



CP



DRIVEN TO DELIVER

2021 ANNUAL REPORT

PERFORMANCE HIGHLIGHTS

\$ in millions of Canadian dollars except for per share data, ratios, or unless otherwise indicated

	2017	2018	2019	2020	2021
FINANCIAL HIGHLIGHTS					
Total revenues	\$6,554	\$7,316	\$7,792	\$7,710	\$7,995
Operating income	\$2,519	\$2,831	\$3,124	\$3,311	\$3,206
Adjusted operating income ⁽¹⁾	\$2,468	\$2,831	\$3,124	\$3,311	\$3,389
Operating ratio ⁽²⁾	61.6%	61.3%	59.9%	57.1%	59.9%
Adjusted operating ratio ⁽¹⁾	62.4%	61.3%	59.9%	57.1%	57.6%
Net income	\$2,405	\$1,951	\$2,440	\$2,444	\$2,852
Adjusted income ⁽¹⁾	\$1,666	\$2,080	\$2,290	\$2,403	\$2,565
Diluted earnings per share ("EPS") ⁽³⁾	\$3.29	\$2.72	\$3.50	\$3.59	\$4.18
Adjusted diluted EPS ⁽¹⁾⁽³⁾	\$2.28	\$2.90	\$3.29	\$3.53	\$3.76
Cash provided by operating activities	\$2,182	\$2,712	\$2,990	\$2,802	\$3,688
Cash used in investing activities	(\$1,295)	(\$1,458)	(\$1,803)	(\$2,030)	(\$13,730)
Cash used in financing activities	(\$700)	(\$1,542)	(\$1,111)	(\$764)	\$9,936
Free cash ⁽¹⁾	\$874	\$1,289	\$1,357	\$1,157	\$1,793
Return on average shareholders' equity ⁽²⁾	43.4%	29.8%	35.6%	34.0%	13.9%
Adjusted return on invested capital ("Adjusted ROIC") ⁽¹⁾	14.7%	16.2%	16.9%	16.7%	8.2%
Dividend payout ratio ⁽²⁾	13.3%	18.5%	17.9%	19.8%	18.2%
Adjusted dividend payout ratio ⁽¹⁾	19.2%	17.3%	19.1%	20.1%	20.2%
Long-term debt to Net income ratio ⁽²⁾	3.4	4.5	3.6	4.0	7.1
Adjusted net debt to Adjusted EBITDA ratio ⁽¹⁾	2.6	2.6	2.4	2.5	4.8
STATISTICAL HIGHLIGHTS⁽⁴⁾					
Revenue ton-miles ("RTMs") (millions)	142,540	154,207	154,378	151,891	149,686
Carloads (thousands)	2,634	2,740	2,766	2,708	2,736
Gross ton-miles ("GTM") (millions)	252,195	275,362	280,724	272,360	271,921
Locomotive productivity (GTMs / operating horsepower)	201	198	202	207	201
Fuel efficiency (U.S. gallons of locomotive fuel consumed / 1,000 GTMs)	0.980	0.953	0.955	0.942	0.931
Average train weight - excluding local traffic (tons)	8,806	9,100	9,129	9,707	9,967
Average train length - excluding local traffic (feet)	7,214	7,313	7,388	7,929	8,200
Average terminal dwell (hours)	6.6	6.8	6.4	6.5	7.2
Average train speed (miles per hour, or "mph")	22.6	21.5	22.2	22.0	21.6
Total employees (end of period)	12,215	12,840	12,694	11,890	11,834
Workforce (end of period)	12,294	12,866	12,732	11,904	11,872
SAFETY INDICATORS⁽⁴⁾					
FRA personal injuries per 200,000 employee-hours	1.65	1.47	1.42	1.11	0.92
FRA train accidents per million train-miles	0.99	1.10	1.06	0.96	1.10

⁽¹⁾ These measures have no standardized meanings prescribed by accounting principles generally accepted in the United States of America ("GAAP") and, therefore, may not be comparable to similar measures presented by other companies. These measures are defined and reconciled in Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations in our Annual Report on Form 10-K.

⁽²⁾ These measures are defined and further discussed in Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations in our Annual Report on Form 10-K.

⁽³⁾ As a result of the five-for-one share split of the Company's issued and outstanding Common Shares, which began trading on a post-split basis on May 14, 2021, per share amounts and all outstanding Common Shares have been retrospectively adjusted.

⁽⁴⁾ Certain statistical highlights and safety indicators have been updated to reflect new information or have been restated to conform with current presentation. The restatements of safety indicators reflect new information available within specified periods stipulated by the Federal Railroad Administration ("FRA") but that exceed the Company's financial reporting timeline.

A photograph of a rail worker wearing a black beanie with a logo, glasses, and an orange high-visibility vest over a brown jacket. He is leaning against a yellow-painted metal pole of a train car, smiling at the camera. The background shows the side of a white train car.

AT CP, SERVICE EXCELLENCE
IS OUR NATURE.

WE ARE DRIVEN TO DELIVER.



DRIVEN TO

OUR 12,000 STRONG CP FAMILY
IS HARDWIRED TO PROVIDE
BEST-IN-CLASS SERVICE.

DELIVER



At CP, we do what we say we will and then ask ourselves, how can we do it even better? We know there is no finish line. From the railyard where the ballast meets the rail to the boardroom, our railroaders work tirelessly to provide the best freight service in North America – best for our customers, employees, shareholders and communities we operate in and through.

Everything we do is driven by a shared pursuit of excellence. Whether it's developing new customer solutions, providing more competitive shipping options, finding proprietary innovations that improve service and safety or working toward a lower carbon footprint, we give everything we've got to everything we do. This year marked our 16th consecutive year of being the safest Class 1 railroad in North America based on Federal Railroad Administration (FRA)-reportable train accident frequency. It was also a year where we positioned our historic company to make history once more and create the first, and likely only-ever, transnational railroad which, subject to regulatory approval, will deliver economic growth and expanded service options at a time when stakeholders and the economy they depend on need it.

Our railroaders are driven to deliver; we are defining the future of railroading in North America.

DELIVER NEW CUSTOMER SOLUTION

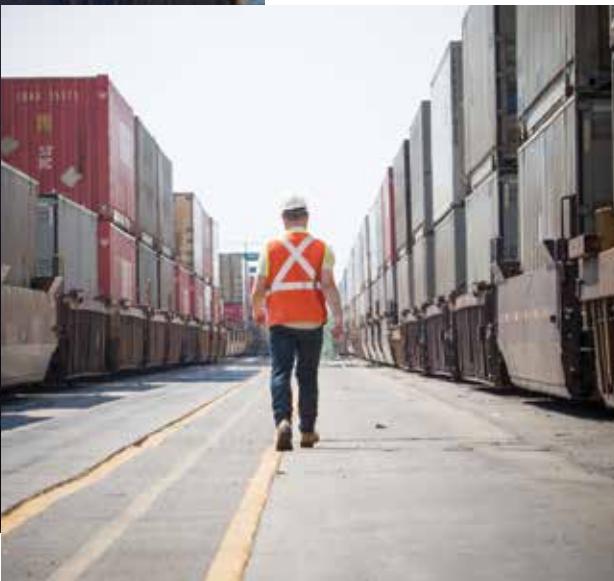


NS



In September, CP and Maersk opened a new world-class transload and distribution facility in Vancouver, B.C., expanding supply chain options for customers of both companies. The collaboration matches CP's strategic land holdings with a new customer looking to expand its end-to-end supply chain solutions and remove thousands of truck moves from Vancouver roads.

Our unique service solution enables ocean containers to efficiently move on/off dock and allows loaded domestic containers to move inland while improving congestion and service reliability.



DELIVER SAFETY INNOVATION





CP continues to lead the industry in safety because of our dedicated railroaders and innovations which enable us to operate more safely and efficiently.

In 2021, we expanded our broken rail detection systems across five additional non-signalled territory subdivisions. These systems have captured thirteen broken rails during winter operations and enabled the safe increase of train speeds for higher risk key trains in winter from 25 mph to 40 mph.

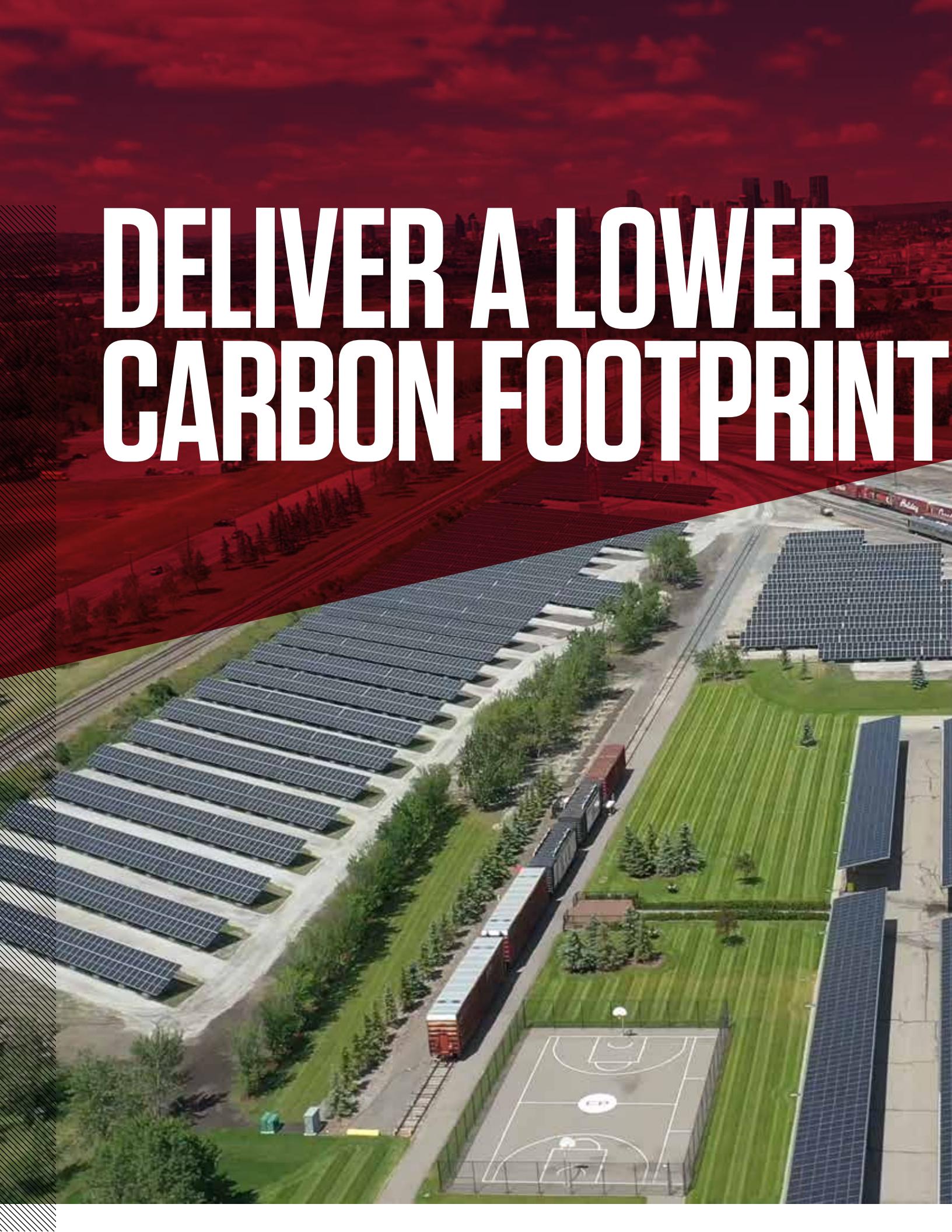
We continue to invest in and execute our Data Analytics and Artificial Intelligence to develop systems that are increasing locomotive, car and track reliability and safety. These innovations have supported increased network velocity by eliminating over 500 annual delay hours previously caused by online train mechanical failures.

By installing an additional Train Inspection Portal System and three new Cold Wheel Detector sites, we received additional regulatory exemptions for automated train inspections for potash trains. Automated train inspections find up to 87 percent more defects and significantly reduce terminal dwell by performing inspections on trains in motion across designated mainline locations. CP is the only railway able to fully eliminate static train inspections on loaded potash trains, and we continue to explore expanding this process to cover all trains.

CP achieved a new record low for FRA-reportable injuries and held our position as the safest Class 1 railroad in North America for the 16th straight year, based on FRA-reportable train accident frequency.



DELIVER A LOWER CARBON FOOTPRINT

An aerial photograph showing a large field of solar panels in the foreground and middle ground. In the background, a long freight train is visible on tracks, moving through a landscape with some green fields and trees. The sky is overcast with a reddish tint.



This year we published our first comprehensive Climate Strategy, charting our path to reduce greenhouse gas emissions (GHG), adapt our operations to the physical risks of climate change and integrate climate factors across the business. By setting two ambitious science-based GHG emissions reduction targets, CP has committed to reducing Scope 1, 2 and 3 GHG emissions intensity of our locomotives in excess of 38 percent and Scope 1 and 2 emissions from non-locomotive operations by in excess of 27 percent by 2030.

In pursuing these goals, we will embrace our network-wide innovation mindset. Creative thinking and collaborative problem solving will be needed to lower – and potentially eliminate – GHG emissions. CP is evaluating a wide variety of potential levers for GHG emissions reductions, including both commercially ready and emerging solutions.

CP completed installation of a solar energy farm in 2021, which is expected to generate more power than consumed annually by our main Calgary headquarters building. Our pioneering Hydrogen Locomotive Program aims to demonstrate and evaluate the technical performance of North America's first zero-emissions line-haul locomotive in real-world operations. Our hydrogen locomotive prototype moved under its own power for the first time in December 2021. CP's Hydrogen Locomotive Program will generate critical industry knowledge and experience that will inform commercialization and future development.



DELIVER GROWTH AND COMPETITION





Profitable, sustainable growth means sticking to our precision scheduled railroading model and being hardwired to never settle for the status quo – even when we're the ones setting the benchmark. This formula is good for customers, the supply chain, the North American economy and shareholders.

Our railroaders and franchise are raising the game for all freight players. Our capacity and land holdings have allowed customers to grow in their markets, and we've only just started. Our proposed combination with Kansas City Southern, which is subject to regulatory approval, will create the first U.S.-Mexico-Canada rail network, fostering growth and increasing competition and service options.





Calgary-Toronto transit times reduced by 20 hours¹

- CP NETWORK
- CP TRACKAGE, HAULAGE AND COMMERCIAL RIGHTS
- OTHER CLASS 1 RAILROADS
- CONNECTION WITH OTHER CLASS 1 RAILROADS
- PORT TERMINAL

Montreal (Côte Saint-Luc)
Transload multi-commodity facility:
more storage, more capacity and
access to key urban centres

SUDSBURY
TÉMISCAMING
MONTRÉAL
GATINEAU
QUEBEC CITY
MILLINOCKET ME
BROWNVILLE JCT.
NEWPORT
BURLINGTON
SEASPORT
ROCKLAND BRUNSWICK
ST. LEONARD NB
ST. STEPHEN NS
KITCHENER
TORONTO
ALBANY NY
BUFFALO
CSX NS PA
NEW YORK THE BRONX FRESH POND
NEW LONDON
AYER
BETHLEHEM MD
PHILADELPHIA DE
NEWARK NJ
NEW YORK NY
QUEBEC CITY QC
MONTRÉAL
BROWNVILLE JCT.
NEWPORT
BURLINGTON VT NH
CARIBOU NB
FORT FAIRFIELD
HOUULTON NB
OAKFIELD
MILLINOCKET ME
SEASPORT
ROCKLAND BRUNSWICK
ST. LEONARD NB
ST. STEPHEN NS

Vancouver-Detroit
service up to 48 hours
faster than competitors

East Coast Advantage: Access to Port Saint John,
N.B. (the largest port in Atlantic Canada), port
infrastructure upgrades to increase service capacity
from 150,000 TEUs to 300,000+ TEUs by 2023

OUR NETWORK

853 MILES
AVERAGE LENGTH OF HAUL

11 PORTS
SERVED ON WEST
AND EAST COASTS

13,000 MILES
RAIL NETWORK

MOST BORDER CROSSINGS
IN WESTERN CANADA

100+
TRANSLOAD
FACILITIES

¹As of 2012 to today

...NOW, WE WANT TO REDRAW THE MAP TO CREATE MORE OPPORTUNITY FOR EVERYONE.

Canadian Pacific & Kansas City Southern (KCS) are seeking to combine to create the first U.S.-Mexico-Canada rail network. The proposed merger represents a transformational win for customers and the North American economy.

On Dec. 14, 2021, following approval of the transaction by the shareholders of both CP and KCS, receipt of Mexican regulatory approvals and satisfaction or waiver of customary closing conditions, CP acquired KCS in a stock and cash transaction representing an enterprise value of approximately US\$31 billion, which included the assumption of US\$3.8 billion of outstanding KCS debt (based on the CP closing price on August 9, 2021). CP's ultimate acquisition of control of KCS is subject to the approval of the U.S. Surface Transportation Board (STB). The STB review of CP's proposed control of KCS is expected to be completed in Q4 of 2022. Upon obtaining control approval, the two companies will be integrated fully over the ensuing three years, unlocking the benefits of the combination.

FUTURE FOR FREIGHT

Upon receipt of STB approval, the combined company will create North America's first, and likely only-ever, transnational railway that reaches five North American coasts and connects the U.S., Mexico and Canada. Together, CP and KCS will offer expanded reach and premier port access. New single-line hauls, and our safe, efficient and expansive network, will offer economic growth, increased competition and promote a shift from truck to rail for long-hauls.

Connecting communities far and wide, our combination will foster growth and economic opportunity across North America.

Together, CP and KCS will have the ability to deliver enhanced competition and improved levels of safety and economic efficiency for shippers and communities across the U.S., Mexico and Canada.

The combination is an extraordinary opportunity to inject new competition and new capacity into the U.S. rail network, further trade flows, improve safety, grow employment (~1,000 new high quality jobs) and facilitate new passenger services.

The proposed merger will provide new routes, reach broader markets and create expanded shipping opportunities for customers. This combination will also unlock new infrastructure investment and environmentally friendly supply chain transportation options that will grow the USMCA economy.

We estimate the combination will avoid more than 1.5 million tons of GHG emissions within five years due to the improved efficiency versus current operations. Approximately 64,000 long-haul truck shipments will be diverted to rail annually with our combined intermodal services, eliminating another 1.3 million tons of GHG emissions over the next two decades, saving US\$750 million in highway maintenance costs.



ENHANCES COMPETITION BY CREATING SINGLE-LINE HAUL ROUTES.

UNLOCKS ESTIMATED ANNUALIZED SYNERGIES OF US\$1 BILLION.

DIVERSIFIES CURRENT BUSINESS AND GEOGRAPHIC MIX WITH THE ADDITION OF NEW ROUTES.

DRIVES NORTH AMERICAN GROWTH AND INVESTMENT OPPORTUNITIES.

- CP
- CP HAULAGE/TRACKAGE RIGHTS
- KCS
- KCS HAULAGE/TRACKAGE RIGHTS/LEASED
- PORT
- BORDER CROSSING



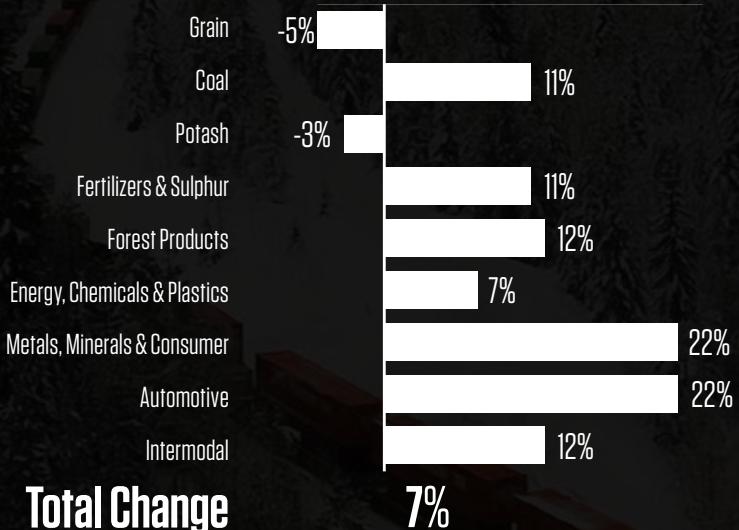
59.9%
OPERATING RATIO

57.6%
ADJUSTED
OPERATING RATIO⁽ⁱ⁾

4%
REVENUE
GROWTH

FREIGHT REVENUE VARIANCE⁽ⁱ⁾

Foreign Exchange Adjusted % change, 2021 Freight Revenue vs 2020



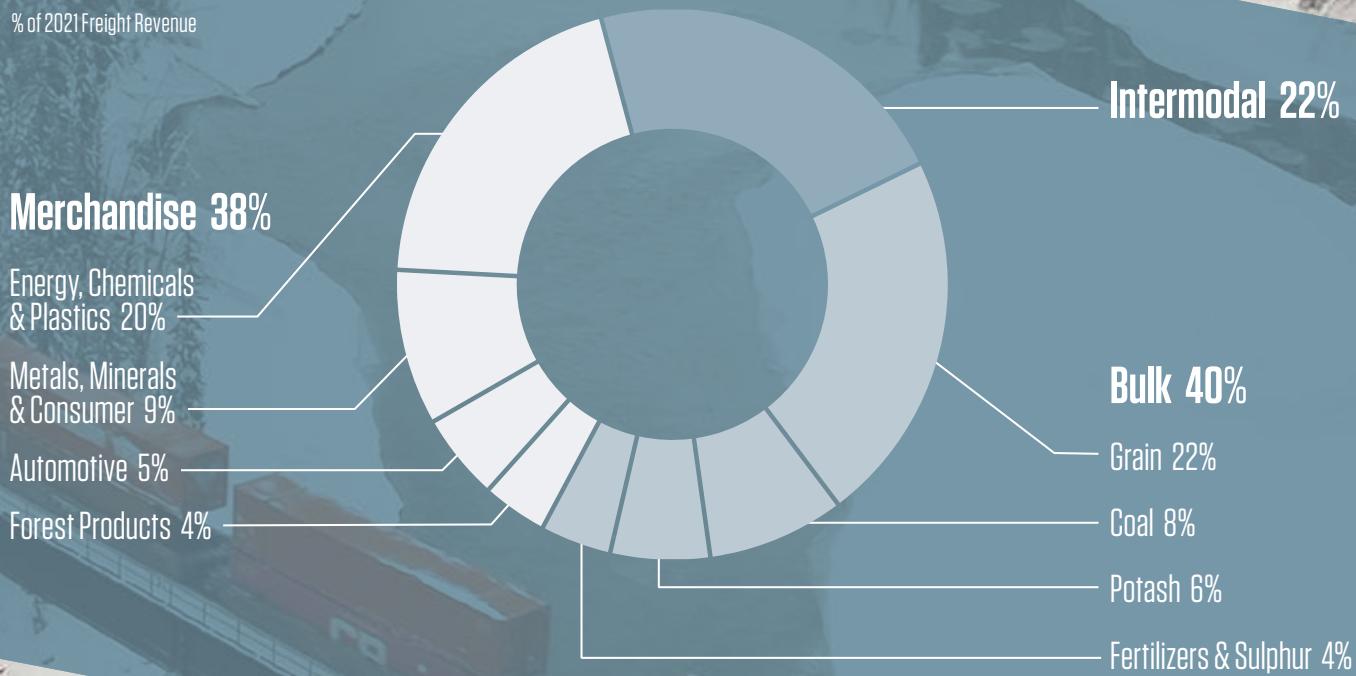
16% DILUTED EPS GROWTH
7% ADJUSTED DILUTED EPS GROWTH⁽ⁱ⁾

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DELIVER RESULTS

BUSINESS MIX

% of 2021 Freight Revenue



16TH

STRAIGHT YEAR
INDUSTRY LEADER IN SAFETY

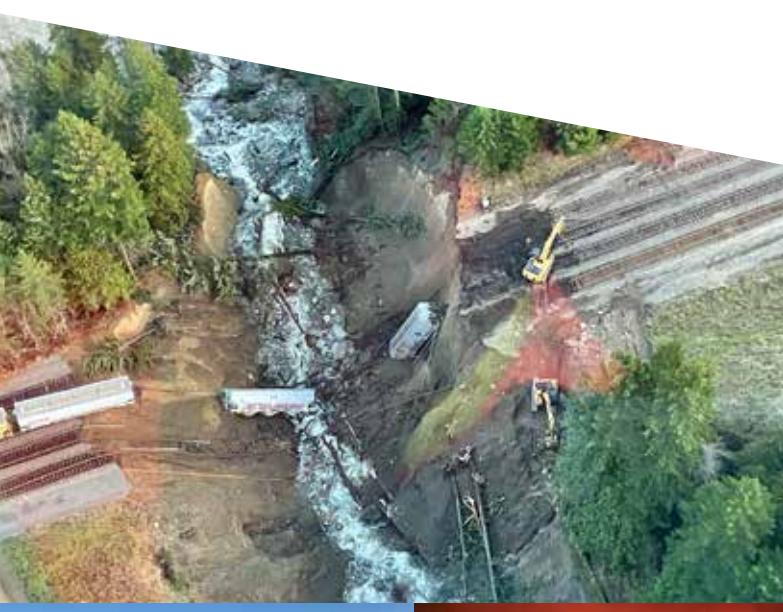
1.10: FEDERAL RAILROAD ADMINISTRATION-REPORTABLE TRAIN ACCIDENT FREQUENCY (PER MILLION TRAIN-MILES)

A CP TEAM THAT CARES

We are 12,000 neighbours who care for the communities we operate in and through.

This year, we persevered through the ongoing pandemic, global supply chain disruptions, devastating wildfires and extreme rain events in our key B.C. corridor. Our commitment and drive remained constant, enabling us to overcome obstacles and achieve great things together. We also did our best to help ensure affected communities were safe.

Now more than ever before, North Americans recognize the role railroaders play as essential workers who move supplies people rely on every day. Through 140 years of service, we are deeply rooted in the communities we operate in and through.



OVERCOMING HISTORIC RAINFALL

In November, historic rains in B.C. left many communities under water and cut off. Up to 200 millimeters of rain fell over two days, causing key arterial roads to close and badly damaging rail infrastructure. Thirty locations across CP's Thompson and Cascade subdivisions were impacted, with 20 resulting in significant loss of infrastructure. CP teams deployed across the Fraser Valley and the B.C. interior worked around the clock to get our mainline running again in just eight days to restore the vital supply chain service we provide. As we worked to restore our tracks, we helped adjacent communities who were cut off by the historic rainfall. We delivered food and generators to Indigenous communities in the Fraser Canyon, and arranged meals, milk and baby formula for a community food bank.

FIGHTING FIRES

When historic and devastating wildfires threatened the B.C. interior and our network this summer, multiple CP crews mobilized to help battle the fires, support impacted communities and keep the supply chain moving. By late summer, nearly 900,000 hectares had burned and communities were left shattered.

CP's Hazardous Materials and Emergency Response team has experience fighting a variety of fire types, including wildland fires, but these unrelenting fires challenged the team to adapt and overcome in new ways. CP teams used existing tools to help prevent new and fight existing fires along our network. CP committed \$1 million to support the Village of Lytton in its recovery, and many employees stepped away from their ordinary duties to ride trains, watch for fires and transport crews throughout the region.

CP Has Heart funds programs that support heart health initiatives. As of 2021, we've helped raise over \$29 million to help improve the heart health of adults and children across North America.



In 2021, more than \$1.7 million was raised and 112,601 pounds of food collected for local food banks, supporting families in need across North America. Since its inaugural journey in 1999, the Holiday Train has raised more than \$21 million and collected more than 5 million pounds of food.



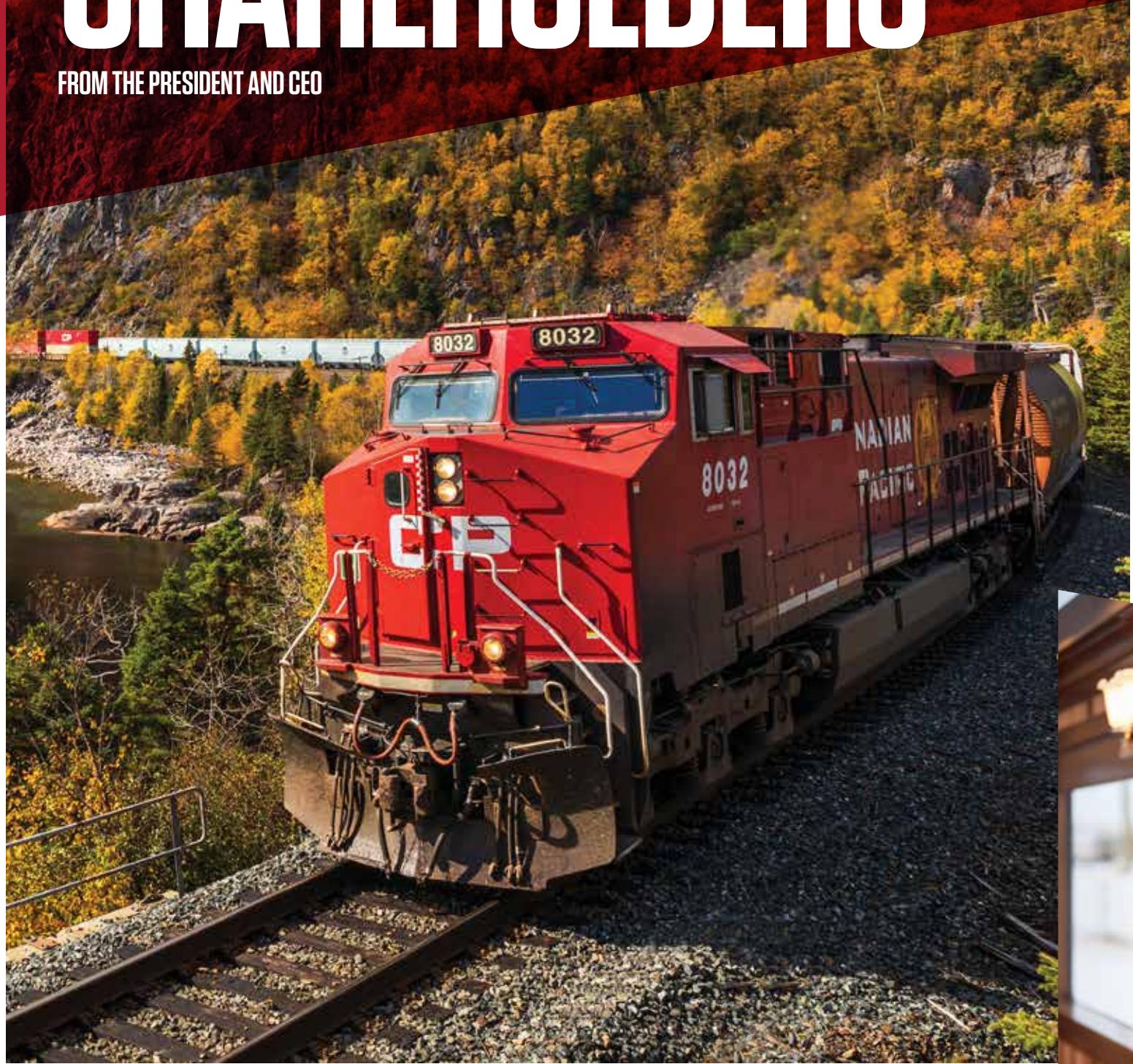
SUPPORTING TRUTH AND RECONCILIATION

On Sept. 30, 2021, Orange Shirt Day and Canada's first National Day for Truth and Reconciliation, CP proudly placed into service the "Every Child Matters" orange locomotive to commemorate the victims and honour the survivors of residential schools in Canada. The locomotive will raise awareness as it operates across CP's network for all of us who see it to continue on the path of learning about Indigenous Peoples and their rich history and culture. The special orange locomotive was proposed by 13-year-old Jacob Hoffer, an Indigenous youth who in the summer of 2021 wrote to CP asking us to consider painting one of CP's locomotives orange. We developed the special livery for this locomotive with guidance from the Orange Shirt Society, a non-profit organization that supports Indian Residential School

Reconciliation and creates awareness of the individual, family and community inter-generational impacts of Indian Residential Schools. The locomotive is part of CP's active commitment to expanding and strengthening relationships with Indigenous communities along our network and advancing our community investment initiatives. Our newly created Indigenous Diversity Council ensures that we create a feedback-rich environment that supports our corporate direction and institutional learning to facilitate a deeper understanding of one another. CP's Indigenous Diversity Council launched the new Indigenous Liaison-Network Program, which aims to foster an inclusive work environment for Indigenous employees by offering support from and connection to other Indigenous employees.

LETTER TO SHAREHOLDERS

FROM THE PRESIDENT AND CEO



CP RAILROADERS ARE DRIVEN TO DELIVER

This past year once again demonstrated the determination and ability of our world-class railroaders to withstand and overcome challenges.

Railroading is an arduous business, as we were frequently reminded throughout 2021. Our core foundations and principles guided our 12,000 strong family of railroaders every day as we worked to overcome a difficult winter season, unprecedented devastating wildfires and washouts in British Columbia, the ongoing pandemic and supply chain issues.

More North Americans today have a better understanding of the essential role we play in supporting and growing the economy because of the well-publicized challenges the entire supply chain faced in 2021. In a results-driven business like ours, the definition of success is clear: deliver as promised, do it better than your competitors and identify and execute on growth opportunities. That's a winning formula that rewards our franchise, customers, shareholders, the North American economy and the consumers who depend on it. In 2021, we stuck to our convictions, focused on controlling what we could control and stayed true to the fundamentals of precision scheduled railroading. I am incredibly

proud of our CP team for delivering on all fronts and making it possible for our historic railroad to exit the year strong with a transformational future ahead.

