

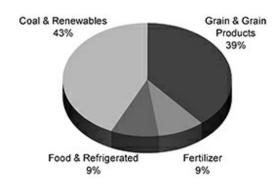
[[]a] For intermodal shipments, each container or trailer equals one carload.

Bulk – Bulk includes shipments of grain and grain products, fertilizer, food and refrigerated, and coal and renewables. Freight revenues from bulk shipments decreased in 2023 compared to 2022 due to lower fuel surcharge revenues, lower volume, and negative mix from fewer food and refrigerated shipments, partially offset by core pricing gains. Volume declined 1% compared to 2022 driven by reduced use of coal in electricity generation because of low natural gas prices and mild winter weather in the second half of the year. Volume for coal and renewables and food and refrigerated shipments were negatively impacted by outages and service challenges due to repeated snow events in Wyoming and flooding in California in the first quarter of 2023.

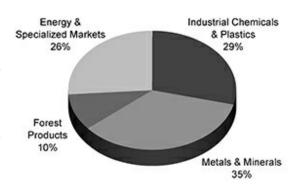
Industrial – Industrial includes shipments of industrial chemicals and plastics, metals and minerals, forest products, and energy and specialized markets. Freight revenues from industrial shipments increased slightly in 2023 versus 2022 due to core pricing gains and volume increases, offset by negative mix of traffic, driven by increased short haul rock shipments and decreased lumber shipments, and lower fuel surcharge revenues. Volume increased 1% compared to 2022. The growth was driven by petroleum and LPG shipments and metals and minerals due to strong demand for rock. Partially offsetting that growth were decreases in forest products due to the softening housing market and fewer shipments of brown paper as demand for non-durable goods declined.

Premium – Premium includes shipments of finished automobiles, automotive parts, and merchandise in intermodal containers, both domestic and international. Freight revenues from premium shipments decreased driven by lower fuel surcharges and volume declines, partially offset by core pricing gains. Intermodal shipments declined 3% compared to 2022 as high inventories and inflationary pressures impacted consumer demand, partially offset by a domestic contract win. Despite the negative effects of the United Auto Workers strike, automotive shipments increased 5% compared to 2022 driven by increased production as dealers replenished inventories.

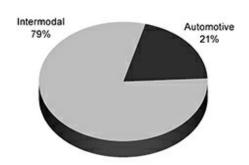
2023 Bulk Carloads



2023 Industrial Carloads



2023 Premium Carloads



Mexico Business – Each of our commodity groups includes revenues from shipments to and from Mexico. Revenues from Mexico shipments were \$2.8 billion in 2023, up 2% compared to 2022, driven by a 4% volume increase, partially offset by a 2% decrease in average revenue per car due to lower fuel surcharge revenues. The volume increase was driven by higher intermodal and automotive shipments, partially offset by fewer beer shipments. The closure of the Eagle Pass and El Paso border crossings in the fourth quarter had a slightly negative impact on the overall results.

Operating Expenses

				% Change	% Change
Millions	2023	2022	2021	2023 v 2022	2022 v 2021
Compensation and benefits	\$ 4,818	\$ 4,645	\$ 4,158	4%	12%
Fuel	2,891	3,439	2,049	(16)	68
Purchased services and materials	2,616	2,442	2,016	7	21
Depreciation	2,318	2,246	2,208	3	2
Equipment and other rents	947	898	859	5	5
Other	1,447	1,288	1,176	12	10
Total	\$ 15,037	\$ 14,958	\$ 12,466	1%	20%

Operating expenses increased \$79 million, or 1%, in 2023 compared to 2022 driven by inflation; operational challenges in the first half of the year, including additional costs related to weather; increased workforce levels, including the impact of increased sick leave benefits provided to our craft professionals; higher casualty costs; and the ratification charge for a crew staffing agreement reached in the second quarter of 2023, partially offset by lower fuel prices, a one-time charge in 2022 for agreements reached with our labor unions, and volume related costs.



Compensation and Benefits – Compensation and benefits include wages, payroll taxes, health and welfare costs, pension costs, and incentive costs. In 2023, expenses increased 4% compared to 2022. The employee level increase of 3% includes a 4% increase in train, engine, and yard employees to backfill attrition, cover absences resulting from recent negotiated sick leave benefits, and add employees in areas of critical need to address operational challenges and support our service product. The wage growth, costs for training, and the ratification charge for a crew staffing agreement reached in the second quarter of 2023, partially offset by the 2022 one-time charge for agreements reached with our labor unions, lower incentive compensation, and lower volume drove the increase in compensation and benefits for 2023 compared to 2022.

Fuel – Fuel includes locomotive fuel and gasoline for highway and non-highway vehicles and heavy equipment. Fuel expense decreased compared to 2022 due to a decrease in locomotive diesel fuel prices, which averaged \$3.09 per gallon (including taxes and transportation costs) in 2023 compared to \$3.65 per gallon in 2022, resulting in a \$0.5 billion decrease in expense (excluding any impact from decreased volume year-over-year), and a 1% decrease in gross ton-miles, partially offset by a 1% deterioration to the fuel consumption rate in 2023 (computed as gallons of fuel consumed divided by gross ton-miles).

Purchased Services and Materials – Expense for purchased services and materials includes the costs of services purchased from outside contractors and other service providers (including equipment maintenance and contract expenses incurred by our subsidiaries for external transportation services); materials used to maintain the Railroad's lines, structures, and equipment; costs of operating facilities jointly used by UPRR and other railroads; transportation and lodging for train crew employees; trucking and contracting costs for intermodal containers; leased automobile maintenance expenses; and tools and supplies. Purchased services and materials increased 7% in 2023 compared to 2022 driven by higher locomotive maintenance expenses due to inflation, increased locomotive overhauls, and a larger active fleet in the first half of 2023 to assist in recovering the network, partially offset by decreased volume-related drayage costs incurred at one of our subsidiaries.

Depreciation – The majority of depreciation relates to road property, including rail, ties, ballast, and other track material. Depreciation expense was up 3% in 2023 compared to 2022 due to a higher depreciable asset base.

Equipment and Other Rents – Equipment and other rents expense primarily includes rental expense that the Railroad pays for freight cars owned by other railroads or private companies; freight car, intermodal, and locomotive leases; and office and other rent expenses, offset by equity income from certain equity method investments. Equipment and other rents expense increased 5% compared to 2022 due to lower equity income and inflation, partially offset by greater network fluidity and lower volume.

Other – Other expenses include state and local taxes; freight, equipment, and property damage; utilities; insurance; personal injury; environmental; employee travel; telephone and cellular; computer software; bad debt; and other general expenses. Other expenses increased 12% in 2023 compared to 2022 driven by casualty expenses, including higher personal injury expense, environmental remediation, and damaged freight, and one-time write-offs.

Non-Operating Items

				% Change	% Change
Millions	2023	2022	2021	2023 v 2022	2022 v 2021
Other income, net	\$ 491	\$ 426	\$ 297	15%	43%
Interest expense	(1,340)	(1,271)	(1,157)	5	10
Income tax expense	\$ (1,854)	\$ (2,074)	\$ (1,955)	(11)%	6%

Other Income, net – Other income increased in 2023 compared to 2022 driven by a one-time \$107 million real estate transaction, partially offset by lower gains from real estate sales. Real estate sales in 2022 included a \$79 million gain from a land sale to the Illinois State Toll Highway Authority and a \$35 million gain from a land sale to the Colorado Department of Transportation. See Note 6 to the Financial Statements and Supplementary Data, Item 8, for additional detail.

Interest Expense – Interest expense increased in 2023 compared to 2022 due to an increased weighted-average debt level of \$33.2 billion in 2023 from \$32.1 billion in 2022. The effective interest rate was 4.0% in both periods.

Income Tax Expense – Income tax expense decreased in 2023 compared to 2022 due to lower pre-tax income and deferred tax expense reductions. In 2023, the states of Nebraska, Iowa, Kansas, and Arkansas enacted legislation to reduce their corporate income tax rates for future years resulting in a \$114 million reduction of our deferred tax expense. 2022 income tax expense included reductions of \$95 million in deferred tax expense from Nebraska, Iowa, Arkansas, and Idaho reducing their corporate income tax rates. Our effective tax rates for 2023 and 2022 were 22.5% and 22.9%, respectively.

OTHER OPERATING/PERFORMANCE AND FINANCIAL STATISTICS

We report a number of key performance measures weekly to the STB. We provide this data on our website at www.up.com/investor/aar-stb reports/index.htm.

Operating/Performance Statistics

Management continuously monitors these key operating metrics to evaluate our operational efficiency and help us deliver the service product we sold to our customers.

Railroad performance measures are included in the table below:

			% Chang		% Change
	2023	2022	2021	2023 v 2022	2022 v 2021
Gross ton-miles (GTMs) (billions)	837.5	843.4	817.9	(1)	3%
Revenue ton-miles (billions)	413.3	420.8	411.3	(2)	2
Freight car velocity (daily miles per car) [a]	204	191	203	7	(6)
Average train speed (miles per hour) [a]	24.2	23.8	24.6	2	(3)
Average terminal dwell time (hours) [a]	23.4	24.4	23.7	(4)	3
Locomotive productivity (GTMs per horsepower day)	129	125	133	3	(6)
Train length (feet)	9,356	9,329	9,334	-	-
Intermodal car trip plan compliance (%) [b]	78	67	73	11 pt	ts (6) pts
Manifest/Automotive car trip plan compliance (%) [b]	65	59	63	6 pt	ts (4) pts
Workforce productivity (car miles per employee)	1,000	1,036	1,038	(3)	-
Total employees (average)	31,490	30,717	29,905	3	3
Operating ratio (%)	62.3	60.1	57.2	2.2 pt	ts 2.9 pts

[[]a] As reported to the STB.

Gross and Revenue Ton-Miles – Gross ton-miles are calculated by multiplying the weight of loaded and empty freight cars by the number of miles hauled. Revenue ton-miles are calculated by multiplying the weight of freight by the number of tariff miles. In 2023, gross ton-miles and revenue ton-miles decreased 1% and 2%, respectively, compared to 2022, driven by a 1% decrease in carloadings. Changes in commodity mix drove the variance in year-over-year decreases between gross ton-miles, revenue ton-miles, and carloads.

Freight Car Velocity – Freight car velocity measures the average daily miles per car on our network. The two key drivers of this metric are the speed of the train between terminals (average train speed) and the time a rail car spends at the terminals (average terminal dwell time). Freight car velocity, average train speed, and average terminal dwell improved compared to 2022 as last year we experienced congestion across our system. These metrics were negatively impacted by operational challenges caused by weather in the first quarter of 2023 and train crew shortages in some locations in the first half of the year, but as network fluidity improved throughout 2023, freight car velocity increased sequentially.

Locomotive Productivity – Locomotive productivity is gross ton-miles per average daily locomotive horsepower. Locomotive productivity improved 3% in 2023 compared to 2022 driven by improved network fluidity in the second half of 2023. As a result of the improved fluidity, we stored locomotives in the second half of the year, reducing our active fleet size 11% since the end of the second quarter of 2023. These improvements more than offset increased average active fleet size in the first half of 2023 as resources were deployed to alleviate operational challenges and weather disruptions.

Train Length – Train length is the average maximum train length on a route measured in feet. Our train length increased slightly compared to 2022 as initiative to drive train length improvements in the second half of the year more than offset the declines in intermodal shipments, which generally move on longer trains.

Car Trip Plan Compliance – Car trip plan compliance is the percentage of cars delivered on time in accordance with our original trip plan. Our network trip plan compliance is broken into the intermodal and manifest/automotive products. Intermodal car trip plan compliance and manifest/automotive car trip plan compliance improved in 2023 compared to 2022 driven by improved network fluidity, as evidenced by faster freight car velocity.

Workforce Productivity – Workforce productivity is average daily car miles per employee. Workforce productivity declined 3% in 2023 as average daily car miles decreased slightly and employees increased compared to 2022. The 3% increase in employee levels was driven by an increase in craft professionals as we aggressively hired train, engine, and yard employees to backfill attrition, cover absences resulting from recently negotiated sick leave benefits, and add employees in areas of critical need to address operational challenges and support our service product.

Operating Ratio – Operating ratio is our operating expenses reflected as a percentage of operating revenues. Our operating ratio of 62.3% deteriorated 2.2 points compared to 2022 driven by inflation, excess network costs, the ratification charge for a crew staffing agreement reached in the second quarter of 2023, increased casualty costs, and other cost increases, partially offset by core pricing gains, the 2022 one-time charge for the labor agreements reached with our labor unions, and the year-over-year lag impact from lower fuel prices.

[[]b] Methodology used to report (described below) is not comparable with the reporting to the STB under docket number EP 770.

Return on Average Common Shareholders' Equity

Millions, Except Percentages		2023		2022		2021
Net income	\$	6,379	\$	6,998	\$	6,523
Average equity	\$ 1	13,476	\$	13,162	\$	15,560
Return on average common shareholders' equity		47.3%		53.2%	53.2%	

Return on Invested Capital as Adjusted (ROIC)

Millions, Except Percentages	2023		2022	2021
Net income	\$ 6,379	\$	6,998	\$ 6,523
Interest expense	1,340		1,271	1,157
Interest on average operating lease liabilities	58		56	54
Taxes on interest	(315)		(304)	(280)
Net operating profit after taxes as adjusted	\$ 7,462	\$	8,021	\$ 7,454
Average equity	\$ 13,476	\$	13,162	\$ 15,560
Average debt	32,953		31,528	28,229
Average operating lease liabilities	1,616		1,695	1,682
Average invested capital as adjusted	\$ 48,045	\$	46,385	\$ 45,471
Return on invested capital as adjusted	15.5%)	17.3%	16.4%

ROIC is considered a non-GAAP financial measure by SEC Regulation G and Item 10 of SEC Regulation S-K and may not be defined and calculated by other companies in the same manner. We believe this measure is important to management and investors in evaluating the efficiency and effectiveness of our long-term capital investments. In addition, we currently use ROIC as a performance criterion in determining certain elements of equity compensation for our executives. ROIC should be considered in addition to, rather than as a substitute for, other information provided in accordance with GAAP. The most comparable GAAP measure is return on average common shareholders' equity. The tables above provide a reconciliation from return on average common shareholders' equity to ROIC. At December 31, 2023, 2022, and 2021, the incremental borrowing rate on operating leases was 3.6%, 3.3%, and 3.2%, respectively.

Debt / Net Income

Millions, Except Ratios	202	3	2022	2021
Debt	\$ 32,57	\$	33,326	\$ 29,729
Net income	\$ 6,37	\$	6,998	\$ 6,523
Debt / net income	5.	ı	4.8	4.6

Adjusted Debt / Adjusted EBITDA

Millions, Except Ratios	2023	2022	2021
Net income	\$ 6,379	\$ 6,998	\$ 6,523
Add:			
Income tax expense	1,854	2,074	1,955
Depreciation	2,318	2,246	2,208
Interest expense	1,340	1,271	1,157
EBITDA	\$ 11,891	\$ 12,589	\$ 11,843
Adjustments:			
Other income, net	(491)	(426)	(297)
Interest on operating lease liabilities	58	54	56
Adjusted EBITDA	\$ 11,458	\$ 12,217	\$ 11,602
Debt	\$ 32,579	\$ 33,326	\$ 29,729
Operating lease liabilities	1,600	1,631	1,759
Adjusted debt	\$ 34,179	\$ 34,957	\$ 31,488
Adjusted debt / adjusted EBITDA	 3.0	 2.9	2.7

Adjusted debt (total debt plus operating lease liabilities plus after-tax unfunded pension and OPEB (other post retirement benefit) obligations) to adjusted EBITDA (earnings before interest, taxes, depreciation, amortization, and adjustments for other income and interest on present value of operating leases) is considered a non-GAAP financial measure by SEC Regulation G and Item 10 of SEC Regulation S-K and may not be defined and calculated by other companies in the same manner. We believe this measure is important to management and investors in evaluating the Company's ability to sustain given debt levels (including leases) with the cash generated from operations. In addition, a comparable measure is used by rating agencies when reviewing the Company's credit rating. Adjusted debt to adjusted EBITDA should be considered in addition to, rather than as a substitute for, other information provided in accordance with GAAP. The most comparable GAAP measure is debt to net income ratio. The tables above provide reconciliations from net income to adjusted EBITDA, debt to adjusted debt, and debt to net income to adjusted debt to adjusted EBITDA. At December 31, 2023, 2022, and 2021, the incremental borrowing rate on operating leases was 3.6%, 3.3%, and 3.2%, respectively. Pension and OPEB were funded at December 31, 2023, 2022, and 2021.

LIQUIDITY AND CAPITAL RESOURCES

We are continually evaluating our financial condition and liquidity. We analyze a wide range of economic scenarios and the impact on our ability to generate cash. These analyses inform our liquidity plans and activities outlined below and indicate we have sufficient borrowing capacity to sustain an extended period of lower volumes.

At both December 31, 2023 and 2022, we had a working capital deficit due to upcoming debt maturities. It is not unusual for us to have a working capital deficit, and we believe it is not an indication of a lack of liquidity. We generate strong cash from operations and also maintain adequate resources, including our credit facility and, when necessary, access the capital markets to meet foreseeable cash requirements.

During 2023, we generated \$8.4 billion of cash provided by operating activities, issued \$1.0 billion of long-term debt, paid \$3.2 billion in dividends, and repurchased shares totaling \$0.7 billion. We have been, and we expect to continue to be, in compliance with our debt covenants.

Our principal sources of liquidity include cash and cash equivalents, our Receivables Facility, our revolving credit facility, as well as the availability of commercial paper and other sources of financing through the capital markets. On December 31, 2023, we had \$1.1 billion of cash and cash equivalents, \$2.0 billion of committed credit available under our revolving credit facility, and up to \$800 million undrawn on the Receivables Facility. As of December 31, 2023, none of the revolving credit facility was drawn, and we did not draw on our revolving credit facility at any time during 2023. Our access to the Receivables Facility may be reduced or restricted if our bond ratings fall to certain levels below investment grade. If our bond rating were to deteriorate, it could have an adverse impact on our liquidity. Access to commercial paper as well as other capital market financing is dependent on market conditions. Deterioration of our operating results or financial condition due to internal or external factors could negatively impact our ability to access capital markets as a source of liquidity. Access to liquidity through the capital markets is also dependent on our financial stability. We expect that we will continue to have access to liquidity through any or all the following sources or activities: (a) increasing the utilization of our Receivables Facility, (b) issuing commercial paper, (c) entering into bank loans, outside of our revolving credit facility, or (iv) issuing bonds or other debt securities to public or private investors based on our assessment of the current condition of the credit markets. The Company's \$2.0 billion revolving credit facility is intended to support the issuance of commercial paper by UPC and also serves as an additional source of liquidity to fund short-term needs. The Company currently does not intend to make any borrowings under this facility.