While operating in a difficult environment, we kept a close eye on our network and delivered an operating ratio (OR) of 59.9 percent and an adjusted OR⁽¹⁾ of 57.6 percent, diluted earnings per share (EPS) of \$4.18 and adjusted diluted EPS⁽¹⁾ of \$3.76. Revenues increased 4 percent to \$8.0 billion, from \$7.71 billion in 2020. We achieved continued improvement in train weights, lengths and fuel efficiency, providing more efficient service with a lower carbon footprint. Through superior service, competitive cost basis and capacity, we continued to expand our intermodal and merchandise footprints.

DEFINING OUR FUTURE

Our 140th year of operation certainly came with many unique challenges and opportunities for today's CP railroaders. The team demonstrated the same grit and tenacity required of those who envisioned and built the historic railroad we operate.

Some see a mountain and go around it; our founders saw mountains and went through them to build the railway that united a new country. This past year presented the once-in-a-lifetime opportunity to unite not only a country, but also a continent by combining North America's two smallest Class 1 railroads to create North America's first, and likely only ever-to-be, transnational railroad connecting the U.S., Mexico and Canada.

Our agreement to combine with Kansas City Southern (KCS) is transformational, and comes at a time when the supply chain and the economy need the continental connection this railroad will create. If approved by the U.S. Surface Transportation

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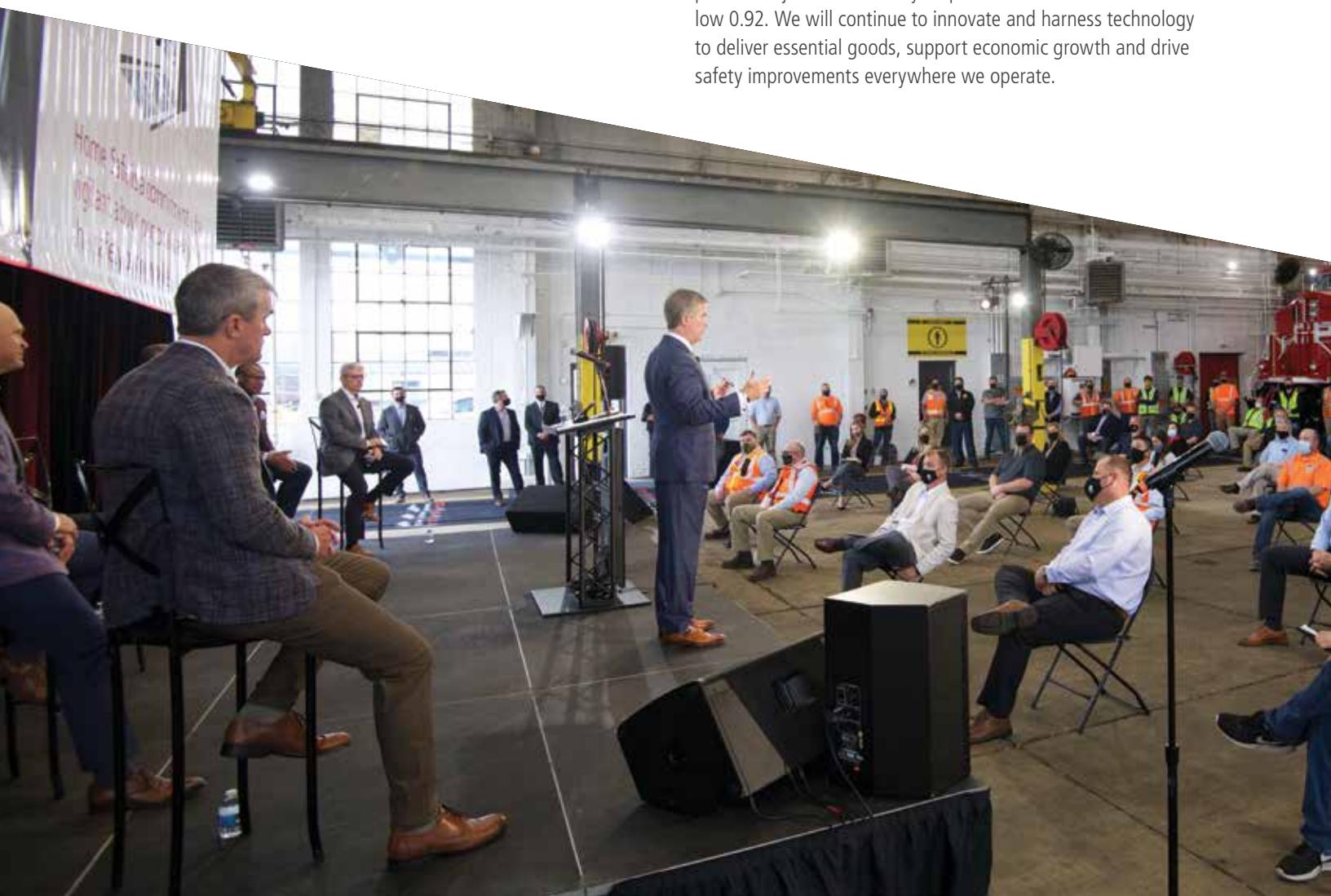


Our 140th year of operation certainly came with many unique challenges and opportunities for today's CP railroaders. The team demonstrated the same grit and tenacity required of those who envisioned and built the historic railroad we operate.

Board, this perfect end-to-end combination will create the first U.S.-Mexico-Canada rail network with new single-line offerings that will deliver dramatically expanded market reach for CP and KCS customers, provide new competitive transportation options, support North American economic growth and produce significant environmental benefits. This combination will unlock the full potential of our networks and our people while providing industry-leading service for our customers and the supply chain.

FOCUS ON SAFETY

At CP, safety is foundational to everything we do. Through our Home Safe program, cutting-edge technologies and innovations and our relentless commitment to reinforcing a culture of safety, we work to protect our railroaders, our communities, our customers and the environment. This deeply entrenched commitment has enabled us to operate the safest railway in North America for the last 16 years, as measured by Federal Railroad Administration (FRA)-reportable train accident frequency. CP has achieved five consecutive years of improvement in personal injury rates; in 2021, FRA-reportable personal injuries declined by 17 percent to an all-time record-low 0.92. We will continue to innovate and harness technology to deliver essential goods, support economic growth and drive safety improvements everywhere we operate.



SUSTAINABLY DRIVEN

Integrating sustainability into our business is critical to our growth and long-term success. CP is committed to delivering profitable, sustainable growth while demonstrating ongoing leadership in contributing to a lower-carbon future.

This past year, we released our first Climate Strategy. We believe our ambitious strategy appropriately reflects the urgency of addressing climate change in meaningful, impactful ways. This strategy charts our path to reducing greenhouse gas (GHG) emissions and adapting CP operations to the physical risks of climate change, and strengthens CP's leadership position in the transportation sector's transition to a lower carbon future. CP's Climate Strategy includes science-based targets for reducing emissions by 2030, including cutting locomotive emission intensity by 38 percent and reducing GHG emissions for non-locomotive operations by at least 27 percent. To date, CP's fuel efficiency is already 11.3 percent better than the Class 1 average, and through a number of emissions initiatives, we've improved our fuel efficiency by 19.5 percent over the past decade.

In 2021, we completed one of Alberta's largest private solar farm installations at our Calgary headquarters. This system is expected to generate more power than we consume annually at our head office. We also made significant progress in developing North America's first freight locomotive powered by hydrogen, and expect to begin testing it in the first half of 2022. This pioneering pilot program is on track to provide critical industry

knowledge and experience that will not only support our own emissions reduction targets, but also benefit the industry – and the environment – as a whole.

OUR STRENGTH IS OUR PEOPLE

CP is in a strong position today because of the people who power our railroad. The determination of our world-class railroaders enabled us to withstand and overcome the many challenges we faced this past year, and we are even stronger because of it. We continued to invest in ongoing training and development throughout the year because they are fundamental to the safety and success of our railroad.

We know that diversity of people and ideas enriches us as individuals and as a company. CP remains committed to increasing diversity throughout all levels of the organization. Our diversity councils continue their important work helping to ensure that we consider racial diversity and gender inclusion when we make human resources decisions, providing feedback on corporate direction and promoting initiatives that relate to each council's area of focus. Our Board of Directors, comprising an experienced and talented group of individuals, guides our commitment to diversity. Led by Isabelle Courville, the first woman to chair the board of a Class 1 railroad in North America, women make up 45 percent of CP's Board of Directors. With 9 percent visible minority representation, 54.5 percent of CP's Board are members of designated groups at the end of 2021.

This past year proved once again that CP's unrivaled team of railroaders can meet any challenge that comes its way. I am deeply proud of their ability and commitment, and am grateful to serve with them. Together, we controlled what we could control, provided best-in-class service and created value for our customers and shareholders. The year ahead will bring its own challenges and transformational opportunities, and we will meet them all with the grace and strength that has come to be associated with our historic company.

Sincerely,



KEITH CREEL

President and CEO



LETTER FROM THE CHAIR



This past year was a transformative one for Canadian Pacific (CP), and a year when the CP team once again delivered for customers, shareholders and communities despite significant and unique challenges. The challenges and opportunities of 2021 further strengthened CP's solution-oriented culture, commitment and resilience, while advancing the company's focus on environmental, social and governance stewardship.

The culture and purpose of the company are reflected in its strong leadership team, which continues to guide the company in delivering long-term value for shareholders and the broader economy.

More people throughout North America are now familiar with the extraordinary leadership of President and CEO Keith Creel, who was named 2021 CEO of the Year and Strategist of the Year by The Globe and Mail's Report on Business Magazine. Under Mr. Creel's leadership, the Board is excited to move forward with the historic opportunity to combine with Kansas City Southern (KCS) to create the only single-line rail network connecting the U.S., Mexico and Canada, a proposed combination now under regulatory review by the U.S. Surface Transportation Board.

SAFETY AND SOCIAL

CP's investments in its communities continued in 2021. These investments included a commitment to donate \$1 million to recovery efforts in Lytton, B.C. after wildfires devastated the community in the summer, followed by an additional donation when historic rains caused extensive damage in the same province only a few months later. As of year-end, CP Has Heart has helped raise over \$29 million to help improve the heart health of adults and children across North America. Due to the ongoing pandemic, CP again ran a virtual edition of its popular Holiday Train program, which raised over \$1.7 million and 112,600 pounds of food for food banks across the network. Since 1999, the Holiday Train has helped raise over \$21 million and collected over 5 million pounds of food for food banks in the communities in which CP operates.

This past fall, CP was proud to unveil the orange "Every Child Matters" locomotive. The idea for this locomotive was brought to CP by a young Indigenous man named Jacob Hoffer from the Namgis First Nation, and we worked with the Orange Shirt Society to bring his vision to life. This special locomotive was placed into service on Sept. 30, Canada's first National Day for Truth and Reconciliation.

CP's commitment to operating safely remained strong in 2021. Our railroad led the North American rail industry for a 16th straight year with the lowest Federal Railroad Administration (FRA)-reportable train accident frequency rate.

ENVIRONMENT

CP is committed to combatting climate change through transformative technology designed to minimize the impact its operations have on the environment. As part of the company's commitment to sustainability

leadership, CP published its first Climate Strategy, which charts a path to reduce greenhouse gas (GHG) emissions and adapt railroad operations to the physical risks of climate change. The Climate Strategy establishes ambitious science-based emissions reduction targets, supported by meaningful actions to reduce GHG emissions. Our recent activities included installing a large solar farm at CP's Calgary headquarters and expanding the company's pioneering Hydrogen Locomotive Program.

In November, CP was named to the Dow Jones Sustainability Index North America for the second consecutive year, and, in December, the CDP once again recognized CP for leadership on climate action with an A- score on its 2021 climate change disclosure. In June, Corporate Knights recognized the company as one of Canada's 2021 Best 50 Corporate Citizens for its leading work in sustainability, recognizing the work employees do every day to integrate sustainability processes and practices into all areas of the business.

GOVERNANCE

CP continues to embody the core values of diversity, accountability and pride, including at the Board level. I was pleased to see the company's work recognized with inclusion as one of Canada's Best Diversity Employers in 2021. As the first woman to chair the board of a Class 1 railroad in North America, I am pleased that women also chair two of our four standing Board committees (Audit & Finance and Corporate Governance, Nominating and Social Responsibility). Additionally, a visible minority Board member chairs the Risk & Sustainability Committee. In 2021, the Corporate Governance and Nominating Committee changed its name to the Corporate Governance, Nominating and Social Responsibility Committee (CGNSRC). The Committee's mandate now includes reviewing the corporation's diversity and inclusion initiatives and reviewing reports from the corporation's three diversity councils (Indigenous Relations, Women and 2SLGBTQ+ and Racial Diversity). This year, the various committees held workplace educational sessions including on 2SLGBTQ+ issues, racial diversity issues and on Indigenous relations.

Through historic wildfires, extreme rain events, difficult winter conditions and a historic merger, this past year repeatedly demonstrated the strength, commitment and resilience of the CP team. I wish to sincerely thank all our CP employees, a truly exceptional team of railroaders who power this railway every day.

Sincerely,

ISABELLE COURVILLE
Chair of the Board

CANADIAN PACIFIC RAILWAY LIMITED
FORM 10-K

CANADIAN PACIFIC RAILWAY LIMITED

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PART I

ITEM 1. BUSINESS

Company Overview

Canadian Pacific Railway Limited ("CPRL"), together with its subsidiaries ("CP" or the "Company"), owns and operates a transcontinental freight railway in Canada and the United States ("U.S."). CP provides rail and intermodal transportation services over a network of approximately 13,000 miles, directly serving the principal business centres of Canada from Montréal, Québec, to Vancouver, British Columbia ("B.C."), and the U.S. Northeast and Midwest regions. CP's railway network feeds directly into the U.S. heartland from the East and West coasts. Agreements with other carriers extend the Company's market reach in Canada, through the U.S. and into Mexico. CP transports bulk commodities, merchandise freight and intermodal traffic. For additional information regarding CP's network and geographical locations, refer to Item 2. Properties.

CPRL was incorporated on June 22, 2001, under the *Canada Business Corporations Act* and controls and owns all of the Common Shares of Canadian Pacific Railway Company ("CPRC"), which was incorporated in 1881 by Letters Patent pursuant to an Act of the Parliament of Canada. CPRL's registered, executive and corporate head office is located at 7550 Ogden Dale Road S.E., Calgary, Alberta T2C 4X9. CPRL's Common Shares (the "Common Shares") are listed on the Toronto Stock Exchange ("TSX") and the New York Stock Exchange ("NYSE") under the symbol "CP".

For purposes of this annual report, all references herein to "CP", "the Company", "we", "our" and "us" refer to CPRL, CPRL and its subsidiaries, CPRL and one or more of its subsidiaries, or one or more of CPRL's subsidiaries, as the context may require. All references to currency amounts included in this annual report, including the Consolidated Financial Statements, are in Canadian dollars unless specifically noted otherwise.

Strategy

Starting in 2012, CP transformed its operations by investing in the network and executing a precision scheduled railroading model that lowers costs, optimizes assets, and provides better, more competitive service.

CP is continuing the journey to become the best railway in North America, with a culture of responsibility and accountability focused on five key foundations:

- **Provide Service:** Providing efficient and consistent transportation solutions for the Company's customers. "Doing what we say we are going to do" is what drives CP in providing a reliable product with a lower cost operating model. Centralized planning aligned with local execution is bringing the Company closer to the customer and accelerating decision-making.
- **Control Costs:** Controlling and removing unnecessary costs from the organization, eliminating bureaucracy and continuing to identify productivity enhancements are the keys to success.
- **Optimize Assets:** Through longer and heavier trains, and improved asset utilization, the Company is moving increased volumes with fewer locomotives and cars while unlocking capacity for future growth potential.
- **Operate Safely:** Each year, CP safely moves millions of carloads of freight across North America while ensuring the safety of our people and the communities through which we operate. Safety is never to be compromised. CP strives for continuous implementation of state-of-the-art safety technology, safety management systems, and safety culture with our employees to ensure safe, efficient operations across our network.
- **Develop People:** CP recognizes that none of the other foundations can be achieved without its people. Every CP employee is a railroader and the Company has established a culture focused on our values of accountability, diversity and pride, in everything we do. Coaching and mentoring all employees into becoming leaders will continue to drive CP forward.

Today, we continue to apply our long-term strategy: leverage our lower cost base, network strengths and improved service to drive sustainable, profitable growth. While the accomplishments during the turnaround were tremendous, CP's journey to become North America's best-performing rail carrier is far from over. As a Company, we will remain focused on our next level of service, productivity, and innovation to continue to generate sustainable value for our customers and results for our shareholders.

Business Developments

KCS transaction

On March 21, 2021, CP announced that it entered into an Agreement and Plan of Merger (the "Original Merger Agreement") with Kansas City Southern ("KCS"), under which CP agreed to acquire KCS in a stock and cash transaction. KCS is a U.S. Class I railway with approximately 7,100 route miles extending from the midwest and southeast portions of the United States south into Mexico and connects with all Class I railways, and primarily moves

Chemical and petroleum, Industrial and consumer products, Agriculture and minerals, Energy, Intermodal and Automotive. KCS is connected to the CP network at Kansas City.

On May 21, 2021, KCS terminated the Original Merger Agreement in order to enter into a merger agreement with Canadian National Railway ("CN") (the "CN Merger Agreement"). As a result, and under the terms of the Original Merger Agreement, KCS concurrently paid a merger termination fee of \$845 million (U.S. \$700 million) to the Company.

On August 10, 2021, CP submitted a proposal to acquire KCS in a stock and cash transaction representing an enterprise value of approximately U.S. \$31 billion, based on the CP closing price on August 9, 2021, which included the assumption of U.S. \$3.8 billion of outstanding KCS debt. The terms of the proposal were very similar in nearly every respect to those in the Original Merger Agreement, except for an increase in the share exchange ratio from 2.445 to 2.884. Following the United States Surface Transportation Board's ("STB") decision on August 31, 2021 to refuse CN and KCS's joint motion for voting trust approval in respect of the CN Merger Agreement, and after renewed negotiations with CP, KCS's Board of Directors deemed CP's proposal a "Company Superior Proposal", as defined in the CN Merger Agreement, and terminated the CN Merger Agreement.

On September 15, 2021, upon KCS's termination of the CN Merger Agreement, the Company entered into an Agreement and Plan of Merger (the "Merger Agreement") with KCS. Pursuant to the terms of the CN Merger Agreement, KCS paid a merger termination fee of U.S. \$700 million and refunded the CP merger termination fee of U.S. \$700 million to CN (together, the "CN merger termination fees"). In connection with the Merger Agreement, the Company remitted \$1,773 million (U.S. \$1,400 million) to KCS on September 15, 2021 in connection with KCS's payment of the CN merger termination fees.

On December 14, 2021, following approval of the transaction by the shareholders of both the Company and KCS, receipt of Mexican regulatory approvals, and satisfaction or waiver of customary closing conditions and pursuant to the terms set forth in the Merger Agreement, the acquisition of KCS was consummated and all outstanding stock of KCS was deposited into a voting trust and held by a single trustee as trust stock. KCS's management and Board of Directors will continue to steward KCS while it is in trust, pursuing its independent business plan and growth strategies. The STB review of CP's proposed control of KCS while KCS is in the voting trust is expected to be completed in the fourth quarter of 2022. Under the terms of the Merger Agreement, the Company issued 262.6 million Common Shares to existing KCS common stockholders at the exchange ratio of 2.884 Common Shares per share of KCS common stock and paid cash consideration to existing KCS stockholders of U.S. \$90 per share of KCS common stock held and U.S. \$37.50 per share of KCS preferred stock held for a total of approximately \$10.5 billion (U.S. \$8.2 billion). Share consideration, cash consideration, and the above described payments to KCS totaled approximately \$36 billion (U.S. \$28 billion). For additional information regarding this acquisition, refer to Item 8. Financial Statements and Supplementary Data, Note 11 Business acquisitions.

Upon obtaining control approval from the STB and other remaining approvals of regulatory authorities, the two companies will be combined. Mr. Creel will serve as the Chief Executive Officer of the combined company. The combined entity will be named Canadian Pacific Kansas City ("CPKC"). Calgary, Alberta will be the global headquarters of CPKC, and Kansas City, Missouri will be designated as the U.S. headquarters. The Mexico headquarters will remain in Mexico City and Monterrey. CP's current U.S. headquarters in Minneapolis-St. Paul, Minnesota will remain an important base of operations. Four KCS Directors may join CP's expanded Board at the appropriate time, bringing their experience and expertise in overseeing KCS's multinational operations.

The transaction will combine the two railroads to create the first rail network connecting the U.S., Mexico, and Canada and will deliver dramatically expanded market reach for customers served by CP and KCS, provide new competitive transportation service options, and support North American economic growth.

Specific risk factors related to the KCS acquisition and pending KCS business combination are included in Part I, Item 1A. Risk Factors.

COVID-19 pandemic

In 2021, CP's Pandemic Team continued to proactively monitor guidance and orders from governments, public health authorities, and regulatory agencies. Utilizing that guidance while implementing CP protocols and safety measures, the Company safely reintegrated its employees into the workplace where permissible. The Company maintained preventative measures that serve to minimize the risk of exposure to COVID-19, including physical distancing measures, restricting employee business travel, strengthening clean workplace and face covering practices, reinforcing socially responsible sick leave recommendations, limiting visitor and third-party access to Company facilities, and continuously re-evaluating our efforts with safety as a top priority.

Additional information concerning the impact COVID-19 may have to our future business and results of operations is provided in Part I, Item 1A. Risk Factors.

Change in Executive Officers

In August 2021, Mr. Michael Redeker retired from his position as Vice-President and Chief Information Officer. Effective July 19, 2021, CP's new Vice-President and Chief Information Officer is Ms. Pam Arpin.

Other current business developments

On January 19, 2022, CP announced that, for the first time, it has been included on the Corporate Knights Global 100 Index, an annual ranking of the most sustainable corporations in the world. CP ranked 34th overall on the 2022 index and was the top performing freight transportation company evaluated globally. The Corporate Knights global ranking evaluated 6,914 companies with more than U.S. \$1 billion in revenues worldwide on 23 quantitative key performance indicators, weighted to reflect each industry's impact to the overall economy. Performance indicators covered topics including percentage of "clean" revenue and "clean" investment, resource management, emissions, health and safety, diversity and workforce management.

In the fourth quarter of 2021, CP was named to the Dow Jones Sustainability North American Index ("DJSI North America") for 2021. This marked the second consecutive year CP has been listed on the DJSI North America. According to S&P, the DJSI North America comprises North American sustainability leaders as identified through the Corporate Sustainability Assessment. The index represents the top 20% of the largest 600 North American companies in the S&P Global Broad Market Index and measures corporate sustainability leaders' performance based on long-term economic, environmental and social criteria.

On July 26, 2021, CP published its first comprehensive Climate Strategy, outlining the Company's approach to drive innovative climate action and a measured response to emerging climate-related risks impacting the rail sector. The Climate Strategy outlines CP's objectives across strategic pillars, which include establishing a clear understanding of climate-related risks and opportunities; reducing greenhouse gas emissions, and adapting CP operations to the physical risks of climate change. To guide implementation of the Climate Strategy, CP has established two science-based emissions reduction targets that address 100% of CP's Scope 1 and Scope 2 emissions, and more than half of Scope 3 emissions:

- CP seeks to reduce Scope 1, 2 and 3 greenhouse gas ("GHG") emissions intensity of its locomotives by in excess of 38% by 2030 from a 2019 base year. Locomotive operations represent CP's largest source of emissions.
- To support decarbonization across all operations, CP also seeks to reduce absolute Scope 1 and Scope 2 GHG emissions from non-locomotive operations by in excess of 27% by 2030 from a 2019 base year.

Please see "*Climate-Related Risks—The Company has established greenhouse gas (GHG) emission reduction targets to guide the implementation of CP's Climate Strategy. CP's inability to achieve GHG emissions reduction targets could negatively impact both our reputation and financial results*" in Item 1A. Risk Factors for further discussion

Throughout 2021, CP made substantial progress implementing its Hydrogen Locomotive Program. First announced in late 2020, CP intends to develop North America's first hydrogen-powered line-haul freight locomotive by retrofitting a diesel-powered locomotive with a combination of hydrogen fuel cells and battery technology to drive the locomotive's electric traction motors. This initiative builds on the Company's prior experience with testing low-emitting locomotive technologies and aligns with CP's Climate Strategy in seeking to develop a new generation of locomotives with the potential to produce zero GHG emissions. In the first quarter of 2021, CP announced that the Hydrogen Locomotive Program would employ Ballard's hydrogen fuel cell modules. In the fourth quarter of 2021, CP announced it will expand the scope of its Hydrogen Locomotive Program with a \$15 million grant from Emissions Reduction Alberta. The grant enables CP to increase the number of hydrogen locomotive conversions in the project from one to three and add hydrogen production and fueling facilities. CP conducted a successful movement test on the first hydrogen locomotive in December 2021. As locomotives become fully operational, CP will conduct rail service trials and qualification testing to evaluate the technology's readiness for the freight-rail sector. We believe this program will create critical industry knowledge and support the growth of a global centre of excellence in hydrogen and freight rail systems in Alberta, Canada.

On April 21, 2021, the five-for-one Share Split of the issued and outstanding Common Shares was approved at the Annual and Special Meeting of Shareholders. On May 13, 2021, the Company's shareholders of record as of May 5, 2021 received four additional Common Shares for every Common Share held. Ex-distribution trading in the Company's Common Shares on a split-adjusted basis commenced on May 14, 2021. Proportional adjustments were also made to outstanding awards under the Company's stock-based compensation plans in order to reflect the share split. All outstanding Common Shares, stock-based compensation awards, and per share amounts herein have been retrospectively adjusted to reflect the share split.

On April 21, 2021, at the Company's Annual and Special Meeting of Shareholders, conducted virtually, all 11 director nominees were elected.

In the first quarter of 2021, CP completed the installation of the solar energy farm at its Calgary headquarters. This sustainability-driven project is one of the largest private solar farms in Alberta and is expected to generate more power than consumed annually by the main headquarters building.

In the first quarter of 2021, CP and the Illinois State Toll Highway Authority closed their transaction regarding western access at O'Hare Airport and at Bensenville Yard, CP's principal rail facility in Chicago, Illinois. The transaction allows for the construction of a new tollway to the west side of O'Hare Airport while protecting CP's ability to serve its customers moving freight through the critical Chicago gateway.

On March 21, 2021, CP's Board of Directors and President and CEO Keith Creel agreed on certain contract amendments to Mr. Creel's incentive compensation that are intended to see him lead the Company until at least early 2026.

Prior Developments

On December 22, 2020, CP acquired full ownership of the Detroit River Tunnel Partnership ("DRTP"), which owns a 1.6-mile rail tunnel linking Windsor, Ontario, and Detroit, Michigan. The purchase price for the transaction was approximately \$398 million, net of cash acquired. CP previously owned a 16.5% interest in the partnership and was its designated operator. For additional information regarding this acquisition, refer to Item 8. Financial Statements and Supplementary Data, Note 11 Business acquisitions.

In the second quarter of 2020, CP completed its previously announced acquisition of Central Maine & Quebec Railway U.S. Inc. ("CMQ U.S."). Together with the December 30, 2019 completion of the acquisition of Central Maine & Québec Railway Canada Inc. ("CMQ Canada"), the acquisition of CMQ U.S. completed CP's purchase of the entire Central Maine & Québec Railway ("CMQ") network originally announced on November 20, 2019, for approximately \$174 million (U.S. \$133 million). For additional information regarding this acquisition, refer to Item 8. Financial Statements and Supplementary Data, Note 11 Business acquisitions.

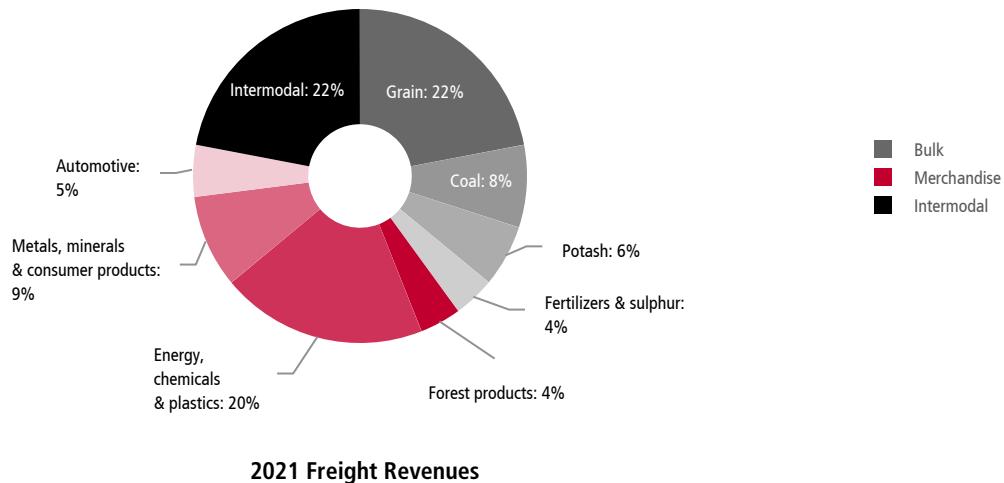
Operations

The Company operates in only one operating segment: rail transportation. Although the Company provides a breakdown of revenue by business line, the overall financial and operational performance of the Company is analyzed as one segment due to the integrated nature of the rail network. Additional information regarding the Company's business and operations, including revenue and financial information, and information by geographic location is presented in Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, and Item 8. Financial Statements and Supplementary Data, Note 29 Segmented and geographic information.

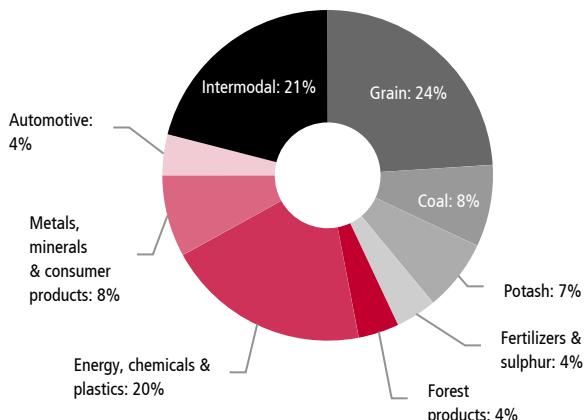
Lines of Business

The Company transports freight, consisting of bulk commodities, merchandise, and intermodal traffic. Bulk commodities, which typically move in large volumes across long distances, include Grain, Coal, Potash, and Fertilizers and sulphur. Merchandise freight consists of industrial and consumer products, such as Energy, chemicals and plastics, Metals, minerals and consumer products, Automotive, and Forest products. Intermodal traffic consists largely of retail goods in overseas containers that can be transported by train, ship and truck, and in domestic containers that can be moved by train and truck.

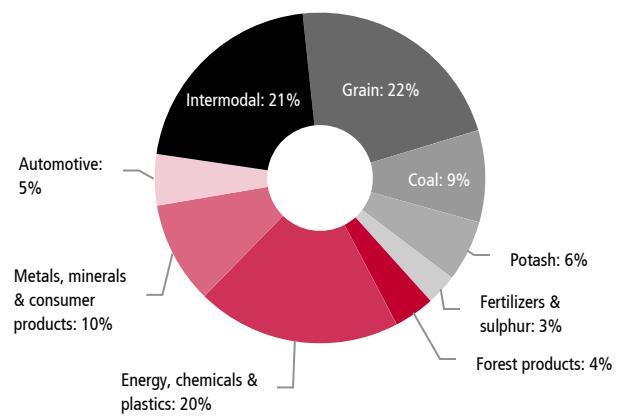
The Company's revenues are primarily derived from transporting freight. The following chart shows the Company's Freight revenue by each line of business in 2021, 2020 and 2019:



2021 Freight Revenues

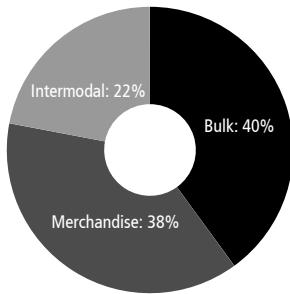


2020 Freight Revenues

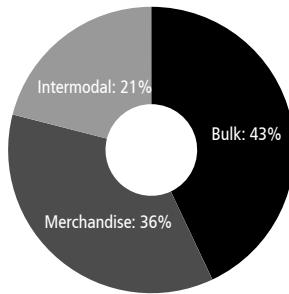


2019 Freight Revenues

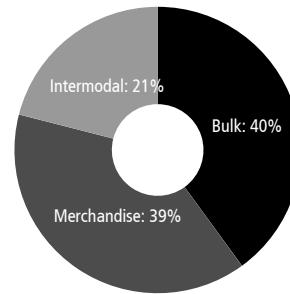
In 2021, the Company generated Freight revenues totalling \$7,816 million (\$7,541 million in 2020 and \$7,613 million in 2019). The following charts compare the percentage of the Company's total Freight revenues derived from each of the three major business lines in 2021, 2020 and 2019:



2021 Freight Revenues



2020 Freight Revenues

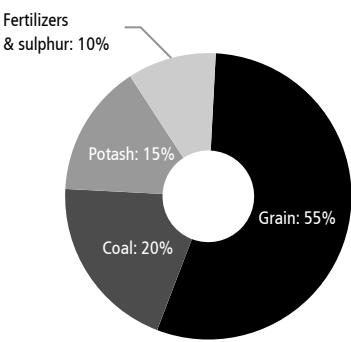


2019 Freight Revenues

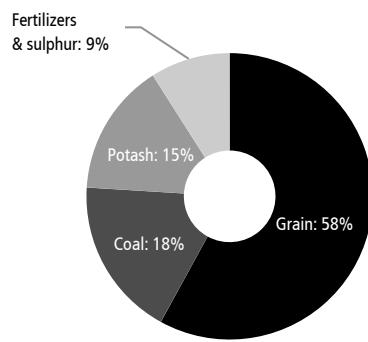
BULK

The Company's Bulk business represented approximately 40% of total Freight revenues in 2021.

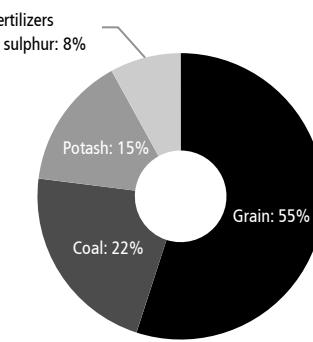
The following charts compare the percentage of the Company's Bulk freight revenues by commodity business in 2021, 2020 and 2019:



2021 Bulk Revenues
(40% of Freight Revenues)



2020 Bulk Revenues
(43% of Freight Revenues)

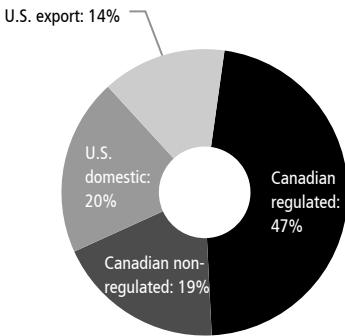


2019 Bulk Revenues
(40% of Freight Revenues)

Grain

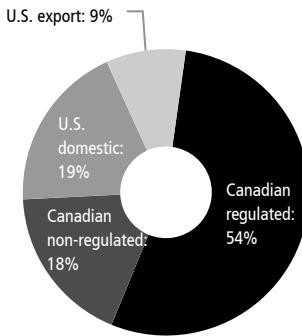
The Company's Grain business represented approximately 55% of Bulk revenues, and was 22% of total Freight revenues in 2021.

The following charts compare the percentage of the Company's Grain freight revenues generated from Canadian and U.S. shipments in 2021, 2020 and 2019:



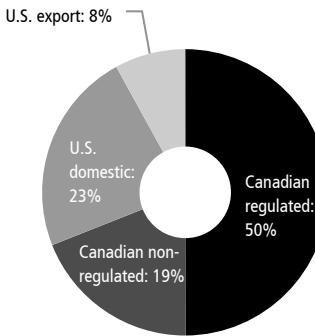
2021 Grain Revenues

(55% of Bulk Revenues; 22% of Freight Revenues)



2020 Grain Revenues

(58% of Bulk Revenues; 24% of Freight Revenues)



2019 Grain Revenues

(55% of Bulk Revenues; 22% of Freight Revenues)

CP's Grain network is unique among railways in North America as it is strategically positioned in the heart of grain-producing regions of western Canada and the Northern Plains of the U.S. Canadian grain transported by CP consists of both whole grains, such as wheat, durum, canola, pulses, and barley, and processed products such as oils, meals, and malt. This business is centred in the Canadian Prairies (Saskatchewan, Alberta, and Manitoba), with grain shipped primarily west to the Port of Vancouver and east to the Port of Thunder Bay for export. Grain is also shipped to the U.S., eastern Canada, and Mexico for domestic consumption.

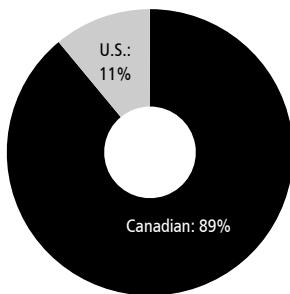
Canadian grain includes a division of business that is regulated by the Canadian government through the *Canada Transportation Act* ("CTA"). This regulated business is subject to a maximum revenue entitlement ("MRE"). Under the CTA, railways can set their own rates for individual movements. However, the MRE governs aggregate revenue earned by the railway based on a formula that factors in the total volumes, length of haul, average revenue per ton, and inflationary adjustments. The regulation applies to western Canadian export grain shipments to the ports of Vancouver and Thunder Bay.

U.S. grain transported by CP consists of both whole grains, such as wheat, corn, soybeans, and durum, and processed products such as feed, meals, oils, and flour. This business is centred in the states of Minnesota, North Dakota, and Iowa. Grain destined for domestic consumption is interchanged with other carriers to the U.S. Midwest, the U.S. Northeast via Chicago, and the U.S. Pacific Northwest. CP also delivers direct shipments of U.S. grain to western Canada primarily for animal feed. In partnership with other railways, CP moves U.S. grain to export terminals in the U.S. Pacific Northwest and the Gulf of Mexico. Export U.S. grain traffic is also shipped to the Port of Vancouver and the ports at Superior, Wisconsin and Duluth, Minnesota.

Coal

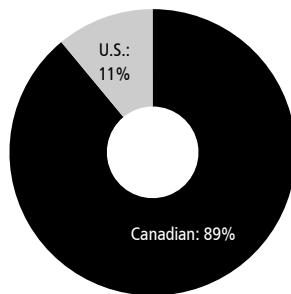
The Company's Coal business represented approximately 20% of Bulk revenues, and was 8% of total Freight revenues in 2021.

The following charts compare the percentage of the Company's Coal freight revenues generated from Canadian and U.S. shipments in 2021, 2020 and 2019:



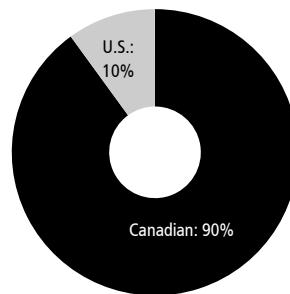
2021 Coal Revenues

(20% of Bulk Revenues; 8% of Freight Revenues)



2020 Coal Revenues

(18% of Bulk Revenues; 8% of Freight Revenues)



2019 Coal Revenues

(22% of Bulk Revenues; 9% of Freight Revenues)

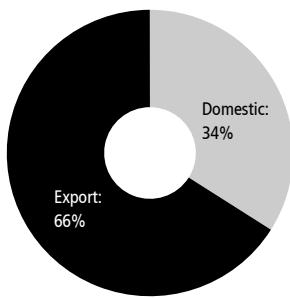
In Canada, CP handles mostly metallurgical coal destined for export for use in the steelmaking process. CP's Canadian coal traffic originates mainly from Teck Resources Limited's mines in southeastern B.C. CP moves coal west from these mines to port terminals for export to world markets (Pacific Rim, Europe and South America), and east for the U.S. Midwest markets.

In the U.S., CP moves primarily thermal coal from connecting railways, serving the thermal coal fields in the Powder River Basin in Montana and Wyoming, which is delivered to power-generating facilities in the U.S. Midwest.

Potash

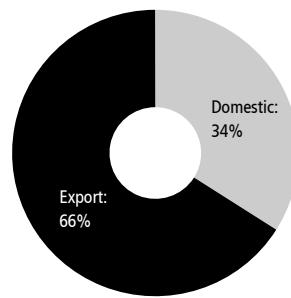
The Company's Potash business represented approximately 15% of Bulk revenues, and was 6% of total Freight revenues in 2021.

The following charts compare the percentage of the Company's Potash freight revenues generated from export and domestic potash shipments in 2021, 2020 and 2019:



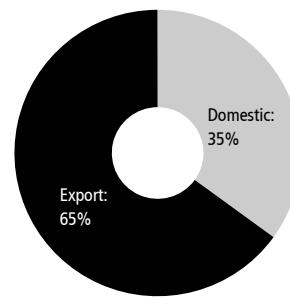
2021 Potash Revenues

(15% of Bulk Revenues; 6% of Freight Revenues)



2020 Potash Revenues

(15% of Bulk Revenues; 7% of Freight Revenues)



2019 Potash Revenues

(15% of Bulk Revenues; 6% of Freight Revenues)

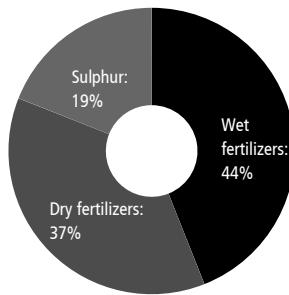
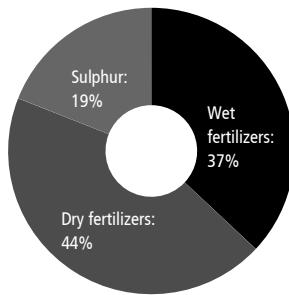
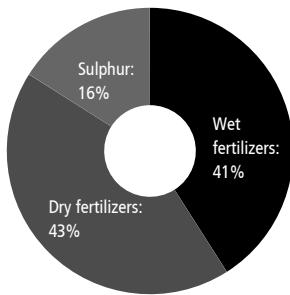
The Company's Potash traffic moves mainly from Saskatchewan to offshore markets through the ports of Vancouver, Portland, and Thunder Bay, and to markets in the U.S. All potash shipments for export beyond Canada and the U.S. are marketed by Canpotex Limited or K+S Potash Canada. Canpotex is an

export company owned in equal shares by Nutrien Ltd. and The Mosaic Company. Independently, The Mosaic Company, Nutrien Ltd., and K+S Potash Canada move domestic potash with CP primarily to the U.S. Midwest for local application.

Fertilizers and Sulphur

The Company's Fertilizers and sulphur business represented approximately 10% of Bulk revenues, and was 4% of total Freight revenues in 2021.

The following charts compare the percentage of the Company's Fertilizers and sulphur freight revenues generated from dry fertilizers, wet fertilizers, and sulphur transportation in 2021, 2020 and 2019:



2021 Fertilizers & Sulphur Revenues

(10% of Bulk Revenues; 4% of Freight Revenues)

2020 Fertilizers & Sulphur Revenues

(9% of Bulk Revenues; 4% of Freight Revenues)

2019 Fertilizers & Sulphur Revenues

(8% of Bulk Revenues; 3% of Freight Revenues)

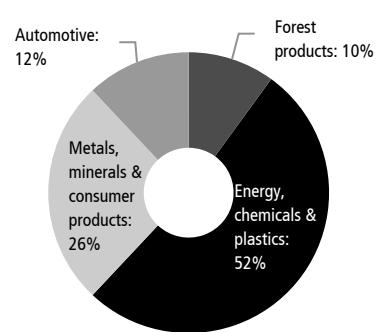
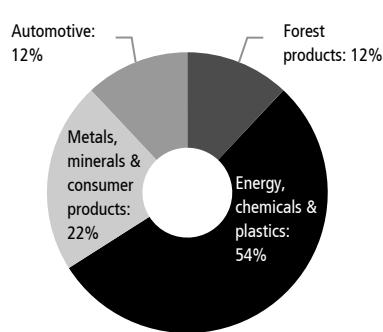
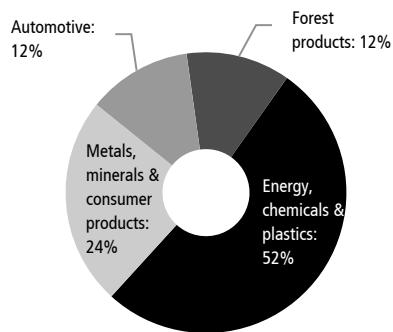
Dry fertilizers include: phosphate, nitrate, urea, and ammonium sulphate. Wet fertilizers are primarily anhydrous ammonia. More than half of CP's fertilizer shipments originate from production facilities in Alberta, where abundant sources of natural gas and other chemicals provide feedstock for fertilizer production.

Most sulphur is produced in Alberta as a byproduct of processing sour natural gas, refining crude oil, and upgrading bitumen produced in the Alberta oil sands. Sulphur is a raw material used primarily in the manufacturing of sulphuric acid, which is used most extensively in the production of phosphate fertilizers.

MERCHANDISE

The Company's Merchandise business represented approximately 38% of total Freight revenues in 2021.

The following charts compare the percentage of the Company's Merchandise freight revenue by commodity business in 2021, 2020 and 2019:



2021 Merchandise Revenues

(38% of Freight Revenues)

2020 Merchandise Revenues

(36% of Freight Revenues)

2019 Merchandise Revenues

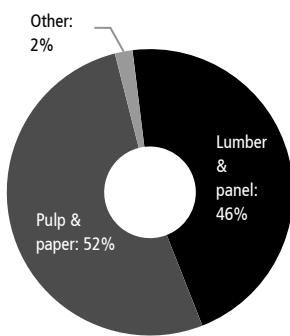
(39% of Freight Revenues)

Merchandise products move in both mixed freight and unit trains, in a variety of car types. Service involves delivering products to many different customers and destinations. In addition to traditional rail service, CP moves merchandise traffic through a network of truck-rail transload facilities, expanding the reach of CP's network to non-rail served facilities.

Forest Products

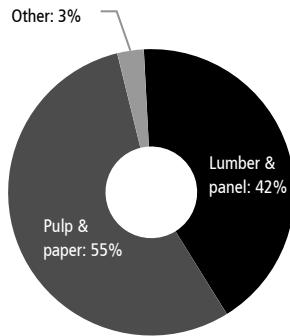
The Company's Forest products business represented approximately 12% of Merchandise revenues, and was 4% of total Freight revenues in 2021.

The following charts compare the percentage of the Company's Forest products freight revenues generated from pulp and paper (wood pulp, paperboard, newsprint, and paper), lumber and panel, and other shipments in 2021, 2020 and 2019:



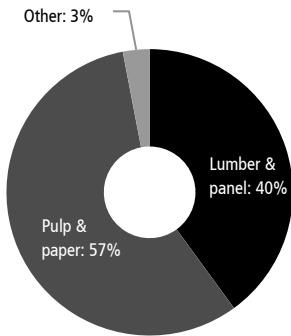
2021 Forest Products Revenues

(12% of Merchandise Revenues;
4% of Freight Revenues)



2020 Forest Products Revenues

(12% of Merchandise Revenues;
4% of Freight Revenues)



2019 Forest Products Revenues

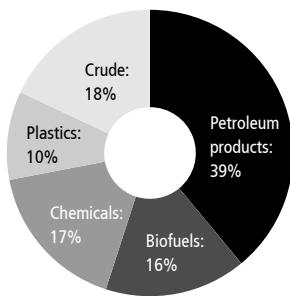
(10% of Merchandise Revenues;
4% of Freight Revenues)

Forest products traffic includes pulp and paper, and lumber and panel shipped from key producing areas in B.C., Ontario, Alberta, Québec, the U.S. Northeast, and New Brunswick, to destinations throughout North America, including the U.S. Midwest, the U.S. Northeast, and to export markets via Vancouver.

Energy, Chemicals and Plastics

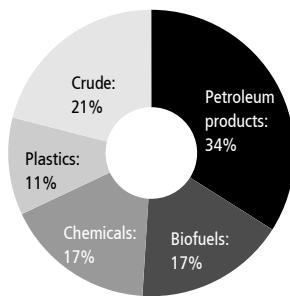
The Company's Energy, chemicals and plastics business represented approximately 52% of Merchandise revenues, and was 20% of total Freight revenues in 2021.

The following charts compare the percentage of the Company's Energy, chemicals and plastics freight revenues generated from petroleum products, crude, chemicals, biofuels, and plastics shipments in 2021, 2020 and 2019:



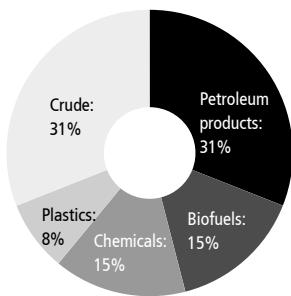
2021 Energy, Chemicals & Plastics Revenues

(52% of Merchandise Revenues;
20% of Freight Revenues)



2020 Energy, Chemicals & Plastics Revenues

(54% of Merchandise Revenues;
20% of Freight Revenues)



2019 Energy, Chemicals & Plastics Revenues

(52% of Merchandise Revenues;
20% of Freight Revenues)

Petroleum products consist of commodities such as liquefied petroleum gas ("LPG"), fuel oil, asphalt, gasoline, condensate (diluent), and lubricant oils. The majority of the Company's western Canadian energy traffic originates in the Alberta Industrial Heartland, Canada's largest hydrocarbon processing region, and Saskatchewan. The Bakken formation region in Saskatchewan and North Dakota is another source of LPG, asphalt, gasoline, and other refined petroleum. Either directly or via connection with rail interline partners, CP accesses key destinations and export markets in the U.S. Midwest, the U.S. West Coast, the U.S. Northeast, Vancouver, and Mexico, as well as the Texas and Louisiana petrochemical corridor and port connections.

Crude moves from production facilities throughout Alberta, North Dakota, and Saskatchewan. CP provides efficient routes to refining markets in the Gulf Coast, the U.S. Northeast, and the U.S. Pacific Northwest through connections with our railway partners. Within crude, CP also moves DRUbit™, a sustainable heavy crude oil specifically designed for rail transportation and produced using a new and innovative plant known as a Diluent Recovery Unit ("DRU"). This technology enables the safe and economical transportation of crude oil and is cost competitive with pipeline transportation. CP transports DRUbit™ from the Hardisty Rail Terminal in Alberta to the Gulf Coast via interchange in Kansas City.

The Company's chemical traffic includes products such as ethylene glycol, caustic soda, sulphuric acid, methanol, styrene, and soda ash. These shipments originate from western Canada, the Gulf Coast, eastern Canada, and the U.S. Midwest, and move to end markets in the U.S., Canada, and overseas.

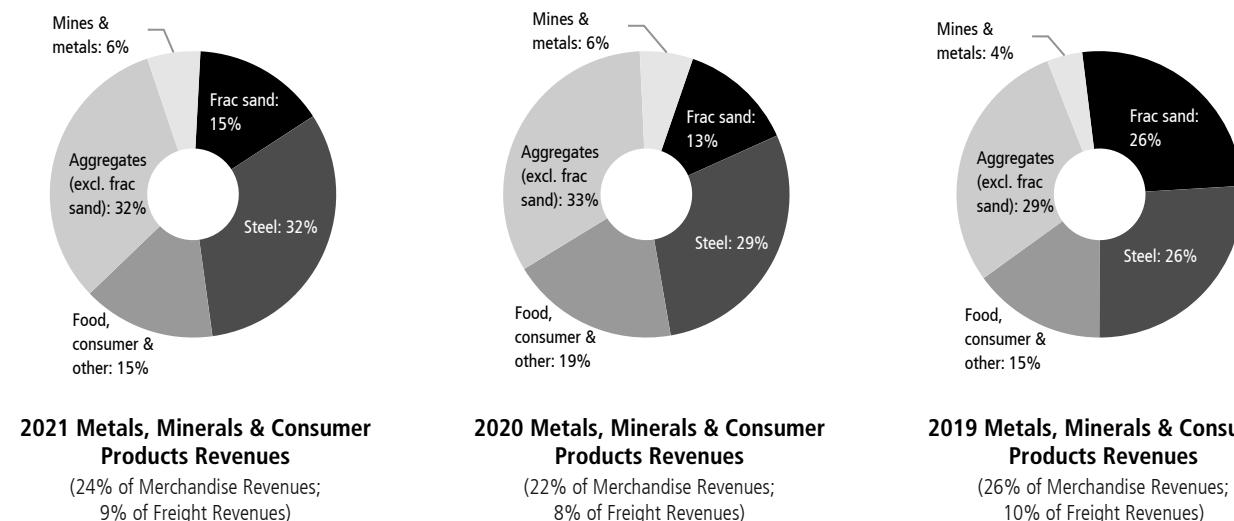
CP's biofuels traffic originates mainly from facilities in the U.S. Midwest, shipping primarily to destinations in the U.S. Northeast.

The most commonly shipped plastics products are polyethylene and polypropylene. Approximately half of the Company's plastics traffic originates in central and northern Alberta and moves to various North American destinations.

Metals, Minerals and Consumer Products

The Company's Metals, minerals and consumer products business represented approximately 24% of Merchandise revenues, and was 9% of total Freight revenues in 2021.

The following charts compare the percentage of the Company's Metals, minerals and consumer products freight revenues generated from steel, aggregates (excluding frac sand), food and consumer products, frac sand, and non-ferrous metals transportation in 2021, 2020 and 2019:



Aggregate products include coarse particulate and composite materials such as cement, limestone, clay, nepheline syenite, and gypsum. Cement is the leading commodity within aggregates, and is shipped directly from production facilities in Alberta, the U.S. Midwest, Ontario, and Québec to energy and construction projects in western Canada, the U.S. Midwest, and the U.S. Pacific Northwest.

The majority of frac sand originates at mines located along the Company's network in Wisconsin and moves to the Bakken, Marcellus Shale, Permian Basin, and other shale formations across North America.

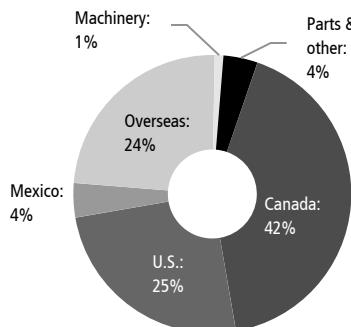
CP transports steel in various forms from mills in the U.S. Midwest, the Canadian Prairies, and Ontario to a variety of industrial users. The Company carries base metals such as aluminum, zinc, and lead. CP also moves ores from mines to smelters and refineries for processing, and the processed metal to automobile and consumer products manufacturers.

Food, consumer, and other products traffic consists of a diverse mix of goods, including food products, railway equipment, building materials, and waste products.

Automotive

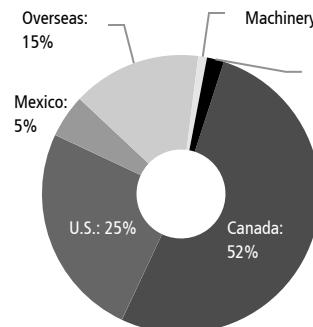
The Company's Automotive business represented approximately 12% of Merchandise revenues, and was 5% of total Freight revenues in 2021.

The following charts compare the percentage of the Company's Automotive freight revenues generated by movements of finished vehicles from Canadian, U.S., overseas, and Mexican origins, parts and other, and machinery in 2021, 2020 and 2019:



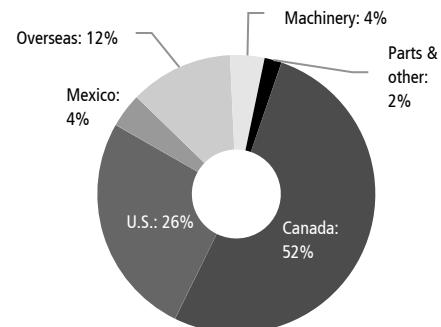
2021 Automotive Revenues

(12% of Merchandise Revenues;
5% of Freight Revenues)



2020 Automotive Revenues

(12% of Merchandise Revenues;
4% of Freight Revenues)



2019 Automotive Revenues

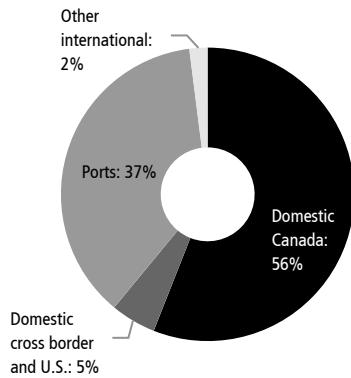
(12% of Merchandise Revenues;
5% of Freight Revenues)

CP's Automotive portfolio consists of four finished vehicle traffic components: Canadian-produced vehicles that ship to the U.S. from Ontario production facilities; U.S.-produced vehicles that ship within the U.S. as well as cross border shipments to Canadian markets; vehicles from overseas that move through the Port of Vancouver to eastern Canadian markets; and Mexican-produced vehicles that ship to the U.S. and Canada. In addition to finished vehicles, CP ships pre-owned vehicles, machinery, and automotive parts. A comprehensive network of automotive compounds is utilized to facilitate final delivery of vehicles to dealers throughout Canada and in the U.S.

INTERMODAL

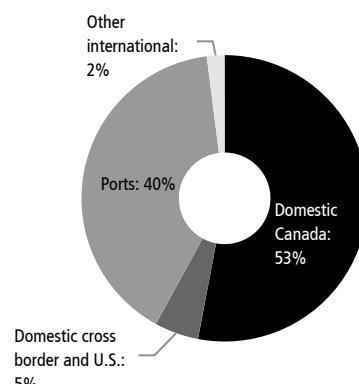
The Company's Intermodal business represented approximately 22% of total Freight revenues in 2021.

The following charts compare the percentage of the Company's Intermodal freight revenues generated from Canada, ports, cross border transportation, other international, and U.S. in 2021, 2020 and 2019:



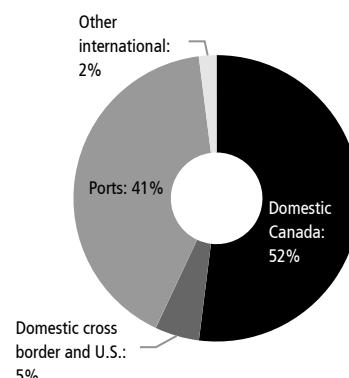
2021 Intermodal Revenues

(22% of Freight Revenues)



2020 Intermodal Revenues

(21% of Freight Revenues)



2019 Intermodal Revenues

(21% of Freight Revenues)

Domestic intermodal freight consists primarily of manufactured consumer products that are predominantly moved in 53-foot containers within North America. International intermodal freight moves in marine containers to and from ports and North American inland markets.

CP's domestic intermodal business moves goods from a broad spectrum of industries including wholesale, retail, food, and various other commodities. Key service factors in domestic intermodal include consistent on-time delivery, the ability to provide door-to-door service, and the availability of value-added services. The majority of the Company's domestic intermodal business originates in Canada, where CP markets its services directly to retailers and manufacturers, providing complete door-to-door service and maintaining direct relationships with its customers. In the U.S., the Company's service is delivered mainly through intermodal marketing companies.

CP's international intermodal business consists primarily of containerized traffic moving between the ports of Vancouver, Montréal, Saint John, and inland points across Canada and the U.S. Import traffic from the Port of Vancouver is mainly long-haul business destined for eastern Canada and the U.S. Midwest. CP works closely with the Port of Montréal, a major year-round East Coast gateway to Europe, to serve markets primarily in Canada and the U.S. Midwest. CP's access to the Port of Saint John provides the fastest rail service from the east coast to the Canadian and U.S. Midwest markets for import and export cargo from Europe, South America, and Asia.

Fuel Cost Adjustment Program

The short-term volatility in fuel prices may adversely or positively impact revenues. CP employs a fuel cost adjustment program designed to respond to fluctuations in fuel prices and help reduce volatility to changing fuel prices. Fuel surcharge revenues are earned on individual shipments and are based primarily on the price of On-Highway Diesel. As such, fuel surcharge revenues are a function of freight volumes and fuel prices. Fuel surcharge revenues accounted for approximately 7% of the Company's Freight revenues in 2021. The Company is also subject to carbon taxation systems and levies in some jurisdictions in which it operates, the costs of which are passed on to the shipper. As such, fuel surcharge revenue includes carbon taxes and levy recoveries.

Freight revenues included fuel surcharge revenues of \$535 million in 2021, an increase of \$238 million, or 80%, from \$297 million in the same period of 2020. This increase was primarily due to higher fuel prices and increased carbon tax recoveries. This increase was partially offset by the timing of recoveries from CP's fuel cost adjustment program.

Non-freight Revenues

Non-freight revenues accounted for approximately 2% of the Company's Total revenues in 2021. Non-freight revenues are generated from leasing certain assets; other arrangements, including contracts with passenger service operators and logistical services; and switching fees.

Significant Customers

For each of the years ended December 31, 2021, 2020 and 2019, the company's revenues and operations were not dependent on any major customers.

Competition

The Company is in the ground transportation and logistics business. The Company sees competition in this segment from other railways, motor carriers, ship and barge operators, and pipelines. Depending on the specific market, competing railways, motor carriers, and other competitors may exert pressure on price and service levels. The Company continually evaluates the market needs and the competition. The Company responds as it deems appropriate to provide competitive services to the market. This includes developing new offerings such as transload facilities, new train services, and other logistics services.

Seasonality

Volumes and revenues from certain goods are stronger during different periods of the year. First-quarter revenues are typically lower mainly due to winter weather conditions, closure of the Port of Thunder Bay, and reduced transportation of retail goods. Second and third quarter revenues generally improve compared to the first quarter, as fertilizer volumes are typically highest during the second quarter and demand for construction-related goods is generally highest in the third quarter. Revenues are typically strongest in the fourth quarter, primarily as a result of the transportation of grain after the harvest, fall fertilizer programs, and increased demand for retail goods moved by rail. Operating income is also affected by seasonal fluctuations. Operating income is typically lowest in the first quarter, due to lower freight revenue and higher operating costs associated with winter conditions.

Government Regulation

The Company's railway operations are subject to extensive federal laws, regulations, and rules in both Canada and the U.S., which directly affect how operations and business activities are managed.

Economic Regulation - Canada

The Company's rail operations in Canada are subject to economic regulation by the Canadian Transportation Agency (the "Agency") as delegated by the CTA. The CTA indirectly regulates rates by providing remedies for freight rates, including ancillary charges, remedies for level of service, long-haul interswitching rates, and regulated interswitching rates in Canada. The Agency administers the MRE program for the movement of export grain and makes determinations in relation to the construction and abandonment of railways, commuter and passenger access, and noise and vibration-related disputes.

In 2018, the Transportation Modernization Act became law. The legislation amended the Canada Transportation Act and the Railway Safety Act ("RSA"), among other Acts, to (1) replace the previous 160 kilometre extended interswitching limit and the competitive line rate provisions with a new long-haul interswitching regime; (2) modify the existing Level of Service remedy for shippers by instructing the Agency to determine, upon receipt of a complaint, if a railway company is fulfilling its common carrier obligation to the "highest level of service that is reasonable in the circumstances"; (3) allow the existing Service Level Agreement arbitration remedy to include the consideration of reciprocal financial penalties; (4) increase the threshold for summary Final Offer Arbitration from \$750,000 to \$2 million; (5) bifurcate the Volume-Related Composite Price Index component of the annual MRE determination for transportation of regulated grain, to encourage hopper car investment by CP and Canadian National Railway ("CN"); (6) mandate the installation of locomotive voice and video recorders ("LVVRs"), with statutory permission for random access by railway companies and Transport Canada ("TC") to the LVVR data in order to proactively strengthen railway safety in Canada; and (7) compel railways to provide additional data to the federal government.

Economic Regulation - U.S.

The Company's U.S. rail operations are subject to economic regulation by the STB. The STB provides economic regulatory oversight and administers Title 49 of the United States Code and related Code of Federal Regulations. The STB has jurisdiction over railroad rate and service issues and proposed railroad mergers and other transactions.

The STB Reauthorization Act of 2015 resulted in numerous changes to the structure and composition of the STB, removing it from under the Department of Transport and establishing the STB as an independent U.S. agency, as well as increasing STB Board membership from three to five members. Notably, the law vests in the STB certain limited enforcement powers, by authorizing it to investigate rail carrier violations on the STB Board's own initiative. The law also requires the STB to establish a voluntary binding arbitration process to resolve rail rate and practice disputes.

Safety Regulation - Canada

The Company's operations in Canada are subject to safety regulatory oversight by TC pursuant to the RSA. The RSA regulates safety-related aspects of railway operations in Canada, including the delegation of inspection, investigation and enforcement powers to TC. TC is also responsible for overseeing the transportation of dangerous goods as set out under the Transportation of Dangerous Goods Act ("TDGA").

In 2015, An Act to amend the Canada Transportation Act and the Railway Safety Act became law. The legislation sets out minimum insurance requirements for federally regulated railways based on amounts of crude and toxic inhalation hazards ("TIH") or poisonous inhalation hazards moved. It also imposes strict liability; limits railway liability to the minimum insurance level; mandates the creation of a fund paid for by levies on crude shipments, to be utilized for damages beyond a railway's liability; allows railways and insurers to maintain rights to pursue other parties (subrogation); and prevents shifting liability to shippers from railways except through written agreement.

The Company is continuing to allocate resources, including working with public and private rail crossing owners, to meet the *Grade Crossings Regulations*, under the Railway Safety Act ("RSA"), which came into force in 2014. The regulations require existing crossings to meet specified safety standards by November 2021. Based on stakeholder input, including public and private rail crossing owners, TC has proposed changes to the regulations that will revise the scope and compliance deadlines using a risk-based approach. For crossings considered to be high priority, the deadline would be extended by one year (until November 28, 2022), and for all other crossings (i.e. crossings that do not meet the threshold criteria for low-risk or high priority) by three years (until November 28, 2024). The proposed regulatory changes are pending and will need to be published in Part II of the Canada Gazette for them to come into force.

On November 25, 2020, the Minister of Transport approved updated *Duty and Rest Period Rules for Railway Operating Employees*. The new rules, founded on modern-day fatigue management principles, reduce the length of a duty period and increase the length of the minimum rest period between shifts. The rules establish limits on the total number of duty hours, 60 hours in a seven-day period, 192 hours in a 28-day period and require the implementation of a Fatigue Management Plan and Fitness of Duty Provision. These requirements must be phased in by May 25, 2023. CP is working to address the requirements.

On July 11, 2021, the Minister of Transport issued an Order in response to the B.C. wildfires. The Order mandated prescriptive requirements that railway companies must comply with including conducting at least 10 fire detection patrols every 24 hours on regularly used track, an Extreme Weather Fire Risk Mitigation Plan, minimum emergency response requirements and locomotive inspection requirements. The requirements of the Order remain in effect until fire risk reduction measures are incorporated on a permanent basis into the existing regulatory framework governing railway operations in Canada.

On October 29, 2021, the Minister of Transport issued an Order mandating COVID-19 vaccinations. That Order required railway companies to implement their own company-wide vaccine policy by October 30, 2021 requiring all employees to receive their first dose of vaccine by November 15, 2021 and their second dose by January 24, 2022 or implement a set of more prescribed standards for operating employees. CP is complying with this Order and continuing to evaluate the potential impacts to the Company.

Additionally, the Company is working with TC on revisions to multiple rules to improve rail safety, including addressing specific requirements mandated under various Orders issued by the Minister of Transport. This includes changes to the *Canadian Rail Operating Rules; Rules Respecting Key Trains and Key Routes; Railway Locomotive Inspection and Safety Rules and Rules Respecting Track Safety*.