As described in the notes to the Consolidated Financial Statements and as referenced in the table below, we have contractual obligations that may affect our financial condition. Based on our assessment of the underlying provisions and circumstances of our contractual obligations, other than the risks that we and other similarly situated companies face with respect to the condition of the capital markets (as described in Item 1A of Part II of this report), as of the date of this filing, there is no known trend, demand, commitment, event, or uncertainty that is reasonably likely to occur that would have a material adverse effect on our consolidated results of operations, financial condition, or liquidity. In addition, our commercial obligations, financings, and commitments are customary transactions that are like those of other comparable corporations, particularly within the transportation industry.

The following table identifies material obligations as of December 31, 2023:

			Payı	men	ts Due b	y D	ecember	· 31,		
Contractual Obligations										After
Millions	Total	2024	2025		2026		2027		2028	2028
Debt [a]	\$ 60,516	\$ 2,610	\$ 2,591	\$	2,617	\$	2,348		2,294	\$ 48,056
Purchase obligations [b]	2,985	1,150	744		600		222		158	111
Operating leases [c]	1,768	361	375		296		237		199	300
Other post retirement benefits [d]	393	44	40		40		39		39	191
Finance lease obligations [e]	173	55	42		35		30		11	-
Total contractual obligations	\$ 65,835	\$ 4,220	\$ 3,792	\$	3,588	\$	2,876	\$	2,701	\$ 48,658

- [a] Excludes finance lease obligations of \$158 million as well as unamortized discount and deferred issuance costs of (\$1,732) million. Includes an interest component of \$26,363 million.
- [b] Purchase obligations include locomotive maintenance contracts; purchase commitments for ties, ballast, and rail; and agreements to purchase other goods and services.
- [c] Includes leases for locomotives, freight cars, other equipment, and real estate. Includes an interest component of \$168 million.
- [d] Includes estimated other post retirement, medical, and life insurance payments, and payments made under the unfunded pension plan for the next ten years.
- [e] Represents total obligations, including interest component of \$15 million.

Cash Flows			
Millions	2023	2022	2021
Cash provided by operating activities	\$ 8,379	\$ 9,362	\$ 9,032
Cash used in investing activities	(3,667)	(3,471)	(2,709)
Cash used in financing activities	(4,625)	(5,887)	(7,158)
Net change in cash, cash equivalents, and restricted cash	\$ 87	\$ 4	\$ (835)

Operating Activities

Cash provided by operating activities decreased in 2023 compared to 2022 due primarily to a decrease in net income and \$454 million of payments related to the 2022 one-time charge for agreements reached with our labor unions and the ratification charge for a crew staffing agreement reached in the second quarter of 2023.

Cash flow conversion is defined as cash provided by operating activities less cash used in capital investments as a ratio of net income. Cash flow conversion rate is not considered a financial measure under GAAP by SEC Regulation G and Item 10 of SEC Regulation S-K and may not be defined and calculated by other companies in the same manner. We believe cash flow conversion rate is important to management and investors in evaluating our financial performance and measures our ability to generate cash without additional external financing. Cash flow conversion rate should be considered in addition to, rather than as a substitute for, cash provided by operating activities. The following table reconciles cash provided by operating activities (GAAP measure) to cash flow conversion rate (non-GAAP measure):

Millions,					
For the Year Ended December 31,	2023		2022		2021
Cash provided by operating activities	\$ 8,379	\$	9,362	\$	9,032
Cash used in capital investments	(3,606)		(3,620)		(2,936)
Total (a)	4,773		5,742		6,096
Net income (b)	\$ 6,379	\$	6,998	\$	6,523
Cash flow conversion rate (a/b)	75%	75%		82%	

Investing Activities

Cash used in investing activities in 2023 increased compared to 2022 primarily driven by lower proceeds from asset sales within other investing activities net.

The following tables detail cash capital investments and track statistics for the years ended December 31:

Millions	2023	2022	2021
Ties	\$ 565	\$ 544	\$ 443
Rail and other track material	454	437	507
Ballast	194	216	215
Other [a]	691	693	760
Total road infrastructure replacements	1,904	1,890	1,925
Line expansion and other capacity projects	239	276	284
Commercial facilities	425	308	243
Total capacity and commercial facilities	664	584	527
Locomotives and freight cars [b]	728	800	322
Technology and other	310	346	162
Total cash capital investments [c]	\$ 3,606	\$ 3,620	\$ 2,936

- [a] Other includes bridges and tunnels, signals, other road assets, and road work equipment.
- [b] Locomotives and freight cars include early lease buyouts of \$57 million, \$70 million, and \$34 million in 2023, 2022, and 2021, respectively.
- [c] Weather-related damages for 2023, 2022, and 2021 are immaterial.

Capital Plan – In 2024, we expect our capital plan to be approximately \$3.4 billion, down 8% from 2023. We plan to continue to make investments to support our growth strategy, harden our infrastructure, replace older assets, and improve the safety and resiliency of the network. In addition, the plan includes investments in growth-related projects to drive more carloads to the network, certain ramps to efficiently handle volumes from new and existing intermodal customers, continued modernization of our locomotive fleet, and projects intended to improve operational efficiency. The capital plan may be revised if business conditions warrant or if new laws or regulations affect our ability to generate sufficient returns on these investments.

Financing Activities

Cash used in financing activities decreased in 2023 compared to 2022 driven by a decrease in share repurchases, partially offset by less debt issued.

See Note 14 to the Financial Statements and Supplementary Data, Item 8, for a description of all our outstanding financing arrangements and significant new borrowings, and Note 18 to the Financial Statements and Supplementary Data, Item 8, for a description of our share repurchase programs.

OTHER MATTERS

Inflation – For capital-intensive companies, inflation significantly increases asset replacement costs for long-lived assets. As a result, assuming that we replace all operating assets at current price levels, depreciation charges (on an inflation-adjusted basis) would be substantially greater than historically reported amounts.

Sensitivity Analyses – The sensitivity analyses that follow illustrate the economic effect that hypothetical changes in interest and tax rates could have on our results of operations and financial condition. These hypothetical changes do not consider other factors that could impact actual results.

Interest Rates – At December 31, 2023, we did not have variable-rate debt.

Market risk for fixed-rate debt is estimated as the potential increase in fair value resulting from a hypothetical one percentage point decrease in interest rates as of December 31, 2023, and totals an increase of approximately \$3.6 billion to the fair value of our debt at December 31, 2023. We estimated the fair values of our fixed-rate debt by considering the impact of the hypothetical interest rates on quoted market prices and current borrowing rates.

<u>Tax Rates</u> – Our deferred tax assets and liabilities are measured based on current tax law. Future tax legislation, such as a change in the federal corporate tax rate, could have a material impact on our financial condition, results of operations, or liquidity. For example, a future, permanent 1% increase in our federal income tax rate would increase our deferred tax liability by approximately \$525 million. Similarly, a future, permanent 1% decrease in our federal income tax rate would decrease our deferred tax liability by approximately \$525 million.

Accounting Pronouncements – See Note 3 to the Financial Statements and Supplementary Data, Item 8.

Asserted and Unasserted Claims – See Note 17 to the Financial Statements and Supplementary Data, Item 8.

Indemnities - See Note 17 to the Financial Statements and Supplementary Data, Item 8.

Climate Change – Climate change could have an adverse impact on our operations and financial performance (see Risk Factors under Item 1A of this report). We utilize climate scenario analyses to better understand climate-related risks and opportunities the Company may face in the future under a range of potential scenarios. We continue to refine our approach to understand climate-related risks and are taking an iterative approach in our business planning processes as risk factors, solutions, and technology develop. However, we are unable to predict the likelihood, manner, severity, or ultimate financial impact of actual future incidents as climate scenario analysis considers a range of potential outcomes.

We continue to take steps and explore opportunities to reduce our operational impact on the environment, including improving our operational fluidity to increase fuel efficiency, modernizing locomotives for improved reliability and fuel consumption, using renewable fuels, and exploring and testing low- and zero-emissions propulsion technologies. These initiatives are aligned with our Safety + Service & Operational Excellence = Growth strategy. (See further discussion in "Sustainable Future" in the Operations section in Item 1 of this report.)

CRITICAL ACCOUNTING ESTIMATES

Our Consolidated Financial Statements have been prepared in accordance with GAAP. The preparation of these financial statements requires estimation and judgment that affect the reported amounts of revenues, expenses, assets, and liabilities. We base our estimates on historical experience and on various other assumptions that we believe are reasonable under the circumstances. The results form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. The following critical accounting estimates are a subset of our significant accounting policies described in Note 2 to the Financial Statements and Supplementary Data, Item 8. These critical accounting estimates affect significant areas of our financial statements and involve judgment and estimates. If these estimates differ significantly from actual results, the impact on our Consolidated Financial Statements may be material.

Personal Injury – See Note 17 to the Financial Statements and Supplementary Data, Item 8, and "We May Be Subject to Various Claims and Lawsuits That Could Result in Significant Expenditures" in the Risk Factors, Item 1A.

Our personal injury liability is subject to uncertainty due to unasserted claims, timing and outcome of claims, and evolving trends in litigation. There were no material changes to the assumptions used in the latest actuarial analysis.

Our personal injury liability balance and claims activity was as follows:

	2023	2022	2021
Ending liability balance at December 31 (millions)	\$ 383	\$ 361	\$ 325
Open claims, beginning balance	2,036	2,027	1,897
New claims	3,008	2,747	2,719
Settled or dismissed claims	(3,173)	(2,738)	(2,589)
Open claims, ending balance at December 31	1,871	2,036	2,027

Environmental Costs – See Note 17 to the Financial Statements and Supplementary Data, Item 8; "We Are Subject to Significant Environmental Laws and Regulations" in the Risk Factors, Item 1A; and Environmental Matters in the Legal Proceedings, Item 3.

Our environmental liability is subject to several factors such as type of remediation, nature and volume of contaminate, number and financial viability of other potentially responsible parties, as well as uncertainty due to unknown alleged contamination, evolving trends in remediation techniques and final remedies, and changes in laws and regulations.

Our environmental liability balance and site activity was as follows:

	2023	2022	2021
Ending liability balance at December 31 (millions)	\$ 245	\$ 253	\$ 243
Open sites, beginning balance	353	376	373
New sites	74	69	105
Closed sites	(94)	(92)	(102)
Open sites, ending balance at December 31	333	353	376

Property and Depreciation – See Note 11 to the Financial Statements and Supplementary Data, Item 8.

Assets purchased or constructed throughout the year are capitalized if they meet applicable minimum units of property.

Estimated service lives of depreciable railroad property may vary over time due to changes in physical use, technology, asset strategies, and other factors that will have an impact on the retirement profiles of our assets. We are not aware of any specific factors that are reasonably likely to significantly change the estimated service lives of our assets. Actual use and retirement of our assets may vary from our current estimates, which would impact the amount of depreciation expense recognized in future periods.

Changes in estimated useful lives of our assets due to the results of our depreciation studies could significantly impact future periods' depreciation expense and have a material impact on our Consolidated Financial Statements. If the estimated useful lives of all depreciable assets were increased by one year, annual depreciation expense would decrease by approximately \$71 million. If the estimated useful lives of all depreciable assets were decreased by one year, annual depreciation expense would increase by approximately \$76 million. We are projecting an increase in our depreciation expense of approximately 3% to 4% in 2024 versus 2023. This is driven by an increase in our projected depreciable asset base.

During the last three fiscal years, no gains or losses were recognized due to the retirement of depreciable railroad properties.

Pension Plans – See Note 5 to the Financial Statements and Supplementary Data, Item 8.

The critical assumptions used to measure pension obligations and expenses are the discount rates and expected rate of return on pension assets.

We evaluate our critical assumptions at least annually, and selected assumptions are based on the following factors:

- We measure the service cost and interest cost components of our net periodic pension benefit/cost by using individual spot rates matched with separate cash flows for each future year. Discount rates are based on a Mercer yield curve of high-quality corporate bonds (rated AA by a recognized rating agency).
- Expected return on plan assets is based on our asset allocation mix and our historical return, taking into consideration current and expected market conditions.

The following tables present the key assumptions used to measure net periodic pension benefit/cost for 2024 and the estimated impact on 2024 net periodic pension benefit/cost relative to a change in those assumptions:

Assumptions	
Discount rate for benefit obligations	5.00%
Discount rate for interest on benefit obligations	4.90%
Discount rate for service cost	5.05%
Discount rate for interest on service cost	5.02%
Expected return on plan assets	5.25%

Sensitivities	Increa Exp	ase in Dense
Millions	Pe	nsion
0.25% decrease in discount rates	\$	1
0.25% decrease in expected return on plan assets	\$	12

The following table presents the net periodic pension benefit/cost for the years ended December 31:

	Est.			
Millions	2024	2023	2022	2021
Net periodic pension (benefit)/cost	\$ (7) \$	- \$	9 \$	85

CAUTIONARY INFORMATION

Certain statements in this report, and statements in other reports or information filed or to be filed with the SEC (as well as information included in oral statements or other written statements made or to be made by us), are, or will be, forward-looking statements as defined by the Securities Act of 1933 and the Securities Exchange Act of 1934. These forward-looking statements and information include, without limitation, statements in the CEO's letter preceding Part I; statements regarding planned capital expenditures under the caption "2024 Capital Plan" in Item 2 of Part I; and statements and information set forth under the captions "2024 Outlook"; "Liquidity and Capital Resources" in Item 7 of Part II regarding our capital plan, share repurchase programs, contractual obligations, "Pension Benefits", and "Other Matters" in this Item 7 of Part II. Forwardlooking statements and information also include any other statements or information in this report (including information incorporated herein by reference) regarding: potential impacts of public health crises, including pandemics, epidemics, and the outbreak of other contagious disease, such as COVID; the Russia-Ukraine and Israel-Hamas wars and any impacts on our business operations, financial results, liquidity, and financial position, and on the world economy (including customers, employees, and supply chains), including as a result of fluctuations in volume and carloadings; closing of customer manufacturing, distribution or production facilities; expectations as to operational or service improvements; expectations as to hiring challenges; availability of employees; expectations regarding the effectiveness of steps taken or to be taken to improve operations, service, infrastructure improvements, and transportation plan modifications (including those discussed in response to increased traffic); expectations as to cost savings, revenue growth, and earnings; the time by which goals, targets, or objectives will be achieved; projections, predictions, expectations, estimates, or forecasts as to our business, financial, and operational results, future economic performance, and general economic conditions; proposed new products and services; estimates of costs relating to environmental remediation and restoration; estimates and expectations regarding tax matters; expectations that claims, litigation, environmental costs, commitments, contingent liabilities, labor negotiations or agreements, cyber-attacks or other matters will not have a material adverse effect on our consolidated results of operations, financial condition, or liquidity and any other similar expressions concerning matters that are not historical facts. Forward-looking statements may be identified by their use of forward-looking terminology, such as "believes," "expects," "may," "should," "would," "will," "intends," "plans," "estimates," "anticipates," "projects" and similar words, phrases, or expressions.

Forward-looking statements should not be read as a guarantee of future performance, results or outcomes, and will not necessarily be accurate indications of the times that, or by which, such performance, results or outcomes will be achieved. Forward-looking statements and information are subject to risks and uncertainties that could cause actual performance or results to differ materially from those expressed in the statements and information. Forward-looking statements and information reflect the good faith consideration by management of currently available information, and may be based on underlying assumptions believed to be reasonable under the circumstances. However, such information and assumptions (and, therefore, such forward-looking statements and information) are or may be subject to variables or unknown or unforeseeable events or circumstances that management has little or no influence or control, and many of these risks and uncertainties are currently amplified by and may continue to be amplified by, or in the future may be amplified by, among other things, macroeconomic conditions. The Risk Factors in Item 1A of this report could affect our future results and could cause those results or other outcomes to differ materially from those expressed or implied in any forward-looking statements or information. To the extent circumstances require or we deem it otherwise necessary, we will update or amend these risk factors in a Form 10-Q, Form 8-K, or subsequent Form 10-K. All forward-looking statements are qualified by, and should be read in conjunction with, these Risk Factors.

Forward-looking statements speak only as of the date the statement was made. We assume no obligation to update forward-looking information to reflect actual results, changes in assumptions, or changes in other factors affecting forward-looking information. If we do update one or more forward-looking statements, no inference should be drawn that we will make additional updates with respect thereto or with respect to other forward-looking statements.

Item 7A. Quantitative and Qualitative Disclosures about Market Risk

Information concerning market risk sensitive instruments is set forth under Management's Discussion and Analysis of Financial Condition and Results of Operations - Other Matters, Item 7.

Item 8. Financial Statements and Supplementary Data

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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and the Board of Directors of Union Pacific Corporation

Opinion on the Financial Statements

We have audited the accompanying consolidated statements of financial position of Union Pacific Corporation and Subsidiary Companies (the "Corporation") as of December 31, 2023 and 2022, the related consolidated statements of income, comprehensive income, changes in common shareholders' equity, and cash flows for each of the three years in the period ended December 31, 2023, and the related notes (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Corporation as of December 31, 2023 and 2022, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2023, in conformity with accounting principles generally accepted in the United States of America.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the Corporation's internal control over financial reporting as of December 31, 2023, based on criteria established in *Internal Control* — *Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission and our report dated February 9, 2024, expressed an unqualified opinion on the Corporation's internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of the Corporation's management. Our responsibility is to express an opinion on the Corporation's financial statements based on our audits. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Corporation in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement, whether due to error or fraud. Our audits included performing procedures to assess the risks of material misstatement of the 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 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 financial statements. We believe that our audits provide a reasonable basis for our opinion.

Critical Audit Matter

The critical audit matter communicated below is a matter arising from the current-period audit of the financial statements that was communicated or required to be communicated to the audit committee and that (1) relates to accounts or disclosures that are material to the 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 financial statements, taken as a whole, and we are not, by communicating the critical audit matter below, providing a separate opinion on the critical audit matter or on the accounts or disclosures to which it relates.

Capitalization of Properties — Refer to Notes 2 and 11 to the financial statements

Critical Audit Matter Description

The Corporation's operations are highly capital intensive and their large network of assets turns over on a continuous basis. Each year, the Corporation develops a capital program for both the replacement of assets and for the acquisition or construction of new assets. In determining whether costs should be capitalized, the Corporation exercises significant judgment in determining whether expenditures meet the applicable minimum units of property criteria and extend the useful life, improve the safety of operations, or improve the operating efficiency of existing assets. The Corporation capitalizes all costs of capital projects necessary to make assets ready for their intended use and because a portion of the Corporation's assets are self-constructed, management also exercises significant judgment in determining the amount of material, labor, work equipment, and indirect costs that qualify for capitalization. Capitalized costs to Properties, net during 2023 were \$3.8 billion.

We identified the capitalization of property during 2023 as a critical audit matter because of the significant judgment exercised by management in determining whether costs meet the criteria for capitalization. This, in turn, required a high degree of auditor judgment when performing audit procedures to evaluate whether the criteria to capitalize costs were met and to evaluate sufficiency of audit evidence to support management's conclusions.

How the Critical Audit Matter Was Addressed in the Audit

Our procedures related to capitalization of property included the following, among others:

- We tested the effectiveness of controls over the Corporation's determination of whether costs related to the Corporation's capital investments should be capitalized or expensed.
- We evaluated the Corporation's capitalization policy in accordance with accounting principles generally accepted in the United States of America.
- For a selection of capital projects, we performed the following:
 - Obtained the Corporation's evaluation of each project and determined whether the amount of costs to be capitalized met the criteria for capitalization as outlined within the Corporation's policy by unit of property.
 - Obtained supporting documentation that the project met the applicable minimum units of property criteria and was approved, and evaluated whether the project extended the useful life of an existing asset, improved the safety of operations, or improved the operating efficiency of existing assets.
- For a selection of capitalized costs during the year, we performed the following:
 - Evaluated whether the individual cost selected met the criteria for capitalization.
 - Evaluated whether the selection was accurately recorded at the appropriate amount based on the evidence obtained.

Omaha, Nebraska February 9, 2024

Relate & Touche UP

We have served as the Corporation's auditor since 1967.

CONSOLIDATED STATEMENTS OF INCOME

Union Pacific Corporation and Subsidiary Companies

Millions, Except Per Share Amounts, for the Years Ended December 31,	2023	2022	2021
Operating revenues:			
Freight revenues	\$ 22,571	\$ 23,159	\$ 20,244
Other revenues	1,548	1,716	1,560
Total operating revenues	24,119	24,875	21,804
Operating expenses:			
Compensation and benefits	4,818	4,645	4,158
Fuel	2,891	3,439	2,049
Purchased services and materials	2,616	2,442	2,016
Depreciation	2,318	2,246	2,208
Equipment and other rents	947	898	859
Other	1,447	1,288	1,176
Total operating expenses	15,037	14,958	12,466
Operating income	9,082	9,917	9,338
Other income, net (Note 6)	491	426	297
Interest expense	(1,340)	(1,271)	(1,157)
Income before income taxes	8,233	9,072	8,478
Income tax expense (Note 7)	(1,854)	(2,074)	(1,955)
Net income	\$ 6,379	\$ 6,998	\$ 6,523
Share and Per Share (Note 8):			
Earnings per share - basic	\$ 10.47	\$ 11.24	\$ 9.98
Earnings per share - diluted	\$ 10.45	\$ 11.21	\$ 9.95
Weighted average number of shares - basic	609.2	622.7	653.8
Weighted average number of shares - diluted	610.2	624.0	655.4

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

Union Pacific Corporation and Subsidiary Companies

Millions, for the Years Ended December 31,	2023	2022	2021
Net income	\$ 6,379	\$ 6,998	\$ 6,523
Other comprehensive income/(loss):			
Defined benefit plans	(106)	280	723
Foreign currency translation	58	52	(44)
Unrealized gain on derivative instruments	16	-	-
Total other comprehensive income/(loss) [a]	(32)	332	679
Comprehensive income	\$ 6,347	\$ 7,330	\$ 7,202

[[]a] Net of deferred taxes of \$31 million, (\$92) million, and (\$237) million during 2023, 2022, and 2021, respectively.

CONSOLIDATED STATEMENTS OF FINANCIAL POSITION

Union Pacific Corporation and Subsidiary Companies

Millions, Except Share and Per Share Amounts as of December 31,	2023	2022
Assets		
Current assets:		
Cash and cash equivalents	\$ 1,055	\$ 973
Short-term investments (Note 13)	16	46
Accounts receivable, net (Note 10)	2,073	1,891
Materials and supplies	743	741
Other current assets	261	301
Total current assets	4,148	3,952
Investments	2,605	2,375
Properties, net (Note 11)	57,398	56,038
Operating lease assets (Note 16)	1,643	1,672
Other assets	1,338	1,412
Total assets	\$ 67,132	\$ 65,449
Liabilities and Common Shareholders' Equity		
Current liabilities:		
Accounts payable and other current liabilities (Note 12)	\$ 3,683	\$ 3,842
Debt due within one year (Note 14)	1,423	1,678
Total current liabilities	5,106	5,520
Debt due after one year (Note 14)	31,156	31,648
Operating lease liabilities (Note 16)	1,245	1,300
Deferred income taxes (Note 7)	13,123	13,033
Other long-term liabilities	1,714	1,785
Commitments and contingencies (Note 17)		
Total liabilities	52,344	53,286
Common shareholders' equity:		
Common shares, \$2.50 par value, 1,400,000,000 authorized;		
1,112,854,806 and 1,112,623,886 issued; 609,703,814 and 612,393,321		
outstanding, respectively	2,782	2,782
Paid-in-surplus	5,193	5,080
Retained earnings	62,093	58,887
Treasury stock	(54,666)	(54,004)
Accumulated other comprehensive loss (Note 9)	(614)	(582)
Total common shareholders' equity	14,788	12,163
Total liabilities and common shareholders' equity	\$ 67,132	\$ 65,449

CONSOLIDATED STATEMENTS OF CASH FLOWS

Union Pacific Corporation and Subsidiary Companies

Millions, for the Years Ended December 31,	2023	2022	2021
Operating Activities			
Net income	\$ 6,379	\$ 6,998	\$ 6,523
Adjustments to reconcile net income to cash provided by operating activities:			
Depreciation	2,318	2,246	2,208
Deferred and other income taxes	117	262	154
Other operating activities, net	(132)	(152)	(56)
Changes in current assets and liabilities:			
Accounts receivable, net	(177)	(169)	(217)
Materials and supplies	(2)	(120)	17
Other current assets	(38)	5	31
Accounts payable and other current liabilities	(215)	565	184
Income and other taxes	129	(273)	188
Cash provided by operating activities	8,379	9,362	9,032
Investing Activities			
Capital investments	(3,606)	(3,620)	(2,936)
Other investing activities, net	(61)	149	227
Cash used in investing activities	(3,667)	(3,471)	(2,709)
Financing Activities			
Dividends paid	(3,173)	(3,159)	(2,800)
Debt repaid	(2,190)	(2,291)	(1,299)
Debt issued (Note 14)	1,599	6,080	4,201
Share repurchase programs (Note 18)	(705)	(6,282)	(7,291)
Other financing activities, net	(156)	(235)	31
Cash used in financing activities	(4,625)	(5,887)	(7,158)
Net change in cash, cash equivalents, and restricted cash	87	4	(835)
Cash, cash equivalents, and restricted cash at beginning of year	987	983	1,818
Cash, cash equivalents, and restricted cash at end of year	\$ 1,074	\$ 987	\$ 983
Supplemental Cash Flow Information			
Non-cash investing and financing activities:			
Capital investments accrued but not yet paid	\$ 137	\$ 152	\$ 263
Term loan renewals	-	-	100
Common shares repurchased but not yet paid	5	-	-
Cash paid during the year for:			
,	\$ (1,486)	\$ (2,060)	\$ (1,658)
Interest, net of amounts capitalized	(1,268)	(1,156)	(1,087)

CONSOLIDATED STATEMENTS OF CHANGES IN COMMON SHAREHOLDERS' EQUITY

Union Pacific Corporation and Subsidiary Companies

	Common	Treasury	Common	I	Paid-in-	Retained	Treasury		
Millions	Shares	Shares	Shares	,	Surplus	Earnings	Stock	40CI [a]	Total
Balance at January 1, 2021	1,112.2	(440.9)	\$ 2,781	\$	4,864	\$ 51,326	\$(40,420)	\$(1,593)	\$ 16,958
Net income			-		-	6,523	-	-	6,523
Other comprehensive income/(loss)			-		-	-	-	679	679
Conversion, stock option exercises, forfeitures, ESPP, and other	0.2	0.6	-		91	-	1	-	92
Share repurchase programs (Note 18)	_	(33.3)			24	_	(7,315)		(7,291)
Cash dividends declared (\$4.29 per	-	(33.3)	_		24	-	(7,515)	_	(1,291)
share)	-	-	-		-	(2,800)	-	-	(2,800)
Balance at December 31, 2021	1,112.4	(473.6)	\$ 2,781	\$	4,979	\$ 55,049	\$(47,734)	\$ (914)	\$ 14,161
Net income			-		-	6,998	-	-	6,998
Other comprehensive income/(loss)			-		-	-	-	332	332
Conversion, stock option exercises, forfeitures, ESPP, and other	0.2	0.5	1		113	-	-	-	114
Share repurchase programs (Note 18)	_	(27.1)	_		(12)	-	(6,270)	-	(6,282)
Cash dividends declared (\$5.08 per share)	-	-	-		-	(3,160)	-	-	(3,160)
Balance at December 31, 2022	1,112.6	(500.2)	\$ 2,782	\$	5,080	\$ 58,887	\$(54,004)	\$ (582)	\$ 12,163
Net income			-		-	6,379	-	-	6,379
Other comprehensive income/(loss)			-		-	-	-	(32)	(32)
Conversion, stock option exercises, forfeitures, ESPP, and other	0.3	0.5	-		113	-	50	-	163
Share repurchase programs (Note 18)	-	(3.5)	-		-	-	(712)	-	(712)
Cash dividends declared (\$5.20 per share)	-	-	-		-	(3,173)	-	-	(3,173)
Balance at December 31, 2023	1,112.9	(503.2)	\$ 2,782	\$	5,193	\$ 62,093	\$(54,666)	\$ (614)	\$ 14,788

[[]a] AOCI = Accumulated Other Comprehensive Income/Loss (Note 9)

NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS

Union Pacific Corporation and Subsidiary Companies

For purposes of this report, unless the context otherwise requires, all references herein to "Union Pacific", "Corporation", "Company", "UPC", "we", "us", and "our" mean Union Pacific Corporation and its subsidiaries, including Union Pacific Railroad Company, which will be separately referred to herein as "UPRR" or the "Railroad".

1. Nature of Operations

Operations and Segmentation – We are a Class I railroad operating in the U.S. Our network includes 32,693 route miles, connecting Pacific Coast and Gulf Coast ports with the Midwest and Eastern U.S. gateways and providing several corridors to key Mexican and Canadian gateways. We own 26,110 miles and operate on the remainder pursuant to trackage rights or leases. We serve the western two-thirds of the country and maintain coordinated schedules with other rail carriers for the handling of freight to and from the Atlantic Coast, the Pacific Coast, the Southeast, the Southwest, Canada, and Mexico. Export and import traffic is moved through Gulf Coast, Pacific Coast, and East Coast ports and across the Mexican and Canadian borders.

The Railroad, along with its subsidiaries and rail affiliates, is our one reportable operating segment. Although we provide and analyze revenues by commodity group, we treat the financial results of the Railroad as one segment due to the integrated nature of our rail network. Our operating revenues are primarily derived from contracts with customers for the transportation of freight from origin to destination. The following table represents a disaggregation of our freight and other revenues:

Millions	2023	2022	2021
Bulk	\$ 7,358	\$ 7,537	\$ 6,656
Industrial	8,238	8,205	7,323
Premium	6,975	7,417	6,265
Total freight revenues	\$ 22,571	\$ 23,159	\$ 20,244
Other subsidiary revenues	872	884	741
Accessorial revenues	584	779	752
Other	92	53	67
Total operating revenues	\$ 24,119	\$ 24,875	\$ 21,804

Although our revenues are principally derived from customers domiciled in the U.S., the ultimate points of origination or destination for some products we transport are outside the U.S. Each of our commodity groups includes revenues from shipments to and from Mexico. Included in the above table are freight revenues from our Mexico business which amounted to \$2.8 billion in 2023, \$2.7 billion in 2022, and \$2.4 billion in 2021.

Basis of Presentation – The Consolidated Financial Statements are presented in accordance with accounting principles generally accepted in the U.S. (GAAP) as codified in the Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC). Certain prior period amounts have been reclassified to conform to the current period financial statement presentation.

2. Significant Accounting Policies

Principles of Consolidation – The Consolidated Financial Statements include the accounts of Union Pacific Corporation and all of its subsidiaries. Investments in affiliated companies (20% to 50% owned) are accounted for using the equity method of accounting. All intercompany transactions are eliminated. We currently have no less than majority-owned investments that require consolidation under variable interest entity requirements.

Cash, Cash Equivalents, and Restricted Cash – Cash equivalents consist of investments with original maturities of three months or less. Amounts included in restricted cash represent those required to be set aside by contractual agreement.

The following table provides a reconciliation of cash, cash equivalents, and restricted cash reported within the Consolidated Statements of Financial Position that sum to the total of the same such amounts shown on the Consolidated Statements of Cash Flows:

Millions	2023	20	22	202	21
Cash and cash equivalents	\$ 1,055	\$ 9	73	\$ 96	30
Restricted cash equivalents in other current assets	10		10	1	19
Restricted cash equivalents in other assets	9		4		4
Total cash, cash equivalents, and restricted cash equivalents	\$ 1,074	\$ 9	87	\$ 98	33

Accounts Receivable – Accounts receivable includes receivables reduced by an allowance for doubtful accounts. The allowance is based upon historical losses, credit worthiness of customers, and current economic conditions. Receivables not expected to be collected in one year and the associated allowances are classified as other assets in our Consolidated Statements of Financial Position.

Investments – Investments represent our investments in affiliated companies (20% to 50% owned) that are accounted for under the equity method of accounting, and investments in companies (less than 20% owned) accounted for at fair value when there is a readily determined fair value or at cost minus impairment when there are not readily determinable fair values. Our portion of income/loss on equity method investments that are integral to our operations are recorded in operating expenses. Realized and unrealized gains and losses on investments that are not integral to our operations are recorded in other income.

Materials and Supplies – Materials and supplies are carried at the lower of average cost or net realizable value.

Property and Depreciation – Properties and equipment are carried at cost and are depreciated on a straight-line basis over their estimated service lives, which are measured in years, except for rail in high-density traffic corridors (i.e., all rail lines except for those lines subject to abandonment, yard tracks, and switching tracks), where lives are measured in millions of gross tons per mile of track. We use the group method of depreciation where all items with similar characteristics, use, and expected lives are grouped together in asset classes and are depreciated using composite depreciation rates. The group method of depreciation treats each asset class as a pool of resources, not as singular items. We determine the estimated service lives of depreciable railroad assets by means of depreciation studies. Under the group method of depreciation, no gain or loss is recognized when depreciable property is retired or replaced in the ordinary course of business.

Impairment of Long-Lived Assets – We review long-lived assets, including identifiable intangibles, for impairment when events or changes in circumstances indicate that the carrying amount of an asset may not be recoverable. If impairment indicators are present and the estimated future undiscounted cash flows are less than the carrying value of the long-lived assets, the carrying value is reduced to the estimated fair value.

Revenue Recognition – Freight revenues are derived from contracts with customers. We account for a contract when it has approval and commitment from both parties, the rights of the parties are identified, payment terms are identified, the contract has commercial substance, and collectability of consideration is probable. Our contracts include private agreements, private rate/letter quotes, public circulars/tariffs, and interline/foreign agreements. The performance obligation in our contracts is typically delivering a specific commodity from a place of origin to a place of destination and our commitment begins with the tendering and acceptance of a freight bill of lading and is satisfied upon delivery at destination. We consider each freight shipment to be a distinct performance obligation.

We recognize freight revenues over time as freight moves from origin to destination. The allocation of revenues between reporting periods is based on the relative transit time in each reporting period with expenses recognized as incurred. Outstanding performance obligations related to freight moves in transit totaled \$149 million at December 31, 2023, and \$194 million at December 31, 2022, and are expected to be recognized in the following quarter as we satisfy our remaining performance obligations and deliver freight to destination. The transaction price is generally specified in a contract and may be dependent on the commodity, origin/destination, and route. Customer incentives, which are primarily provided for shipping to/from specific locations or based on cumulative volumes, are recorded as a reduction to operating revenues. Customer incentives that include variable consideration based on cumulative volumes are estimated using the expected value method, which is based on available historical, current, and forecasted volumes, and recognized as the related performance obligation is satisfied.

Under typical payment terms, our customers pay us after each performance obligation is satisfied and there are no material contract assets or liabilities associated with our freight revenues. Outstanding freight receivables are presented in our Consolidated Statements of Financial Position as accounts receivable, net.

Freight revenues related to interline transportation services that involve other railroads are reported on a net basis. The portion of the gross amount billed to customers that is remitted by the Company to another party is not reflected as freight revenues.

Other revenues consist primarily of revenues earned by our other subsidiaries (primarily logistics and commuter rail operations) and accessorial revenues. Other subsidiary revenues are generally recognized over time as shipments move from origin to destination. The allocation of revenues between reporting periods is based on the relative transit time in each reporting period with expenses recognized as incurred. Accessorial revenues are recognized at a point in time as performance obligations are satisfied.

Translation of Foreign Currency – Our portion of the assets and liabilities related to foreign investments are translated into U.S. dollars at the exchange rates in effect at the balance sheet date. Revenues and expenses are translated at the average rates of exchange prevailing during the year. Unrealized gains or losses are reflected within common shareholders' equity as accumulated other comprehensive income or loss.