On February 5, 2022, TC published a Notice of Intent in the Canada Gazette Part I that it would be progressing work to develop a regulatory framework to establish requirements to implement Enhanced Train Control ("ETC") technologies in Canada to help ensure that railway signals are consistently recognized and followed. The Notice of Intent describes an approach that is based on extensive work conducted with railways and labour representatives. The proposed framework would require railway companies to assess the levels of safety risk on their networks and implement systems that are commensurate with the identified levels of risk. Highest risk corridors would need to be equipped with Automatic Train Protection equipment, similar to Positive Train Control ("PTC") in the US; lower risk corridors would need to be equipped with Driver Advisory System equipment that would alert crews to take action; and very low risk corridors could retain conventional train control approaches. The formal regulatory process has not commenced and railway companies will have opportunities to provide input into the proposed regulatory framework as it progresses. At this time, TC has not provided timelines for issuing proposed ETC regulatory requirements or an implementation date.

Safety Regulation - U.S.

The Company's U.S. operations are subject to safety regulations enforced by the Federal Railroad Administration ("FRA"), and the Pipelines and Hazardous Materials Safety Administration ("PHMSA"). The FRA regulates safety-related aspects of the Company's railway operations in the U.S. under the *Federal Railroad Safety Act*, as well as rail portions of other safety statutes. The PHMSA regulates the safe transportation of all hazardous materials by rail.

Various other regulators directly and indirectly affect the Company's operations in areas such as health, safety, security, environmental, and other matters.

Environmental Laws and Regulations

The Company's operations and real estate assets are subject to extensive federal, provincial, state, and local environmental laws and regulations governing air pollutants, GHG emissions, management and remediation of historical contaminant sites, discharges to waters and the handling, storage, transportation, and disposal of waste and other materials. If the Company is found to have violated such laws or regulations, it could have a material adverse effect on the Company's business, financial condition, or operating results. In addition, in operating a railway, it is possible that releases of hazardous materials during derailments or other accidents may occur that could cause harm to human health or to the environment. Costs of remediation, damages and changes in regulations could materially affect the Company's operating results, financial condition, and reputation.

The Company has implemented an Environmental Management System to facilitate the reduction of environmental risk. Specific environmental programs are in place to address areas such as locomotive air emissions, GHG reporting, management of vegetation, wastewater, chemicals and waste, storage tanks, and fueling facilities. CP has also undertaken environmental impact assessments and risk assessments to identify, prevent, and mitigate environmental risks. There is continued focus on preventing spills and other incidents that have a negative impact on the environment. There is an established strategic emergency response contractor network, and spill equipment kits are located across Canada and the U.S. to ensure a rapid and efficient response in the event of an environmental incident. In addition, emergency preparedness and response plans are regularly updated and tested.

The Company has developed an environmental audit program that comprehensively, systematically, and regularly assesses the Company's facilities for compliance with legal requirements and the Company's policies for conformance to accepted industry standards. Included in this is a corrective action follow-up process and review by senior management.

CP focuses on key strategies, identifying tactics and actions to support and operationalize our environmental commitments. The Company's strategies include:

- Implementing measures to minimize or prevent environmental impacts from our operations and facilities, and to ensure compliance with applicable environmental laws and regulations;

- Maintaining an Environmental Management System to provide consistent, effective guidance and resources to CP employees in regard to the management of air emissions, dangerous goods and waste materials, emergency preparedness and response, petroleum products management, and water and wastewater systems;
- Reducing environmental and safety risk through business processes to identify and mitigate potential environmental impacts related to all CP operations and activities;
- Ensuring that new or altered operations and other business activities are evaluated, planned, permitted in accordance with applicable regulations, and executed to mitigate environmental risk;
- Engaging with relevant stakeholders to consider and discuss CP's environmental management practices and environmental issues and concerns associated with our operations;
- Employing best practices, proven technologies, and safe operating standards for activities involving elevated environmental risk;
- Planning and preparing for emergency responses to ensure all appropriate steps are taken in the event of a derailment, spill, or other incident involving a release to the environment; and
- Implementing CP's comprehensive Climate Strategy to reduce GHG emissions and adapt CP's operations to the physical risks of climate change. To guide implementation of the Climate Strategy, CP has established two science-based emissions reduction targets that address 100% of CP's Scope 1 and Scope 2 emissions, and more than half of CP's Scope 3 emissions.

Security

CP is subject to statutory and regulatory directives in Canada and the U.S. that address security concerns. CP plays a critical role in the North American transportation system. Rail lines, facilities and equipment, including railcars carrying hazardous materials, could be direct targets or indirect casualties of terrorist attacks, actions by criminal and non-criminal organizations, and activities by individuals. Regulations by the U.S. Department of Transportation and the Department of Homeland Security in the U.S. include speed restrictions, chain of custody and security measures, which can impact service and increase costs for the transportation of hazardous materials, especially TIH materials. New regulations published by TC under the TGDA have added requirements for railway companies to take actions to mitigate security risks of transporting dangerous goods by rail. In addition, insurance premiums for some or all of the Company's current coverage could increase significantly, or certain coverage may not be available to the Company in the future. While CP will continue to work closely with Canadian and U.S. government agencies, future decisions by these agencies on security matters or decisions by the industry in response to security threats to the North American rail network could have a material adverse effect on the Company's business, financial condition, or operating results.

CP takes the following security measures:

- CP employs its own police service that works closely with communities and other law enforcement and government agencies to promote railway safety and infrastructure security. As a railway law enforcement agency, CP Police Services is headquartered in Calgary, with police officers assigned to over 25 field offices responsible for railway police operations in six Canadian provinces and 14 U.S. states. CP Police Services operates on the CP rail network as well as in areas where CP has non-railway operations;
- CP's Public Safety Communication Centre ("PSCC") operates 24 hours a day. PSCC receives reports of emergencies, dangerous or potentially dangerous conditions, and other safety and security issues from our employees, the public, and law enforcement and other government officials. PSCC ensures that proper emergency responders are notified as well as governing bodies;
- CP's Security Management Plan is a comprehensive, risk-based plan modelled on and developed in conjunction with the security plan prepared by the Association of American Railroads post-September 11, 2001. Under this plan, CP routinely examines and prioritizes railway assets, physical and cyber vulnerabilities, and threats, as well as tests and revises measures to provide essential railway security. To address cyber security risks, CP implements mitigation programs that evolve with the changing technology threat environment. The Company has also worked diligently to establish backup sites to ensure a seamless transition in the event that the Company's operating systems are the target of a cyber-attack. By doing so, CP is able to maintain network fluidity; and
- CP security efforts consist of a wide variety of measures including employee training, periodic security assessments, engagement with our customers, and training of emergency responders.

Focus on Sustainability

Sustainability at CP is rooted in a long-standing legacy of building for the future. We recognize that integrating sustainability into our business processes is imperative to future growth and long-term success as an organization. As one of North America's top-performing railways, we seek to continue to innovate and advance practices to meet the evolving needs and increasing engagement of all of CP's stakeholders, including employees, customers, shareholders, suppliers, communities and society.

CP's Sustainability Priorities



Sustainability Governance

CP's Board of Directors, through its committees, is responsible for the monitoring, measurement and oversight of CP's key risks, strategies and sustainability topics. The Risk and Sustainability Committee of the Board reviews performance against short-term and long-term sustainability objectives and results of stakeholder engagement to ensure alignment with CP's strategic planning. CP's cross-functional management Sustainability Steering Committee guides decisions on CP's day-to-day sustainability tasks, programs and priorities, and reports progress and recommendations to the Risk and Sustainability Committee. The Disclosure Policy Committee gives direction and support to the Sustainability Steering Committee concerning how CP communicates information concerning material sustainability topics.

CP leadership and employee engagement at all levels of the business is foundational to the success of our sustainability program. Through ongoing engagement across and beyond our organization, CP continues to refine a sustainability program driven by our values and based on a shared sense of business, community and vision for the future. As we take strides to deliver on our commitments and goals, we constantly challenge ourselves to improve our practices.

Climate Change

Climate change represents a significant global challenge and CP is committed to adapting our business and operations. CP published its first Climate Strategy in 2021, outlining our approach to managing potential climate-related impacts, reducing our carbon footprint and seeking to position CP as an industry leader in the transition to a low-carbon future. As part of the Climate Strategy, CP established science-based GHG emissions reductions targets covering 100% of Scope 1 and 2 emissions and more than half of our Scope 3 emissions.

CP has already taken action and made progress on climate change and to further support the execution of our Climate Strategy, we are strengthening roles and responsibilities for climate governance. CP's President and CEO holds the highest level of responsibility for organizational management,

including oversight of the Sustainability Steering Committee and performance related to climate change, while the Risk and Sustainability Committee of the Board provides oversight and reviews climate-related risks and opportunities. To lead our focus on decarbonization, we have established a Carbon Reduction Task Force, composed of CP's industry-leading engineers and operations experts. The Carbon Reduction Task Force reports to the Sustainability Steering Committee and will evaluate, recommend and implement climate action measures to reduce our GHG emissions and drive performance in the direction of our science-based targets.

In 2021, CP significantly expanded its Hydrogen Locomotive Program, aiming to build North America's first line-haul hydrogen-powered locomotive using fuel cells and batteries to power the locomotive's electric traction motor. CP is increasing the number of hydrogen locomotive conversions from one to three and adding hydrogen production and fueling facilities. This project will demonstrate and evaluate the technical performance in real-world operations and generate critical industry knowledge and experience that will inform commercialization and future development.

In 2021, we aligned our reporting to include the recommendations from the Task Force on Climate-related Financial Disclosure ("TCFD") and issued our first TCFD Index to demonstrate CP's full alignment to the recommendations. In addition, we regularly report on climate-related efforts through CDP and supplemental sustainability disclosures.

Indigenous Relations

We strive to maintain strong relationships with Indigenous communities and uphold policies that outline our commitment to human rights. We incorporate elements of the Canadian Council for Aboriginal Business' Progressive Aboriginal Relations program into our practices and aim to strengthen relationships, develop opportunities and provide education and cross-cultural awareness.

CP recognizes the constitutionally protected rights of Indigenous people and is committed to interacting with Indigenous communities in a safe, respectful and responsible manner. Various CP teams collaborate to make certain that we effectively communicate and engage with communities that may be impacted by our practices and projects.

Human Capital Management

CP is focused on attracting, developing, and retaining a resilient, high-performing workforce that delivers on providing service for our customers. CP's culture is guided by three core values: Accountability, Diversity, and Pride. These values drive our actions. Everything we do is grounded in precision scheduled railroading and our five foundations of Provide Service, Control Costs, Optimize Assets, Operate Safely, and Develop People.

At CP, our approximately 12,000-strong team of railroaders across North America underpins CP's success and brings value to our customers and shareholders. Accordingly, Develop People is one foundation of how we do business, illustrating our focus and energy towards empowering our people, providing an engaging culture and cultivating an industry leading team.

Total Employees and Workforce

An employee is defined by the Company as an individual currently engaged in full-time, part-time, or seasonal employment with CP. The total number of employees as of December 31, 2021, was 11,834, a decrease of 56 compared to 11,890 as at December 31, 2020.

Workforce is defined as total employees plus contractors and consultants. The total workforce as at December 31, 2021 was 11,872, a decrease of 32 compared to 11,904 as at December 31, 2020.

Unionized Workforce

Class I railways are party to collective bargaining agreements with various labour unions. The majority of CP's employees belong to labour unions and are subject to these agreements. CP manages collaborative relationships with union members in both Canada and the U.S.

CP employs approximately 12,000 active employees across North America with three-quarters based in Canada and the remainder in the United States. Unionized employees represent nearly 73% of our workforce and are represented by 36 active bargaining units.

Canada

Within Canada there are eight bargaining units representing approximately 6,600 Canadian unionized active employees. From time to time, we negotiate to renew collective agreements with various unionized groups of employees. In such cases, the collective agreements remain in effect until the bargaining process has been exhausted (pursuant to the *Canada Labour Code*). One agreement is open for renewal and negotiations are underway as at December 31, 2021. Agreements are in place with the other seven bargaining units in Canada. Four collective agreements are effective until December 31, 2022 with the remaining three effective until December 31, 2023, 2025 and 2026.

U.S.

In the U.S., there are currently 28 active bargaining units on four subsidiary railroads representing nearly 2,100 unionized active employees. 24 agreements are open for amendment and under negotiation as at December 31, 2021. Negotiations have been concluded with respect to three agreements which will expire beyond 2022 while one remaining agreement will be open for amendment in 2022.

Health and Safety

CP is an industry leader in rail safety and we are committed to protecting our employees, our communities, our environment, and our customers' goods. In spite of 2021 being a very challenging year for our operation, CP remained an industry leader in train accident statistics for the 16th consecutive year. 2021 was also a record breaking year with respect to personal injuries as CP had the lowest injury frequency in its history and is now among the Class I leaders. CP's leadership approach has been the most impactful driver of the strong safety performance metrics and we are committed to continually improving on them. Aside from running trains, many of our employees work in yards, terminals and shops across our network with machinery and heavy equipment, or in extreme weather conditions. Their safety and security are of utmost importance to CP and are integral to the way we view employee safety education and training. Operate Safely is one of our five foundations of successful railroading and it starts with knowing and following the rules.

CP HomeSafe is an initiative designed to improve our safety culture by tapping into the human side of safety and promoting both safety engagement and feedback. HomeSafe puts everyone on the same level and empowers all employees to begin a safety conversation, no matter the rank or position. We intend to continue strengthening our strong HomeSafe foundation in 2022 through active peer engagement and awareness initiatives. Despite the ongoing pandemic in 2021, CP has continued to maintain a safe operation by diligently promoting our pandemic response initiatives including a set of practical strategies and best practices designed to keep all employees safe and healthy at work.

Safety performance is disclosed publicly on a quarterly basis using standardized metrics set out by the FRA. Additional information on FRA safety measures is included in Performance Indicators in Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Talent Management

CP's approach for talent management begins with our Human Resources department, which oversees recruitment, development, engagement, and retention with the current and future workforce and leadership of CP.

The Management Resources and Compensation Committee of the Board of Directors reviews and informs CP's compensation plan and programming, and makes recommendations to the Board on succession planning for senior management and processes to identify, develop, and retain executive talent. Additionally, as part of CP's succession planning program, senior leaders are actively engaged in building the pool of future leaders, and present their development plans to the Board.

CP maintains a number of internal policies and processes related to recruitment, relocation, compensation, employment equity, and diversity and inclusion. The effective implementation of these policies alongside our ongoing workforce initiatives ensures CP's attraction and recruitment, employee development, succession, engagement, and diversity and inclusion practices are consistent and aligned with CP's commitments, foundations and values.

Attraction and Recruitment

With a rail network spanning Canada and the U.S., we employ a number of recruitment strategies and retention tactics to attract and retain talent across North America. CP offers many rewarding career opportunities in a variety of roles within the organization in both operating and support functions. We base our recruitment strategy on workforce planning needs, and our focus is on ensuring that we have a diverse candidate pool to fill our open positions.

CP recognizes the valuable skills and experience that veterans have gained from serving their country. Our veteran program was recognized as part of Canada's Best Diversity Employers® of 2021 and we were named part of the top 10 Military Friendly® employers in the U.S. for 2021.

CP tracks recruitment performance and success rates to better understand which tactics, benefits, and strategic partnerships are most successful in bringing in and retaining new talent.

Talent Development & Succession

As part of our core foundation and commitment to Develop People, we encourage all employees to take an active role in their career planning and development. We believe that investing in our employees leads to improved workplace morale and fosters a supportive working environment.

Training and Development

One of CP's five foundations is to Develop People, which is integral to the way we do business at the railway. Our strategy involves delivering specialized training, best practices, and skill-broadening opportunities to all employees.

CP offers a variety of training opportunities, providing both technical/on-the-job training, role-specific offerings as well as optional courses. Training includes instructor-led classes and online on-demand, self-directed online learning.

Non-union employees also complete annual performance management and development action plans with their leaders to set individual goals tied to CP's five key foundations and track progress against Company expectations as well as career development goals.

Diversity and Inclusion

Diversity is one of our core values at CP. We believe that different backgrounds, experiences, and perspectives enhance creativity and innovation and encourage diversity of thought in the workplace. Fostering an inclusive environment where all employees feel empowered to strive for and achieve success supports our high-performance culture and is integral to our growth and success as an organization. Our Diversity and Inclusion team with support from senior leadership is responsible for developing programs and initiatives to achieve our diversity commitments. We are continually working on programs and opportunities to ensure we are attracting, retaining and developing the best people and skill sets for CP. CP is committed to increasing diversity throughout all levels of the organization.

CP recognizes the importance of Board member diversity as a critical component of objective oversight and continuous improvement. As of December 31, 2021, five of the 11 directors (45%) are women. Additionally, one of our male directors is a visible minority, which makes the majority of the Board of Directors (54.5%) members of "designated groups" as defined in the Employment Equity Act of Canada.

CP has regulatory requirements to report on workforce diversity representation in Canada (Employment Equity Act) and the U.S. (Equal Employment Opportunity Commission). CP currently collects diversity data on the following categories: women, persons with disabilities, minorities (visible minorities), and Indigenous peoples (Canada) from employees through voluntary self-disclosure. CP continues to focus our efforts on attracting, recruiting, and developing a diverse workforce. This data is shared in various disclosures and government reporting, internally with employees and leaders as well as our Board of Directors.

Year over Year Diversity Representation

Canada and U.S. Diversity Percentages ⁽¹⁾	2021	2020	2019
Women	10%	10%	10%
Persons with disabilities	3%	3%	3%
Minorities (visible minorities) ⁽²⁾	14%	13%	13%
Indigenous peoples (Canada only)	3%	3%	4%

⁽¹⁾ Percentages are based on total workforce (total number of active employees) at year-end.

⁽²⁾ Minority is a term used in the U.S., Visible Minority is a term used in Canada.

CP continues to work collaboratively with our employees, communities along our network, and partner organizations in Canada and the U.S. to progress and support CP's commitment toward a more representative and inclusive workplace. Some of our initiatives include:

- Establishing three diversity councils (Indigenous, Gender and Racial). Each council is chaired by a CP executive and represents a diverse group of employees. The councils work to ensure we consider diversity and inclusion when we make decisions, provide feedback on corporate directions and promote initiatives that relate to each council's area of focus;
- Continuing our existing partnerships with associations and organizations that attract, recruit, and support skilled immigrants, transitioning veterans, persons with disabilities, and women;
- Working with Indigenous groups to develop relationships that are more meaningful, create targeted outreach programs and employment opportunities, and better understand their history, culture, and opportunities for collaboration;
- Supporting the development and advancement of women at CP; and
- Increasing employee awareness regarding CP's workplace diversity and inclusion practices through communications, education, and training.

Further, in 2020 CP published a Diversity Commitment. This commitment re-enforces the efforts we have made, and will continue to make, in our journey to becoming a more diverse and inclusive company, one that we and those we do business with are proud to be a part.

We pride ourselves on offering a diverse workplace with a variety of careers in both our corporate and field locations. We recruit and hire talent based on relevant skills and experience, and seek to attract the highest quality candidates regardless of gender, age, cultural heritage, or ethnic origin. One of our primary objectives is attracting, recruiting, retaining, and developing a workforce representative of the communities in which we operate.

Available Information

CP makes available on or through its website www.cpr.ca free of charge, its annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and all amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the *Exchange Act* as soon as reasonably practicable after such reports are filed with or furnished to the U.S. Securities and Exchange Commission ("SEC"). Our website also contains charters for each of the committees of our Board of Directors, our corporate governance guidelines and our Code of Business Ethics. This Form 10-K and other SEC filings made by CP are also accessible through the SEC's website at www.sec.gov.

All references to our websites contained herein do not constitute incorporation by reference of information contained on such websites and such information should not be considered part of this document.

ITEM 1A. RISK FACTORS

The risks set forth in the following risk factors could have a materially adverse effect on the Company's business, financial condition, results of operations, and liquidity, and could cause those results to differ materially from those expressed or implied in the Company's forward-looking statements and forward-looking information (collectively, "forward-looking statements").

The information set forth in this Item 1A. Risk Factors should be read in conjunction with the rest of the information included in this annual report, including Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations and Item 8. Financial Statements and Supplementary Data.

Business and Operational Risks

The COVID-19 pandemic has negatively affected and may continue to negatively affect the Company's business and operating results. The effects of the COVID-19 pandemic on consumer demand resulted in lower volumes in several of the Company's lines of business, including Energy, chemicals and plastics, Metals, minerals and consumer products, and Automotive. The future impacts of COVID-19 on the Company's business or operating and financial results are unpredictable and cannot be identified or assessed with certainty at this time. The COVID-19 pandemic has adversely affected the global economy and resulted in a widespread economic downturn which has adversely impacted and could continue to adversely impact demand for our services and otherwise cause interruptions, including fluctuations to commodity prices, disruptions or restrictions on the ability to transport freight in the ordinary course, temporary closures of facilities and ports, or the facilities and ports of our customers, partners, suppliers or other third-party service providers, and/or changes to export/import restrictions. The pandemic caused by COVID-19 has impacted and may continue to impact the seasonal trends that typically characterize our revenues and operating income. There is no assurance that the outbreak will not continue to have a material and adverse impact on our business or results of operations. Additionally, our operations could be further negatively affected if a significant number of our employees are unable to perform their normal duties, including because of contracting COVID-19 or based on further direction from governments, public health authorities or regulatory agencies. The extent of the impact, if any, will depend on developments, many of which are beyond our control, including actions taken by governments, financial institutions, monetary policy authorities, and public health authorities to contain and respond to public health concerns and general economic conditions as a result of the pandemic. The COVID-19 pandemic may also result in continued substantial market volatility and declines, which could adversely impact future net periodic benefit costs and funding requirements of CP's pension plans. Furthermore, certain impacts of the COVID-19 pandemic, including demand for our services and to economic conditions generally, could continue following the pandemic or the expiration or termination of government actions in respect of the pandemic.

We will continue to actively monitor the situation and may take further actions that alter our business operations as may be required or recommended by federal, provincial, state or local authorities, or that we determine are in the best interests of our employees, customers, partners, suppliers, shareholders and other stakeholders. We cannot be certain of potential effects that any such alterations or modifications may have on our business or operating and financial results in future fiscal periods.

To the extent COVID-19 adversely affects our business or operating and financial results, it may also have the effect of heightening many of the other risks described above and below. In addition, we could be materially and adversely affected by other public health crises, including another widespread epidemic or pandemic.

COVID-19 vaccine mandates could negatively impact our ability to retain employees and could increase our operational costs, which could in turn adversely affect our profitability and growth. On October 29, 2021, the Minister of Transport issued an Order mandating COVID-19 vaccinations. That Order requires railway companies in Canada to implement their own company-wide vaccine policy by October 30, 2021 requiring all employees receive their first dose of COVID-19 vaccine by November 15, 2021 and their second dose by January 24, 2022 or implement a set of more prescribed standards for operating employees. The Order also requires that railway companies place non-compliant employees on unpaid leave. CP is complying with this Order and continuing to evaluate the potential impacts to the company.

President Biden's COVID-19 Action Plan announced in September 2021 instructed the U.S. Department of Labor's Occupational Safety and Health Administration ("OSHA") to develop a rule that would require all employers with 100 or more employees to ensure their workforce is fully vaccinated or subjected to weekly testing. On January 13, 2022, the U.S. Supreme Court stayed implementation of OSHA's vaccine or test requirement. As a result, OSHA withdrew its vaccination and testing emergency standards. However, there could be similar vaccination mandates in the U.S. in the future which could negatively impact our ability to retain employees, and increase our operational costs. An increase in expenses and operational costs could materially and adversely affect our growth and profitability.

COVID-19 vaccine mandates may affect employee availability due to absences to get vaccinated and/or unpaid leaves, coping with side-effects, union work stoppages and/or employee resignations due to refusal to comply with a mandate. COVID-19 vaccine mandates in Canada could negatively impact our ability to retain employees, and increase our operational costs. An increase in expenses and operational costs could materially and adversely affect our growth and profitability.

As a common carrier in Canada and the U.S., the Company is required by law to transport dangerous goods and hazardous materials, which could expose the Company to significant costs and claims. Railways, including CP, are legally required to transport dangerous goods and hazardous materials as part of their common carrier obligations regardless of risk or potential exposure to loss. CP transports dangerous goods and hazardous materials, including but not limited to crude oil, ethanol and TIH materials such as chlorine gas and anhydrous ammonia. A train accident involving hazardous materials could result in significant claims against CP arising from personal injury, property or natural resource damage, environmental penalties and remediation obligations. Such claims, if insured, could exceed the existing insurance coverage commercially available to CP, which could have a material adverse effect on CP's financial condition, operating results, and liquidity. CP is also required to comply with rules and regulations regarding the handling of dangerous goods and hazardous materials in Canada and the U.S. Noncompliance with these rules and regulations can subject the Company to significant penalties and could factor in litigation arising out of a train accident. Changes to these rules and regulations could also increase operating costs, reduce operating efficiencies and impact service delivery.

The Company faces competition from other transportation providers and failure to compete effectively could adversely affect financial results. The Company faces significant competition for freight transportation in Canada and the U.S., including competition from other railways, motor carriers, ship and barge operators, and pipelines. Competition is based mainly on quality of service, freight rates and access to markets. Other transportation modes generally use public rights-of-way that are built and maintained by government entities, while CP and other railways must use internal resources to build and maintain their rail networks. Competition with the trucking industry is generally based on freight rates, flexibility of service and transit time performance. Any future improvements or expenditures materially increasing the quality or reducing the cost of alternative modes of transportation, or legislation that eliminates or significantly reduces the burden of the size or weight limitations currently applicable to trucking carriers, could have a material adverse effect on CP's financial results.

The operations of carriers with which the Company interchanges may adversely affect operations. The Company's ability to provide rail services to customers in Canada and the U.S. also depends upon its ability to maintain cooperative relationships with connecting carriers with respect to, among other matters, revenue division, car supply and locomotive availability, data exchange and communications, reciprocal switching, interchange, and trackage rights. Deterioration in the operations or services provided by connecting carriers, or in the Company's relationship with those connecting carriers, could result in CP's inability to meet customers' demands or require the Company to use alternate train routes, which could result in significant additional costs and network inefficiencies and adversely affect our business, operating results, and financial condition.

The Company may be affected by acts of terrorism, war, or risk of war. CP plays a critical role in the North American transportation system and therefore could become the target for acts of terrorism or war. CP is also involved in the transportation of hazardous materials, which could result in CP's equipment or infrastructure being direct targets or indirect casualties of terrorist attacks. Acts of terrorism, or other similar events, any government response thereto, and war or risk of war could cause significant business interruption to CP and may adversely affect the Company's results of operations, financial condition and liquidity.

The Company may be affected by fluctuating fuel prices. Fuel expense constitutes a significant portion of the Company's operating costs. Fuel prices can be subject to dramatic fluctuations, and significant price increases could have a material adverse effect on the Company's results of operations. The Company currently employs a fuel cost adjustment program to help reduce volatility in changing fuel prices, but the Company cannot be certain that it will always be able to fully mitigate rising or elevated fuel costs through this program. Factors affecting fuel prices include worldwide oil demand, international politics, weather, refinery capacity, supplier and upstream outages, unplanned infrastructure failures, environmental and sustainability policies, and labour and political instability.

The Company relies on technology and technological improvements to operate its business and we are subject to cybersecurity risks. Information technology is critical to all aspects of CP's business, and the Company relies on technology systems operated by us or under control of third parties. Although the Company devotes significant resources to protect its technology systems and proprietary data, there can be no assurance that the systems we have designed to prevent or limit the effects of cyber incidents or attacks will be sufficient to prevent or detect such incidents or attacks, or to avoid a material adverse impact on our systems after such incidents or attacks do occur. The Company is continually evaluating attackers' techniques and tactics, and the Company is diligent in its monitoring, training, planning, and prevention. However, due to the increasing sophistication of cyber-attacks and greater complexity in our IT supply chain, the Company may be unable to anticipate or implement appropriate preventive measures to detect and respond to a security breach. This includes the raising rates of reported ransomware events, increased human error, or other cyber-attack methods disrupting CP's systems or the systems of third parties. If the Company or third parties whose technology systems we rely on were to experience a significant disruption or failure of one or more of their information technology or communications systems (either as a result of an intentional cyber or malicious act, or an unintentional error) it could result in significant service interruptions or other failures, safety failures, other operational difficulties unauthorized access to, the loss of access to or misappropriation of competitively sensitive, confidential or other critical information or systems, loss of customers, financial losses, regulatory fines, and misuse or corruption of critical data and proprietary information, which could have a material adverse effect on the Company's results of operations, financial condition, and liquidity. The Company also may experience security breaches that could remain undetected for an extended period and, therefore, have a greater impact on the services we offer. In addition, if CP is unable to acquire or implement new technology in general, the Company may suffer a competitive disadvantage, which could also have an adverse effect on its results of operations, financial condition, and liquidity.

Human Capital Risks

The availability of qualified personnel could adversely affect the Company's operations. Changes in employee demographics, training requirements and the availability of qualified personnel, particularly locomotive engineers and trainpersons, could negatively impact the Company's ability to meet demand for rail services. Unpredictable increases in the demand for rail services may increase the risk of having insufficient numbers of trained personnel, which could have a material adverse effect on the Company's results of operations, financial condition and liquidity. In addition, changes in operations and other technology improvements may significantly impact the number of employees required to meet the demand for rail services.

Strikes or work stoppages could adversely affect the Company's operations. Class I railways are party to collective bargaining agreements with various labour unions. The majority of CP's employees belong to labour unions and are subject to these agreements. Disputes with regard to the terms of these agreements or the Company's potential inability to negotiate acceptable contracts with these unions could result in, among other things, strikes, work stoppages, slowdowns or lockouts, which could cause a significant disruption of the Company's operations and have a material adverse effect on the Company's results of operations, financial condition and liquidity. Additionally, future national labour agreements, or provisions of labour agreements related to health care, could significantly increase the Company's costs for health and welfare benefits, which could have a material adverse impact on its financial condition and liquidity.

Legal and Regulatory Risks

The Company is subject to significant governmental legislation and regulation over commercial, operating and environmental matters. The Company's railway operations are subject to extensive federal laws, regulations and rules in both Canada and the U.S. Operations are subject to economic and safety regulations in Canada primarily by the Agency and TC. The Company's U.S. operations are subject to economic and safety regulation by the STB and the FRA. The STB regulates routes, fuel surcharges, conditions of service, rates for non-exempt traffic, acquisitions of control over rail common carriers and the transfer, extension or abandonment of rail lines, among other railroad activities. Any new rules from the STB regarding these matters could have a material adverse effect on the Company's financial condition, results of operations and liquidity as well as its ability to invest in enhancing and maintaining vital infrastructure. Various other regulators, including the FRA, and its sister agency within the U.S. Department of Transportation ("DOT"), the PHMSA, directly and indirectly affect the Company's operations in areas such as health, safety, security, environmental and other matters. Together, FRA and PHMSA have broad jurisdiction over railroad operating standards and practices, including track, freight cars, locomotives and hazardous materials requirements. In addition, the U.S. Environmental Protection Agency ("EPA") has regulatory authority with respect to matters that impact the Company's properties and operations. Additional regulation of the rail industry by these regulators or the Canadian and U.S. federal and state or provincial legislative bodies, whether under new or existing laws, may result in increased capital expenditures and operating costs and could have a significant negative impact on the Company's ability to determine prices for rail services and result in a material adverse effect in the future on the Company's business, financial position, results of operations, and liquidity in a particular year or quarter. This potential material adverse effect could also result in reduced capital spending on the Company's rail network or in abandonment of lines.

The Company is subject to environmental laws and regulations that may result in significant costs. The Company's operations are subject to extensive federal, state, provincial (Canada) and local environmental laws concerning, among other matters, emissions to the air, land and water and the handling of hazardous materials and wastes. Violation of these laws and regulations can result in significant fines and penalties, as well as other potential impacts on CP's operations. These laws can impose strict, and in some circumstances, joint and several liability on both current and former owners, and on operators of facilities. Such environmental liabilities may also be raised by adjacent landowners or third parties. In addition, in operating a railway, it is possible that releases of hazardous materials during derailments or other accidents may occur that could cause harm to human health or to the environment. Costs of remediation, damages and changes in regulations could materially affect the Company's operating results and reputation. The Company has been, and may in the future be, subject to allegations or findings to the effect that it has violated, or is strictly liable under, environmental laws or regulations. The Company currently has obligations at existing sites for investigation, remediation and monitoring, and will likely have obligations at other sites in the future. The actual costs associated with both current and long-term liabilities may vary from the Company's estimates due to a number of factors including, but not limited to changes in: the content or interpretation of environmental laws and regulations; required remedial actions; technology associated with site investigation or remediation; and the involvement and financial viability of other parties that may be responsible for portions of those liabilities.

The Company may be subject to litigation and other claims that could result in significant expenditures. By nature of its operations, the Company is exposed to potential for litigation and other claims, including personal injury claims, labour and employment disputes, commercial and contract disputes, environmental liability, freight claims and property damage claims. Accruals are made in accordance with applicable accounting standards and based on an ongoing assessment of the likelihood of success of the claim together with an evaluation of the damages or other monetary relief sought. Material changes to litigation trends, a catastrophic rail incident or series of incidents involving freight loss, property damage, personal injury, environmental liability, or other claims, and other significant matters could have a material adverse impact to the Company's results of operations, financial position and liquidity, in each case, to the extent not covered by insurance.

Supply Chain Risks

Disruptions within the supply chain could negatively affect the Company's operational efficiencies and increase costs. The North American transportation system is integrated. CP's operations and service may be negatively impacted by service disruptions of other transportation links,

such as ports, handling facilities, customer facilities and other railways. A prolonged service disruption at one of these entities could have a material adverse effect on the Company's results of operations, financial condition, and liquidity.