Fair Value Measurements – We use a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value into three broad levels. The level in the fair value hierarchy within which the fair value measurement in its entirety falls is determined based on the lowest level input that is significant to the fair value measurement in its entirety. These levels include:

- Level 1: Quoted market prices in active markets for identical assets or liabilities.
- Level 2: Observable market-based inputs or unobservable inputs that are corroborated by market data.
- Level 3: Unobservable inputs that are not corroborated by market data.

We have applied fair value measurements to our short-term investments, certain equity investments, pension plan assets, and short- and long-term debt.

Stock-Based Compensation – We issue treasury shares to cover stock option exercises, stock unit vestings, and ESPP shares, while new shares are issued when retention shares are granted.

We measure and recognize compensation expense for all stock-based awards made to employees, including stock options and ESPP awards. Compensation expense is based on the fair value of the awards as measured at the grant date and is expensed ratably over the service period of the awards (generally the vesting period). The fair value of retention awards is the closing stock price on the date of grant, the fair value of stock options is determined by using the Black-Scholes option pricing model, and the fair value of ESPP awards is based on the Company contribution match.

Earnings Per Share – Basic earnings per share are calculated on the weighted-average number of common shares outstanding during each period. Diluted earnings per share include shares issuable upon exercise of outstanding stock options and stock-based awards where the conversion of such instruments would be dilutive.

Income Taxes – We account for income taxes by recording taxes payable or refundable for the current year and deferred tax assets and liabilities for the expected future tax consequences of events that are reported in different periods for financial reporting and income tax purposes. The majority of our deferred tax assets relate to expenses that already have been recorded for financial reporting purposes but not deducted for tax purposes. The majority of our deferred tax liabilities relate to differences between the tax bases and financial reporting amounts of our land and depreciable property, due to accelerated tax depreciation (including bonus depreciation), revaluation of assets in purchase accounting transactions, and differences in capitalization methods. These expected future tax consequences are measured based on current tax law; the effects of future tax legislation are not anticipated.

When appropriate, we record a valuation allowance against deferred tax assets to reflect that these tax assets may not be realized. In determining whether a valuation allowance is appropriate, we consider whether it is more likely than not that all or some portion of our deferred tax assets will not be realized, based on management's judgments using available evidence for purposes of estimating whether future taxable income will be sufficient to realize a deferred tax asset.

We recognize tax benefits that are more likely than not to be sustained upon examination by tax authorities. The amount recognized is measured as the largest amount of benefit that is greater than 50 percent likely to be realized upon settlement. A liability for "unrecognized tax benefits" is recorded for any tax benefits claimed in our tax returns that do not meet these recognition and measurement standards.

Leases – We determine if an arrangement is or contains a lease at inception. Operating lease assets and operating lease liabilities are recognized based on the present value of the future minimum lease payments over the lease term at commencement date. When an implicit rate is not available, we use a collateralized incremental borrowing rate for operating leases based on the information available at commencement date, including lease term, in determining the present value of future payments. The operating lease asset also includes any lease payments made and excludes lease incentives and initial direct costs incurred. Our lease terms may include options to extend or terminate the lease when it is reasonably certain that the option will be exercised. Operating leases are included in operating lease assets, accounts payable and other current liabilities, and operating lease liabilities on our Consolidated Statements of Financial Position. Finance leases are included in properties, net, debt due within one year, and debt due after one year on our Consolidated Statements of Financial Position. Operating lease expense is recognized on a straight-line basis over the lease term and primarily reported in equipment and other rents and financing lease expense is recorded as depreciation and interest expense in our Consolidated Statements of Income.

We have lease agreements with lease and non-lease components, and we have elected to not separate lease and non-lease components for all classes of underlying assets. Leases with an initial term of 12 months or less are not recorded on our Consolidated Statements of Financial Position. Leases with initial terms in excess of 12 months are recorded as operating or financing leases in our Consolidated Statements of Financial Position.

Pension Benefits – In order to measure the expense associated with pension benefits, we must make various assumptions including discount rates used to value certain liabilities, expected return on plan assets used to fund these expenses, compensation increases, employee turnover rates, and anticipated mortality rates. The assumptions used by us are based on our historical experience as well as current facts and circumstances. We use an actuarial analysis to measure the expense and liability associated with these benefits.

Personal Injury – The cost of injuries to employees and others on our property is charged to expense based on estimates of the ultimate cost and number of incidents each year. We use an actuarial analysis to measure the expense and liability, including unasserted claims. Our personal injury liability is not discounted to present value due to the uncertainty surrounding the timing of future payments. Legal fees and incidental costs are expensed as incurred.

Environmental – When environmental issues have been identified with respect to property currently or formerly owned, leased, or otherwise used in the conduct of our business, we perform, with the assistance of our consultants, environmental assessments on such property. We expense the cost of the assessments as incurred. We accrue the cost of remediation where our obligation is probable and such costs can be reasonably estimated. We do not discount our environmental liabilities when the timing of the anticipated cash payments is not fixed or readily determinable. Legal fees and incidental costs are expensed as incurred.

Use of Estimates – The preparation of our Consolidated Financial Statements in conformity with GAAP requires management to make estimates and assumptions that affect certain reported assets and liabilities, the disclosure of certain contingent assets and liabilities as of the date of the Consolidated Financial Statements, as well as the reported amounts of revenues and expenses during the reporting period. Actual future results may differ from such estimates.

3. Accounting Pronouncements

In December 2023, the FASB issued Accounting Standards Update No. (ASU) 2023-09, *Income Taxes (Topic 740): Improvements to Income Tax Disclosures*, which requires business entities to expand their annual disclosures of the effective rate reconciliation and income taxes paid. The ASU is effective for fiscal years beginning after December 15, 2024, may be adopted on a prospective or retrospective basis, and early adoption is permitted. The Company is currently evaluating the effect that the new guidance will have on our related disclosures.

In November 2023, the FASB issued ASU 2023-07, Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures, which requires business entities to enhance disclosures about significant segment expenses. The ASU is effective for fiscal years beginning after December 15, 2023, on a retrospective basis, and early adoption is permitted. The Company is currently evaluating the effect that the new guidance will have on our related disclosures.

4. Stock Options and Other Stock Plans

In April 2000, the shareholders approved the Union Pacific Corporation 2000 Directors Plan (Directors Plan) whereby 2,200,000 shares of our common stock were reserved for issuance to our non-employee directors. Under the Directors Plan, each non-employee director, upon his or her initial election to the Board of Directors, received a grant of 4,000 retention shares or retention stock units. In July 2018, the Board of Directors eliminated the retention grant for directors newly elected in 2018 and all future years. As of December 31, 2023, 16,000 restricted shares were outstanding under the Directors Plan.

The Union Pacific Corporation 2013 Stock Incentive Plan (2013 Plan) was approved by shareholders in May 2013. The 2013 Plan reserved 78,000,000 shares of our common stock for issuance, plus any shares subject to awards made under previous plans as of February 28, 2013, that are subsequently cancelled, expired, forfeited, or otherwise not issued under previous plans. Under the 2013 Plan, non-qualified stock options, incentive stock options, retention shares, stock units, and incentive bonus awards may be granted to eligible employees of the Corporation and its subsidiaries. Non-employee directors are not eligible for awards under the 2013 Plan. As of December 31, 2023, 1,090,770 stock options and 245,107 retention shares and stock units were outstanding under the 2013 Plan. We no longer grant any stock options or other stock or unit awards under this plan.

The Union Pacific Corporation 2021 Stock Incentive Plan (2021 Plan) was approved by shareholders in May 2021. The 2021 Plan reserved 23,000,000 shares of our common stock for issuance, plus any shares subject to awards made under previous plans as of December 31, 2020, that are subsequently cancelled, expired, forfeited, or otherwise not issued under previous plans. Under the 2021 Plan, non-qualified stock options, incentive stock options, retention shares, stock units, and incentive bonus awards may be granted to eligible employees of the Corporation and its subsidiaries. Non-employee directors are not eligible for awards under the 2021 Plan. As of December 31, 2023, 981,484 stock options and 1,059,344 retention shares were outstanding under the 2021 Plan.

The Union Pacific Corporation 2021 Employee Stock Purchase Plan (2021 ESPP) was approved by shareholders in May 2021. The 2021 ESPP reserved 10,000,000 shares of our common stock for issuance. Under the 2021 ESPP, eligible employees of the Corporation and its subsidiaries may elect to purchase shares with a Company match award. Non-employee directors are not eligible for awards under the 2021 ESPP. As of December 31, 2023, 754,708 shares were issued under the 2021 ESPP.

Pursuant to the above plans 31,979,909; 33,185,971; and 34,011,624 shares of our common stock were authorized and available for grant at December 31, 2023, 2022, and 2021, respectively.

Stock-Based Compensation – We have several stock-based compensation plans where employees receive nonvested stock options, nonvested retention shares, and nonvested stock units. We refer to the nonvested shares and stock units collectively as "retention awards". Employees also are able to participate in our ESPP.

Information regarding stock-based compensation expense appears in the table below:

Millions	2023	2022	2021
Stock-based compensation expense, before tax:			
Stock options	\$ 16	\$ 14	\$ 15
Retention awards	71	68	66
ESPP	20	17	7
Total stock-based compensation expense, before tax	\$ 107	\$ 99	\$ 88
Excess income tax benefits from equity compensation plans	\$ 11	\$ 21	\$ 26

Stock Options – Stock options are granted at the closing price on the date of grant, have 10-year contractual terms, and vest no later than 3 years from the date of grant. None of the stock options outstanding at December 31, 2023, are subject to performance or market-based vesting conditions.

The table below shows the annual weighted-average assumptions used for Black-Scholes valuation purposes:

Weighted-Average Assumptions	2023		2022		2021
Risk-free interest rate	3.9%)	1.6%)	0.4%
Dividend yield	2.6%)	1.9%)	1.9%
Expected life (years)	4.5	4.5			4.6
Volatility	29.3%		% 28.7%		28.3%
Weighted-average grant-date fair value of options granted	\$ 48.31	\$	51.92	\$	39.97

The risk-free rate is based on the U.S. Treasury yield curve in effect at the time of grant; the expected dividend yield is calculated as the ratio of dividends paid per share of common stock to the stock price on the date of grant; the expected life is based on historical and expected exercise behavior; and expected volatility is based on the historical volatility of our stock price over the expected life of the stock option.

A summary of stock option activity during 2023 is presented below:

-				Weighted-Average		
	Options	W	eighted-Average	Remaining Contractual	Αg	ggregate Intrinsic
	(thous.)		Exercise Price	Term (yrs.)		Value (millions)
Outstanding at January 1, 2023	1,974	\$	169.64	6.0	\$	86
Granted	351		202.81	N/A		N/A
Exercised	(233)		118.29	N/A		N/A
Forfeited or expired	(20)		218.46	N/A		N/A
Outstanding at December 31, 2023	2,072	\$	180.56	5.9	\$	135
Vested or expected to vest at December 31, 2023	2,053	\$	180.23	5.9	\$	134
Options exercisable at December 31, 2023	1,423	\$	164.48	4.8	\$	115

At December 31, 2023, there was \$16 million of unrecognized compensation expense related to nonvested stock options, which is expected to be recognized over a weighted-average period of 1.0 year. Additional information regarding stock option exercises appears in the following table:

Millions	2023		2022	2021
Intrinsic value of stock options exercised	\$ 23	\$	53	\$ 84
Cash received from option exercises	27	•	27	58
Treasury shares repurchased for employee payroll taxes	(5)		(8)	(15)
Income tax benefit realized from option exercises	5		8	16
Aggregate grant-date fair value of stock options vested	\$ 14	\$	13	\$ 14

Retention Awards – Retention awards are granted at no cost to the employee, vest over periods lasting up to 4 years, and dividends and dividend equivalents are paid to participants during the vesting periods.

Changes in our retention awards during 2023 were as follows:

		Weighted-Average Gr				
	Shares (thous.)		Date Fair Value			
Nonvested at January 1, 2023	1,069	\$	196.47			
Granted	297		202.88			
Vested	(317)		165.34			
Forfeited	(53)		206.43			
Nonvested at December 31, 2023	996	\$	207.76			

At December 31, 2023, there was \$82 million of total unrecognized compensation expense related to nonvested retention awards, which is expected to be recognized over a weighted-average period of 1.4 years.

Performance Stock Unit Awards – In February 2023, our Board of Directors approved performance stock unit grants. The basic terms of these performance stock units are identical to those granted in February 2022, including the annual return on invested capital (ROIC) and operating income growth (OIG) performance targets. The OIG performance targets compare to companies in the S&P 100 Industrials Index plus the Class I railroads. We define ROIC as net operating profit adjusted for interest expense (including interest on average operating lease liabilities) and taxes on interest divided by average invested capital adjusted for average operating lease liabilities.

The February 2023 stock units awarded to executives are subject to continued employment for 37 months, the attainment of certain levels of ROIC, and the relative three-year OIG. We expense two-thirds of the fair value of the units that are probable of being earned based on our forecasted ROIC over the three-year performance period, and with respect to the third year of the plan, we expense the remaining one-third of the fair value subject to the relative three-year OIG. We measure the fair value of performance stock units based upon the closing price of the underlying common stock as of the date of grant. Dividend equivalents are accumulated during the service period and paid to participants only after the units are earned.

Changes in our performance stock unit awards during 2023 were as follows:

		Weighted	d-Average Grant-
	Shares (thous.)		Date Fair Value
Nonvested at January 1, 2023	594	\$	199.82
Granted	251		202.81
Vested	(78)		189.29
Unearned	(127)		186.11
Forfeited	(23)		218.31
Nonvested at December 31, 2023	617	\$	204.50

At December 31, 2023, there was \$13 million of total unrecognized compensation expense related to nonvested performance stock unit awards, which is expected to be recognized over a weighted-average period of 0.8 years. This expense is subject to achievement of the performance measures established for the performance stock unit grants.

Employee Stock Purchase Plan - Our ESPP started in July 2021. Employee and Company contributions are used to issue treasury shares the month after employee contributions are withheld based on the settlement date closing price. The Company matches 40% contributed by the employee up to a maximum employee contribution of 5% of monthly salary (limited to \$15,000 annually). We expense the Company contributions in the month the employee services were rendered (i.e., the month the employee contributions were withheld).

5. Retirement Plans

Pension Benefits

We provide defined benefit retirement income to eligible non-union employees through qualified and non-qualified (supplemental) pension plans. Qualified and non-qualified pension benefits are based on years of service and the highest compensation during the latest years of employment, with specific reductions made for early retirements. Non-union employees hired on or after January 1, 2018, are no longer eligible for pension benefits, but are eligible for an enhanced 401(k) benefit as described below in other retirement programs.

Funded Status

We are required by GAAP to separately recognize the overfunded or underfunded status of our pension plans as an asset or liability. The funded status represents the difference between the projected benefit obligation (PBO) and the fair value of the plan assets. Our non-qualified (supplemental) pension plan is unfunded by design. The PBO of the pension plans is the present value of benefits earned to date by plan participants, including the effect of assumed future compensation increases. Plan assets are measured at fair value. We use a December 31 measurement date for plan assets and obligations for all our retirement plans.

Changes in our PBO and plan assets were as follows for the years ended December 31:

Funded Status	 		
Millions	2023	2	2022
Projected Benefit Obligation			
Projected benefit obligation at beginning of year	\$ 3,725	\$ 5	,296
Service cost	52		93
Interest cost	187		123
Actuarial loss/(gain)	146	(1	,557)
Gross benefits paid	(230)		(230)
Projected benefit obligation at end of year	\$ 3,880	\$ 3	,725
Plan Assets			
Fair value of plan assets at beginning of year	\$ 4,363	\$ 5	,554
Actual return/(loss) on plan assets	235	((992)
Non-qualified plan benefit contributions	32		31
Gross benefits paid	(230)	((230)
Fair value of plan assets at end of year	\$ 4,400	\$ 4	,363
Funded status at end of year	\$ 520	\$	638

Actuarial losses that increase the PBO were driven by a decrease in 2023 discount rates from 5.21% to 5.00%. Actuarial gains that decreased the PBO were driven by an increase in 2022 discount rates from 2.80% to 5.21%.

Amounts recognized in the statement of financial position as of December 31, 2023 and 2022, consist of:

Millions	2023	2022
Noncurrent assets	\$ 924 \$	1,033
Current liabilities	(31)	(31)
Noncurrent liabilities	(373)	(364)
Net amounts recognized at end of year	\$ 520 \$	638

Pre-tax amounts recognized in accumulated other comprehensive income/loss consist of \$643 million and \$493 million net actuarial loss as of December 31, 2023 and 2022, respectively.

Pre-tax changes recognized in other comprehensive income/loss as of December 31, 2023, 2022, and 2021, were as follows:

Millions	2023	2022	2021
Net actuarial (loss)/gain	\$ (159) \$	272	\$ 813
Amortization of:			
Actuarial loss	9	86	141
Total	\$ (150) \$	358	\$ 954

Underfunded Accumulated Benefit Obligation – The accumulated benefit obligation (ABO) is the present value of benefits earned to date, assuming no future compensation growth. The underfunded accumulated benefit obligation represents the difference between the ABO and the fair value of plan assets.

The following table discloses only the PBO, ABO, and fair value of plan assets for pension plans where the accumulated benefit obligation is in excess of the fair value of the plan assets as of December 31:

Underfunded Accumulated Benefit Obligation		
Millions	2023	2022
Projected benefit obligation	\$ 404	\$ 394
Accumulated benefit obligation	\$ 399	\$ 382
Fair value of plan assets	-	-
Underfunded accumulated benefit obligation	\$ (399)	\$ (382)

The ABO for all defined benefit pension plans was \$3.6 billion and \$3.5 billion at December 31, 2023 and 2022, respectively.

Assumptions – The weighted-average actuarial assumptions used to determine benefit obligations at December 31:

Percentages	2023	2022
Discount rate	5.00%	5.21%
Compensation increase	4.00%	4.10%

Expense

Pension expense is determined based upon the annual service cost of benefits (the actuarial cost of benefits earned during a period) and the interest cost on those liabilities, less the expected return on plan assets. The expected long-term rate of return on plan assets is applied to a calculated value of plan assets that recognizes changes in fair value over a 5-year period. This practice is intended to reduce year-to-year volatility in pension expense, but it can have the effect of delaying the recognition of differences between actual returns on assets and expected returns based on long-term rate of return assumptions. Differences in actual experience in relation to assumptions are not recognized in net income immediately but are deferred in accumulated other comprehensive income/loss and, if necessary, amortized as pension expense.

The components of our net periodic pension benefit/cost were as follows for the years ended December 31:

Millions	2023	2022	2021
Net Periodic Pension Cost:			
Service cost	\$ 52	\$ 93	\$ 110
Interest cost	187	123	104
Expected return on plan assets	(248)	(293)	(270)
Amortization of:			
Actuarial loss	9	86	141
Net periodic pension cost	\$ -	\$ 9	\$ 85

Assumptions – The weighted-average actuarial assumptions used to determine expense were as follows:

Percentages	2023	2022	2021
Discount rate for benefit obligations	5.21%	2.80%	2.42%
Discount rate for interest on benefit obligations	5.14%	2.40%	1.90%
Discount rate for service cost	5.19%	2.91%	2.61%
Discount rate for interest on service cost	5.21%	2.86%	2.53%
Expected return on plan assets	5.25%	6.25%	6.25%
Compensation increase	4.10%	4.10%	4.40%

We measure the service cost and interest cost components of our net periodic pension benefit/cost by using individual spot discount rates matched with separate cash flows for each future year. The discount rates were based on a yield curve of high-quality corporate bonds. The expected return on plan assets is based on our asset allocation mix and our historical return, taking into account current and expected market conditions. The actual return/(loss) on pension plan assets, net of fees, was approximately 6% in 2023, (18%) in 2022, and 15% in 2021.

Cash Contributions

The following table details cash contributions, if any, for the qualified and non-qualified (supplemental) pension plans:

Millions	Qualified	1	Non-qualified
2023	\$	- \$	32
2022	\$	- \$	31

Our policy with respect to funding the qualified pension plans is to fund at least the minimum required by law and not more than the maximum amount deductible for tax purposes.

The non-qualified pension plans are not funded and are not subject to any minimum regulatory funding requirements. Benefit payments for each year represent supplemental pension payments. We anticipate our 2024 supplemental pension payments will be made from cash generated from operations.

Benefit Payments

The following table details expected benefit payments for the years 2024 through 2033:

Millions	
2024	\$ 230
2025	229
2026	229 229
2027	230
2028	231
Years 2029 - 2033	\$ 1,188

Asset Allocation Strategy

Our pension plan asset allocation at December 31, 2023 and 2022, and target allocation for 2024, are as follows:

		Percentage of Pla	an Assets	
	Target	Dece	cember 31,	
	Allocation 2024	2023	2022	
Equity securities	20% to 30%	24%	48%	
Debt securities	70% to 80%	75	51	
Real estate	0% to 2%	1	1	
Total		100%	100%	

The pension plan investments are held in a master trust. The investment strategy for pension plan assets is to maintain a broadly diversified portfolio designed to achieve our target average long-term rate of return of 5.25%. While we believe we can achieve a long-term average rate of return of 5.25%, we cannot be certain that the portfolio will perform to our expectations. Assets are strategically allocated among equity, debt, and other investments in order to achieve a diversification level that reduces fluctuations in investment returns. Asset allocation target ranges for equity, debt, and other portfolios are evaluated at least every three years with the assistance of an independent consulting firm. Actual asset allocations are monitored monthly, and rebalancing actions are executed at least quarterly, as needed.

Since 2020, the asset allocation targets for equity and debt have been adjusted annually to move from equity to debt as a derisking measure. We met our target endpoint of 25% equity and 75% debt in 2023. The average credit rating of the debt portfolio was AA- and A+ at December 31, 2023 and 2022, respectively. The debt portfolio is also broadly diversified and invested primarily in U.S. Treasury, mortgage, and corporate securities. The weighted-average maturity of the debt portfolio was 22 years and 21 years at December 31, 2023 and 2022, respectively.

The investment of pension plan assets in securities issued by UPC is explicitly prohibited by the plan for both the equity and debt portfolios, other than through index fund holdings.

Fair Value Measurements

The pension plan assets are valued at fair value. The following is a description of the valuation methodologies used for the investments measured at fair value, including the general classification of such instruments pursuant to the valuation hierarchy.

Temporary Cash Investments – These investments consist of U.S. dollars and foreign currencies. Foreign currencies held are reported in terms of U.S. dollars based on currency exchange rates readily available in active markets. U.S. dollars and foreign currencies are classified as Level 1 investments.

Registered Investment Companies – Registered Investment Companies are entities primarily engaged in the business of investing in securities and are registered with the SEC. The plan's prior holdings of Registered Investment Companies included both public and private fund vehicles. The public vehicles are exchange-traded funds (stocks), which are classified as Level 1 investments. The private vehicles (bonds) do not have published pricing and are valued using Net Asset Value (NAV).

Federal Government Securities – Federal Government Securities consist of bills, notes, bonds, and other fixed income securities issued directly by the U.S. Treasury or by government-sponsored enterprises. These assets are valued using a bid evaluation process with bid data provided by independent pricing sources. Federal Government Securities are classified as Level 2 investments.

Bonds and Debentures – Bonds and debentures consist of debt securities issued by U.S. and non-U.S. corporations as well as state and local governments. These assets are valued using a bid evaluation process with bid data provided by independent pricing sources. Corporate, state, and municipal bonds and debentures are classified as Level 2 investments.

Corporate Stock – This investment category consists of common and preferred stock issued by U.S. and non-U.S. corporations. Most common shares are traded actively on exchanges and price quotes for these shares are readily available. Common stock is classified as a Level 1 investment. Preferred shares included in this category are valued using a bid evaluation process with bid data provided by independent pricing sources. Preferred stock is classified as a Level 2 investment.

Venture Capital and Buyout Partnerships – This investment category is comprised of interests in limited partnerships that invest primarily in privately-held companies. Due to the private nature of the partnership investments, pricing inputs are not readily observable. Asset valuations are developed by the general partners that manage the partnerships. These valuations are based on the application of public market multiples to private company cash flows, market transactions that provide valuation information for comparable companies, and other methods. The fair value recorded by the plan is calculated using each partnership's NAV.

Real Estate Funds – The plan's real estate investments are primarily interests in private real estate investment trusts, partnerships, limited liability companies, and similar structures. Valuations for the holdings in this category are not based on readily observable inputs and are primarily derived from property appraisals. The fair value recorded by the plan is calculated using the NAV for each investment.

Collective Trust and Other Funds – Collective trust and other funds are comprised of shares or units in commingled funds and limited liability companies that are not publicly traded. The underlying assets in these entities (global stock funds and short-term investment funds) are publicly traded on exchanges and price quotes for the assets held by these funds are readily available. The fair value recorded by the plan is calculated using NAV for each investment.

As of December 31, 2023, the pension plan assets measured at fair value on a recurring basis were as follows:

	Λ	ted Prices in Active larkets for ical Inputs	Significant Other Observable Inputs	Significant Unobservable Inputs	
Millions		(Level 1)	(Level 2)	(Level 3)	Total
Plan assets at fair value:					
Temporary cash investments	\$	-	\$ -	\$ -	\$ -
Registered investment companies [a]		-	-	-	-
Federal government securities		-	1,508	-	1,508
Bonds and debentures		-	1,696	-	1,696
Corporate stock		176	5	-	181
Total plan assets at fair value	\$	176	\$ 3,209	\$ -	\$ 3,385
Plan assets at NAV:					
Registered investment companies [b]					-
Venture capital and buyout partnerships					554
Real estate funds					30
Collective trust and other funds					382
Total plan assets at NAV					\$ 966
Other assets/(liabilities) [c]					49
Total plan assets					\$ 4,400

As of December 31, 2022, the pension plan assets measured at fair value on a recurring basis were as follows:

Millions	N	ted Prices in Active flarkets for ical Inputs (Level 1)		Significant Other Observable Inputs (Level 2)	Ur	Significant nobservable Inputs (Level 3)		Total
Plan assets at fair value:	Φ.	4	Φ.		Φ.		Φ.	4
Temporary cash investments	\$	1	\$	-	\$	-	\$	1
Registered investment companies [a]		6		- 000		-		6
Federal government securities		-		803		-		803
Bonds and debentures		-		1,069		-		1,069
Corporate stock		1,104		7		-		1,111
Total plan assets at fair value	\$	1,111	\$	1,879	\$	-	\$	2,990
Plan assets at NAV:								
Registered investment companies [b]								68
Venture capital and buyout partnerships								611
Real estate funds								37
Collective trust and other funds								622
Total plan assets at NAV							\$	1,338
Other assets/(liabilities) [c]								35
Total plan assets			·				\$	4,363

[[]a] Registered investment companies measured at fair value are stock investments.

The master trust's investments in limited partnerships and similar structures (used to invest in private equity and real estate) are valued at fair value based on their proportionate share of the partnerships' fair value as recorded in the limited partnerships' audited financial statements. The limited partnerships allocate gains, losses, and expenses to the partners based on the ownership percentage as described in the partnership agreements. At December 31, 2023 and 2022, the master trust had future commitments for additional contributions to private equity partnerships totaling \$80 million and \$91 million, respectively, and to real estate partnerships and funds totaling \$5 million and \$5 million, respectively.

[[]b] Registered investment companies measured at NAV include bond investments.

[[]c] Includes accrued receivables, net payables, and pending broker settlements.

Other Retirement Programs

Other Post Retirement Benefits – We provide medical and life insurance benefits for eligible retirees hired before January 1, 2004. These benefits are funded as medical claims and life insurance premiums are paid. OPEB expense is determined based upon the annual service cost of benefits and the interest cost on those liabilities plus amortization of net (gain)/loss amounts offset by amortization of prior service credits recorded in AOCI. Our OPEB liability was \$104 million and \$134 million at December 31, 2023 and 2022, respectively. The liability is based on discount rate assumptions of 4.97% and 5.23% at December 31, 2023 and 2022, respectively. OPEB net periodic (benefit)/cost was (\$7) million in 2023, (\$2) million in 2022, and (\$3) million in 2021.

401(k)/Thrift Plan – For non-union employees hired prior to January 1, 2018, and eligible union employees for whom we make matching contributions, we provide a defined contribution plan (401(k)/thrift plan). We match 50% for each dollar contributed by employees up to the first 6% of compensation contributed. For non-union employees hired on or after January 1, 2018, we match 100% for each dollar, up to the first 6% of compensation contributed, in addition to contributing an annual amount of 3% of the employee's annual base salary. Our plan contributions were \$27 million in 2023, \$24 million in 2022, and \$21 million in 2021.

Railroad Retirement System – All Railroad employees are covered by the Railroad Retirement System (the System). Contributions made to the System are expensed as incurred and amounted to approximately \$711 million in 2023, \$586 million in 2022, and \$550 million in 2021.

Collective Bargaining Agreements – Under collective bargaining agreements, we participate in multi-employer benefit plans that provide certain post retirement health care and life insurance benefits for eligible union employees. Premiums paid under these plans are expensed as incurred and amounted to \$16 million in 2023, \$20 million in 2022, and \$30 million in 2021.

6. Other Income

Other income included the following for the years ended December 31:

Millions	2023	2022	2021
Real estate income [a] [b]	\$ 414	\$ 381 \$	263
Net periodic pension benefit/(costs)	52	84	25
Interest income [a]	52	23	4
Environmental remediation and restoration	(37)	(47)	(17)
Gain from sale of investment	-	-	36
Other [a]	10	(15)	(14)
Total	\$ 491	\$ 426 \$	297

[[]a] Prior periods have been reclassified to conform to the current period disclosure.

[[]b] 2023 includes a one-time \$107 million transaction. 2022 includes a \$79 million gain from a land sale to the Illinois State Toll Highway Authority and a \$35 million gain from a sale to the Colorado Department of Transportation. 2021 includes a \$50 million gain from a sale to the Colorado Department of Transportation.

7. Income Taxes

Components of income tax expense were as follows for the years ended December 31:

Millions	2023	2022	202	21
Current tax expense:				
Federal	\$ 1,417	\$ 1,465	\$ 1,44	46
State	314	340	34	47
Foreign	6	7		8
Total current tax expense	1,737	1,812	1,80	01
Deferred and other tax expense/(benefit):				
Federal	219	320	19	99
State [a]	(104)	(59)	(4	44)
Foreign	2	1		(1)
Total deferred and other tax expense	117	262	15	54
Total income tax expense	\$ 1,854	\$ 2,074	\$ 1,95	55

[[]a] In 2023, Nebraska, Iowa, Kansas, and Arkansas enacted corporate income tax legislation that resulted in a \$114 million reduction of our deferred tax expense. In 2022, Nebraska, Iowa, Arkansas, and Idaho enacted corporate income tax legislation that resulted in a \$95 million reduction of our deferred tax expense. In 2021, Nebraska, Oklahoma, Idaho, Louisiana, and Arkansas enacted corporate income tax legislation that resulted in a \$32 million reduction of our deferred tax expense.

For the years ended December 31, reconciliations between statutory and effective tax rates are as follows:

Tax Rate Percentages	2023	2022	2021
Federal statutory tax rate	21.0%	21.0%	21.0%
State statutory rates, net of federal benefits	3.4	3.6	3.7
Deferred tax adjustments	(1.2)	(1.0)	(0.6)
Dividends received deduction	(0.6)	(0.5)	(0.5)
Excess tax benefits from equity compensation plans	(0.1)	(0.2)	(0.3)
Other	-	-	(0.2)
Effective tax rate	22.5%	22.9%	23.1%

Deferred income tax assets/(liabilities) were comprised of the following at December 31:

Millione	2022	2022
Millions	2023	2022
Deferred income tax liabilities:		
Property	\$ (12,987)	\$ (12,910)
Operating lease assets	(404)	(411)
Other	(556)	(591)
Total deferred income tax liabilities	(13,947)	(13,912)
Deferred income tax assets:		
Operating lease liabilities	394	401
Accrued casualty costs	168	164
Accrued wages	50	50
Stock compensation	26	26
Other	186	238
Total deferred income tax assets	824	879
Net deferred income tax liability	\$ (13,123)	\$ (13,033)

In 2023 and 2022, there were no valuation allowances against deferred tax assets.

A reconciliation of changes in unrecognized tax benefits liabilities/(assets) from the beginning to the end of the reporting period is as follows:

Millions	2023	2022	2021
Unrecognized tax benefits at January 1	\$ 34 \$	38	\$ 74
Lapse of statutes of limitations	(4)	(3)	(1)
Decreases for positions taken in prior years	(1)	(4)	(24)
Increases for positions taken in current year	1	3	3
Refunds from/(payments to) and settlements with taxing authorities	-	-	(12)
Increases/(decreases) for interest and penalties	-	-	(3)
Increases for positions taken in prior years	-	-	1
Unrecognized tax benefits at December 31	\$ 30 \$	34 9	\$ 38

We recognize interest and penalties as part of income tax expense. Total accrued liabilities/(receivables) for interest and penalties were (\$4) million and (\$3) million at December 31, 2023 and 2022, respectively. Total interest and penalties recognized as part of income tax expense/(benefit) were (\$1) million for 2023, (\$2) million for 2022, and (\$5) million for 2021.

Several state tax authorities are examining our state income tax returns for years 2018 through 2022.

We do not expect our unrecognized tax benefits to change significantly in the next 12 months. The portion of our unrecognized tax benefits that relates to permanent changes in tax and interest would reduce our effective tax rate, if recognized. The remaining unrecognized tax benefits relate to tax positions for which only the timing of the benefit is uncertain. The unrecognized tax benefits that would reduce our effective tax rate are \$30 million for 2023, \$31 million for 2022, and \$31 million for 2021.

8. Earnings Per Share

The following table provides a reconciliation between basic and diluted earnings per share for the years ended December 31:

Millions, Except Per Share Amounts	2023	2022	2021
Net income	\$ 6,379	\$ 6,998	\$ 6,523
Weighted-average number of shares outstanding:			
Basic	609.2	622.7	653.8
Dilutive effect of stock options	0.4	0.6	8.0
Dilutive effect of retention shares and units	0.6	0.7	0.8
Diluted	610.2	624.0	655.4
Earnings per share - basic	\$ 10.47	\$ 11.24	\$ 9.98
Earnings per share - diluted	\$ 10.45	\$ 11.21	\$ 9.95

Common stock options totaling 0.9 million, 0.3 million, and 0.2 million for 2023, 2022, and 2021, respectively, were excluded from the computation of diluted earnings per share because the exercise prices of these stock options exceeded the average market price of our common stock for the respective periods, and the effect of their inclusion would be anti-dilutive.

9. Accumulated Other Comprehensive Income/Loss

Reclassifications out of accumulated other comprehensive income/loss were as follows (net of tax):

	Defined benefit	Foreign currency	Unrealized gai		
Millions	plans	translation	instruments [a]	Total
Balance at January 1, 2023	\$ (378)	\$ (204)	\$ -	\$	(582)
Other comprehensive income/(loss) before reclassifications	5	58	16		79
Amounts reclassified from accumulated other comprehensive income/(loss) [b]	(111)	-	-		(111)
Net year-to-date other comprehensive income/(loss), net of taxes of \$31 million	(106)	58	16		(32)
Balance at December 31, 2023	\$ (484)	\$ (146)	\$ 16	\$	(614)
Balance at January 1, 2022	\$ (658)	\$ (256)	\$ -	\$	(914)
Other comprehensive income/(loss) before reclassifications	-	52	-		52
Amounts reclassified from accumulated other comprehensive income/(loss) [b]	280	-	-		280
Net year-to-date other comprehensive income/(loss), net of taxes of (\$92) million	280	52	-		332
Balance at December 31, 2022	\$ (378)	\$ (204)	\$ -	\$	(582)

[[]a] Related to interest rate swaps from equity method investments.

10. Accounts Receivable

Accounts receivable includes freight and other receivables reduced by an allowance for doubtful accounts. At December 31, 2023 and 2022, our accounts receivable were reduced by \$9 million and \$10 million, respectively. Receivables not expected to be collected in one year and the associated allowances are classified as other assets in our Consolidated Statements of Financial Position. At December 31, 2023 and 2022, receivables classified as other assets were reduced by allowances of \$71 million and \$58 million, respectively.