The Company is dependent on certain key suppliers of core railway equipment and materials that could result in increased price volatility or significant shortages of materials, which could adversely affect results of operations, financial condition, and liquidity. Due to the complexity and specialized nature of core railway equipment and infrastructure (including rolling stock equipment, locomotives, rail and ties), there can be a limited number of suppliers of rail equipment and materials available. Should these specialized suppliers cease production or experience capacity or supply shortages, this concentration of suppliers could result in CP experiencing cost increases or difficulty in obtaining rail equipment and materials, which could have a material adverse effect on the Company's results of operations, financial condition and liquidity. Additionally, CP's operations are dependent on the availability of diesel fuel. A significant fuel supply shortage arising from production decreases, increased demand in existing or emerging foreign markets, disruption of oil imports, disruption of domestic refinery production, damage to refinery or pipeline infrastructure, political unrest, war or other factors could have a material adverse effect on the Company's results of operations, financial position and liquidity in a particular year or quarter.

Risks Related to the Kansas City Southern Transaction

Following the closing of the KCS acquisition into a voting trust, although the Company does not control KCS, KCS's operational and financial performance could have an adverse effect on the Company's financial condition or results of operations. On December 14, 2021, the KCS acquisition closed into a voting trust, whereby the Company indirectly acquired a 100% beneficial ownership interest in KCS but does not control KCS. KCS's voting stock was deposited into a voting trust that insulates KCS from control by the Company. The Company will not control KCS until STB control approval is obtained. Until that time, KCS will be managed by its own executive team overseen by its own board of directors and the voting trust.

The voting trust precludes the Company from exercising control over the business strategy or other operational aspects of KCS. The Company's investment in this unconsolidated entity was considered significant under Rule 3-09 of Regulation S-X for the year ended December 31, 2021. The Company cannot provide assurance that KCS will operate in a manner that will increase the value of the Company's investments, that the Company's income or losses from KCS will continue at the current level in the future or that the Company will not incur losses from KCS. Write-downs to the carrying amount of the Company's equity interest could adversely impact the Company's results of operations.

The Company incurred substantial indebtedness in connection with consummation of the acquisition, which may pose risks and/or intensify existing risks. Prior to the closing into voting trust that occurred on December 14, 2021, the Company incurred additional indebtedness of approximately U.S. \$6.7 billion and \$2.2 billion notes and a U.S. \$500 million term loan to indirectly fund the acquisition.

The foregoing indebtedness, as well as any additional indebtedness we may incur, could have the effect, among other things, of reducing our liquidity and may limit our flexibility in responding to other business opportunities and increasing our vulnerability to adverse economic and industry conditions.

Our ability to make payments of principal and interest on our indebtedness depends upon our future performance, which will be subject to general economic, financial and business conditions, sufficient cash flow from KCS during the period in which it is in the voting trust, the implementation of the integration with KCS (if the STB approves our assuming control of KCS) and other factors affecting our operations, many of which are beyond our control.

Our increased indebtedness could also reduce funds available for working capital, capital expenditures, acquisitions and other general corporate purposes and may create competitive disadvantages relative to other companies with lower debt levels. If we obtain control of KCS but we do not achieve the expected benefits and cost savings from the combination, or if the financial performance of the combined company does not meet current expectations, then our ability to service our indebtedness may be adversely impacted.

The agreements that govern the indebtedness that has been incurred in connection with the KCS acquisition, contain various affirmative and negative covenants that may, subject to certain customary exceptions, restrict our ability to, among other things, create liens over our property, change our line of business and/or merge or consolidate with any other person or sell or convey certain of our assets to another person. In addition, some of the agreements that govern our debt financings contain a financial covenant that will require us to maintain certain financial ratios. Various risks, uncertainties and events beyond our control could affect our ability to comply with these covenants and failure to comply with them could result in an event of default, which, if not cured or waived, could accelerate our repayment obligations. Under these circumstances, we may not have sufficient funds or other resources to satisfy all of our obligations.

Moreover, we may be required to raise substantial additional financing to fund working capital, capital expenditures, acquisitions or other general corporate requirements. Our ability to arrange additional financing or refinancing will depend on, among other factors, our financial position and performance, as well as prevailing market conditions and other factors beyond our control. There can be no assurance that we will be able to obtain additional financing or refinancing on terms acceptable to us or at all.

The pendency of the STB's regulatory review of the combination could have an adverse effect on the Company's businesses, results of operations, financial condition, cash flows or the market value of the Company's common stock and debt securities. The pendency of the regulatory review of the combination could disrupt the Company's businesses, and uncertainty about the outcome of that review may have an adverse effect on the Company or the combined company. The attention of the Company's management may be directed towards obtaining final approval from the STB and addressing related requests from the third parties for conditions on STB approval and may be diverted from the day-to-day business operations of the Company. Matters related to the combination may require commitments of time and resources that could otherwise have been devoted to other opportunities that might have been beneficial to the Company. Further, the combination may give rise to potential liabilities, including as a result of pending and future shareholder lawsuits relating to the combination. In addition, the Company has incurred, and expects to incur additional, material non-recurring expenses in connection with the completion of the combination. Any of these matters could adversely affect the businesses of, or harm the results of operations, financial condition or cash flows of the Company and the market value of the Company's common stock.

The combination is subject to final approval by the STB, and there can be no assurance as to whether and when it may be approved or if such approval will be granted with conditions applicable to the parties; accordingly, the combination may be delayed, jeopardized or prevented entirely and the anticipated benefits of the combination could be reduced. The STB has the authority to impose conditions on its approval of a control transaction to alleviate competitive and other public interest harm. If such conditions were imposed, the anticipated benefits of the combination might be reduced. There is no assurance that final approval from the STB will be obtained or obtained on terms acceptable to the Company.

In addition, the STB's review process allows railroad competitors of the Company and KCS and other interested parties to intervene to oppose the STB application or seek conditions in the event approval by the STB is granted, which might delay the approval process or reduce the anticipated benefits of the combination. On January 12, 2022, CN submitted a notice of intent to file a responsive application on February 28, 2022, with the STB. According to CN, its responsive application will ask the STB to condition any approval of a CP-KCS combination on the divestiture of KCS lines from Kansas City, Missouri to Springfield and East St. Louis, Illinois to CN, pursuant to the STB's statutory authority to order "the divestiture of parallel tracks" as a merger condition. Furthermore, if the STB does not provide final approval or imposes conditions on its approval in a final order, and the Company and KCS decide to appeal such final order from the STB, any such appeal might not be resolved for a substantial period of time after the entry of such order by the STB.

If we determine in our reasonable judgment that the STB final approval will not be sought or has not or will not be received prior to March 25, 2023, then we will be required to redeem all of the outstanding 2.450% notes due 2031 and 3.000% notes due 2041 at a special mandatory redemption price equal to 101% of the aggregate principal amount of the applicable notes plus accrued and unpaid interest, if any. The Company may not have sufficient funds or other resources to satisfy such repurchase obligation, which could have a significant adverse impact on the business and financial condition of the Company.

If either (i) final approval from the STB has not been obtained by December 31, 2023 or (ii) the STB has, by a final and non-appealable order, refused to provide final approval (an "STB denial"), the Company would be required to dispose of its investment in KCS. Similarly, if the STB imposes onerous conditions on its final approval, the Company may choose to dispose of its investment in KCS rather than agreeing to the conditions imposed by the STB. In either case, the Company would be obligated under the voting trust agreement to directly or indirectly divest the trust stock in a manner that is acceptable to the STB. In the case of a divestiture, the market and divestiture alternatives for the trust stock might be limited, and such a disposition could cause the Company to incur significant losses and expenses in connection with the transaction, which could have a significant adverse impact on the business and financial condition of the Company.

The Company may be unable to integrate KCS successfully, and the Company may not experience the growth being sought from the combination. The Company and KCS have operated and, until the receipt of final approval from the STB, will continue to operate, independently. Integrating KCS with CP following STB approval of CP control will involve operational, technological and personnel-related challenges, which may be made more difficult in light of the COVID-19 pandemic. This process will be time-consuming and expensive, may disrupt the businesses of either or both of the companies and may reduce the growth opportunities sought from the combination.

Climate-Related Risks

The Company has established greenhouse gas (GHG) emission reduction targets to guide the implementation of CP's Climate Strategy. CP's inability to achieve GHG emissions reduction targets could negatively impact both our reputation and financial results. CP has established two science-based GHG emissions reduction targets to address a substantial portion of the Company's Scope 1, Scope 2 and Scope 3 emissions by 2030. The primary risks associated with achieving these commitments include but are not limited to future investments in and the availability of GHG emissions-reduction tools and technologies, CP's ability to work with governments and third parties to mitigate the impacts of climate change, domestic and international economic conditions, including exchange rates, the effects of competition and regulation, uncertainties in the financial markets, capital spending, actions of vendors, the willingness of customers to acquire our services, cost of network expansion, maintenance and retrofits, and physical impact of climate change on our business. Our targets are subject to the successful implementation of the actions and plans outlined in the Climate Strategy as well as the accuracy of the assumptions in the science-based methodology used to calculate these targets. We cannot assure that CP's plans to reduce GHG emissions will be viable or successful. Inability to meet GHG emissions reduction targets could have a material adverse effect on CP's reputation, results of operations or financial position.

Changing climate conditions, severe weather or natural disasters could result in significant business interruptions and costs to the Company. CP is exposed to severe weather conditions and natural disasters, including earthquakes, hurricanes, floods, fires, avalanches, mudslides, extreme temperatures and significant precipitation that may cause track outages, severe damage to infrastructure and business interruptions that can adversely affect the Company's entire rail network. For example, the atmospheric river rain storm in British Columbia in November 2021 resulted in damage at more than 30 locations across CP's Thompson and Cascade subdivision with 20 locations experiencing a significant loss of infrastructure. These events can result in substantial costs to respond during the event and recover following the event. Costs can include modifications to existing infrastructure or implementation of new infrastructure to prevent future impacts to our business.

Impacts from these types of events are highly variable based on the severity and length of the event and scope of network impact. Climate-related changes such as higher temperatures, more intense and frequent rainfall and extreme storms can increase physical climate risk potentially compounding impacts to the business and operations. Such events have had and in the future could have a material adverse effect on the Company's results of operations, financial condition, and liquidity.

Insurance maintained by the Company to protect against loss of business and other related consequences resulting from these natural occurrences is subject to coverage limitations, depending on the nature of the risk insured. This insurance may not be sufficient to cover all of the Company's damages or damages to others, and may not continue to be available at commercially reasonable rates. Even with insurance, if any natural occurrence leads to a catastrophic interruption of services, the Company may not be able to restore services without a significant interruption in operations.

An escalating price on carbon emissions could materially increase direct costs related to fuel purchases and indirect expenses related to purchased goods, materials, and electricity required to operate our business. As a fuel-intensive operation, CP is exposed to both emerging and escalating carbon pricing regulations. CP is regulated under multiple carbon taxation systems and cap and trade market mechanisms in the Canadian provinces in which we operate. Approximately 75% of CP's Scope 1 and Scope 2 GHG emissions are generated through our operations in Canada and are impacted by carbon pricing mechanisms.

In most provinces, energy providers and utilities are directly regulated through carbon pricing programs. CP's carbon costs are generally assessed by our primary fuel suppliers based on fuel purchase transactions. The amount collected by our suppliers follows current regulatory carbon pricing rates multiplied by the total volume of fuel purchased. CP's carbon costs are also paid to a province as part of tax returns in some locations, based on reported locomotive fuel consumption in a specific region. CP is further exposed to carbon pricing through electricity purchases, where electric utilities pass on carbon costs to customers. Introduction of, or changes to, regulations by government bodies in response to climate change that increase the cost of carbon emissions could result in a significant increase in expenses and could adversely affect our business performance, results of operations, financial position and liquidity.

A number of the sectors CP serves have the potential to be significantly impacted by climate-related transitional risks, including increased regulations, technology changes and shifts in consumer preferences. CP's business is based on transporting a wide variety of commodities from suppliers to the marketplace. CP regularly transports energy commodities that serve refineries, processing locations and end-users across North America and global markets. CP's business lines include thermal and metallurgical coal, crude oil and petroleum products, including liquefied petroleum gas, fuel oil, asphalt, gasoline, condensate (diluent) and lubricant oils.

Shifting consumer demand to lower-carbon products and increased climate-focused regulations, such as carbon pricing and fuel regulations, may instigate a broad transition in the energy sector. Programs that place a price on carbon emissions or other government restrictions on certain market sectors may further impact current and potential freight rail customers in the thermal coal, petroleum, crude oil and renewable fuel sectors. A comprehensive transition in the energy sector could significantly impact the markets of CP's energy customers or lead to market differentiation through geographic variation in policies and demand trends. A portion of CP's business could be materially affected by such a transition, including thermal coal, crude oil and petroleum products. Potential future changes and instability in these markets represent a significant transition risk to these business lines.

General Risk Factors

Global Risks

Global economic conditions could negatively affect demand for commodities and other freight transported by the Company. A decline or disruption in domestic, cross border or global economic conditions that affect the supply or demand for the commodities that CP transports may decrease CP's freight volumes and may result in a material adverse effect on CP's financial or operating results and liquidity. Economic conditions resulting in bankruptcies of one or more large customers could have a significant impact on CP's financial position, results of operations, and liquidity in a particular year or quarter.

Liquidity Risks

The state of capital markets could adversely affect the Company's liquidity. Weakness in the capital and credit markets could negatively impact the Company's access to capital. From time to time, the Company relies on the capital markets to provide some of its capital requirements, including the issuance of long-term debt instruments and commercial paper. Significant instability or disruptions of the capital markets and the credit markets, or deterioration of the Company's financial condition due to internal or external factors could restrict or eliminate the Company's access to, and/or significantly increase the cost of, various financing sources, including bank credit facilities and issuance of corporate bonds. Instability or disruptions of the capital markets and deterioration of the Company's financial condition, alone or in combination, could also result in a reduction in the Company's credit rating to below investment grade, which could also further prohibit or restrict the Company from accessing external sources of short-term and long-term debt financing, and/or significantly increase the associated costs.

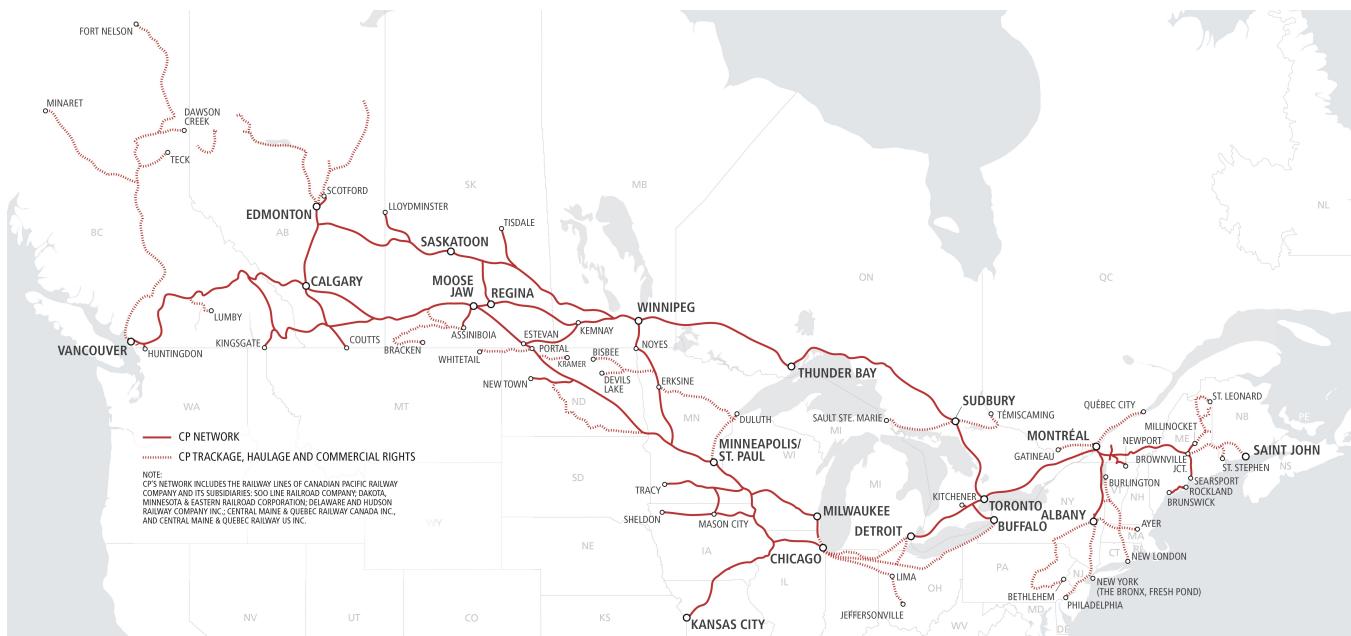
ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

ITEM 2. PROPERTIES

Network Geography

The Company's network in Canada extends from the Port of Vancouver, B.C. on Canada's Pacific Coast to the Port of Montréal, Québec and eastern Québec and to the Port of Saint John, New Brunswick via a haulage agreement, and to the U.S. industrial centres of Chicago, Illinois; Detroit, Michigan; Buffalo and Albany, New York; Kansas City, Missouri; and Minneapolis, Minnesota.



The Company's network is composed of three primary corridors: Western, Central and Eastern.

The Western Corridor: Vancouver to Thunder Bay

Overview – The Western Corridor links Vancouver with Thunder Bay, which is the Western Canadian terminus of the Company's Eastern Corridor. With service through Calgary, the Western Corridor is an important part of the Company's routes between Vancouver and the U.S. Midwest, and between Vancouver and eastern Canada. The Western Corridor provides access to the Port of Thunder Bay, Canada's primary Great Lakes bulk terminal.

Products – The Western Corridor is the Company's primary route for bulk and resource products traffic from western Canada to the Port of Vancouver for export. CP also handles significant volumes of international intermodal containers and domestic general merchandise traffic.

Feeder Lines – CP supports its Western Corridor with four significant feeder lines: the “Coal Route”, which links southeastern B.C. coal deposits to the Western Corridor and to coal terminals at the Port of Vancouver; the “Edmonton-Calgary Route”, which provides rail access to Alberta’s Industrial

Heartland (north of Edmonton, Alberta) in addition to the petrochemical facilities in central Alberta; the "Pacific CanAm Route", which connects Calgary and Medicine Hat in Alberta with Pacific Northwest rail routes at Kingsgate, B.C. via the Crowsnest Pass in Alberta; and the "North Main Line Route" that provides rail service to customers between Portage la Prairie, Manitoba, and Wetaskiwin, Alberta, including intermediate stations at Yorkton and Saskatoon in Saskatchewan. This line is an important collector of Canadian grain and fertilizer, serving the potash mines located east and west of Saskatoon and many high-throughput grain elevators and processing facilities. In addition, this line provides direct access to refining and upgrading facilities at Lloydminster, Alberta, and western Canada's largest pipeline terminal at Hardisty, Alberta.

Connections – The Company's Western Corridor connects with the Union Pacific Railroad ("UP") at Kingsgate and with Burlington Northern Santa Fe Railway ("BNSF") at Coutts, Alberta, and at New Westminster and Huntingdon in B.C. This corridor also connects with CN at many locations including Thunder Bay, Winnipeg, Manitoba, Regina and Saskatoon in Saskatchewan, Red Deer, Camrose, Calgary and Edmonton in Alberta, Kamloops and several locations in the Greater Vancouver area in B.C.

Yards and Repair Facilities – CP supports rail operations on the Western Corridor with main rail yards at Vancouver, Calgary, Edmonton, Moose Jaw in Saskatchewan, Winnipeg and Thunder Bay. The Company has locomotive and railcar repair facilities at Golden in B.C., Vancouver, Calgary, Moose Jaw and Winnipeg. CP also has major intermodal terminals at Vancouver, Calgary, Edmonton, Regina and Winnipeg.

The Central Corridor: Moose Jaw and Winnipeg to Chicago and Kansas City

Overview – The Central Corridor connects with the Western Corridor at Moose Jaw and Winnipeg. By running south to Chicago and Kansas City, through the Twin Cities of Minneapolis and St. Paul, Minnesota, and through Milwaukee, Wisconsin, CP provides a direct, single-carrier route between western Canada and the U.S. Midwest, providing access to Great Lakes and Mississippi River ports. From La Crosse, Wisconsin, the Central Corridor continues south towards Kansas City via the Quad Cities (Davenport and Bettendorf in Iowa, and Rock Island and Moline in Illinois), providing an efficient route for traffic destined for southern U.S. and Mexican markets. CP's Kansas City line also has a direct connection into Chicago and by extension to points east on CP's network such as Toronto, Ontario and the Port of Montréal.

Products – Traffic transported on the Central Corridor includes intermodal containers from the Port of Vancouver, fertilizers, chemicals, crude, frac sand, Automotive, and Grain and other agricultural products.

Feeder Lines – The Company has operating rights over BNSF tracks between Minneapolis and St. Paul along with connectivity to the twin ports of Duluth and Superior. CP maintains its own yard facilities that provide an outlet for grain from the U.S. Midwest to the grain terminals at these ports. This is a strategic entry point for large dimensional shipments that can be routed via CP's network to locations such as Alberta's Industrial Heartland to serve the needs of the oil sands and energy industry. CP's route from Winona, Minnesota, to Tracy, Minnesota, provides access to key agricultural and industrial commodities. CP's feeder line between Drake and New Town in North Dakota is geographically situated in a highly strategic region for Bakken oil production. CP also owns two significant feeder lines in North Dakota and western Minnesota operated by the Dakota Missouri Valley and Western Railroad and the Northern Plains Railroad, respectively. Both of these short lines are also active in providing service to agricultural and Bakken-oil-related customers.

Connections – The Company's Central Corridor connects with all major railways at Chicago. Outside of Chicago, CP has major connections with BNSF at Minneapolis, Minot, North Dakota, and the Duluth-Superior Terminal and with UP at St. Paul and Mankato, Minnesota. CP connects with CN at Milwaukee and Chicago. At Kansas City, CP connects with KCS, BNSF, Norfolk Southern Railway ("NS") and UP. CP's Central Corridor also links to several short-line railways that primarily serve grain and coal producing areas in the U.S., and extend CP's market reach in the rich agricultural areas of the U.S. Midwest. A haulage arrangement with Genesee & Wyoming Inc., provides Intermodal service to Jeffersonville, Ohio.

Yards and Repair Facilities – The Company supports rail operations on the Central Corridor with main rail yards in Chicago, Milwaukee, St. Paul and Glenwood in Minnesota, and Mason City and Davenport in Iowa. In addition, CP has a major locomotive repair facility at St. Paul and car repair facilities at St. Paul and Chicago. CP shares a yard with KCS in Kansas City. CP owns 49% of the Indiana Harbor Belt Railroad, a switching railway serving Greater Chicago and northwest Indiana. CP is also part owner of the Belt Railway Company of Chicago, which is the largest intermediate switching terminal railroad in the U.S. CP has major intermodal terminals in Minneapolis and Chicago as well as a dried distillers' grains transload facility that complements the service offering in Chicago.

The Eastern Corridor: Thunder Bay to Eastern Québec, Detroit and Albany

Overview – The Eastern Corridor extends from Thunder Bay through to the Port of Montréal, Searsport, Maine and the Port of Saint John, via a haulage agreement, and from Toronto to Chicago via Detroit or Buffalo. The Company's Eastern Corridor provides shippers direct rail service from Toronto, Montréal, and Saint John to Calgary and Vancouver via the Company's Western Corridor and to the U.S. via the Central Corridor. This is a key element of the Company's transcontinental intermodal service. The corridor also supports the Company's market position at the Port of Montréal by providing one of the shortest rail routes for European cargo destined to the U.S. Midwest, using the CP-owned route between Montréal and Detroit, coupled with a trackage rights arrangement on NS tracks between Detroit and Chicago or the CP-owned route between Montréal and Buffalo coupled with a haulage arrangement on CSX Corporation ("CSX") tracks between Buffalo and Chicago. CP's 2019 acquisition of CMQ Canada and the 2020 acquisition of CMQ

U.S. extends access through southern and eastern Québec to Saint John, New Brunswick, via a haulage agreement, and to the U.S. Northeast including Searsport, Maine. In 2020, CP acquired full ownership of the DRTP. The 1.6-mile tunnel linking Windsor and Detroit will continue to be operated by CP.

Products – Major traffic categories transported in the Eastern Corridor include Forest products, chemicals and plastics, crude, ethanol, Metals, minerals and consumer products, Intermodal, automotive products and general merchandise.

Feeder Lines – A major feeder line serves the steel industry at Hamilton, Ontario and provides connections with both CSX and NS at Buffalo. The Delaware & Hudson Railway Company, Inc. ("D&H") feeder line extends from Montréal to Albany.

Connections – The Eastern Corridor connects with a number of short-line railways including routes from Montréal to Québec City, Québec and Brownsville Junction, Maine to Saint John, New Brunswick. Connections are also made with Pan Am Southern, LLC at Mechanicville, New York, for service to the Boston and New England areas, the Vermont Railway at Whitehall, New York, and at Northern Main Junction. Through haulage arrangements, CP has service to Fresh Pond, New York, to connect with New York & Atlantic Railway as well as direct access to the Bronx and Queens, New York. CP can also access Philadelphia as well as a number of short-lines in Pennsylvania. Connections are also made with CN at a number of locations, including Sudbury, North Bay, Windsor, London, Hamilton and Toronto in Ontario, and Montréal in Québec. CP also connects in New York with the two eastern Class I railways; NS and CSX at Buffalo, NS at Schenectady and CSX at Albany.

Yards and Repair Facilities – CP supports its rail operations in the Eastern Corridor with major rail yards at Sudbury, Toronto, London and Montréal. The Company has locomotive repair facilities at Montréal and Toronto and car repair facilities at Thunder Bay, Toronto and Montréal. The Company's largest intermodal facility is located in the northern Toronto suburb of Vaughan and serves the Greater Toronto and southwestern Ontario areas. CP also operates intermodal terminals at Montréal and Detroit. CP also has transload facilities in Agincourt, Milton, and Hamilton, Ontario and in Montréal, Québec to meet a variety of commodity needs in these areas.

Right-of-Way

The Company's rail network is standard gauge, which is used by all major railways in Canada, the U.S. and Mexico. Continuous welded rail is used on the core main line rail network.

CP uses different train control systems on portions of the Company's owned track, depending on the volume of rail traffic. Remotely controlled centralized traffic control signals are used in various corridors to authorize the movement of trains. CP has implemented PTC on 2,117 miles of its U.S. network.

In other corridors, train movements are directed by written instructions transmitted electronically and by radio from rail traffic controllers to train crews. In some specific areas of intermediate traffic density, CP uses an automatic block signalling system in conjunction with written instructions from rail traffic controllers.

Network Investment

The Company continually assesses its network to ensure appropriate capacity to meet market demand. As part of CP's annual capital program, the Company has made substantial investments to support current and future volumes, including upgrading the network to handle longer and heavier trains, such as extending sidings to accommodate new train lengths. The Company's operating metrics, such as average train speed, length, and weight, demonstrate efficient utilization of network capacity, discussed in Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, Performance Indicators.

Track and Infrastructure

CP operates on a network of approximately 13,000 miles of first main track, of which 2,300 miles CP accesses under trackage rights. The Company's owned track miles include leases with wholly owned subsidiaries where the term of the lease exceeds 99 years. CP's track miles do not include approximately 7,100 miles of tracks owned and operated by KCS and its subsidiaries. CP's track network represents the size of the Company's operations that connects markets, customers and other railways. Of the total mileage operated, approximately 5,400 miles are located in western Canada, 2,500 miles in eastern Canada (including CMQ Canada), 4,500 miles in the U.S. Midwest and 700 miles in the U.S. Northeast. CP's network accesses the U.S. markets directly through four wholly owned subsidiaries: Soo Line Railroad Company ("Soo Line"), a Class I railway operating in the U.S. Midwest; the Dakota, Minnesota & Eastern Railroad ("DM&E"), which operates in the U.S. Midwest; the D&H, which operates between eastern Canada and the U.S. Northeast; and the CMQ U.S., which operates in the U.S. Northeast.

At December 31, 2021, the breakdown of CP operated track miles is as follows:

	Total
First main track	13,046
Second and other main track	1,046
Passing sidings and yard track	4,262
Industrial and way track	879
Total track miles	19,233

Rail Facilities

CP operates numerous facilities including: terminals for intermodal, transload, automotive and other freight; classification rail yards for train-building and switching, storage-in-transit and other activities; offices to administer and manage operations; dispatch centres to direct traffic on the rail network; crew quarters to house train crews along the rail line; shops and other facilities for fuelling; maintenance and repairs of locomotives; and facilities for maintenance of freight cars and other equipment. The Company continues to invest in terminal upgrades and new facilities to accommodate incremental growth in volumes, such as new transload facilities in Vancouver and Montreal. Typically in all of our major yards, CP Police Services has offices to ensure the safety and security of the yards and operations.

The following table includes the major yards, terminals and transload facilities on CP's network:

Classification Yards	Intermodal Terminals	Transload Facilities
Vancouver, British Columbia	Vancouver, British Columbia	Vancouver, British Columbia
Calgary, Alberta	Calgary, Alberta	Toronto, Ontario
Edmonton, Alberta	Edmonton, Alberta	Hamilton, Ontario
Moose Jaw, Saskatchewan	Regina, Saskatchewan	Côte Saint-Luc, Québec
Winnipeg, Manitoba	Winnipeg, Manitoba	
Toronto, Ontario	Vaughan, Ontario	
Montréal, Québec	Lachine, Québec	
Chicago, Illinois	Chicago, Illinois	
St. Paul, Minnesota	Minneapolis, Minnesota	

Equipment

CP's equipment includes: owned and leased locomotives and railcars; 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. In this section, owned equipment includes units acquired by CP, equipment leased to third parties, and units held under finance leases, and leased equipment includes units under a short-term or long-term operating lease.

The Company's locomotive fleet is composed of largely high-adhesion alternating current locomotives that are more fuel efficient and reliable and have superior hauling capacity as compared with standard direct current locomotives. The Company has entered into locomotive leases in the past to ensure there is appropriate capacity to meet market demand. The Company continued a modernization program on several of the oldest locomotives in the fleet in order to improve reliability and availability, as well as to introduce new technology to the fleet. CP's locomotive productivity, defined as the daily average GTMs divided by daily average operating horsepower, for the years ended December 31, 2021, 2020, and 2019, was 201, 207, and 202 GTMs per Operating horsepower, respectively. Operating horsepower excludes units offline, tied up or in storage, or in use on other railways, and includes foreign units online. As of December 31, 2021, the Company had 304 locomotives in storage. As of December 31, 2021, CP owned or leased the following locomotive units:

Locomotives	Owned	Leased	Total	Average Age (in years)
Line haul	768	56	824	14
Road switcher	562	8	570	31
Total locomotives	1,330	64	1,394	21

CP's average in-service utilization percentage for freight cars, for the years ended December 31, 2021, 2020, and 2019, was 83%, 81%, and 81%, respectively. Average in-service utilization is defined as average active fleet for the year divided by total cars, excluding company service cars and tank cars as these are utilized only as required for non-revenue movements. As of December 31, 2021, CP owned and leased the following units of freight cars:

Freight cars	Owned	Leased	Total	Average Age (in years)
Box car	2,361	422	2,783	31
Covered hopper	9,938	5,386	15,324	16
Flat car	1,407	1,119	2,526	27
Gondola	3,605	1,611	5,216	21
Intermodal	1,265	150	1,415	17
Multi-level autorack	2,752	1,105	3,857	27
Company service car	2,408	176	2,584	46
Open top hopper	11	—	11	33
Tank car	30	8	38	18
Total freight cars	23,777	9,977	33,754	22

As of December 31, 2021, CP owned and leased the following units of intermodal equipment:

Intermodal equipment	Owned	Leased	Total	Average Age (in years)
Containers	8,229	—	8,229	7
Chassis	6,992	109	7,101	11
Total intermodal equipment	15,221	109	15,330	9

Headquarters Office Building

CP owns and operates a multi-building campus in Calgary encompassing the head office building, a data centre, training facility and other office and operational buildings.

The Company's main dispatch centre is located in Calgary, and is the primary dispatching facility in Canada. Rail traffic controllers coordinate and dispatch crews, and manage the day-to-day locomotive management along the network, 24 hours a day, and seven days a week. The operations centre has a complete backup system in the event of any power disruption.

In addition to fully operational redundant systems, CP has a fully integrated Business Continuity Centre, should CP's operations centre be affected by any natural disaster, fire, cyber-attack or hostile threat.

CP also maintains a secondary dispatch centre located in Minneapolis, where a facility similar to the one in Calgary exists. It services the dispatching needs of locomotives and train crews working in the U.S.

Capital Expenditures

The Company incurs expenditures to expand and enhance its rail network, rolling stock and other infrastructure. These expenditures are aimed at improving efficiency and safety of our operations. Such investments are also an integral part of the Company's multi-year capital program and support growth initiatives. For further details, refer to Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, Liquidity and Capital Resources.

Encumbrances

Refer to Item 8. Financial Statements and Supplementary Data, Note 18 Debt, for information on the Company's finance lease obligations and assets held as collateral under these agreements.

ITEM 3. LEGAL PROCEEDINGS

For further details, refer to Item 8. Financial Statements and Supplementary Data, Note 27 Commitments and contingencies.

SEC regulations require the disclosure of any proceeding under environmental laws to which a government authority is a party unless the registrant reasonably believes it will not result in sanctions over a certain threshold. The Company uses a threshold of U.S. \$1 million for the purposes of determining proceedings requiring disclosure.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

INFORMATION ABOUT OUR EXECUTIVE OFFICERS

Our executive officers are appointed by the Board of Directors and they hold office until their successors are appointed, subject to resignation, retirement or removal by the Board of Directors. There are no family relationships among our officers, nor any arrangement or understanding between any officer and any other person pursuant to which the officer was selected. As of the date of this filing, the executive officers' names, ages and business experience are:

Name, Age and Position	Business Experience
Keith Creel, 53 President and Chief Executive Officer	<p>Mr. Creel became President and CEO of CP on January 31, 2017. Previously, he was President and Chief Operating Officer ("COO") from February 5, 2013, to January 30, 2017.</p> <p>Prior to joining CP, Mr. Creel was Executive Vice-President and COO at CN from January 2010 to February 2013. During his time at CN, Mr. Creel held various positions including Executive Vice-President, Operations, Senior Vice-President Eastern Region, Senior Vice-President Western Region, and Vice-President of the Prairie Division.</p> <p>Mr. Creel began his railroad career at Burlington Northern Railway in 1992 as an intermodal ramp manager in Birmingham, Alabama. He also spent part of his career at Grand Trunk Western Railroad as a superintendent and general manager, and at Illinois Central Railroad as a trainmaster and director of corridor operations, prior to its merger with CN in 1999. Mr. Creel holds a Bachelor of Science in marketing from Jacksonville State University and completed the Advanced Management Program at Harvard Business School.</p>
Nadeem Velani, 49 Executive Vice-President and Chief Financial Officer	<p>Mr. Velani has been Executive Vice-President and CFO of CP since October 17, 2017. Previous to this appointment, he was the Vice-President and CFO of CP from October 19, 2016, to October 16, 2017, Vice-President, Investor Relations from October 28, 2015, and Assistant Vice-President, Investor Relations from March 11, 2013.</p> <p>Prior to joining CP, Mr. Velani spent 15 years at CN where he worked in a variety of positions in Strategic and Financial Planning, Investor Relations, Sales and Marketing, and the Office of the President and CEO.</p> <p>Mr. Velani holds a Bachelor of Economics degree from Western University and an MBA in Finance/International Business from McGill University.</p>
John Brooks, 51 Executive Vice-President and Chief Marketing Officer	<p>Mr. Brooks has been Executive Vice-President and Chief Marketing Officer ("CMO") of CP since February 14, 2019. Previous to this appointment, he was the Senior Vice-President and CMO of CP from February 14, 2017, to February 13, 2019. He has worked in senior marketing roles at CP since he joined the Company in 2007, most recently as Vice-President, Marketing – Bulk and Intermodal.</p> <p>Mr. Brooks began his railroading career with UP and later helped start I&M Rail Link, LLC, which was purchased by DM&E in 2002. Mr. Brooks was Vice-President, Marketing at DM&E prior to it being acquired by CP in 2007.</p> <p>With more than 20 years in the railroading business, Mr. Brooks brings a breadth of experience to the CMO role that is pivotal to CP's continued and future success.</p>
Mark Redd, 51 Executive Vice-President, Operations	<p>Mr. Redd has been Executive Vice-President Operations since September 1, 2019. Before this appointment, he was Senior Vice-President Operations Western Region from February 2, 2017, to August 31, 2019, and Vice-President Operations Western Region from April 20, 2016, to February 1, 2017.</p> <p>Previous to these roles, he was General Manager Operations U.S. West and General Manager Operations Central Division. He was named CP's 2016 Railroader of the Year. Prior to joining CP in October 2013, Mr. Redd worked for over 20 years at Kansas City Southern Railway where he held a variety of leadership positions in network and field operations. Mr. Redd holds a Bachelor and Master of Science in Management from the University of Phoenix and an Executive MBA from the University of Missouri – Kansas City.</p>

Jeffrey Ellis, 54 Chief Legal Officer and Corporate Secretary	<p>Mr. Ellis has been Chief Legal Officer and Corporate Secretary of CP since November 23, 2015. Mr. Ellis is accountable for the overall strategic leadership, oversight and performance of the legal, corporate secretarial, government relations and public affairs functions of CP in Canada and the U.S.</p> <p>Prior to joining CP in 2015, Mr. Ellis was the U.S. General Counsel at BMO Financial Group ("BMO"). Before joining BMO in 2006, Mr. Ellis was with the law firm of Borden Ladner Gervais LLP in Toronto, Ontario.</p> <p>Mr. Ellis has Bachelor of Arts and Master's of Arts degrees from the University of Toronto, Juris Doctor and Master of Laws degrees from Osgoode Hall Law School, and an MBA from the Richard Ivey School of Business, Western University. Mr. Ellis is a member of the bars of New York, Illinois, Ontario and Alberta.</p>
Laird Pitz, 77 Senior Vice-President and Chief Risk Officer	<p>Mr. Pitz has been Senior Vice-President and Chief Risk Officer ("CRO") of CP since October 17, 2017. Previously, he was the Vice-President and CRO of CP from October 29, 2014, to October 16, 2017, and the Vice-President, Security and Risk Management of CP from April 2014 to October 2014.</p> <p>Prior to joining CP, Mr. Pitz was retired from March 2012 to April 2014, and Vice-President, Risk Mitigation of CN from September 2003 to March 2012.</p> <p>Mr. Pitz, a Vietnam War veteran and former Federal Bureau of Investigation special agent, is a 40-year career professional who has directed strategic and operational risk mitigation, security and crisis management functions for companies operating in a wide range of fields, including defence, logistics and transportation.</p>
James Clements, 52 Senior Vice-President, Strategic Planning and Technology Transformation	<p>Mr. Clements has been Senior Vice-President, Strategic Planning and Technology Transformation since September 1, 2019. Before this appointment, he was the Vice-President, Strategic Planning and Transportation Services of CP from 2014. Mr. Clements has responsibilities that include strategic network issues, Network Service Centre operations and Information Services.</p> <p>Mr. Clements has been at CP for 27 years and his previous experience and leadership roles covers a wide range of areas of CP's business, including car management, finance, joint facilities agreements, logistics, grain marketing and sales in both Canada and the U.S., as well as marketing and sales responsibility for various other lines of business at CP.</p> <p>Mr. Clements holds an MBA in International Business and Finance from McGill University and a Bachelor of Science in Computer Science and Mathematics from McMaster University.</p>
Mike Foran, 48 Vice-President, Market Strategy and Asset Management	<p>Mr. Foran has been Vice-President, Market Strategy and Asset Management of CP since February 14, 2017. His prior roles with CP include Vice-President Network Transportation from 2014 to 2017, Assistant Vice-President Network Transportation from 2013 to 2014, and General Manager – Asset Management from 2012 to 2013. In over 20 years at CP, Mr. Foran has worked in operations, business development, marketing and general management.</p> <p>Mr. Foran holds an Executive MBA from the Ivey School of Business at Western University and a Bachelor of Commerce from the University of Calgary.</p>

Chad Rolstad, 45
Vice-President, Human Resources and
Chief Culture Officer

Mr. Rolstad has been Vice-President, Human Resources since February 14, 2019, and the Chief Culture Officer since September 1, 2019. Previous to this appointment, he was Assistant Vice-President, Human Resources of CP from August 1, 2018, to February 13, 2019, and Assistant Vice-President, Strategic Procurement of CP from April 10, 2017, to July 31, 2018.

Prior to joining CP, Mr. Rolstad held various leadership positions at BNSF Railway in marketing and operations.

Mr. Rolstad has a Bachelor of Science from the Colorado School of Mines and an MBA from Duke University.

Pam Arpin, 46
Vice-President and Chief Information
Officer

Ms. Arpin has been Vice-President and Chief Information Officer since July 19, 2021. Previous to this appointment, she was the Company's first Vice-President Innovation & Business Transformation, a portfolio she retains in her current role. Ms. Arpin is accountable for redefining CP's digital strategy and information services roadmap, enabling CP's strategic business goals with the right investments in technology.

Ms. Arpin has navigated an extensive and varied career at CP, and has 20-plus years of experience covering a wide range of areas including commercial, operations, finance and customer service roles. She was named the 2019 Railway Woman of the Year by the League of Railway Women and was named one of Canada's Most Powerful Women: Top 100 by the Women's Executive Network that same year.

Ms. Arpin holds a Bachelor of Commerce from the University of Saskatchewan.

PART II

ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED SHAREHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Share Information

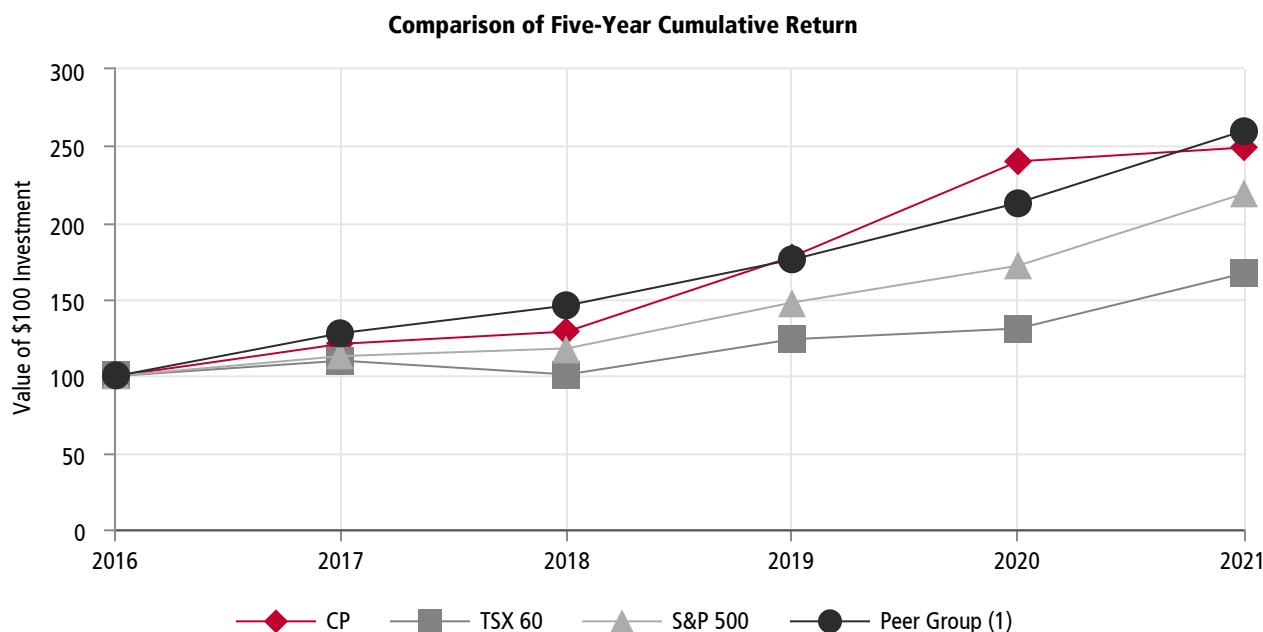
The Common Shares are listed on the TSX and on the NYSE under the symbol "CP".

Share Capital

At February 22, 2022, the latest practicable date prior to the date of this Annual Report on Form 10-K, there were 929,712,071 Common Shares and no preferred shares issued and outstanding, which consists of 15,332 holders of record of the Common Shares. In addition, CP has a Management Stock Option Incentive Plan ("MSOIP"), under which key officers and employees are granted options to purchase the Common Shares. Options issued prior to the share split further described in Item 1. Business, Business Developments now each provide rights over five shares. For consistency, all number of options presented herein are shown on the basis of the number of shares subject to the options. At February 22, 2022, 8,144,004 options were outstanding under the MSOIP and stand-alone option agreements entered into with Mr. Keith Creel. There are 2,504,311 options available to be issued by the Company's MSOIP in the future. CP also has a Director's Stock Option Plan ("DSOP"), under which directors are granted options to purchase Common Shares. There are no outstanding options under the DSOP, which has 1,700,000 options available to be issued in the future.

Stock Performance Graph

The following graph provides an indicator of cumulative total shareholder return on the Common Shares, of an assumed investment of \$100, as compared to the TSX 60 Index ("TSX 60"), the Standard & Poor's 500 Stock Index ("S&P 500"), and the peer group index (comprising CN, UP, NS and CSX) on December 31 for each of the years indicated. The values for the assumed investments depicted on the graph and in the table have been calculated assuming that any dividends are reinvested.



⁽¹⁾ KCS was excluded from the peer group index in 2021 as shares were no longer publicly listed effective December 14, 2021. Comparative periods were restated to conform with the current year presentation.

Issuer Purchase of Equity Securities

CP established a share repurchase program which is further described in Item 8. Financial Statements and Supplementary Data, Note 22 Shareholders' equity. As at December 31, 2021, the Company had not purchased any Common Shares under this program.

ITEM 6. [RESERVED]

ITEM 7. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

INDEX TO MANAGEMENT'S DISCUSSION AND ANALYSIS

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The following Management's Discussion and Analysis of Financial Condition and Results of Operations ("MD&A") is intended to enhance a reader's understanding of the Company's results of operations and financial condition. The MD&A is provided as a supplement to, and should be read in conjunction with the Company's Consolidated Financial Statements and the related notes in Item 8. Financial Statements and Supplementary Data, and other information in this annual report. Except where otherwise indicated, all financial information reflected herein is expressed in Canadian dollars.

For purposes of this report, all references herein to "CP", "the Company", "we", "our" and "us" refer to Canadian Pacific Railway Limited ("CPRL"), CPRL and its subsidiaries, CPRL and one or more of its subsidiaries, or one or more of CPRL's subsidiaries, as the context may require.

Executive Summary

2021 Results

- Financial performance** – In 2021, CP reported Diluted earnings per share ("EPS") of \$4.18, a 16% increase from \$3.59 in 2020. Adjusted diluted EPS increased by 7% to \$3.76 in 2021 from \$3.53 in 2020. CP's commitment to service and operational efficiency produced an Operating ratio of 59.9% and an Adjusted operating ratio of 57.6%. Adjusted diluted EPS and Adjusted operating ratio are defined and reconciled in Non-GAAP Measures and discussed further in Results of Operations of this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.
- Total revenues** – CP's Total revenues increased by 4% to \$7,995 million in 2021 from \$7,710 million in 2020, driven primarily by higher freight rates, partially offset by lower volumes as measured by revenue ton-miles ("RTMs").
- Operating performance** – Average train weight increased by 3% to 9,967 tons and average train length increased by 3% to 8,200 feet due to improvements in operating plan efficiency, in each case compared to 2020. These metrics are discussed further in Performance Indicators of this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

The following table compares 2021 outlook to actual results:

	RTM growth	Adjusted diluted EPS ⁽¹⁾	Capital expenditures
Outlook	High-single-digit growth	Double-digit growth	Approximately \$1.55 billion
	Revised quarterly and updated during the fourth quarter to be approximately flat	Revised quarterly and updated during the fourth quarter to high single-digit growth	
Actual outcomes	RTMs decreased by 2,205 million, or 1%	Adjusted diluted EPS growth of 7% to \$3.76	\$1.53 billion

⁽¹⁾ Adjusted diluted EPS is defined and reconciled in Non-GAAP Measures of this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

The update in RTM growth expectation was based on the impact of severe weather from the drought conditions on Canadian grain and the British Columbia ("B.C.") floods. The update in Adjusted diluted EPS expectation was also based on the impacts of the accelerated timeline of the Kansas City Southern ("KCS") acquisition closing into trust.

Performance Indicators

The following table lists the key measures of the Company's operating performance:

For the year ended December 31	2021	2020	2019	% Change	
				2021 vs. 2020	2020 vs. 2019
Operations Performance					
Gross ton-miles ("GTM")s (millions)	271,921	272,360	280,724	—	(3)
Train miles (thousands)	29,397	30,324	32,924	(3)	(8)
Average train weight – excluding local traffic (tons)	9,967	9,707	9,129	3	6
Average train length – excluding local traffic (feet)	8,200	7,929	7,388	3	7
Average terminal dwell (hours)	7.2	6.5	6.4	11	2
Average train speed (miles per hour, or "mph")	21.6	22.0	22.2	(2)	(1)
Locomotive productivity (GTM / operating horsepower, or "GTM/OHP")	201	207	202	(3)	2
Fuel efficiency (U.S. gallons of locomotive fuel consumed / 1,000 GTMs)	0.931	0.942	0.955	(1)	(1)
Total Employees and Workforce					
Total employees (average)	12,337	12,168	13,103	1	(7)
Total employees (end of period)	11,834	11,890	12,694	—	(6)
Workforce (end of period)	11,872	11,904	12,732	—	(7)
Safety Indicators					
FRA personal injuries per 200,000 employee-hours	0.92	1.11	1.42	(17)	(22)
FRA train accidents per million train-miles	1.10	0.96	1.06	15	(9)

Operations Performance

These key measures are used by management as comparisons to historical operating results and in the planning process to facilitate decisions that continue to drive further productivity improvements in the Company's operations. Results of these key measures reflect how effective CP's management is at controlling costs and executing the Company's operating plan and strategy. Continued monitoring of these key measures ensures that the Company can take appropriate actions to ensure the delivery of superior service and be able to grow its business at low incremental cost.

A **GTM** is defined as the movement of one ton of train weight over one mile. GTMs are calculated by multiplying total train weight by the distance the train moved. Total train weight comprises the weight of the freight cars, their contents, and any inactive locomotives. An increase in GTMs indicates additional workload. GTMs for 2021 were 271,921 million, a slight decrease compared with 272,360 million in 2020. This decrease was mainly attributable to lower volumes of Grain and Potash. This decrease was partially offset by increased volumes of Metals, minerals and consumer products, Energy, chemicals and plastics, and Automotive.

GTMs in 2020 were 272,360 million, a 3% decrease compared with 280,724 million in 2019. This decrease was primarily driven by decreased volumes of crude, Coal, and frac sand. This decrease was partially offset by increased volumes of Grain, Potash, and Fertilizers and sulphur.

Train miles are defined as the sum of the distance moved by all trains operated on the network. Train miles provide a measure of the productive utilization of our network. A smaller increase in train miles relative to increases in volumes, as measured by RTMs, and/or workload, as measured by GTMs, indicates improved train productivity. Train miles for 2021 were 29,397 thousands, a decrease of 3% compared with 30,324 thousands in 2020. This decrease reflects the impact of a slight decrease in workload (GTMs), as well as the impact of a 3% increase in average train weights.

Train miles in 2020 were 30,324, a decrease of 8% compared with 32,924 thousands in 2019. This decrease reflects the impact of a 3% decrease in workload (GTMs), as well as a 6% increase in average train weights.

Average train weight is defined as the average gross weight of CP trains, both loaded and empty. This excludes trains in short-haul service, work trains used to move CP's track equipment and materials, and the haulage of other railways' trains on CP's network. An increase in average train weight indicates improved asset utilization and may also be the result of moving heavier commodities. Average train weight of 9,967 tons in 2021 increased by 260 tons, or 3% compared with 9,707 tons in 2020. This increase was a result of improvements in operating plan efficiency and continued improvements

in bulk train efficiency due to moving longer and heavier Grain and export potash trains. This increase was partially offset by lower volumes of heavier bulk commodities. Improvements for Grain trains were driven by the High Efficiency Product ("HEP") train model, which is an 8,500-foot train model that features the new high-capacity grain hopper cars and increased grain carrying capacity.

Average train weight of 9,707 tons in 2020 increased by 578 tons, or 6% compared with 9,129 tons in 2019. This increase was a result of improvements in operating plan efficiency, continued improvements in operational efficiency due to moving longer and heavier export potash and Grain trains, and improved winter operating conditions in the first quarter of 2020. This increase was partially offset by moving lower volumes of heavier commodities such as Canadian coal and crude. Improvements for Grain trains were driven by the 8,500-foot HEP train model.

Average train length is defined as the average total length of CP trains, both loaded and empty. This includes all cars and locomotives on the train and is calculated as the sum of each car or locomotive's length multiplied by the distance travelled, divided by train miles. This excludes trains in short-haul service, work trains used to move CP's track equipment and materials, and the haulage of other railroads' trains on CP's network. An increase in average train length indicates improved asset utilization. Average train length of 8,200 feet in 2021 increased by 271 feet, or 3%, compared with 7,929 feet in 2020. This increase was a result of improvements in operating plan efficiency and continued improvements in bulk train efficiency due to moving longer Grain and export potash trains. Improvements for Grain trains were driven by the 8,500-foot HEP train model.

Average train length of 7,929 feet in 2020 increased by 541 feet, or 7%, compared with 7,388 feet in 2019. This increase was a result of improvements in operating plan efficiency and continued improvements in operational efficiency due to moving longer Grain and export potash trains. This increase was partially offset by moving lower volumes of commodities such as Canadian coal, which move in longer trains. Improvements for Grain trains were driven by the 8,500-foot HEP train model.

Average terminal dwell is defined as the average time a freight car resides within terminal boundaries expressed in hours. The timing starts with a train arriving at the terminal, a customer releasing the car to the Company, or a car arriving at interchange from another railroad. The timing ends when the train leaves, a customer receives the car from CP, or the freight car is transferred to another railroad. Freight cars are excluded if they are being stored at the terminal or used in track repairs. A decrease in average terminal dwell indicates improved terminal performance resulting in faster cycle times and improved railcar utilization. Average terminal dwell of 7.2 hours in 2021 increased by 11% from 6.5 hours in 2020. This unfavourable increase was a result of aligning the operating plan to demand in order to maintain network efficiencies, as well as the impacts of the B.C. wildfires in the third quarter and B.C. floods in the fourth quarter of 2021. Aligning the operating plan to demand resulted in increased average train weight and average train length.

Average terminal dwell of 6.5 hours in 2020 increased by 2% from 6.4 hours in 2019. This unfavourable increase was a result of aligning the operating plan to demand in order to maintain network efficiencies in the last three quarters of 2020. Aligning the operating plan to demand resulted in increased average train weight, average train length, and increased locomotive productivity.

Average train speed is defined as a measure of the line-haul movement from origin to destination including terminal dwell hours. It is calculated by dividing the total train miles travelled by the total train hours operated. This calculation does not include delay time related to customers or foreign railways and excludes the time and distance travelled by: i) trains used in or around CP's yards; ii) passenger trains; and iii) trains used for repairing track. An increase in average train speed indicates improved on-time performance resulting in improved asset utilization. Average train speed was 21.6 mph in 2021, a decrease of 2%, from 22.0 mph in 2020. This decrease in speed was driven primarily by harsh winter operating conditions in the first quarter of 2021 as well as the impact of the B.C. wildfires in the third quarter of 2021.

Average train speed in 2020 was 22.0 mph, a decrease of 1%, from 22.2 mph in 2019. This decrease in speed was a result of aligning the operating plan to demand in order to maintain network efficiencies in the last three quarters of 2020, partially offset by improved winter operating conditions in the first quarter of 2020. Aligning the operating plan to demand resulted in increased average train weight, average train length, and increased locomotive productivity.

Locomotive productivity is defined as the daily average GTMs divided by daily average operating horsepower. Operating horsepower excludes units offline, tied up or in storage, or in use on other railways, and includes foreign units online. An increase in locomotive productivity indicates more efficient locomotive utilization and may also be the result of moving heavier commodities. Locomotive productivity was 201 GTMs/OHP in 2021, a decrease of 6 GTMs/OHP, or 3%, compared to 207 GTMs/OHP in 2020. This decrease was primarily due to moving higher volumes of merchandise, which are lighter than bulk commodities, as well as the impacts of the B.C. floods in the fourth quarter of 2021.

Locomotive productivity was 207 GTMs/OHP in 2020, an increase of 5 GTMs/OHP, or 2%, compared to 202 GTMs/OHP in 2019. This increase was primarily due to improvements in operating plan efficiency as a result of aligning the operating plan to demand.

Fuel efficiency is defined as U.S. gallons of locomotive fuel consumed per 1,000 GTMs. Fuel consumed includes gallons from freight, yard and commuter service but excludes fuel used in capital projects and other non-freight activities. An improvement in fuel efficiency indicates operational cost savings and CP's commitment to corporate sustainability through a reduction of greenhouse gas emissions intensity. Fuel efficiency for 2021 was 0.931 U.S. gallons/1,000 GTMs, an improvement of 1% compared to 0.942 U.S. gallons/1,000 GTMs in 2020. This improvement was due to running longer and

heavier trains as a result of improvements in the operating plan. Fuel efficiency for 2020 was 0.942 U.S. gallons/1,000 GTMs, an improvement of 1% compared to 0.955 U.S. gallons/1,000 GTMs in 2019. This improvement was primarily due to improved winter operating conditions in the first quarter of 2020.

Total Employees and Workforce

An **employee** is defined as an individual currently engaged in full-time, part-time, or seasonal employment with CP while **workforce** is defined as total employees plus contractors and consultants. The Company monitors employment and workforce levels in order to efficiently meet service and strategic requirements. The number of employees is a key driver to total compensation and benefits costs.

The average number of total employees for 2021 was 12,337, an increase of 169, or 1%, compared to 12,168 in 2020. This increase was driven by the return to work of employees furloughed in the prior year as a result of the economic downturn caused by COVID-19. The total number of employees as at December 31, 2021 was 11,834, a decrease of 56 compared to 11,890 as at December 31, 2020.

The average number of total employees for 2020 was 12,168, a decrease of 935, or 7%, compared to 13,103 in 2019. This decrease was primarily due to more efficient resource planning, including furloughs associated with the economic downturn caused by COVID-19, partially offset by the addition of Central Maine & Quebec Railway U.S. Inc. employees. The total number of employees as at December 31, 2020 was 11,890, a decrease of 804, or 6%, compared to 12,694 as at December 31, 2019, due to reduced workload as measured in GTMs and more efficient resource planning.

The total workforce as at December 31, 2021 was 11,872, a decrease of 32, compared to 11,904 as at December 31, 2020.

The total workforce as at December 31, 2020 was 11,904, a decrease of 828, or 7%, compared to 12,732 as at December 31, 2019, due to more efficient resource planning.

Safety Indicators

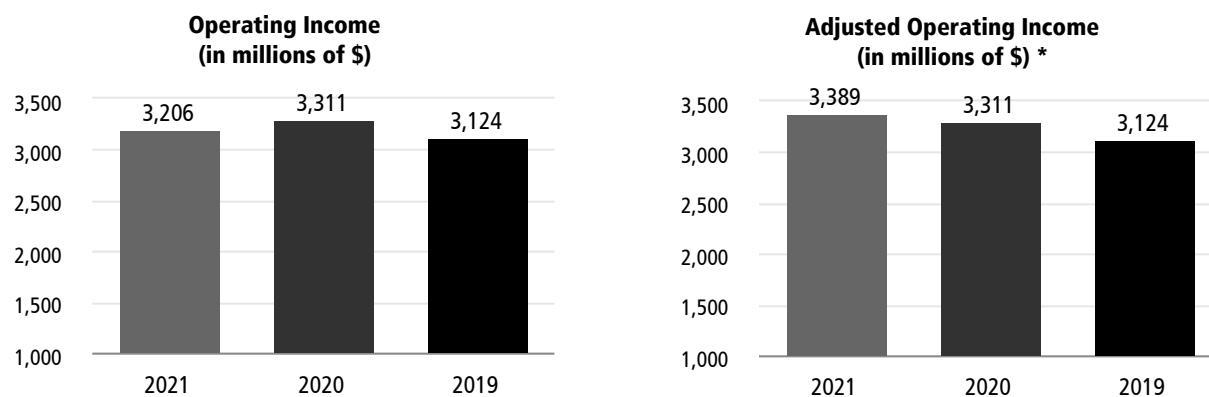
Safety is a key priority and core strategy for CP's management, employees, and Board of Directors. Personal injuries and train accidents are indicators of the effectiveness of the Company's safety systems, and are used by management to evaluate and, as necessary, alter the Company's safety systems, procedures, and protocols. Each measure follows U.S Federal Railroad Administration ("FRA") reporting guidelines, which can result in restatement after initial publication to reflect new information available within specified periods stipulated by the FRA but that exceed the Company's financial reporting timeline.

The **FRA personal injuries per 200,000 employee-hours** frequency is the number of personal injuries, multiplied by 200,000 and divided by total employee hours. Personal injuries are defined as injuries that require employees to lose time away from work, modify their normal duties or obtain medical treatment beyond minor first aid. FRA employee-hours are the total hours worked, excluding vacation and sick time, by all employees, excluding contractors. The FRA personal injuries per 200,000 employee-hours frequency for CP was 0.92 in 2021, compared with 1.11 in 2020 and 1.42 in 2019.

The **FRA train accidents per million train-miles** frequency is the number of train accidents, multiplied by 1,000,000 and divided by total train miles. Train accidents included in this metric meet or exceed the FRA reporting threshold of U.S. \$11,200 in damage in 2021 and U.S. \$10,700 in damage for 2020 and 2019. The FRA train accidents per million train-miles frequency for CP was 1.10 in 2021, compared with 0.96 in 2020 and 1.06 in 2019.

Results of Operations

Income



* Adjusted operating income is defined and reconciled in Non-GAAP Measures of this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations

Operating income was \$3,206 million in 2021, a decrease of \$105 million, or 3%, from \$3,311 million in 2020. This decrease was primarily due to:

- acquisition-related costs of \$183 million associated with the KCS acquisition that were recognized in Purchased services and other;
- lower volumes as measured by RTMs;
- the unfavourable impact of the change in foreign exchange ("FX") of \$117 million;
- a gain of \$68 million recognized in 2020 as a result of the remeasurement to fair value of the previously held equity investment in the Detroit River Tunnel Partnership ("DRTP");
- higher depreciation and amortization of \$46 million (excluding FX);
- cost inflation; and
- higher defined benefit ("DB") pension and post-retirement benefits current service cost of \$32 million.

This decrease was partially offset by:

- higher freight rates;
- a gain on the exchange of property and construction easements in Chicago of \$50 million and higher gains on land sales primarily in B.C. of \$29 million;
- lower stock-based compensation of \$39 million primarily driven by the impact of changes in share price; and
- the efficiencies generated from improved operating performance and asset utilization.

Adjusted operating income, defined and reconciled in Non-GAAP Measures of this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, was \$3,389 million in 2021, an increase of \$78 million, or 2%, from \$3,311 million in 2020. This increase was primarily due to:

- higher freight rates;
- a gain on the exchange of property and construction easements in Chicago of \$50 million and higher gains on land sales primarily in B.C. of \$29 million;
- lower stock-based compensation of \$39 million primarily driven by the impact of changes in share price; and
- the efficiencies generated from improved operating performance and asset utilization.

This increase was partially offset by:

- lower volumes as measured by RTMs;
- the unfavourable impact of the change in FX of \$117 million;
- a gain of \$68 million recognized in 2020 as a result of the remeasurement to fair value of the previously held equity investment in DRTP;
- higher depreciation and amortization of \$46 million (excluding FX);
- cost inflation; and
- higher DB pension and post-retirement benefits current service cost of \$32 million.

Operating income was \$3,311 million in 2020, an increase of \$187 million, or 6%, from \$3,124 million in 2019. This increase was primarily due to:

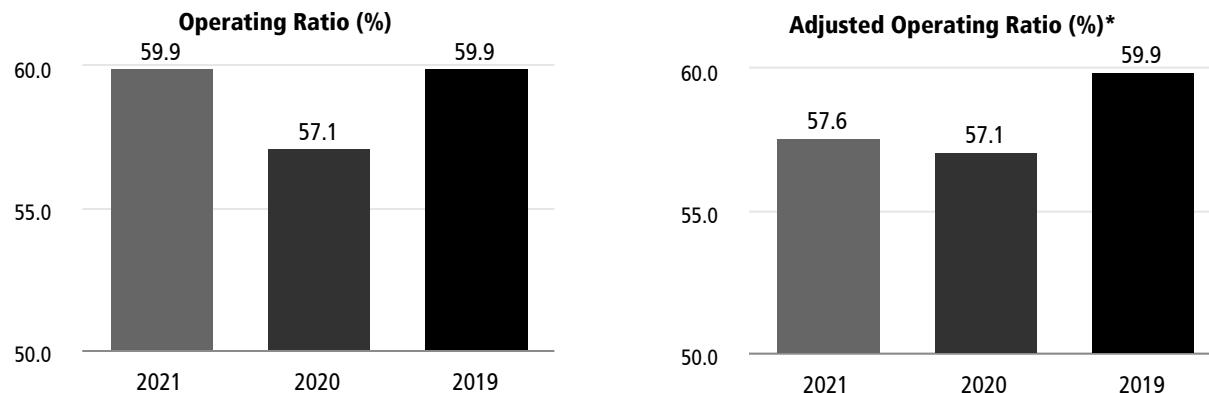
- liquidated damages, including customer volume commitments, and higher freight rates;
- the efficiencies generated from improved operating performance and asset utilization;
- a gain of \$68 million as a result of the remeasurement to fair value of the previously held equity investment in DRTP;
- the impact of harsher winter operating conditions in 2019; and
- decreased operating expense associated with lower casualty costs incurred in 2020.

This increase was partially offset by:

- lower volumes as measured by RTMs;
- higher depreciation and amortization of \$71 million (excluding FX);
- cost inflation; and
- higher stock-based compensation of \$37 million primarily driven by an increase in stock price.

There were no adjustments to operating income in 2020 and 2019.

Operating Ratio



*Adjusted operating ratio is defined and reconciled in Non-GAAP Measures of this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

The Operating ratio provides the percentage of revenues used to operate the railway. A lower percentage normally indicates higher efficiency in the operation of the railway. The Company's Operating ratio was 59.9% in 2021, a 280 basis point increase from 57.1% in 2020. This increase was primarily due to:

- acquisition-related costs associated with the KCS acquisition that were recognized in Purchased services and other;
- the unfavourable impact of changes in fuel prices, net of recoveries;
- lower volumes as measured by RTMs;
- a gain recognized in 2020 as a result of the remeasurement to fair value of the previously held equity investment in DRTP;
- higher depreciation and amortization (excluding FX); and
- cost inflation.

This increase was partially offset by higher freight rates and a gain on the exchange of property and construction easements in Chicago and higher gains on land sales primarily in B.C.

Adjusted operating ratio was 57.6% in 2021, a 50 basis point increase from 57.1% in 2020. This increase reflects the same factors discussed above for the increase in Operating ratio, except that Adjusted operating ratio in 2021 excludes the acquisition-related costs associated with the KCS acquisition that were recognized in Purchased services and other.