Receivables Securitization Facility – The Railroad maintains an \$800 million, 3-year receivables securitization facility (the Receivables Facility) maturing in July 2025. Under the Receivables Facility, the Railroad sells most of its eligible third-party receivables to Union Pacific Receivables, Inc. (UPRI), a consolidated, wholly-owned, bankruptcy-remote subsidiary that may subsequently transfer, without recourse, an undivided interest in accounts receivable to investors. The investors have no recourse to the Railroad's other assets except for customary warranty and indemnity claims. Creditors of the Railroad do not have recourse to the assets of UPRI.

The amount recorded under the Receivables Facility was \$0 and \$100 million at December 31, 2023 and 2022, respectively. The Receivables Facility was supported by \$1.7 billion and \$1.6 billion of accounts receivable as collateral at December 31, 2023 and 2022, respectively, which, as a retained interest, is included in accounts receivable, net in our Consolidated Statements of Financial Position.

The outstanding amount the Railroad maintains under the Receivables Facility may fluctuate based on current cash needs. The maximum allowed under the Receivables Facility is \$800 million with availability directly impacted by eligible receivables, business volumes, and credit risks, including receivables payment quality measures such as default and dilution ratios. If default or dilution ratios increase one percent, the allowable outstanding amount under the Receivables Facility would not materially change.

The costs of the Receivables Facility include interest, which will vary based on prevailing benchmark and commercial paper rates, program fees paid to participating banks, commercial paper issuance costs, and fees of participating banks for unused commitment availability. The costs of the Receivables Facility are included in interest expense and were \$9 million, \$10 million, and \$4 million for 2023, 2022, and 2021, respectively.

[[]b] The accumulated other comprehensive income/loss reclassification components are 1) prior service cost/credit and 2) net actuarial loss, which are both included in the computation of net periodic pension benefit/cost. See Note 5 Retirement Plans for additional details.

11. Properties

The following tables list the major categories of property and equipment as well as the weighted-average estimated useful life for each category (in years):

Millions, Except Estimated Useful Life		Accumulated	Net Book	Estimated
As of December 31, 2023	Cost	Depreciation	Value	Useful Life
Land	\$ 5,426	\$ N/A	\$ 5,426	N/A
Road:				
Rail and other track material	18,837	7,344	11,493	42
Ties	11,985	3,895	8,090	34
Ballast	6,345	2,061	4,284	34
Other roadway [a]	23,175	5,368	17,807	47
Total road	60,342	18,668	41,674	N/A
Equipment:				
Locomotives	9,295	3,591	5,704	18
Freight cars	2,765	956	1,809	23
Work equipment and other	1,344	546	798	17
Total equipment	13,404	5,093	8,311	N/A
Technology and other	1,388	574	814	12
Construction in progress	1,173	-	1,173	N/A
Total	\$ 81,733	\$ 24,335	\$ 57,398	N/A
Millions, Except Estimated Useful Life		Accumulated	Net Book	Estimated
Millions, Except Estimated Useful Life As of December 31, 2022	Cost	Accumulated Depreciation	Net Book Value	Estimated Useful Life
•	\$ Cost 5,344		\$	
As of December 31, 2022	\$	Depreciation	\$ Value	Useful Life
As of December 31, 2022 Land	\$	Depreciation	\$ Value	Useful Life
As of December 31, 2022 Land Road:	\$ 5,344	Depreciation \$ N/A	\$ <i>Value</i> 5,344	Useful Life N/A
As of December 31, 2022 Land Road: Rail and other track material	\$ 5,344 18,419	DepreciationN/A7,096	\$ Value 5,344 11,323	Useful Life N/A
As of December 31, 2022 Land Road: Rail and other track material Ties	\$ 5,344 18,419 11,676	### Depreciation N/A	\$ Value 5,344 11,323 7,977	Useful Life N/A 43 34
As of December 31, 2022 Land Road: Rail and other track material Ties Ballast	\$ 5,344 18,419 11,676 6,222	### Depreciation N/A 7,096 3,699 1,950 1,95	\$ Value 5,344 11,323 7,977 4,272	Useful Life N/A 43 34 34
As of December 31, 2022 Land Road: Rail and other track material Ties Ballast Other roadway [a]	\$ 5,344 18,419 11,676 6,222 22,411	### Depreciation N/A 7,096 3,699 1,950 4,970 4,970 1,950 1,95	\$ Value 5,344 11,323 7,977 4,272 17,441	Useful Life N/A 43 34 34 47
As of December 31, 2022 Land Road: Rail and other track material Ties Ballast Other roadway [a] Total road	\$ 5,344 18,419 11,676 6,222 22,411	### Depreciation N/A 7,096 3,699 1,950 4,970 4,970 1,950 1,95	\$ Value 5,344 11,323 7,977 4,272 17,441	Useful Life N/A 43 34 34 47
As of December 31, 2022 Land Road: Rail and other track material Ties Ballast Other roadway [a] Total road Equipment:	\$ 5,344 18,419 11,676 6,222 22,411 58,728	7,096 3,699 1,950 4,970 17,715	\$ Value 5,344 11,323 7,977 4,272 17,441 41,013	Useful Life N/A 43 34 34 47 N/A
As of December 31, 2022 Land Road: Rail and other track material Ties Ballast Other roadway [a] Total road Equipment: Locomotives	\$ 5,344 18,419 11,676 6,222 22,411 58,728 9,166	7,096 3,699 1,950 4,970 17,715	\$ Value 5,344 11,323 7,977 4,272 17,441 41,013 5,560	Useful Life N/A 43 34 34 47 N/A
As of December 31, 2022 Land Road: Rail and other track material Ties Ballast Other roadway [a] Total road Equipment: Locomotives Freight cars	\$ 5,344 18,419 11,676 6,222 22,411 58,728 9,166 2,562	7,096 3,699 1,950 4,970 17,715 3,606 898	\$ Value 5,344 11,323 7,977 4,272 17,441 41,013 5,560 1,664	Useful Life N/A 43 34 34 47 N/A
As of December 31, 2022 Land Road: Rail and other track material Ties Ballast Other roadway [a] Total road Equipment: Locomotives Freight cars Work equipment and other	\$ 5,344 18,419 11,676 6,222 22,411 58,728 9,166 2,562 1,253	Depreciation \$ N/A 7,096 3,699 1,950 4,970 17,715 3,606 898 473	\$ Value 5,344 11,323 7,977 4,272 17,441 41,013 5,560 1,664 780	Useful Life N/A 43 34 47 N/A 18 23 17
As of December 31, 2022 Land Road: Rail and other track material Ties Ballast Other roadway [a] Total road Equipment: Locomotives Freight cars Work equipment and other Total equipment	\$ 5,344 18,419 11,676 6,222 22,411 58,728 9,166 2,562 1,253 12,981	Depreciation \$ N/A 7,096 3,699 1,950 4,970 17,715 3,606 898 473 4,977	\$ Value 5,344 11,323 7,977 4,272 17,441 41,013 5,560 1,664 780 8,004	Useful Life N/A 43 34 47 N/A 18 23 17 N/A

[[]a] Other roadway includes grading, bridges and tunnels, signals, buildings, and other road assets.

Property and Depreciation – Our railroad operations are highly capital-intensive, and our large base of homogeneous, network-type assets turns over on a continuous basis. Each year we develop a capital program for the replacement of assets and for the acquisition or construction of assets that enable us to enhance our operations or provide new service offerings to customers. We currently have more than 60 depreciable asset classes, and we may increase or decrease the number of asset classes due to changes in technology, asset strategies, or other factors.

We determine the estimated service lives of depreciable railroad assets by means of depreciation studies. We perform depreciation studies at least every 3 years for equipment and every 6 years for track assets (i.e., rail and other track material, ties, and ballast) and other road property. Our depreciation studies take into account the following factors:

- Statistical analysis of historical patterns of use and retirements of each of our asset classes,
- Evaluation of any expected changes in current operations and the outlook for continued use of the assets,
- Evaluation of technological advances and changes to maintenance practices, and
- Expected salvage to be received upon retirement.

For rail in high-density traffic corridors, we measure estimated service lives in millions of gross tons per mile of track. It has been our experience that the lives of rail in high-density traffic corridors are closely correlated to usage (i.e., the amount of weight carried over the rail). The service lives also vary based on rail weight, rail condition (e.g., new or secondhand), and rail type (e.g., straight or curve). Our depreciation studies for rail in high-density traffic corridors consider each of these factors in determining the estimated service lives. For rail in high-density traffic corridors, we calculate depreciation rates annually by dividing the number of gross ton-miles carried over the rail (i.e., the weight of loaded and empty freight cars, locomotives, and maintenance of way equipment transported over the rail) by the estimated service lives of the rail measured in millions of gross tons per mile. For all other depreciable assets, we compute depreciation based on the estimated service lives of our assets as determined from the analysis of our depreciation studies. Changes in the estimated service lives of our assets and their related depreciation rates are implemented prospectively.

Under the group method of depreciation, the historical cost (net of salvage) of depreciable property that is retired or replaced in the ordinary course of business is charged to accumulated depreciation and no gain or loss is recognized. The historical cost of certain track assets is estimated by multiplying the current replacement cost of track assets by a historical index factor derived from (a) inflation indices published by the Bureau of Labor Statistics and (b) the estimated useful lives of the assets as determined by our depreciation studies. The indices were selected because they closely correlate with the major costs of the properties comprising the applicable track asset classes. Because of the number of estimates inherent in the depreciation and retirement processes and because it is impossible to precisely estimate each of these variables until a group of property is completely retired, we continually monitor the estimated service lives of our assets and the accumulated depreciation associated with each asset class to ensure our depreciation rates are appropriate. In addition, we determine if the recorded amount of accumulated depreciation is deficient (or in excess) of the amount indicated by our depreciation studies. Any deficiency (or excess) is amortized as a component of depreciation expense over the remaining service lives of the applicable classes of assets.

For retirements of depreciable railroad properties that do not occur in the normal course of business, a gain or loss may be recognized if the retirement meets each of the following three conditions: (a) is unusual, (b) is material in amount, and (c) varies significantly from the retirement profile identified through our depreciation studies. A gain or loss is recognized in other income when we sell land or dispose of assets that are not part of our railroad operations.

We review construction in progress assets that have not yet been placed into service, for impairment when events or changes in circumstances indicate that the carrying amount of a long-lived asset or assets may not be recoverable. If impairment indicators are present and the estimated future undiscounted cash flows are less than the carrying value of construction in progress assets when grouped with other assets and liabilities at the lowest level where identifiable cash flows are largely independent, the carrying value is reduced to the estimated fair value.

When we purchase an asset, we capitalize all costs necessary to make the asset ready for its intended use. However, many of our assets are self-constructed. A large portion of our capital expenditures is for replacement of existing track assets and other road properties, which is typically performed by our employees, and for track line expansion and other capacity projects. Costs that are directly attributable to capital projects (including overhead costs) are capitalized. Direct costs that are capitalized as part of self-constructed assets include material, labor, and work equipment. Indirect costs are capitalized if they clearly relate to the construction of the asset.

Costs incurred that extend the useful life of an asset, improve the safety of our operations, or improve operating efficiency are capitalized, while normal repairs and maintenance are expensed as incurred. These costs are allocated using appropriate statistical bases. Total expense for repairs and maintenance incurred was \$2.5 billion for 2023, \$2.4 billion for 2022, and \$2.1 billion for 2021.

Assets held under finance leases are recorded at the lower of the net present value of the minimum lease payments or the fair value of the leased asset at the inception of the lease. Amortization expense is computed using the straight-line method over the shorter of the estimated useful lives of the assets or the period of the related lease.

12. Accounts Payable and Other Current Liabilities

	Dec. 31,	Dec. 31,
Millions	2023	2022
Accounts payable	\$ 856	\$ 784
Income and other taxes payable	685	628
Compensation-related accruals	533	938
Interest payable	389	379
Current operating lease liabilities (Note 16)	355	331
Accrued casualty costs	307	242
Equipment rents payable	98	109
Other	460	431
Total accounts payable and other current liabilities	\$ 3,683	\$ 3,842

13. Financial Instruments

Short-Term Investments – All of the Company's short-term investments consist of time deposits and government agency securities. These investments are considered Level 2 investments and are valued at amortized cost, which approximates fair value. As of December 31, 2023 and 2022, the Company had \$16 million and \$46 million of short-term investments, respectively. All short-term investments have a maturity of less than one year and are classified as held-to-maturity.

Fair Value of Financial Instruments – The fair value of our short- and long-term debt was estimated using a market value price model, which utilizes applicable U.S. Treasury rates along with current market quotes on comparable debt securities. All of the inputs used to determine the fair market value of the Corporation's long-term debt are Level 2 inputs and obtained from an independent source. At December 31, 2023, the fair value of total debt was \$28.5 billion, approximately \$4.1 billion less than the carrying value. At December 31, 2022, the fair value of total debt was \$28.1 billion, approximately \$5.2 billion less than the carrying value. The fair value of the Corporation's debt is a measure of its current value under present market conditions. The fair value of our cash equivalents approximates their carrying value due to the short-term maturities of these instruments.

14. Debt

Total debt as of December 31, 2023 and 2022, is summarized below:

Millions	2023	2022
Notes and debentures, 2.2% to 7.1% due through February 14, 2072	\$ 33,383	\$ 33,658
Equipment obligations, 2.6% to 6.2% due through January 2, 2031 [a]	770	809
Finance leases, 3.1% to 6.8% due through December 10, 2028	158	234
Commercial paper	-	200
Receivables Facility (Note 10)	-	100
Term loans	-	100
Unamortized discount and deferred issuance costs	(1,732)	(1,775)
Total debt	32,579	33,326
Less: current portion	(1,423)	(1,678)
Total long-term debt	\$ 31,156	\$ 31,648

[[]a] Equipment obligations are secured by an interest in certain railroad equipment with a carrying value of approximately \$0.9 billion at both December 31, 2023 and 2022.

Debt Maturities – The following table presents aggregate debt maturities as of December 31, 2023, excluding market value adjustments:

Millions	
2024	\$ 1,427
2025	1,426
2 026	1,515
2027	1,285
2028	1,235
Thereafter	27,423
Total principal	34,311
Unamortized discount and deferred issuance costs	(1,732)
Total debt	\$ 32,579

Debt Redemption – On April 15, 2022, we redeemed all \$750 million of outstanding 4.163% notes due July 15, 2022, at a redemption price equal to 100% of the principal amount of the notes plus accrued and unpaid interest.

Credit Facilities – At December 31, 2023, we had \$2.0 billion of credit available under our revolving credit facility, which is designated for general corporate purposes and supports the issuance of commercial paper. Credit facility withdrawals totaled \$0 during 2023. Commitment fees and interest rates payable under the Facility are similar to fees and rates available to comparably rated, investment-grade borrowers. The Facility allows for borrowings at floating rates based on Term Secured Overnight Financing Rate (SOFR), plus a spread, depending upon credit ratings for our senior unsecured debt. The Facility, set to expire May 20, 2027, requires UPC to maintain an adjusted debt-to-EBITDA (earnings before interest, taxes, depreciation, and amortization) coverage ratio.

The definition of debt used for purposes of calculating the adjusted debt-to-EBITDA coverage ratio includes, among other things, certain credit arrangements, finance leases, guarantees, unfunded and vested pension benefits under Title IV of ERISA, and unamortized debt discount and deferred debt issuance costs. At December 31, 2023, the Company was in compliance with the adjusted debt-to-EBITDA coverage ratio, which allows us to carry up to \$44.4 billion of debt (as defined in the Facility), and we had \$34.3 billion of debt (as defined in the Facility) outstanding at that date. The Facility does not include any other financial restrictions, credit rating triggers (other than rating-dependent pricing), or any other provision that could require us to post collateral. The Facility also includes a \$150 million cross-default provision and a change-of-control provision.

During 2023, we issued \$1.4 billion and repaid \$1.6 billion of commercial paper with maturities ranging from 11 to 64 days. As of December 31, 2023 and 2022, we had \$0 and \$200 million of commercial paper outstanding, respectively. Our revolving credit facility supports our outstanding commercial paper balances, and, unless we change the terms of our commercial paper program, our aggregate issuance of commercial paper will not exceed the amount of borrowings available under the Facility.

Shelf Registration Statement and Significant New Borrowings – In 2022, the Board of Directors reauthorized the issuance of up to \$12.0 billion of debt securities. Under our shelf registration, we may issue, from time to time, any combination of debt securities, preferred stock, common stock, or warrants for debt securities or preferred stock in one or more offerings.

During 2023, we issued the following unsecured, fixed-rate debt securities under our shelf registration:

Date	Description of Securities
February 21, 2023	\$0.50 billion of 4.750% Notes due February 21, 2026
-	\$0.50 billion of 4.950% Notes due May 15, 2053

We used the net proceeds from the offerings for general corporate purposes, including the repurchase of common stock pursuant to our share repurchase programs. These debt securities include change-of-control provisions. At December 31, 2023, we had remaining authority to issue up to \$5.6 billion of debt securities under our shelf registration.

Receivables Securitization Facility – As of December 31, 2023 and 2022, we recorded \$0 and \$100 million, respectively, of borrowings under our Receivables Facility, as secured debt. (See further discussion of our "Receivables Securitization Facility" section in Note 10.)

15. Variable Interest Entities

We have entered into various lease transactions in which the structure of the leases contain variable interest entities (VIEs). These VIEs were created solely for the purpose of doing lease transactions (principally involving railroad equipment and facilities) and have no other activities, assets, or liabilities outside of the lease transactions. Within these lease arrangements, we have the right to purchase some or all of the assets at fixed prices. Depending on market conditions, fixed-price purchase options available in the leases could potentially provide benefits to us; however, these benefits are not expected to be significant.

We maintain and operate the assets based on contractual obligations within the lease arrangements, which set specific guidelines consistent within the railroad industry. As such, we have no control over activities that could materially impact the fair value of the leased assets. We do not hold the power to direct the activities of the VIEs and, therefore, do not control the ongoing activities that have a significant impact on the economic performance of the VIEs. Additionally, we do not have the obligation to absorb losses of the VIEs or the right to receive benefits of the VIEs that could potentially be significant to the VIEs.

We are not considered to be the primary beneficiary and do not consolidate these VIEs because our actions and decisions do not have the most significant effect on the VIE's performance and our fixed-price purchase options are not considered to be potentially significant to the VIEs. The future minimum lease payments associated with the VIE leases totaled \$831 million as of December 31, 2023, and are recorded as operating lease liabilities at present value in our Consolidated Statements of Financial Position.

16. Leases

We lease certain locomotives, freight cars, and other property for use in our rail operations.

The following are additional details related to our lease portfolio:

		D	ec. 31,	D	ec. 31,
Millions	Classification		2023		2022
Assets					
Operating leases	Operating lease assets	\$	1,643	\$	1,672
Finance leases	Properties, net [a]		244		310
Total leased assets		\$	1,887	\$	1,982
Liabilities					
Current					
Operating	Accounts payable and other current liabilities	\$	355	\$	331
Finance	Debt due within one year		49		67
Noncurrent					
Operating	Operating lease liabilities		1,245		1,300
Finance	Debt due after one year		109		167
Total lease liabilities		\$	1,758	\$	1,865

[[]a] Finance lease assets are recorded net of accumulated amortization of \$497 million and \$658 million as of December 31, 2023 and 2022, respectively.

The lease cost components are classified as follows:

Millions	Dec 31, 2023	Dec 31, 2022
Operating lease cost [a]	\$ 369	\$ 338
Short-term lease cost	24	18
Variable lease cost	41	13
Finance lease cost		
Amortization of leased assets [b]	38	52
Interest on lease liabilities [c]	8	12
Net lease cost	\$ 480	\$ 433

[[]a] Operating lease cost is primarily reported in equipment and other rents in our Consolidated Statements of Income.

The following table presents aggregate lease maturities as of December 31, 2023:

Millions	Operating Leases	Finance Leases	Total
2024	\$ 361	\$ 55	\$ 416
2025	375	42	417
2026	296	35	331
2027	237	30	267
2028	199	11	210
After 2028	300	-	300
Total lease payments	\$ 1,768	\$ 173	\$ 1,941
Less: Interest	168	15	183
Present value of lease liabilities	\$ 1,600	\$ 158	\$ 1,758

[[]b] Amortization of leased assets is reported in depreciation in our Consolidated Statements of Income.

[[]c] Interest on lease liabilities is reported in interest expense in our Consolidated Statements of Income.

The following table presents the weighted average remaining lease term and discount rate:

	Dec. 31,
	2023
Weighted-average remaining lease term (years)	
Operating leases	5.8
Finance leases	3.5
Weighted-average discount rate (%)	
Operating leases	3.6
Finance leases	4.5

The following table presents other information related to our operating and finance leases for the years ended December 31:

Millions	2023	2022
Cash paid for amounts included in the measurement of lease liabilities		
Operating cash flows from operating leases	\$ 323	\$ 319
Investing cash flows from operating leases	33	31
Operating cash flows from finance leases	9	15
Financing cash flows from finance leases	65	91
Leased assets obtained in exchange for finance lease liabilities	-	-
Leased assets obtained in exchange for operating lease liabilities	\$ 241	\$ 173

17. Commitments and Contingencies

Asserted and Unasserted Claims – Various claims and lawsuits are pending against us and certain of our subsidiaries. We cannot fully determine the effect of all asserted and unasserted claims on our consolidated results of operations, financial condition, or liquidity. We have recorded a liability where asserted and unasserted claims are considered probable and where such claims can be reasonably estimated. We currently do not expect that any known lawsuits, claims, environmental costs, commitments, contingent liabilities, or guarantees will have a material adverse effect on our consolidated results of operations, financial condition, or liquidity after taking into account liabilities and insurance recoveries previously recorded for these matters.

In December 2019, we received a putative class action complaint under the Illinois Biometric Information Privacy Act, alleging violation due to the use of a finger scan system developed and managed by third parties. Union Pacific and the plaintiff are currently in the discovery phase. While we believe that we have strong defenses to the claims made in the complaint and will vigorously defend ourselves, there is no assurance regarding the ultimate outcome. Therefore, the outcome of this litigation is inherently uncertain, and we cannot reasonably estimate any loss or range of loss that may arise from this matter.

Personal Injury – The Federal Employers' Liability Act (FELA) governs compensation for work-related accidents. Under FELA, damages are assessed based on a finding of fault through litigation or out-of-court settlements. We offer a comprehensive variety of services and rehabilitation programs for employees who are injured at work.

Approximately 95% of the recorded liability is related to asserted claims and approximately 5% is related to unasserted claims at December 31, 2023. Because of the uncertainty surrounding the ultimate outcome of personal injury claims, it is reasonably possible that future costs to settle these claims may range from approximately \$383 million to \$494 million. We record an accrual at the low end of the range as no amount of loss within the range is more probable than any other. Estimates can vary over time due to evolving trends in litigation.

Our personal injury liability activity was as follows:

Millions	2023	2022	2021
Beginning balance	\$ 361	\$ 325	\$ 270
Current year accruals	112	107	93
Changes in estimates for prior years	89	55	48
Payments	(179)	(126)	(86)
Ending balance at December 31	\$ 383	\$ 361	\$ 325
Current portion, ending balance at December 31	\$ 113	\$ 84	\$ 64

Environmental Costs – We are subject to federal, state, and local environmental laws and regulations. We have identified 333 sites where we are or may be liable for remediation costs associated with alleged contamination or for violations of environmental requirements. This includes 32 sites that are the subject of actions taken by the U.S. government, including 20 that are currently on the Superfund National Priorities List. Certain federal legislation imposes joint and several liability for the remediation of identified sites; consequently, our ultimate environmental liability may include costs relating to activities of other parties, in addition to costs relating to our own activities at each site.

Our environmental liability activity was as follows:

Millions	2023		2022		2021
Beginning balance	\$ 253	\$	243	\$	233
Accruals	99		84		69
Payments	(107) (74			(59)	
Ending balance at December 31	\$ 245	\$	253	\$	243
Current portion, ending balance at December 31	\$ 91	\$	67	\$	60

The environmental liability includes future costs for remediation and restoration of sites, as well as ongoing monitoring costs, but excludes any anticipated recoveries from third-parties. Cost estimates are based on information available for each site, financial viability of other potentially responsible parties, and existing technology, laws, and regulations. The ultimate liability for remediation is difficult to determine because of the number of potentially responsible parties, site-specific cost sharing arrangements with other potentially responsible parties, the degree of contamination by various wastes, the scarcity and quality of volumetric data related to many of the sites, and the speculative nature of remediation costs. Estimates of liability may vary over time due to changes in federal, state, and local laws governing environmental remediation. Current obligations are not expected to have a material adverse effect on our consolidated results of operations, financial condition, or liquidity.

Insurance – The Company has a consolidated, wholly-owned captive insurance subsidiary (the Captive), that provides insurance coverage for certain risks including general liability, property, cyber, and FELA claims that are subject to reinsurance. The Captive entered into annual reinsurance treaty agreements that insure workers compensation, general liability, auto liability, and FELA risk. The Captive cedes a portion of its FELA exposure through the treaty and assumes a proportionate share of the entire risk. The Captive receives direct premiums, which are netted against the Company's premium costs in other expenses in the Consolidated Statements of Income. The treaty agreements provide for certain protections against the risk of treaty participants' non-performance, and we do not believe our exposure to treaty participants' non-performance is material at this time. We record both liabilities and reinsurance receivables using an actuarial analysis based on historical experience in our Consolidated Statements of Financial Position. Effective January 2019, the Captive insurance subsidiary no longer participates in the reinsurance treaty agreement. The Company established a trust in the fourth quarter of 2018 for the purpose of providing collateral as required under the reinsurance treaty agreement for prior years' participation.

Indemnities – Our maximum potential exposure under indemnification arrangements, including certain tax indemnifications, can range from a specified dollar amount to an unlimited amount, depending on the nature of the transactions and the agreements. Due to uncertainty as to whether claims will be made or how they will be resolved, we cannot reasonably determine the probability of an adverse claim or reasonably estimate any adverse liability or the total maximum exposure under these indemnification arrangements. We do not have any reason to believe that we will be required to make any material payments under these indemnity provisions.

18. Share Repurchase Programs

Effective April 1, 2022, our Board of Directors authorized the repurchase of up to 100 million shares of our common stock by March 31, 2025. As of December 31, 2023, we repurchased a total of 19.6 million shares of our common stock under the 2022 authorization. These repurchases may be made on the open market or through other transactions. Our management has sole discretion with respect to determining the timing and amount of these transactions.

Our previous authorization, which was effective April 1, 2019, through March 31, 2022, was approved by our Board of Directors for up to 150 million shares of common stock. As of March 31, 2022, we repurchased a total of 83.3 million shares of our common stock under the 2019 authorization.

The table below represents shares repurchased under repurchase programs during 2023 and 2022:

	Number of Sh	Number of Shares Purchased			Average Price Paid [a]			
	2023	2022	2023		2022			
First quarter [b]	2,908,703	11,014,201	\$203.19	\$	249.95			
Second quarter [c]	606,581	3,100,683	199.81		232.87			
Third quarter	-	9,490,339	-		221.52			
Fourth quarter	-	3,501,667	-		201.33			
Total	3,515,284	27,106,890	\$202.61	\$	231.76			
Remaining number of shares that may be repurchased under current authority				80	,392,027			

- [a] In the period of the final settlement, the average price paid under the accelerated share repurchase programs is calculated based on the total program value less the value assigned to the initial delivery of shares. The average price of the completed 2022 accelerated share repurchase programs was \$248.32.
- [b] Includes 7,012,232 shares repurchased in 2022 under accelerated share repurchase programs.
- [c] Includes an incremental 1,847,185 shares received upon final settlement in 2022 under accelerated share repurchase programs.

Management's assessments of market conditions and other pertinent factors guide the timing, manner, and volume of all repurchases. We expect to fund any share repurchases under this program through cash generated from operations, the sale or lease of various operating and non-operating properties, debt issuances, and cash on hand. Open market repurchases are recorded in treasury stock at cost, which includes any applicable commissions, fees, and excise taxes.

Accelerated Share Repurchase Programs – The Company has established accelerated share repurchase programs (ASRs) with financial institutions to repurchase shares of our common stock. These ASRs have been structured so that at the time of commencement, we pay a specified amount to the financial institutions and receive an initial delivery of shares. Additional shares may be received at the time of settlement. The final number of shares to be received is based on the volume weighted average price of the Company's common stock during the ASR term, less a discount and subject to potential adjustments pursuant to the terms of such ASR.

On February 18, 2022, the Company received 7,012,232 shares of its common stock repurchased under ASRs for an aggregate of \$2.2 billion. Upon settlement of these ASRs in the second quarter of 2022, we received 1,847,185 additional shares.

ASRs are accounted for as equity transactions, and at the time of receipt, shares are included in treasury stock at fair market value as of the corresponding initiation or settlement date. The Company reflects shares received as a repurchase of common stock in the weighted average common shares outstanding calculation for basic and diluted earnings per share.

19. Related Parties

UPRR and other North American railroad companies jointly own TTX Company (TTX). UPRR has a 37.03% economic and voting interest in TTX while the other North American railroads own the remaining interest. In accordance with ASC 323 *Investments - Equity Method and Joint Venture*, UPRR applies the equity method of accounting to our investment in TTX.

TTX is a rail car pooling company that owns rail cars and intermodal wells to serve North America's railroads. TTX assists railroads in meeting the needs of their customers by providing rail cars in an efficient, pooled environment. All railroads have the ability to utilize TTX rail cars through car hire by renting rail cars at stated rates.

UPRR had \$1.8 billion and \$1.7 billion recognized as investments related to TTX in our Consolidated Statements of Financial Position as of December 31, 2023 and 2022, respectively. TTX car hire expenses of \$399 million in 2023, \$402 million in 2022, and \$375 million in 2021 are included in equipment and other rents in our Consolidated Statements of Income. In addition, UPRR had accounts payable to TTX of \$60 million and \$68 million at December 31, 2023 and 2022, respectively.

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

None.

Item 9A. Controls and Procedures

As of the end of the period covered by this report, the Corporation carried out an evaluation, under the supervision and with the participation of the Corporation's management, including the Corporation's Chief Executive Officer (CEO) and Executive Vice President and Chief Financial Officer (CFO), of the effectiveness of the design and operation of the Corporation's disclosure controls and procedures pursuant to Exchange Act Rules 13a-15 and 15d-15. In designing and evaluating the disclosure controls and procedures, management recognized that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives. Based upon that evaluation, the CEO and the CFO concluded that, as of the end of the period covered by this report, the Corporation's disclosure controls and procedures were effective to provide reasonable assurance that information required to be disclosed in our Exchange Act reports is recorded, processed, summarized, and reported within the time periods specified by the SEC, and that such information is accumulated and communicated to management, including the CEO and CFO, as appropriate, to allow timely decisions regarding required disclosure.

Additionally, the CEO and CFO determined that there were no changes to the Corporation's internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) during the last fiscal quarter that materially affected, or are reasonably likely to materially affect, the Corporation's internal control over financial reporting.

MANAGEMENT'S ANNUAL REPORT ON INTERNAL CONTROL OVER FINANCIAL REPORTING

The management of Union Pacific Corporation and Subsidiary Companies (the Corporation) is responsible for establishing and maintaining adequate internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)). The Corporation's internal control system was designed to provide reasonable assurance to the Corporation's management and Board of Directors regarding the preparation and fair presentation of published financial statements.

All internal control systems, no matter how well designed, have inherent limitations. Therefore, even those systems determined to be effective can provide only reasonable assurance with respect to financial statement preparation and presentation.

The Corporation's management assessed the effectiveness of the Corporation's internal control over financial reporting as of December 31, 2023. In making this assessment, it used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control - Integrated Framework (2013)*. Based on our assessment, management believes that, as of December 31, 2023, the Corporation's internal control over financial reporting is effective based on those criteria.

The Corporation's independent registered public accounting firm has issued an attestation report on the effectiveness of the Corporation's internal control over financial reporting. This report appears on the next page.

February 8, 2024

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Shareholders and Board of Directors of Union Pacific Corporation

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Union Pacific Corporation and Subsidiary Companies (the "Corporation") 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 (COSO). In our opinion, the Corporation 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 COSO.

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated financial statements as of and for the year ended December 31, 2023, of the Corporation and our report dated February 9, 2024, expressed an unqualified opinion on those financial statements.

Basis for Opinion

The Corporation's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying *Management's Annual Report on Internal Control over Financial Reporting*. Our responsibility is to express an opinion on the Corporation's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Corporation in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, testing and evaluating the design and operating effectiveness of internal control based on the assessed risk, and performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control over Financial Reporting

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

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

Omaha, Nebraska February 9, 2024

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Item 9B. Other Information

On October 24, 2023, Elizabeth F. Whited, President, adopted a trading plan intended to satisfy Rule 10b5-1(c) to sell up to 7,500 shares of Union Pacific Corporation common stock, of which 7,500 are to be acquired upon the exercise of vested stock options, between February 14, 2024, and April 18, 2024, subject to certain conditions.

On December 15, 2023, Todd M. Rynaski, Senior Vice President and Chief Accounting, Risk, and Compliance Officer, adopted a trading plan intended to satisfy Rule 10b5-1(c) to sell up to 5,271 shares of Union Pacific Corporation common stock, of which 5,271 are to be acquired upon the exercise of vested stock options, between March 15, 2024, and September 16, 2024, subject to certain conditions.

Item 9C. <u>Disclosure Regarding Foreign Jurisdictions that Prevent Inspections</u>

Not applicable.

PART III

Item 10. Directors, Executive Officers, and Corporate Governance

(a) Directors of Registrant.

Information as to the names, ages, positions, and offices with UPC, terms of office, periods of service, business experience during the past five years, and certain other directorships held by each director or person nominated to become a director of UPC is set forth in the Election of Directors segment of the Proxy Statement and is incorporated herein by reference.

Information concerning our Audit Committee and the independence of its members, along with information about the audit committee financial expert(s) serving on the Audit Committee, is set forth in the Audit Committee segment of the Proxy Statement and is incorporated herein by reference.

(b) Executive Officers of Registrant.

Information concerning the executive officers of UPC and its subsidiaries is presented in Part I of this report under Information About Our Executive Officers and Principal Executive Officers of Our Subsidiaries.

(c) Delinquent Section 16(a) Reports.

Information concerning compliance with Section 16(a) of the Securities Exchange Act of 1934 is set forth in the Delinquent Section 16(a) Reports segment of the Proxy Statement and is incorporated herein by reference.

(d) Code of Ethics for Chief Executive Officer and Senior Financial Officers of Registrant.

The Board of Directors of UPC has adopted the UPC Code of Ethics for the Chief Executive Officer and Senior Financial Officers (the Code). A copy of the Code may be found on the Internet at our website www.up.com/investor/governance. We intend to disclose any amendments to the Code or any waiver from a provision of the Code on our website.

Item 11. Executive Compensation

Information concerning compensation received by our directors and our named executive officers is presented in the Compensation Discussion and Analysis, Summary Compensation Table, Grants of Plan-Based Awards in Fiscal Year 2023, Outstanding Equity Awards at 2023 Fiscal Year-End, Option Exercises and Stock Vested in Fiscal Year 2023, Pension Benefits at 2023 Fiscal Year-End, Nonqualified Deferred Compensation at 2023 Fiscal Year-End, Potential Payments Upon Termination or Change in Control and Director Compensation in Fiscal Year 2023 segments of the Proxy Statement and is incorporated herein by reference. Additional information regarding compensation of directors, including Board committee members, is set forth in the By-Laws of UPC and the Stock Unit Grant and Deferred Compensation Plan for the Board of Directors, both of which are included as exhibits to this report. Information regarding the Compensation and Benefits Committee is set forth in the Compensation Committee segment of the Proxy Statement and is incorporated herein by reference.

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

Information as to the number of shares of our equity securities beneficially owned by each of our directors and nominees for director, our named executive officers, our directors and executive officers as a group, and certain beneficial owners is set forth in the Security Ownership of Certain Beneficial Owners and Management segment of the Proxy Statement and is incorporated herein by reference.