The Company's Operating ratio was 57.1% in 2020, a 280 basis point improvement from 59.9% in 2019. This improvement was primarily due to:

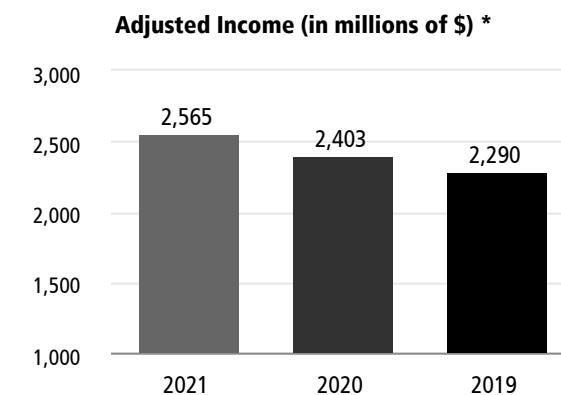
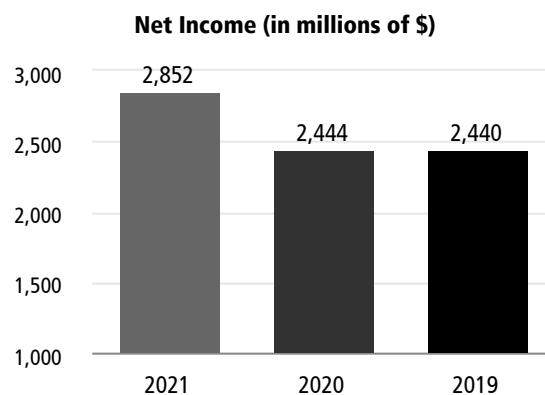
- liquidated damages, including customer volume commitments, and higher freight rates;
- the favourable impact of changes in fuel prices;
- the efficiencies generated from improved operating performance and asset utilization; and
- a gain as a result of the remeasurement to fair value of the previously held equity investment in DRTP.

This improvement was partially offset by:

- higher depreciation and amortization;
- cost inflation; and
- higher stock-based compensation.

There were no adjustments to the operating ratio in 2020 and 2019.

Net Income



*Adjusted income is defined and reconciled in Non-GAAP Measures of this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Net income was \$2,852 million in 2021, an increase of \$408 million, or 17%, from \$2,444 million in 2020. This increase was primarily due to the \$845 million merger termination payment received in connection with KCS's termination of the Original Merger Agreement and higher freight rates.

This increase was partially offset by:

- acquisition-related costs of \$599 million associated with the KCS acquisition including \$169 million costs incurred by KCS recognized in Equity loss of KCS;
- lower volumes as measured by RTMs; and
- the unfavourable impact of the change in FX of \$90 million.

Net income was \$2,444 million in 2020, an increase of \$4 million, from \$2,440 million in 2019. This increase was primarily due to:

- higher Operating income;
- a deferred tax recovery relating to a tax return filing election for the state of North Dakota; and
- a provision for an uncertain tax item of a prior period in 2019.

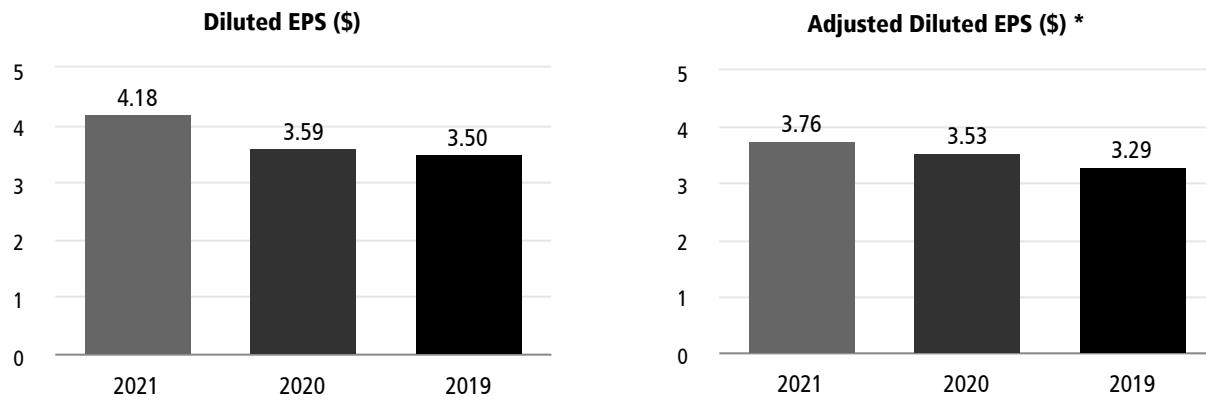
This increase was partially offset by:

- an income tax recovery associated with changes in tax rates in 2019;
- lower FX translation gain on U.S. dollar-denominated debt and lease liabilities compared to 2019; and
- lower other components of net periodic benefit recovery.

Adjusted income, defined and reconciled in Non-GAAP Measures of this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, was \$2,565 million in 2021, an increase of \$162 million, or 7%, from \$2,403 million in 2020. This increase was primarily due to higher Adjusted operating income and higher other components of net periodic benefit recovery.

Adjusted income was \$2,403 million in 2020, an increase of \$113 million, or 5%, from \$2,290 million in 2019. This increase was primarily due to higher Operating income, partially offset by lower other components of net periodic benefit recovery.

Diluted Earnings per Share



*Adjusted diluted EPS is defined and reconciled in Non-GAAP Measures of this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Diluted EPS was \$4.18 in 2021, an increase of \$0.59, or 16%, from \$3.59 in 2020. This increase was due to a higher Net income.

Diluted EPS was \$3.59 in 2020, an increase of \$0.09, or 3%, from \$3.50 in 2019. This increase was due to a lower average number of outstanding Common Shares due to the Company's share repurchase program, and higher Net income.

Adjusted diluted EPS, defined and reconciled in Non-GAAP Measures of this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, was \$3.76 in 2021, an increase of \$0.23, or 7%, from \$3.53 in 2020. This increase was due to higher Adjusted income.

Adjusted diluted EPS was \$3.53 in 2020, an increase of \$0.24, or 7%, from \$3.29 in 2019. This increase was due to higher Adjusted income and lower average number of outstanding Common Shares due to the Company's share repurchase program.

Return on Average Shareholders' Equity and Adjusted Return on Invested Capital

Return on average shareholders' equity and Adjusted return on invested capital ("Adjusted ROIC") are measures used by management to determine how productively the Company uses its long-term capital investments, representing critical indicators of good operating and investment decisions. Adjusted ROIC is also an important performance criteria in determining certain elements of the Company's long-term incentive plan.

Return on average shareholders' equity was 13.9% in 2021, a 2,010 basis point decrease compared to 34.0% in 2020. This decrease was due to higher average shareholders' equity driven by shares issued for the KCS acquisition and accumulated Net income, partially offset by higher Net income.

Return on average shareholders' equity was 34.0% in 2020, a 160 basis point decrease compared to 35.6% in 2019. This decrease was due to higher average shareholders' equity due to accumulated Net income, partially offset by the impact of the Company's share repurchase program.

Adjusted ROIC was 8.2% in 2021, an 850 basis point decrease compared to 16.7% in 2020. This decrease was primarily due to higher average long-term debt and shares issued for the KCS acquisition and accumulated Adjusted income.

Adjusted ROIC was 16.7% in 2020, a 20 basis point decrease compared to 16.9% in 2019. This decrease was primarily due to higher average long-term debt, partially offset by higher Operating income.

Adjusted ROIC is a Non-GAAP measure, which is defined and reconciled from Return on average shareholders' equity, the most comparable measure calculated in accordance with GAAP, in Non-GAAP Measures of this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Impact of Foreign Exchange on Earnings

Fluctuations in FX affect the Company's results because U.S. dollar-denominated revenues and expenses are translated into Canadian dollars. U.S. dollar-denominated revenues and expenses increase (decrease) when the Canadian dollar weakens (strengthens) in relation to the U.S. dollar.

On February 18, 2022, the noon buying rate certified for customs purposes by the U.S. Federal Reserve Bank of New York was U.S. \$1.00 = \$1.27 Canadian dollars.

The following tables set forth, for the periods indicated, the average exchange rate between the Canadian dollar and the U.S. dollar expressed in the Canadian dollar equivalent of one U.S. dollar, the period end exchange rates, and the high and low exchange rates for the periods indicated. Average exchange rates are calculated by using the exchange rates on the last day of each full month during the relevant period. These rates are based on the noon buying rate certified for customs purposes by the U.S. Federal Reserve Bank of New York set forth in the H.10 statistical release of the Federal Reserve Board.

Average exchange rates (Canadian/U.S. dollar)	2021	2020	2019	2018	2017
For the year ended – December 31	\$ 1.25	\$ 1.34	\$ 1.33	\$ 1.30	\$ 1.30
For the three months ended – December 31	\$ 1.26	\$ 1.30	\$ 1.32	\$ 1.32	\$ 1.27
Exchange rates (Canadian/U.S. dollar)	2021	2020	2019	2018	2017
Beginning of year – January 1	\$ 1.28	\$ 1.30	\$ 1.36	\$ 1.25	\$ 1.34
Beginning of quarter – April 1	\$ 1.26	\$ 1.41	\$ 1.33	\$ 1.29	\$ 1.33
Beginning of quarter – July 1	\$ 1.24	\$ 1.36	\$ 1.31	\$ 1.32	\$ 1.30
Beginning of quarter – October 1	\$ 1.27	\$ 1.33	\$ 1.32	\$ 1.29	\$ 1.25
End of year – December 31	\$ 1.28	\$ 1.28	\$ 1.30	\$ 1.36	\$ 1.25
High/Low exchange rates (Canadian/U.S. dollar)	2021	2020	2019	2018	2017
High	\$ 1.29	\$ 1.45	\$ 1.36	\$ 1.37	\$ 1.37
Low	\$ 1.20	\$ 1.27	\$ 1.30	\$ 1.23	\$ 1.21

In 2021, the impact of a weaker U.S. dollar resulted in a decrease in Total revenues of \$228 million, a decrease in Total operating expenses of \$111 million and a decrease in Net interest expense of \$27 million. In 2020, the impact of a stronger U.S. dollar resulted in an increase in Total revenues of \$33 million, an increase in Total operating expenses of \$23 million and an increase in Net interest expense of \$4 million.

The impact of fluctuations in the exchange rate between the Canadian dollar and the U.S. dollar on the Company's results is discussed further in Item 7A. Quantitative and Qualitative Disclosures About Market Risk, Foreign Exchange Risk.

Impact of Fuel Price on Earnings

Fluctuations in fuel prices affect the Company's results because fuel expense constitutes a significant portion of CP's operating costs. As fuel prices fluctuate, there will be a timing impact on earnings, as discussed further in Item 1. Business, Operations, Fuel Cost Adjustment Program and Item 1A. Risk Factors, Fuel Cost Volatility.

Average Fuel Price (U.S. dollars per U.S. gallon)	2021	2020	2019
For the year ended – December 31	\$ 2.70	\$ 1.90	\$ 2.49
For the three months ended – December 31	\$ 3.03	\$ 1.91	\$ 2.53

The impact of fuel price on earnings includes the impacts of provincial and federal carbon taxes and levies recovered and paid, on revenues and expenses, respectively.

In 2021, the unfavourable impact of fuel prices on Operating income was \$7 million. Higher fuel prices resulted in an increase in Total operating expenses of \$243 million. Higher fuel prices and increased carbon tax recoveries, partially offset by the timing of recoveries from CP's fuel cost adjustment program, resulted in an increase in Total revenues of \$236 million from 2020. In 2020, the impact of lower fuel prices resulted in a decrease in Total revenues of \$170 million and a decrease in Total operating expenses of \$195 million.

Impact of Share Price on Earnings

Fluctuations in the Common Share price affect the Company's operating expenses because share-based liabilities are measured at fair value. The Company's Common Shares are listed on the Toronto Stock Exchange ("TSX") and the New York Stock Exchange ("NYSE") with ticker symbol "CP". As a result of the five-for-one share split of the Company's issued and outstanding Common Shares, which began trading on a post-split basis on May 14, 2021, per share amounts and all outstanding Common Shares for periods prior to Q2 2021 have been retrospectively adjusted. The following tables indicate the opening and closing Common Share price on the TSX and the NYSE for each quarter, on a post-split basis, and the change in the price of the Common Shares on the TSX and the NYSE for the years ended December 31, 2021, 2020 and 2019:

Toronto Stock Exchange (in Canadian dollars)	2021	2020	2019
Opening Common Share price, as at January 1	\$ 88.31	\$ 66.21	\$ 48.45
Ending Common Share price, as at March 31	\$ 96.00	\$ 62.11	\$ 55.07
Ending Common Share price, as at June 30	\$ 95.32	\$ 69.06	\$ 61.69
Ending Common Share price, as at September 30	\$ 82.71	\$ 81.01	\$ 58.88
Ending Common Share price, as at December 31	\$ 90.98	\$ 88.31	\$ 66.21
Change in Common Share price for the year ended December 31	\$ 2.67	\$ 22.10	\$ 17.76
New York Stock Exchange (in U.S. dollars)	2021	2020	2019
Opening Common Share price, as at January 1	\$ 69.34	\$ 50.99	\$ 35.52
Ending Common Share price, as at March 31	\$ 75.86	\$ 43.92	\$ 41.21
Ending Common Share price, as at June 30	\$ 76.91	\$ 51.07	\$ 47.05
Ending Common Share price, as at September 30	\$ 65.07	\$ 60.89	\$ 44.49
Ending Common Share price, as at December 31	\$ 71.94	\$ 69.34	\$ 50.99
Change in Common Share price for the year ended December 31	\$ 2.60	\$ 18.35	\$ 15.47

In 2021, the impact of the change in Common Share prices resulted in an increase in stock-based compensation expense of \$11 million compared to \$58 million in 2020, and \$42 million in 2019.

The impact of share price on stock-based compensation is discussed further in Item 7A. Quantitative and Qualitative Disclosures About Market Risk, Share Price Impact on Stock-Based Compensation.

Operating Revenues

For the year ended December 31	2021 vs. 2020						2020 vs. 2019					
	2021	2020	2019	Total Change	% Change	FX Adjusted % Change ⁽²⁾	7	\$ (72)	(1)	(1)	FX Adjusted % Change ⁽²⁾	
							2021	2020	2019	Total Change	% Change	
Freight revenues (in millions) ⁽¹⁾	\$ 7,816	\$ 7,541	\$ 7,613	\$ 275	4	7	\$ (72)	(1)	(1)	\$ (72)	(1)	
Non-freight revenues (in millions)	179	169	179	10	6	7	(10)	(6)	(6)	(10)	(6)	
Total revenues (in millions)	\$ 7,995	\$ 7,710	\$ 7,792	\$ 285	4	7	\$ (82)	(1)	(1)	\$ (82)	(1)	
Carloads (in thousands)	2,735.5	2,708.4	2,766.4	27.1	1	N/A	(58.0)	(2)	(2)	(58.0)	(2)	
Revenue ton-miles (in millions)	149,686	151,891	154,378	(2,205)	(1)	N/A	(2,487)	(2)	(2)	(2,487)	(2)	
Freight revenue per carload (in dollars)	\$ 2,857	\$ 2,784	\$ 2,752	\$ 73	3	6	\$ 32	1	1	\$ 32	1	
Freight revenue per revenue ton-mile (in cents)	5.22	4.96	4.93	0.26	5	8	0.03	1	—	0.03	—	

⁽¹⁾ Freight revenues include fuel surcharge revenues of \$535 million in 2021, \$297 million in 2020 and \$464 million in 2019. Fuel surcharge revenues include recoveries of carbon taxes, levies, and obligations under cap-and-trade programs.

⁽²⁾ FX adjusted % change does not have any standardized meaning prescribed by GAAP and, therefore, is unlikely to be comparable to similar measures presented by other companies. FX adjusted % change is defined and reconciled in Non-GAAP Measures of this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

The Company's revenues are primarily derived from transporting freight. Changes in freight volumes generally contribute to corresponding changes in freight revenues and certain variable expenses, such as fuel, crew costs, and equipment rents. Non-freight revenue is generated from leasing of certain assets; other arrangements, including contracts with passenger service operators and logistical services; and switching fees.

Freight Revenues

Freight revenues were \$7,816 million in 2021, an increase of \$275 million, or 4%, from \$7,541 million in 2020. This increase was primarily due to increased freight revenue per RTM. This increase was partially offset by lower volumes as measured by RTMs.

Freight revenues were \$7,541 million in 2020, a decrease of \$72 million, or 1%, from \$7,613 million in 2019. This decrease was primarily due to lower volumes as measured by RTMs. This decrease was partially offset by higher freight revenue per RTM.

RTMs

RTMs are defined as the movement of one revenue-producing ton of freight over a distance of one mile. RTMs measure the relative weight and distance of rail freight moved by the Company. RTMs for 2021 were 149,686 million, a decrease of 2,205 million, or 1%, compared with 151,891 million in 2020. This decrease was mainly attributable to lower volumes of Grain and Potash. This decrease was partially offset by higher volumes of Metals, minerals and consumer products, Energy, chemicals and plastics, and Automotive.

RTMs for 2020 were 151,891 million, a decrease of 2,487 million, or 2%, compared with 154,378 million in 2019. This decrease was mainly attributable to lower volumes of crude, Coal and frac sand. This decrease was partially offset by higher volumes of Grain, Potash, and Fertilizers and sulphur.

Freight revenue per RTM

Freight revenue per RTM is defined as freight revenue per revenue-producing ton of freight over a distance of one mile. This is an indicator of yield. Freight revenue per RTM was 5.22 cents in 2021, an increase of 0.26 cents, or 5%, from 4.96 cents in 2020. This increase was primarily due to higher fuel surcharge revenue as a result of higher fuel prices of \$236 million, higher freight rates, and moving higher volumes of Automotive, which has a higher freight revenue per RTM compared to the corporate average. This increase was partially offset by the unfavourable impact of the change in FX of \$226 million.

Freight revenue per RTM was 4.96 cents in 2020, an increase of 0.03 cents, or 1%, from 4.93 cents in 2019. This increase was primarily due to higher liquidated damages, including customer volume commitments, higher freight rates, and the favourable impact of the change in FX of \$33 million. This increase was partially offset by the unfavourable impact of lower fuel surcharge revenue as a result of lower fuel prices of \$170 million and moving lower volumes of Automotive, which has a higher freight revenue per RTM compared to the corporate average.

Carloads

Carloads are defined as revenue-generating shipments of containers and freight cars. Carloads were 2,735.5 thousand in 2021, an increase of 27.1 thousand, or 1%, from 2,708.4 thousand in 2020. This increase was primarily due to higher volumes of Coal, Metals, minerals and consumer products, Intermodal, and Energy, chemicals and plastics. This increase was partially offset by lower volumes of Grain and Potash.

Carloads were 2,708.4 thousand in 2020, a decrease of 58.0 thousand, or 2%, from 2,766.4 thousand in 2019. This decrease was primarily due to lower volumes of crude, Coal, and frac sand. This decrease was partially offset by higher volumes of Grain and Potash.

Freight revenue per carload

Freight revenue per carload is defined as freight revenue per revenue-generating shipment of containers or freight cars. This is an indicator of yield. Freight revenue per carload was \$2,857 in 2021, an increase of \$73, or 3%, from \$2,784 in 2020. This increase was primarily due to higher fuel surcharge revenue as a result of higher fuel prices of \$236 million and higher freight rates. This increase was partially offset by the unfavourable impact of the change in FX of \$226 million.

Freight revenue per carload was \$2,784 in 2020, an increase of \$32, or 1%, from \$2,752 in 2019. This increase was primarily due to higher liquidated damages, including customer volume commitments, higher freight rates, and the favourable impact of the change in FX of \$33 million. This increase was partially offset by the unfavourable impact of lower fuel surcharge revenue as a result of lower fuel prices of \$170 million.

Non-freight Revenues

Non-freight revenues were \$179 million in 2021, an increase of \$10 million, or 6%, from \$169 million in 2020. This increase was primarily due to revenue recognized for construction easements in Chicago of \$13 million, higher leasing revenues, and higher revenue from passenger service operators, partially offset by lower revenue from logistical services and switching fees.

Non-freight revenues were \$169 million in 2020, a decrease of \$10 million, or 6%, from \$179 million in 2019. This decrease was primarily due to lower revenue from passenger service operators.

Lines of Business

Grain

For the year ended December 31	2021 vs. 2020					2020 vs. 2019					
	2021	2020	2019	Total Change	% Change	FX Adjusted % Change ⁽¹⁾	2020	2019	Total Change	% Change	FX Adjusted % Change ⁽¹⁾
Freight revenues (in millions)	\$ 1,684	\$ 1,829	\$ 1,684	\$ (145)	(8)	(5)	\$ 145	9	9	8	
Carloads (in thousands)	426.2	480.1	431.4	(53.9)	(11)	N/A	48.7	11	N/A	N/A	
Revenue ton-miles (in millions)	37,999	41,747	36,941	(3,748)	(9)	N/A	4,806	13	N/A	N/A	
Freight revenue per carload (in dollars)	\$ 3,951	\$ 3,810	\$ 3,904	\$ 141	4	6	\$ (94)	(2)	(2)	(3)	
Freight revenue per revenue ton-mile (in cents)	4.43	4.38	4.56	0.05	1	4	(0.18)	(4)	(4)	(4)	

⁽¹⁾ FX adjusted % change does not have any standardized meaning prescribed by GAAP and, therefore, is unlikely to be comparable to similar measures presented by other companies. FX adjusted % change is defined and reconciled in Non-GAAP Measures of this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Grain revenue was \$1,684 million in 2021, a decrease of \$145 million, or 8%, from \$1,829 million in 2020. The decrease was primarily due to lower volumes of Canadian grain to Vancouver and eastern Canada primarily as a result of drought conditions and the unfavourable impact of the change in FX. This decrease was partially offset by higher volumes of U.S. corn to western Canada and the U.S. Pacific Northwest and increased freight revenue per RTM. Freight revenue per RTM increased due to higher freight rates and higher fuel surcharge revenue as a result of higher fuel prices. Carloads decreased more than RTMs due to moving higher volumes of U.S. corn to western Canada and the U.S. Pacific Northwest, which have longer lengths of haul.

Grain revenue was \$1,829 million in 2020, an increase of \$145 million, or 9%, from \$1,684 million in 2019. This increase was primarily due to moving record volumes of Canadian grain, primarily to Vancouver and Thunder Bay, higher volumes of U.S. soybeans and corn to the U.S. Pacific Northwest, higher freight rates, and the favourable impact of the change in FX. This increase was partially offset by decreased freight revenue per RTM. Freight revenue per RTM decreased due to moving proportionately higher volumes of long haul soybeans and corn to the U.S. Pacific Northwest, which also caused RTMs to increase more than carloads, and lower fuel surcharge revenue as a result of lower fuel prices.

Coal

For the year ended December 31	2021 vs. 2020						2020 vs. 2019		
	2021	2020	2019	Total Change	% Change	FX Adjusted % Change ⁽¹⁾	Total Change	% Change	FX Adjusted % Change ⁽¹⁾
Freight revenues (in millions)	\$ 625	\$ 566	\$ 682	\$ 59	10	11	\$ (116)	(17)	(17)
Carloads (in thousands)	291.5	260.4	304.3	31.1	12	N/A	(43.9)	(14)	N/A
Revenue ton-miles (in millions)	18,345	18,510	21,820	(165)	(1)	N/A	(3,310)	(15)	N/A
Freight revenue per carload (in dollars)	\$ 2,144	\$ 2,174	\$ 2,241	\$ (30)	(1)	(1)	\$ (67)	(3)	(3)
Freight revenue per revenue ton-mile (in cents)	3.41	3.06	3.13	0.35	11	12	(0.07)	(2)	(2)

⁽¹⁾ FX adjusted % change does not have any standardized meaning prescribed by GAAP and, therefore, is unlikely to be comparable to similar measures presented by other companies. FX adjusted % change is defined and reconciled in Non-GAAP Measures of this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Coal revenue was \$625 million in 2021, an increase of \$59 million, or 10%, from \$566 million in 2020. This increase was primarily due to increased freight revenue per RTM, higher volumes of Canadian coal to Kamloops, B.C., and higher volumes of U.S. coal to the U.S. Midwest. This increase was partially offset by lower volumes of Canadian coal to Vancouver and the unfavourable impact of the change in FX. Freight revenue per RTM increased due to higher fuel surcharge revenue as a result of higher fuel prices. RTMs decreased while carloads increased due to moving lower volumes of Canadian coal to Vancouver, which has a longer length of haul, and moving higher volumes of Canadian coal to Kamloops, B.C., which has a shorter length of haul.

Coal revenue was \$566 million in 2020, a decrease of \$116 million, or 17%, from \$682 million in 2019. This decrease was primarily due to lower volumes of Canadian coal primarily to Vancouver, driven by supply chain challenges at both the mines and the ports, lower volumes of U.S. coal to Wisconsin, and decreased freight revenue per RTM. Freight revenue per RTM decreased due to lower fuel surcharge revenue as a result of lower fuel prices.

Potash

For the year ended December 31	2021 vs. 2020						2020 vs. 2019		
	2021	2020	2019	Total Change	% Change	FX Adjusted % Change ⁽¹⁾	Total Change	% Change	FX Adjusted % Change ⁽¹⁾
Freight revenues (in millions)	\$ 463	\$ 493	\$ 462	\$ (30)	(6)	(3)	\$ 31	7	6
Carloads (in thousands)	150.9	162.9	149.3	(12.0)	(7)	N/A	13.6	9	N/A
Revenue ton-miles (in millions)	16,671	18,784	17,297	(2,113)	(11)	N/A	1,487	9	N/A
Freight revenue per carload (in dollars)	\$ 3,068	\$ 3,026	\$ 3,094	\$ 42	1	5	\$ (68)	(2)	(3)
Freight revenue per revenue ton-mile (in cents)	2.78	2.62	2.67	0.16	6	9	(0.05)	(2)	(2)

⁽¹⁾ FX adjusted % change does not have any standardized meaning prescribed by GAAP and, therefore, is unlikely to be comparable to similar measures presented by other companies. FX adjusted % change is defined and reconciled in Non-GAAP Measures of this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Potash revenue was \$463 million in 2021, a decrease of \$30 million, or 6%, from \$493 million in 2020. This decrease was primarily due to lower volumes of export potash to Vancouver and the U.S. Pacific Northwest as a result of construction at the Port of Vancouver and the Port of Portland, lower volumes of domestic potash, and the unfavourable impact of the change in FX. This decrease was partially offset by increased freight revenue per RTM due to higher fuel surcharge revenue as a result of higher fuel prices and higher freight rates. RTMs decreased more than carloads due to moving lower volumes of export potash, which has a longer length of haul.

Potash revenue was \$493 million in 2020, an increase of \$31 million, or 7%, from \$462 million in 2019. This increase was primarily due to higher volumes of export potash following resolved international contract negotiations, higher freight rates, and the favourable impact of the change in FX. This increase was partially offset by decreased freight revenue per RTM due to lower fuel surcharge revenue as a result of lower fuel prices.

Fertilizers and Sulphur

For the year ended December 31	2021 vs. 2020						2020 vs. 2019					
	2021	2020	2019	Total Change	% Change	FX Adjusted % Change ⁽¹⁾	N/A	Total Change	% Change	FX Adjusted % Change ⁽¹⁾		
								2021	2020	2019	Total Change	% Change
Freight revenues (in millions)	\$ 305	\$ 290	\$ 250	\$ 15	5	11	N/A	\$ 40	\$ 40	\$ 250	\$ 16	15
Carloads (in thousands)	64.4	61.6	57.0	2.8	5	N/A	4.6	8	4.6	57.0	8	N/A
Revenue ton-miles (in millions)	4,845	4,683	3,846	162	3	N/A	837	22	837	4,683	22	N/A
Freight revenue per carload (in dollars)	\$ 4,736	\$ 4,708	\$ 4,386	\$ 28	1	6	\$ 322	7	6	\$ 4,736	7	6
Freight revenue per revenue ton-mile (in cents)	6.30	6.19	6.50	0.11	2	7	(0.31)	(5)	7	6.30	(5)	(5)

⁽¹⁾ FX adjusted % change does not have any standardized meaning prescribed by GAAP and, therefore, is unlikely to be comparable to similar measures presented by other companies. FX adjusted % change is defined and reconciled in Non-GAAP Measures of this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Fertilizers and sulphur revenue was \$305 million in 2021, an increase of \$15 million, or 5%, from \$290 million in 2020. This increase was primarily due to higher volumes of wet and dry fertilizer and increased freight revenue per RTM. This increase was partially offset by the unfavourable impact of the change in FX and lower volumes of sulphur. Freight revenue per RTM increased due to higher fuel surcharge revenue as a result of higher fuel prices and higher freight rates. Carloads increased more than RTMs due to moving higher volumes of dry fertilizer within western Canada, which has a shorter length of haul.

Fertilizers and sulphur revenue was \$290 million in 2020, an increase of \$40 million, or 16%, from \$250 million in 2019. This increase was primarily due to higher volumes of dry fertilizers, sulphur, and wet fertilizers, as well as the favourable impact of the change in FX. This increase was partially offset by decreased freight revenue per RTM due to lower fuel surcharge revenue as a result of lower fuel prices. RTMs increased more than carloads due to moving lower volumes of wet and dry fertilizers within Alberta, which has a shorter length of haul.

Forest Products

For the year ended December 31	2021 vs. 2020						2020 vs. 2019					
	2021	2020	2019	Total Change	% Change	FX Adjusted % Change ⁽¹⁾	N/A	Total Change	% Change	FX Adjusted % Change ⁽¹⁾		
								2021	2020	2019	Total Change	% Change
Freight revenues (in millions)	\$ 348	\$ 328	\$ 304	\$ 20	6	12	N/A	\$ 24	\$ 24	\$ 304	\$ 8	7
Carloads (in thousands)	73.6	71.6	71.5	2.0	3	N/A	0.1	—	0.1	71.6	—	N/A
Revenue ton-miles (in millions)	5,718	5,491	4,974	227	4	N/A	517	10	517	5,491	10	N/A
Freight revenue per carload (in dollars)	\$ 4,728	\$ 4,581	\$ 4,252	\$ 147	3	9	\$ 329	8	9	\$ 4,728	8	7
Freight revenue per revenue ton-mile (in cents)	6.09	5.97	6.11	0.12	2	8	(0.14)	(2)	8	6.09	(2)	(3)

⁽¹⁾ FX adjusted % change does not have any standardized meaning prescribed by GAAP and, therefore, is unlikely to be comparable to similar measures presented by other companies. FX adjusted % change is defined and reconciled in Non-GAAP Measures of this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Forest products revenue was \$348 million in 2021, an increase of \$20 million, or 6%, from \$328 million in 2020. This increase was primarily due to higher volumes of lumber and panel products and increased freight revenue per RTM. This increase was partially offset by the unfavourable impact of the change in FX. Freight revenue per RTM increased due to higher fuel surcharge revenue as a result of higher fuel prices and higher freight rates.

Forest products revenue was \$328 million in 2020, an increase of \$24 million, or 8%, from \$304 million in 2019. This increase was primarily due to higher volumes of lumber and wood pulp, higher freight rates, and the favourable impact of the change in FX. This increase was partially offset by decreased freight revenue per RTM due to lower fuel surcharge revenue as a result of lower fuel prices. RTMs increased more than carloads due to moving higher volumes of panel products and wood pulp from Canada to the U.S., which has a longer length of haul.

Energy, Chemicals and Plastics

For the year ended December 31	2021 vs. 2020						2020 vs. 2019			
	2021	2020	2019	Total Change	% Change	FX Adjusted % Change ⁽¹⁾	Total Change	% Change	FX Adjusted % Change ⁽¹⁾	
Freight revenues (in millions)	\$ 1,563	\$ 1,519	\$ 1,534	\$ 44	3%	3%	7	\$ (15)	(1%)	(1%)
Carloads (in thousands)	320.1	308.8	358.1	11.3	4%	N/A	(49.3)	(14)	N/A	N/A
Revenue ton-miles (in millions)	25,469	24,172	29,356	1,297	5%	N/A	(5,184)	(18)	N/A	N/A
Freight revenue per carload (in dollars)	\$ 4,883	\$ 4,919	\$ 4,284	\$ (36)	(1%)	3%	\$ 635	15	15	15
Freight revenue per revenue ton-mile (in cents)	6.14	6.28	5.23	(0.14)	(2%)	1%	1.05	20	20	20

⁽¹⁾ FX adjusted % change does not have any standardized meaning prescribed by GAAP and, therefore, is unlikely to be comparable to similar measures presented by other companies. FX adjusted % change is defined and reconciled in Non-GAAP Measures of this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Energy, chemicals and plastics revenue was \$1,563 million in 2021, an increase of \$44 million, or 3%, from \$1,519 million in 2020. This increase was primarily due to higher volumes of liquefied petroleum gas ("LPG") and other petroleum products as a result of demand recovery from the impact of the COVID-19 pandemic in the prior year, higher fuel surcharge revenue as a result of higher fuel prices, and higher freight rates. The increase was partially offset by decreased freight revenue per RTM due to the unfavourable impact of the change in FX.

Energy, chemicals and plastics revenue was \$1,519 million in 2020, a decrease of \$15 million, or 1%, from \$1,534 million in 2019. This decrease was primarily due to lower volumes of crude, LPG, and biofuels as a result of the COVID-19 pandemic and lower fuel surcharge revenue as a result of lower fuel prices. The decrease was partially offset by increased freight revenue per RTM and higher volumes of plastics. Freight revenue per RTM increased primarily due to higher liquidated damages, including customer volume commitments, and higher freight rates. RTMs decreased more than carloads due to moving lower volumes of crude, which has a longer length of haul.