The following table summarizes the equity compensation plans under which UPC common stock may be issued as of December 31, 2023:

	(a)	(b)	(c)
	Number of securities to be issued upon	Weighted-average	Number of securities remaining available for future issuance under equity compensation
	exercise of outstanding options, warrants and	exercise price of outstanding options,	plans (excluding securities reflected in
Plan Category	rights	warrants and rights	column (a))
Equity compensation plans approved by security holders	2,438,300 [1] \$	147.06 [1]	31,979,909 [2]
Total	2,438,300 \$	147.06	31,979,909

^[1] Includes 366,046 retention units that do not have an exercise price. Does not include 954,405 retention shares that have been issued and are outstanding.

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

Information on related transactions is set forth in the Related Party Policy and Procedures segment of the Proxy Statement and is incorporated herein by reference. We do not have any relationship with any outside third-party that would enable such a party to negotiate terms of a material transaction that may not be available to, or available from, other parties on an arm's-length basis.

Information regarding the independence of our directors is set forth in the Director Independence segment of the Proxy Statement and is incorporated herein by reference.

Item 14. Principal Accountant Fees and Services

Information concerning the fees billed by our independent registered public accounting firm and the nature of services comprising the fees for each of the two most recent fiscal years in each of the following categories: (a) audit fees, (b) audit-related fees, (c) tax fees, and (d) all other fees, is set forth in the Independent Registered Public Accounting Firm's Fees and Services segment of the Proxy Statement and is incorporated herein by reference.

Information concerning our Audit Committee's policies and procedures pertaining to pre-approval of audit and non-audit services rendered by our independent registered public accounting firm is set forth in the Pre-approval of Audit and Non-Audit Services Policy segment of the Proxy Statement and is incorporated herein by reference.

PART IV

Item 15. Exhibit and Financial Statement Schedules

- (a) Financial Statements, Financial Statement Schedules, and Exhibits:
 - (1) Financial Statements

The financial statements filed as part of this filing are listed on the index to the Financial Statements and Supplementary Data, Item 8, on page 40.

^[2] Does not include the retention units or retention shares described above in footnote [1].

(2) Financial Statement Schedules

Schedules have been omitted because they are not applicable or not required or the information required to be set forth therein is included in the Financial Statements and Supplementary Data, Item 8, or notes thereto.

(3) Exhibits

Exhibit No.

Exhibits are listed in the exhibit index beginning on page <u>76</u>. The exhibits include management contracts, compensatory plans and arrangements required to be filed as exhibits to the Form 10-K by Item 601 (10) (iii) of Regulation S-K.

UNION PACIFIC CORPORATION Exhibit Index

Description

	
Filed with this Statemen	<u>t</u>
10(a)†	Form of Performance Stock Unit Agreement dated February 8, 2024.
10(b)†	Form of Non-Qualified Stock Option Agreement for Executives dated February 8, 2024.
10(c)†	Performance Stock Unit Agreement dated February 8, 2024, for V. James Vena.
10(d)†	Non-Qualified Option Agreement dated February 8, 2024, for V. James Vena.
10(e)†	Supplemental Pension Plan for Officers and Managers (409A Non-Grandfathered Component) of Union Pacific Corporation and Affiliates, as amended November 1, 2023.
21	List of the Corporation's significant subsidiaries and their respective states of incorporation.
23	Independent Registered Public Accounting Firm's Consent.
24	Powers of attorney executed by the directors of UPC.
31(a)	Certifications Pursuant to Rule 13a-14(a), of the Exchange Act, as Adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 - V. James Vena.
31(b)	Certifications Pursuant to Rule 13a-14(a), of the Exchange Act, as Adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 - Jennifer L. Hamann.
32	Certifications Pursuant to 18 U.S.C. Section 1350, as Adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 - V. James Vena and Jennifer L. Hamann.

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The following financial and related information from Union Pacific Corporation's Annual Report on Form 10-K for the year ended December 31, 2023 (filed with the SEC on February 9, 2024), formatted in Inline Extensible Business Reporting Language (iXBRL) includes (a) Consolidated Statements of Income for the years ended December 31, 2023, 2022, and 2021, (b) Consolidated Statements of Comprehensive Income for the years ended December 31, 2023, 2022, and 2021, (c) Consolidated Statements of Financial Position at December 31, 2023 and 2022, (d) Consolidated Statements of Cash Flows for the years ended December 31, 2023, 2022, and 2021, (e) Consolidated Statements of Changes in Common Shareholders' Equity for the years ended December 31, 2023, 2022, and 2021, and (f) the Notes to the Consolidated Financial Statements.

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Cover Page Interactive Data File, formatted in Inline XBRL (contained in Exhibit 101).

Incorporated by Reference

3(a)	Restated Articles of Incorporation of UPC, as amended and restated through June 27, 2011, and as
、 ,	further amended May 15, 2014, are incorporated herein by reference to Exhibit 3(a) to the
	Corporation's Quarterly Report on Form 10-Q for the guarter ended June 30, 2014.

- 3(b) <u>By-Laws of UPC, as amended, effective November 19, 2015, are incorporated herein by reference to Exhibit 3.2 to the Corporation's Current Report on Form 8-K dated November 19, 2015.</u>
- 4(a) <u>Description of securities registered under Section 12 of the Exchange Act is incorporated herein by reference to Exhibit 4(a) to the Corporation's Annual Report on Form 10-K for the year ended December 31, 2019.</u>
- 4(b) Indenture, dated as of December 20, 1996, between UPC and Wells Fargo Bank, National Association, as successor to Citibank, N.A., as Trustee, is incorporated herein by reference to Exhibit 4.1 to UPC's Registration Statement on Form S-3 (No. 333-18345).
- 4(c) Indenture, dated as of April 1, 1999, between UPC and The Bank of New York, as successor to JP Morgan Chase Bank, formerly The Chase Manhattan Bank, as Trustee, is incorporated herein by reference to Exhibit 4.2 to UPC's Registration Statement on Form S-3 (No. 333-75989).
- 4(d) Form of 4.750% Note due 2026 is incorporated by reference to Exhibit 4.1 to the Corporation's Current Report on Form 8-K dated February 21, 2023.
- 4(e) Form of 4.950% Note due 2053 is incorporated by reference to Exhibit 4.2 to the Corporation's Current Report on Form 8-K dated February 21. 2023.

Certain instruments evidencing long-term indebtedness of UPC are not filed as exhibits because the total amount of securities authorized under any single such instrument does not exceed 10% of the Corporation's total consolidated assets. UPC agrees to furnish the Commission with a copy of any such instrument upon request by the Commission.

<u>Transition and Separation Agreement between the Corporation, the Railroad and Lance M. Fritz dated August 11, 2023, is incorporated by reference to Exhibit 10.1 to the Corporation's Current Report on Form 8-K dated August 11, 2023.</u>

Union Pacific Corporation Key Employee Continuity Plan, as amended December 10, 2021, is incorporated herein by reference to Exhibit 10(c) to the Corporation's Annual Report on Form 10-K for the year ended December 31, 2021.

10(f)†

10(g)†

10(h)† Supplemental Thrift Plan (409A Grandfathered Component) of Union Pacific Corporation, as amended March 1, 2013, is incorporated herein by reference to Exhibit 10(d) to the Corporation's Quarterly Report on Form 10-Q for the guarter ended March 31, 2013. Supplemental Thrift Plan (409A Non-Grandfathered Component) of Union Pacific Corporation, as 10(i)† amended January 1, 2018, is incorporated herein by reference to Exhibit 10(d) to the Corporation's Annual Report on Form 10-K for the year ended December 31, 2017. 10(j)† Supplemental Pension Plan for Officers and Managers (409A Grandfathered Component) of Union Pacific Corporation and Affiliates, as amended February 1, 2013, and March 1, 2013 is incorporated herein by reference to Exhibit 10(f) to the Corporation's Quarterly Report on Form 10-Q for the quarter ended March 31, 2013. Deferred Compensation Plan (409A Grandfathered Component) of Union Pacific Corporation, as 10(k)† amended March 1, 2013, is incorporated herein by reference to Exhibit 10(b) to the Corporation's Quarterly Report on Form 10-Q for the quarter ended March 31, 2013. 10(I)†Deferred Compensation Plan (409A Non-Grandfathered Component) of Union Pacific Corporation, as amended December 9, 2020, is incorporated herein by reference to Exhibit 10(c) to the Corporation's Annual Report on Form 10-K for the year ended December 31, 2020. 10(m)†Union Pacific Corporation 2000 Directors Plan, effective as of April 21, 2000, as amended November 16, 2006, January 30, 2007 and January 1, 2009 is incorporated herein by reference to Exhibit 10(j) to the Corporation's Annual Report on Form 10-K for the year ended December 31, 2008. 10(n)† Union Pacific Corporation Stock Unit Grant and Deferred Compensation Plan for the Board of Directors (409A Non-Grandfathered Component), effective as of January 1, 2009 is incorporated herein by reference to Exhibit 10(k) to the Corporation's Annual Report on Form 10-K for the year ended December 31, 2008. Union Pacific Corporation Stock Unit Grant and Deferred Compensation Plan for the Board of 10(o)† Directors (409A Grandfathered Component), as amended and restated in its entirety, effective as of January 1, 2009 is incorporated herein by reference to Exhibit 10(I) to the Corporation's Annual Report on Form 10-K for the year ended December 31, 2008. Union Pacific Corporation 2013 Stock Incentive Plan, effective May 16, 2013, as amended effective 10(p)† as of January 1, 2020 is incorporated herein by reference to Exhibit 10(d) to the Corporation's Annual Report on Form 10-K for the year ended December 31, 2019. 10(q)† Union Pacific Corporation Executive Incentive Plan, effective May 5, 2005, amended and restated effective January 1, 2020 is incorporated herein by reference to Exhibit 10(e) to the Corporation's Annual Report on Form 10-K for the year ended December 31, 2019.

10(r)†	Union Pacific Corporation 2021 Stock Incentive Plan, effective as of May 13, 2021 is incorporated by reference to Exhibit 99.1 to the Corporation's Form S-8 dated May 25, 2021.
10(s)	Amended and Restated Registration Rights Agreement, dated as of July 12, 1996, among UPC, UP Holding Company, Inc., Union Pacific Merger Co. and Southern Pacific Rail Corporation (SP) is incorporated herein by reference to Annex J to the Joint Proxy Statement/Prospectus included in Post-Effective Amendment No. 2 to UPC's Registration Statement on Form S-4 (No. 33-64707).
10(t)	Agreement, dated September 25, 1995, among UPC, UPRR, Missouri Pacific Railroad Company (MPRR), SP, Southern Pacific Transportation Company (SPT), The Denver & Rio Grande Western Railroad Company (D&RGW), St. Louis Southwestern Railway Company (SLSRC) and SPCSL Corp. (SPCSL), on the one hand, and Burlington Northern Railroad Company (BN) and The Atchison, Topeka and Santa Fe Railway Company (Santa Fe), on the other hand, is incorporated by reference to Exhibit 10.11 to UPC's Registration Statement on Form S-4 (No. 33-64707).
10(u)	Supplemental Agreement, dated November 18, 1995, between UPC, UPRR, MPRR, SP, SPT, D&RGW, SLSRC and SPCSL, on the one hand, and BN and Santa Fe, on the other hand, is incorporated herein by reference to Exhibit 10.12 to UPC's Registration Statement on Form S-4 (No. 33-64707).
10(v)†	Form of Non-Qualified Stock Option Agreement for Executives is incorporated herein by reference to Exhibit 10(c) to the Corporation's Annual Report on Form 10-K for the year ended December 31, 2013.
10(w)†	Form of 2021 Long Term Plan Stock Unit Agreement is incorporated herein by reference to Exhibit 10(a) to the Corporation's Annual Report on Form 10-K for the year ended December 31, 2020.
10(x)†	Form of 2022 Long Term Plan Stock Unit Agreement is incorporated herein by reference to Exhibit 10(a) to the Corporation's Annual Report on Form 10-K for the year ended December 31, 2021.
10(y)†	Form of 2023 Long Term Plan Stock Unit Agreement is incorporated herein by reference to Exhibit 10(a) to the Corporation's Annual Report on Form 10-K for the year ended December 31, 2022.
10(z)†	Executive Incentive Plan (2005) - Deferred Compensation Program, dated December 21, 2005 is incorporated herein by reference to Exhibit 10(g) to the Corporation's Annual Report on Form 10-K for the year ended December 31, 2005.
97	Union Pacific Corporation Policy for Recoupment of Certain Compensation, amended and restated effective October 2, 2023, is incorporated by reference to Exhibit 10(a) to the Corporation Quarterly

† Indicates a management contract or compensatory plan or arrangement.

Item 16. Form 10-K Summary

None.

Report on Form 10-Q for the quarter ended September 30, 2023.

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, on this 9th day of February, 2024.

UNION PACIFIC CORPORATION

By /s/ V. James Vena

V. James Vena, Chief Executive Officer Union Pacific Corporation

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below, on this 9th day of February, 2024, by the following persons on behalf of the registrant and in the capacities indicated.

PRINCIPAL EXECUTIVE OFFICER AND DIRECTOR:

By /s/ V. James Vena

V. James Vena, Chief Executive Officer Union Pacific Corporation

PRINCIPAL FINANCIAL OFFICER:

By /s/ Jennifer L. Hamann

Jennifer L. Hamann Executive Vice President and Chief Financial Officer

PRINCIPAL ACCOUNTING OFFICER:

By /s/ Todd M. Rynaski

Todd M. Rynaski, Senior Vice President and Chief Accounting, Risk, and Compliance Officer

DIRECTORS:

William J. DeLaney*
David B. Dillon*
Sheri H. Edison*
Teresa M. Finley*
Deborah C. Hopkins*
Jane H. Lute*

Michael R. McCarthy* Doyle R. Simons* John K. Tien* John P. Wiehoff* Christopher J. Williams*

* By /s/ Craig V. Richardson

Craig V. Richardson, Attorney-in-fact

SIGNIFICANT SUBSIDIARIES OF UNION PACIFIC CORPORATION

Name of Corporation	State of Incorporation	
Union Pacific Railroad Company	Delaware	

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the Post-Effective Amendment No.1 to Registration Statement No. 33-12513, Registration Statement No. 33-53968, Registration Statement No. 33-49785, Registration Statement No. 33-49849, Registration Statement No. 333-10797, Registration Statement No. 333-88709, Registration Statement No. 333-42768, Registration Statement No. 333-106707, Registration Statement No. 333-106708, Registration Statement No. 333-105714, Registration Statement No. 333-105715, Registration Statement No. 333-116003, Registration Statement No. 333-132324, Registration Statement No. 333-155708, Registration Statement No. 333-170209, Registration Statement No. 333-170208, Registration Statement No. 333-188671, Registration Statement No. 333-260789, Registration Statement No. 333-260788, Registration Statement No. 333-256460, Registration Statement No. 333-276121, and Registration Statement No.333-276122 on Form S-8, Registration Statement No.333-214407, Registration Statement No. 333-236860, Registration Statement No. 333-258422, and Registration Statement No. 333-252948 on Form S-4, and Registration Statement No. 333-201958, Registration Statement No. 333-222979, and Registration Statement No. 333-252947 on Form S-3 of our reports dated February 9, 2024, relating to the consolidated financial statements of Union Pacific Corporation and Subsidiary Companies (the Corporation), and the effectiveness of the Corporation's internal control over financial reporting, appearing in this Annual Report on Form 10-K for the year ended December 31, 2023.

Omaha, Nebraska February 9, 2024

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UNION PACIFIC CORPORATION Powers of Attorney

Each of the undersigned directors of Union Pacific Corporation, a Utah corporation (the Company), do hereby appoint each of V. James Vena and Craig V. Richardson his or her true and lawful attorney-in-fact and agent, to sign on his or her behalf the Company's Annual Report on Form 10-K, for the year ended December 31, 2023, and any and all amendments thereto, and to file the same, with all exhibits thereto, with the Securities and Exchange Commission.

IN WITNESS WHEREOF, the undersigned have executed this Power of Attorney as of February 8, 2024.

/s/ William J. DeLaney	/s/ Michael R. McCarthy	
William J. DeLaney	Michael R. McCarthy	
/s/ David B. Dillon	/s/ Doyle R. Simons	
David B. Dillon	Doyle R. Simons	
/s/ Sheri H. Edison	/s/ John K. Tien	
Sheri H. Edison	John K. Tien	
/s/ Teresa M. Finley	/s/ John P. Wiehoff	
Teresa M. Finley	John P. Wiehoff	
/s/ Deborah C. Hopkins	/s/ Christopher J. Williams	
Deborah C. Hopkins	Christopher J. Williams	
/s/ Jane H. Lute		
Jane H. Lute		

CERTIFICATION OF PRINCIPAL EXECUTIVE OFFICER

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

Date: February 9, 2024

/s/ V. James Vena

V. James Vena Chief Executive Officer

CERTIFICATION OF PRINCIPAL FINANCIAL OFFICER

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

Date: February 9, 2024

/s/ Jennifer L. Hamann
Jennifer L. Hamann
Executive Vice President and
Chief Financial Officer

CERTIFICATION OF CHIEF EXECUTIVE OFFICER PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the accompanying Annual Report of Union Pacific Corporation (the Corporation) on Form 10-K for the period ending December 31, 2023, as filed with the Securities and Exchange Commission on the date hereof (the Report), I, V. James Vena, Chief Executive Officer of the Corporation, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 that:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Corporation.

By: /s/ V. James Vena
V. James Vena
Chief Executive Officer
Union Pacific Corporation

February 9, 2024

A signed original of this written statement required by Section 906 has been provided to the Corporation and will be retained by the Corporation and furnished to the Securities and Exchange Commission or its staff upon request.

CERTIFICATION OF CHIEF FINANCIAL OFFICER PURSUANT TO 18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the accompanying Annual Report of Union Pacific Corporation (the Corporation) on Form 10-K for the period ending December 31, 2023, as filed with the Securities and Exchange Commission on the date hereof (the Report), I, Jennifer L. Hamann, Executive Vice President and Chief Financial Officer of the Corporation, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 that:

- (1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Corporation.

By: /s/ Jennifer L. Hamann
Jennifer L. Hamann
Executive Vice President and
Chief Financial Officer
Union Pacific Corporation

February 9, 2024

A signed original of this written statement required by Section 906 has been provided to the Corporation and will be retained by the Corporation and furnished to the Securities and Exchange Commission or its staff upon request.