Metals, Minerals and Consumer Products

For the year ended December 31	2021 vs. 2020						2020 vs. 2019			
	2021	2020	2019	Total Change	% Change	FX Adjusted % Change ⁽¹⁾	Total Change	% Change	FX Adjusted % Change ⁽¹⁾	
Freight revenues (in millions)	\$ 728	\$ 629	\$ 752	\$ 99	16%	22%	\$ (123)	(16)	(17)	(17)
Carloads (in thousands)	236.7	207.3	234.3	29.4	14%	N/A	(27.0)	(12)	N/A	N/A
Revenue ton-miles (in millions)	11,170	9,325	10,684	1,845	20%	N/A	(1,359)	(13)	N/A	N/A
Freight revenue per carload (in dollars)	\$ 3,076	\$ 3,034	\$ 3,210	\$ 42	1%	7%	\$ (176)	(5)	(6)	(6)
Freight revenue per revenue ton-mile (in cents)	6.52	6.75	7.04	(0.23)	(3%)	2%	(0.29)	(4)	(5)	(5)

⁽¹⁾ FX adjusted % change does not have any standardized meaning prescribed by GAAP and, therefore, is unlikely to be comparable to similar measures presented by other companies. FX adjusted % change is defined and reconciled in Non-GAAP Measures of this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Metals, minerals and consumer products revenue was \$728 million in 2021, an increase of \$99 million, or 16%, from \$629 million in 2020. This increase was primarily due to higher volumes of steel and frac sand, higher fuel surcharge revenue as a result of higher fuel prices, and higher freight rates. This increase was partially offset by decreased freight revenue per RTM due to the unfavourable impact of the change in FX. RTMs increased more than carloads due to moving proportionately higher volumes of frac sand, which has a longer length of haul.

Metals, minerals and consumer products revenue was \$629 million in 2020, a decrease of \$123 million, or 16%, from \$752 million in 2019. This decrease was primarily due to lower volumes of frac sand as a result of the COVID-19 pandemic and decreased freight revenue per RTM. This decrease was partially offset by the favourable impact of the change in FX. Freight revenue per RTM decreased due to lower fuel surcharge revenue as a result of lower fuel prices.

Automotive

For the year ended December 31	2021 vs. 2020						2020 vs. 2019					
	2021	2020	2019	Total Change	% Change	FX Adjusted % Change ⁽¹⁾	Total Change	% Change	FX Adjusted % Change ⁽¹⁾			
							2021	2020	2019	Total Change	% Change	FX Adjusted % Change ⁽¹⁾
Freight revenues (in millions)	\$ 376	\$ 324	\$ 352	\$ 52	16	22	\$ (28)	\$ (8)	\$ (9)			
Carloads (in thousands)	109.2	106.1	114.4	3.1	3	N/A	(8.3)	(7)	N/A			
Revenue ton-miles (in millions)	1,765	1,321	1,427	444	34	N/A	(106)	(7)	N/A			
Freight revenue per carload (in dollars)	\$ 3,443	\$ 3,054	\$ 3,077	\$ 389	13	18	\$ (23)	\$ (1)	\$ (2)			
Freight revenue per revenue ton-mile (in cents)	21.30	24.53	24.67	(3.23)	(13)	(9)	(0.14)	(1)	(1)			

⁽¹⁾ FX adjusted % change does not have any standardized meaning prescribed by GAAP and, therefore, is unlikely to be comparable to similar measures presented by other companies. FX adjusted % change is defined and reconciled in Non-GAAP Measures of this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Automotive revenue was \$376 million in 2021, an increase of \$52 million, or 16%, from \$324 million in 2020. This increase was primarily due to higher volumes as a result of onboarding customers moving to and from Vancouver, prior year manufacturing plant shutdowns in the second quarter of 2020 across North America as a result of the COVID-19 pandemic, higher fuel surcharge revenue as a result of higher fuel prices, and higher freight rates. This increase was partially offset by decreased freight revenue per RTM due to moving proportionately higher volumes from Vancouver to eastern Canada, which has a longer length of haul, and the unfavourable impact of the change in FX.

Automotive revenue was \$324 million in 2020, a decrease of \$28 million, or 8%, from \$352 million in 2019. This decrease was primarily due to lower volumes caused by manufacturing plant shutdowns in the second quarter of 2020 across North America as a result of the COVID-19 pandemic, and decreased freight revenue per RTM. This decrease was partially offset by the onboarding of customers moving to and from Vancouver, higher freight rates, and the favourable impact of the change in FX. Freight revenue per RTM decreased due to lower fuel surcharge revenue as a result of lower fuel prices.

Intermodal

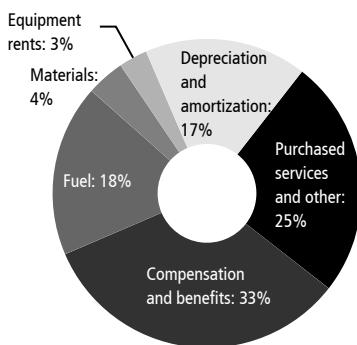
For the year ended December 31	2021 vs. 2020						2020 vs. 2019					
	2021	2020	2019	Total Change	% Change	FX Adjusted % Change ⁽¹⁾	Total Change	% Change	FX Adjusted % Change ⁽¹⁾			
							2021	2020	2019	Total Change	% Change	FX Adjusted % Change ⁽¹⁾
Freight revenues (in millions)	\$ 1,724	\$ 1,563	\$ 1,593	\$ 161	10	12	\$ (30)	\$ (2)	\$ (2)			
Carloads (in thousands)	1,062.9	1,049.6	1,046.1	13.3	1	N/A	3.5	—	N/A			
Revenue ton-miles (in millions)	27,704	27,858	28,033	(154)	(1)	N/A	(175)	(1)	N/A			
Freight revenue per carload (in dollars)	\$ 1,622	\$ 1,489	\$ 1,523	\$ 133	9	11	\$ (34)	\$ (2)	\$ (2)			
Freight revenue per revenue ton-mile (in cents)	6.22	5.61	5.68	0.61	11	13	(0.07)	(1)	(2)			

⁽¹⁾ FX adjusted % change does not have any standardized meaning prescribed by GAAP and, therefore, is unlikely to be comparable to similar measures presented by other companies. FX adjusted % change is defined and reconciled in Non-GAAP Measures of this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

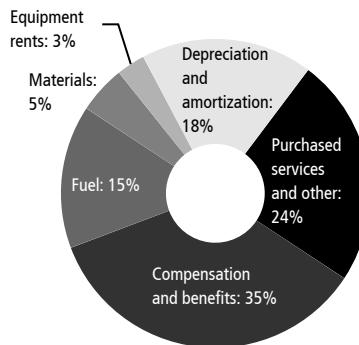
Intermodal revenue was \$1,724 million in 2021, an increase of \$161 million, or 10%, from \$1,563 million in 2020. This increase was primarily due to increased freight revenue per RTM, onboarding new international intermodal customers, and higher domestic retail and wholesale intermodal volumes. This increase was partially offset by the completion of an international intermodal customer contract and the unfavourable impact of the change in FX. Freight revenue per RTM increased due to higher fuel surcharge revenue as a result of higher fuel prices and higher freight rates. Carloads increased while RTMs decreased due to moving lower volumes of international intermodal to and from the Port of Vancouver, which has a longer length of haul.

Intermodal revenue was \$1,563 million in 2020, a decrease of \$30 million, or 2%, from \$1,593 million in 2019. This decrease was primarily due to decreased freight revenue per RTM and lower volumes of international intermodal driven by the completion of a customer contract. This decrease was partially offset by the onboarding of a new international intermodal customer, higher freight rates, and the favourable impact of the change in FX. Freight revenue per RTM decreased due to lower fuel surcharge revenues as a result of lower fuel prices.

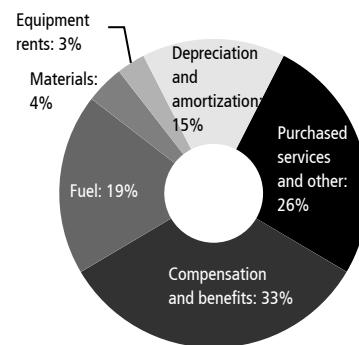
Operating Expenses



2021 Operating Expenses



2020 Operating Expenses



2019 Operating Expenses

For the year ended December 31 (in millions of Canadian dollars)				2021 vs. 2020		2020 vs. 2019			
	2021	2020	2019	Total Change	% Change	FX Adjusted % Change ⁽¹⁾	Total Change	% Change	FX Adjusted % Change ⁽¹⁾
Compensation and benefits	\$ 1,570	\$ 1,560	\$ 1,540	\$ 10	1	2	\$ 20	1	1
Fuel	854	652	882	202	31	37	(230)	(26)	(27)
Materials	215	216	210	(1)	—	1	6	3	3
Equipment rents	121	142	137	(21)	(15)	(10)	5	4	2
Depreciation and amortization	811	779	706	32	4	6	73	10	10
Purchased services and other	1,218	1,050	1,193	168	16	19	(143)	(12)	(12)
Total operating expenses	\$ 4,789	\$ 4,399	\$ 4,668	\$ 390	9	12	\$ (269)	(6)	(6)

⁽¹⁾ FX adjusted % change does not have any standardized meaning prescribed by GAAP and, therefore, is unlikely to be comparable to similar measures presented by other companies. FX adjusted % change is defined and reconciled in Non-GAAP Measures of this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Operating expenses were \$4,789 million in 2021, an increase of \$390 million, or 9%, from \$4,399 million in 2020. This increase was primarily due to:

- the unfavourable impact of higher fuel prices of \$243 million;
- acquisition-related costs of \$183 million associated with the KCS acquisition that were recognized in Purchased services and other;
- a gain of \$68 million recognized in 2020 as a result of the remeasurement to fair value of the previously held equity investment in DRTP;
- higher depreciation and amortization of \$46 million (excluding FX);
- impact of cost inflation; and
- higher DB pension and post-retirement benefits current service cost of \$32 million.

This increase was partially offset by:

- the favourable impact of the change in FX of \$111 million;
- a gain on the exchange of property and construction easements in Chicago of \$50 million and higher gains on land sales primarily in B.C. of \$29 million;
- lower stock-based compensation of \$39 million primarily driven by the impact of changes in share price; and
- efficiencies generated from improved operating performance and asset utilization.

Operating expenses were \$4,399 million in 2020, a decrease of \$269 million, or 6%, from \$4,668 million in 2019. This decrease was primarily due to:

- the favourable impact of lower fuel price of \$195 million;
- efficiencies generated from improved operating performance and asset utilization;
- a gain of \$68 million as a result of the remeasurement to fair value of the previously held equity investment in DRTP;
- reduced variable expenses from lower volumes;
- the impact of harsher winter operating conditions in 2019; and
- lower casualty costs incurred in 2020.

This decrease was partially offset by:

- higher depreciation and amortization of \$71 million (excluding FX);
- cost inflation;
- higher stock-based compensation of \$37 million primarily driven by an increase in stock price; and
- the unfavourable impact of the change in FX of \$23 million.

Compensation and Benefits

Compensation and benefits expense includes employee wages, salaries, fringe benefits, and stock-based compensation. Compensation and benefits expense was \$1,570 million in 2021, an increase of \$10 million, or 1%, from \$1,560 million in 2020. This increase was primarily due to:

- the impact of wage and benefit inflation;
- higher DB pension and post-retirement benefits current service cost of \$32 million; and
- increased training costs driven by recovery from the economic downturn caused by COVID-19 in the prior year.

This increase was partially offset by:

- lower stock-based compensation of \$39 million primarily driven by the impact of changes in share price;
- the favourable impact of the change in FX of \$27 million; and
- prior year bonus paid to frontline employees of \$17 million.

Compensation and benefits expense was \$1,560 million in 2020, an increase of \$20 million, or 1% from \$1,540 million in 2019. This increase was primarily due to:

- the impact of wage and benefit inflation;
- higher stock-based compensation of \$37 million primarily driven by an increase in stock price;
- higher DB pension and post-retirement benefits current service cost of \$33 million;
- a bonus paid to frontline employees of \$17 million; and
- the unfavourable impact of the change in FX of \$5 million.

This increase was partially offset by:

- labour efficiencies generated from improved operating performance and asset utilization;
- reduced training costs;
- lower volume variable expense as a result of decreased workload as measured by GTMs; and
- the impact of weather related costs as a result of harsh winter operating conditions in the first quarter of 2019.

Fuel

Fuel expense consists mainly of fuel used by locomotives and includes provincial, state, and federal fuel taxes. Fuel expense was \$854 million in 2021, an increase of \$202 million, or 31%, from \$652 million in 2020. This increase was primarily due to the unfavourable impact of higher fuel prices of \$243 million.

This increase was partially offset by:

- the favourable impact of the change in FX of \$29 million;
- an increase in fuel efficiency of 1% from improvements in the operating plan resulting in running longer and heavier trains; and
- a decrease in workload, as measured by GTMs.

Fuel expense was \$652 million in 2020, a decrease of \$230 million, or 26%, from \$882 million in 2019. This decrease was primarily due to:

- the favourable impact of lower fuel prices of \$195 million;
- a decrease in workload, as measured by GTMs; and
- an improvement in fuel efficiency of 1% from improved winter operating conditions in the first quarter of 2020.

This decrease was partially offset by the unfavourable impact of the change in FX of \$8 million.

Materials

Materials expense includes the cost of material used for maintenance of track, locomotives, freight cars, and buildings as well as software sustainment. Materials expense was \$215 million in 2021, a decrease of \$1 million, from \$216 million in 2020. This decrease was primarily due to the favorable impact of the change in FX of \$3 million and a decrease in freight car maintenance, partially offset by an increase in fuel costs.

Materials expense was \$216 million in 2020, an increase of \$6 million, or 3%, from \$210 million in 2019. This increase was primarily due to higher spending on locomotive maintenance and overhauls, and track maintenance.

Equipment Rents

Equipment rents expense includes the cost associated with using other companies' freight cars, intermodal equipment, and locomotives, net of rental income received from other railways for the use of CP's equipment. Equipment rents expense was \$121 million in 2021, a decrease of \$21 million, or 15%, from \$142 million in 2020. This decrease was primarily due to:

- higher receipts for CP freight cars used by other railways;
- price incentives received on intermodal cars; and
- the favourable impact of the change in FX of \$8 million.

This decrease was partially offset by greater usage of pooled freight cars.

Equipment rents expense was \$142 million in 2020, an increase of \$5 million, or 4%, from \$137 million in 2019. This increase was primarily due to lower receipts for CP freight cars used by other railways and the unfavourable impact of the change in FX of \$2 million, partially offset by lower usage of pooled freight cars as a result of lower volumes.

Depreciation and Amortization

Depreciation and amortization expense represents the charge associated with the use of track and roadway, buildings, rolling stock, information systems, and other depreciable assets. Depreciation and amortization expense was \$811 million for 2021, an increase of \$32 million, or 4%, from \$779 million in 2020. This increase was primarily due to a higher asset base, as a result of the capital program spending in 2021 and recent years, and the impact of depreciation studies. This was partially offset by the favourable impact of the change in FX of \$14 million.

Depreciation and amortization expense was \$779 million for 2020, an increase of \$73 million, or 10%, from \$706 million in 2019. This increase was primarily due to:

- a higher asset base, as a result of the capital program spending in 2020;
- the impact of depreciation studies and other adjustments made in 2019; and
- the unfavourable impact of the change in FX of \$2 million.

Purchased Services and Other

For the year ended December 31 (in millions of Canadian dollars)	2021	2020	2019	2021 vs. 2020		2020 vs. 2019	
				Total Change	% Change	Total Change	% Change
Support and facilities	\$ 293	\$ 271	\$ 278	\$ 22	8	\$ (7)	(3)
Track and operations	260	282	278	(22)	(8)	4	1
Intermodal	205	209	222	(4)	(2)	(13)	(6)
Equipment	105	113	125	(8)	(7)	(12)	(10)
Casualty	125	116	149	9	8	(33)	(22)
Property taxes	128	126	133	2	2	(7)	(5)
Other	191	(57)	29	248	(435)	(86)	(297)
Land sales	(89)	(10)	(21)	(79)	790	11	(52)
Total Purchased services and other	\$ 1,218	\$ 1,050	\$ 1,193	\$ 168	16	\$ (143)	(12)

Purchased services and other expense encompasses a wide range of third-party costs, including contractor and consulting fees, locomotive and freight car repairs performed by third parties, property and other taxes, intermodal pickup and delivery services, casualty expense, expenses for joint facilities, and gains on land sales. Purchased services and other expense was \$1,218 million in 2021, an increase of \$168 million, or 16%, from \$1,050 million in 2020. This increase was primarily due to:

- the acquisition-related costs of \$183 million related to the KCS acquisition, reported in Other;
- a gain in 2020 of \$68 million as a result of the remeasurement to fair value of the previously held equity investment in DRTP, reported in Other;
- higher expenses primarily due to an increased number and severity of casualty incidents, reported in Casualty;

- expenses due to the wildfire response in B.C., reported in Support and facilities, and Track and operations; and
- an increase in legal and consulting fees, reported in Support and facilities.

This increase was partially offset by:

- a gain on the exchange of property and construction easements in Chicago of \$50 million and higher gains on land sales primarily in B.C. of \$29 million;
- the favourable impact of the change in FX of \$30 million;
- a \$16 million legal claim recovery, reported in Other; and
- a \$7 million arbitration settlement, reported in Track and operations.

Purchased services and other expense was \$1,050 million in 2020, a decrease of \$143 million, or 12%, from \$1,193 million in 2019. This decrease was primarily due to:

- a gain of \$68 million as a result of the remeasurement to fair value of the previously held equity investment in DRTP, reported in Other;
- lower expenses primarily due to reduced number and severity of casualty incidents, reported in Casualty;
- reduced business travel and event cost due to COVID-19, reported in primarily Support and facilities and Track and operations;
- a decrease in charges associated with contingencies of \$10 million, reported in Other; and
- reduced variable expenses from lower volumes, reported in Intermodal and Equipment.

This decrease was partially offset by lower gains on land sales of \$11 million in 2020, reported in Land sales and the unfavourable impact of the change in FX of \$6 million.

Other Income Statement Items

Equity Loss of Kansas City Southern

On December 14, 2021, following the consummation of the KCS acquisition, the shares of KCS were placed into a voting trust while the United States Surface Transportation Board ("STB") considers the Company's control application. In 2021, the Company recognized a \$141 million equity loss from the date of acquisition of KCS closing into the voting trust to December 31, 2021 in the Company's Consolidated Statements of Income. The equity loss was attributable to the acquisition-related costs incurred during this period. No similar equity loss existed in the same period of 2020.

Other Expense (Income)

Other expense (income) consists of gains and losses from the change in FX on debt and lease liabilities and working capital, costs related to financing, shareholder costs, equity income, and other non-operating expenditures. Other expense was \$237 million in 2021, a change of \$244 million, or 3,486%, from income of \$7 million in 2020. This change was primarily due to acquisition-related costs of \$247 million which include losses on interest rate hedges of \$264 million and bridge facility and backstop revolver fees of \$52 million, partially offset by gains on cash held for the KCS acquisition of \$56 million and gains on FX hedges of \$13 million.

Other income was \$7 million in 2020, a decrease of \$82 million, or 92%, from \$89 million in the same period of 2019. This decrease was primarily due to a lower FX translation gain on U.S. dollar-denominated debt and lease liabilities of \$80 million.

FX translation gains and losses on debt and lease liabilities and acquisition-related costs are discussed further in Non-GAAP Measures of this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Merger Termination Fee

On May 21, 2021, KCS terminated the Agreement and Plan of Merger (the "Original Merger Agreement") with CP to enter into a definitive agreement with Canadian National Railway. At the same time and in accordance with the terms of the Original Merger Agreement, KCS paid CP a termination fee of \$845 million (U.S. \$700 million). This amount is reported as "Merger termination fee" in the Company's Consolidated Statements of Income in 2021. No similar items were received in the same period of 2020.

Other Components of Net Periodic Benefit Recovery

Other components of net periodic benefit recovery is related to the Company's pension and other post-retirement and post-employment benefit plans. It includes interest cost on benefit obligations, expected return on fund assets, recognized net actuarial losses, and amortization of prior service costs. Other components of net periodic benefit recovery were \$387 million in 2021, an increase of \$45 million, or 13%, from \$342 million in 2020. This increase was primarily due to a decrease in the interest cost on the benefit obligation of \$56 million and an increase in expected return on fund assets of \$14 million, partially offset by an increase in recognized net actuarial losses of \$24 million.

Other components of net periodic benefit recovery were \$342 million in 2020, a decrease of \$39 million or 10%, from \$381 million in 2019. This decrease was primarily due to an increase in recognized net actuarial losses of \$85 million and a decrease in expected return on fund assets of \$2 million, partially offset by a decrease in the interest cost on the benefit obligation of \$47 million.

Net Interest Expense

Net interest expense includes interest on long-term debt and finance leases. Net interest expense was \$440 million in 2021, a decrease of \$18 million, or 4%, from \$458 million in 2020. This decrease was primarily due to a change in FX of \$27 million and a reduction of interest on long-term debt of \$15 million as the result of a lower effective interest rate, partially offset by an increase in interest on long-term debt from debt issuances related to the KCS acquisition in the last quarter of 2021.

Net interest expense was \$458 million in 2020, an increase of \$10 million, or 2%, from \$448 million in 2019. This increase was primarily due to the unfavourable impacts of an increase in debt levels of \$34 million and the change in FX of \$4 million. This increase was partially offset by a reduction in interest related to long-term debt of \$29 million as the result of a lower effective interest rate following the Company's debt refinancing completed in 2019 and 2020.

Income Tax Expense

Income tax expense was \$768 million in 2021, an increase of \$10 million, or 1%, from \$758 million in 2020. The increase was primarily a result of higher taxable earnings due to the \$845 million (U.S. \$700 million) merger termination payment received in connection with KCS's termination of the Original Merger Agreement, partially offset by acquisition-related costs associated with the KCS acquisition and a lower effective tax rate.

Income tax expense was \$758 million in 2020, an increase of \$52 million, or 7%, from \$706 million in 2019. The increase was primarily due to higher taxable earnings and lower net income tax recoveries in 2020. In 2020, a tax filing election lowered the North Dakota rate resulting in net income tax recoveries of \$29 million compared to 2019 when net income tax recoveries were \$88 million as a result of an Alberta corporate tax rate decrease, partially offset by a 2019 tax expense for an unrecognized tax benefit of \$24 million.

The effective income tax rate for 2021 was 21.23% on reported income and 23.85% on Adjusted income. The effective income tax rate for 2020 was 23.66% on reported income and 24.61% on Adjusted income. The effective income tax rate for 2019 was 22.43% on reported income and 24.96% on Adjusted income. Adjusted income is a Non-GAAP measure, which is discussed further in Non-GAAP Measures of this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

The Company's expected 2022 effective tax rate is between 24% and 24.5%, which excludes the impact of the change in the equity investment in KCS and associated deferred tax on the outside basis difference during the year. The Company's 2022 outlook for its effective tax rate is based on certain assumptions about events and developments that may or may not materialize, or that may be offset entirely or partially by new events and developments. These assumptions are discussed further in Item 1A. Risk Factors.

Liquidity and Capital Resources

The Company's primary sources of liquidity include its Cash and cash equivalents, commercial paper program, bilateral letter of credit facilities, and revolving credit facility. The Company believes that these sources as well as cash flow generated through operations and existing debt capacity are adequate to meet its short-term and long-term cash requirements. The Company is not aware of any material trends, events, or uncertainties that would create any deficiencies in the Company's liquidity.

During 2021, the Company obtained commitments for a 364-day senior unsecured facility (the "bridge facility") in the amount of U.S. \$8.5 billion to bridge debt financing required to fund a portion of the cash component of the KCS acquisition. This bridge facility was terminated on December 2, 2021 upon the issuance of debt. On December 14, 2021, the Company issued 262.6 million Common Shares to KCS common stockholders at the exchange ratio of 2.884 Common Shares per share of KCS common stock to fund the remaining component of the KCS acquisition.

As at December 31, 2021, the Company had \$69 million of Cash and cash equivalents compared to \$147 million at December 31, 2020.

As at December 31, 2021, the Company's revolving credit facility was undrawn, unchanged from December 31, 2020, from a total available amount of U.S. \$1.3 billion. Effective April 9, 2021, the Company amended its revolving credit facility to modify certain provisions relating to the calculation of the financial covenant ratio in its revolving credit facility. Effective September 24, 2021, the Company entered into an amendment to extend the two-year tranche and the five-year tranche of its revolving credit facility to September 27, 2023 and September 27, 2026, respectively. Effective September 29, 2021, the Company entered into a further amendment to its revolving credit facility in order to provide financial covenant flexibility for the anticipated acquisition financing pertaining to the KCS acquisition, which is in place for a two-year period from the date the acquisition closed. In 2021, the Company also entered into a U.S. \$500 million unsecured non-revolving term credit facility with a maturity date of March 15, 2022. As at December 31, 2021, the unsecured non-revolving term credit facility was fully drawn. The credit facility agreements require the Company to maintain a financial covenant. As at

December 31, 2021, the Company was in compliance with all terms and conditions of the credit facility arrangements and satisfied the financial covenants.

The Company has a commercial paper program that enables it to issue commercial paper up to a maximum aggregate principal amount of U.S. \$1.0 billion in the form of unsecured promissory notes. This commercial paper program is backed by the revolving credit facility. As at December 31, 2021, total commercial paper borrowings were U.S. \$265 million (December 31, 2020 – U.S. \$644 million).

As at December 31, 2021, under its bilateral letter of credit facilities, the Company had letters of credit drawn of \$58 million from a total available amount of \$300 million (December 31, 2020 - \$59 million). Under the bilateral letter of credit facilities, the Company has the option to post collateral in the form of Cash or cash equivalents, equal at least to the face value of the letter of credit issued. As at December 31, 2021, the Company did not have any collateral posted on its bilateral letter of credit facilities (December 31, 2020 – \$nil).

Contractual Commitments

The Company's material cash requirements from known contractual obligations and commitments to make future payments primarily consist of long-term debt and related interest, supplier purchases, leases, and other long term liabilities. Outstanding obligations related to debt and leases can be found in Item 8. Financial Statements and Supplementary Data, Note 18 Debt and Note 21 Leases. Interest obligations related to debt and finance leases amount to \$634 million within the next 12 months, with the remaining amount committed thereafter of \$13,503 million.

Supplier purchase agreements and other long-term liabilities amount to \$676 million and \$56 million within the next 12 months, respectively, with the remaining amount committed thereafter of \$914 million and \$435 million, respectively. Other long-term liabilities includes expected cash payments for environmental remediation, post-retirement benefits, worker's compensation benefits, long-term disability benefits, pension benefit payments for the Company's non-registered supplemental pension plan, and certain other long-term liabilities. Pension payments are discussed further in Critical Accounting Estimates of this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Guarantees

Refer to Item 8. Financial Statements and Supplementary Data, Note 28 Guarantees for details.

Operating Activities

Cash provided by operating activities was \$3,688 million in 2021, an increase of \$886 million, or 32%, compared to \$2,802 million in 2020. This increase was primarily due to higher cash generating income as a result of the \$845 million merger termination payment received from KCS in the second quarter of 2021.

Cash provided by operating activities was \$2,802 million in 2020, a decrease of \$188 million, or 6%, compared to \$2,990 million in 2019. This decrease was primarily due to lower receipts from customers in advance of performing services, compared to 2019.

Investing Activities

Cash used in investing activities was \$13,730 million in 2021, an increase of \$11,700 million, or 576%, from \$2,030 million in 2020. This increase was primarily due to cash payments made to KCS and their stockholders for the acquisition of KCS, compared to the acquisition of DRTP in 2020, as well as lower additions to properties during 2021.

Cash used in investing activities was \$2,030 million in 2020, an increase of \$227 million, or 13%, from \$1,803 million in 2019. This increase was primarily due to the acquisition of DRTP in 2020, compared to the acquisition of CMQ in 2019.

Capital Programs

For the year ended December 31 (in millions of Canadian dollars, except for track miles and crossties)	2021	2020	2019
Additions to capital			
Track and roadway	\$ 970	\$ 1,161	\$ 1,004
Rolling stock	297	253	393
Information systems software	47	45	55
Buildings	105	103	58
Other	132	126	154
Total – accrued additions to capital	1,551	1,688	1,664
Less:			
Non-cash transactions	19	17	17
Cash invested in additions to properties (per Consolidated Statements of Cash Flows)	\$ 1,532	\$ 1,671	\$ 1,647
Track installation capital programs			
Track miles of rail laid (miles)	284	301	246
Track miles of rail capacity expansion (miles)	9	28	11
Crossties installed (thousands)	1,222	1,417	1,122

Track and roadway expenditures include the replacement and enhancement of the Company's track infrastructure. Of the \$970 million additions in 2021 (2020 – \$1,161 million), approximately \$907 million (2020 – \$1,008 million) was invested in the renewal of depleted assets, namely rail, ties, ballast, signals, and bridges. Approximately \$10 million (2020 – \$25 million) was spent on Positive Train Control compliance requirements and \$53 million (2020 – \$128 million) was invested in network improvements and growth initiatives.

Rolling stock investments encompass locomotives and railcars. In 2021, expenditures on locomotives were approximately \$121 million (2020 – \$126 million) and were focused on the continued re-investment in CP's existing locomotive fleet. Railcar investment of approximately \$176 million (2020 – \$127 million) was largely focused on renewal of depleted assets, including the acquisition of covered hoppers for grain transportation.

In 2021, CP invested approximately \$47 million (2020 – \$45 million) in information systems software primarily focused on rationalizing and enhancing business systems and providing real-time data. Investments in buildings were approximately \$105 million (2020 - \$103 million) and included items such as facility upgrades, renovations and shop equipment. Other items were \$132 million (2020 – \$126 million) and included investments in containers, work equipment and vehicles.

For 2022, CP expects to invest approximately \$1.55 billion in its capital programs, which will be financed with cash generated from operations. Approximately 60% to 70% of the planned capital programs is for track and roadway. Approximately 15% to 20% is expected to be allocated to rolling stock, including railcars and locomotive improvements. Approximately 5% is expected to be allocated to information services, and 5% is expected to be allocated to buildings. Other investments is expected to be 5% to 10%. Additional discussion of capital commitments can be found in Item 8. Financial Statements and Supplementary Data, Note 27 Commitments and Contingencies.

Free Cash

CP generated positive Free cash of \$1,793 million in 2021, an increase of \$636 million, or 55%, from \$1,157 million in 2020. This increase was primarily due to an increase in cash provided by operating activities, before the Merger termination fee and Acquisition-related costs from KCS, and lower capital additions.

CP generated positive Free cash of \$1,157 million in 2020, a decrease of \$200 million, or 15%, from \$1,357 million in 2019. This decrease was primarily due to a decrease in cash provided by operating activities.

Free cash is affected by seasonal fluctuations and by other factors including the size of the Company's capital programs. The 2021 capital programs are discussed above. Free cash is defined and reconciled in Non-GAAP Measures of this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Financing Activities

Cash provided by financing activities was \$9,936 million in 2021, a change of \$10,700 million, or 1401%, from cash used in financing activities of \$764 million in 2020. This change was primarily due to issuances of U.S. \$6.7 billion and \$2.2 billion notes and a U.S. \$500 million term loan to fund the cash consideration component of the KCS acquisition, as well as a pause on payments to buy back shares under the Company's share repurchase program due to the KCS acquisition.

This was partially offset by:

- issuances of U.S. \$500 million 2.050% notes due March 5, 2030 and \$300 million 3.050% notes due March 9, 2050 in 2020;
- net repayments of commercial paper during 2021 compared to net issuances during 2020;
- principal repayment of U.S. \$250 million of the Company's 9.450% notes at maturity in August 2021;
- acquisition-related financing fees; and
- higher dividends paid in 2021.

Cash used in financing activities was \$764 million in 2020, a decrease of \$347 million, or 31%, from \$1,111 million in 2019. This decrease was primarily due to the issuances of U.S. \$500 million 2.050% notes due March 5, 2030 and \$300 million 3.050% notes due March 9, 2050 in 2020, compared to the issuance of \$400 million 3.150% notes due March 13, 2029 in 2019, as well as the principal repayment of U.S. \$350 million of the Company's 7.250% notes at maturity in May 2019. This was partially offset by higher payments to buy back shares under the Company's share repurchase program, lower net issuances of commercial paper during 2020, and higher dividends paid during 2020.

Credit Measures

Credit ratings provide information relating to the Company's operations and liquidity, and affect the Company's ability to obtain short-term and long-term financing and/or the cost of such financing.

A strong investment-grade credit rating is an important measure in assessing the Company's ability to maintain access to public financing and to minimize the cost of capital. It also affects the ability of the Company to engage in certain collateralized business activities on a cost-effective basis.

Credit ratings and outlooks are based on the rating agencies' methodologies and can change from time to time to reflect their views of CP. Their views are affected by numerous factors including, but not limited to, the Company's financial position and liquidity along with external factors beyond the Company's control.

As at December 31, 2021, CP's credit ratings from Standard & Poor's Rating Services ("Standard & Poor's") remain unchanged from December 31, 2020. During the first quarter of 2021, Moody's Investor Service ("Moody's") downgraded CP's credit rating to Baa2 from Baa1 due to the announcement of the KCS transaction.

Credit ratings as at December 31, 2021⁽¹⁾

		Outlook
Long-term debt		
Standard & Poor's		
Long-term corporate credit	BBB+	stable
Senior secured debt	A	stable
Senior unsecured debt	BBB+	stable
Moody's		
Senior unsecured debt	Baa2	stable
Commercial paper program		
Standard & Poor's	A-2	N/A
Moody's	P-2	N/A

⁽¹⁾ Credit ratings are not recommendations to purchase, hold, or sell securities and do not address the market price or suitability of a specific security for a particular investor. Credit ratings are based on the rating agencies' methodologies and may be subject to revision or withdrawal at any time by the rating agencies.

Financial Ratios

The Long-term debt to Net income ratio was 7.1 in 2021, compared with 4.0 in 2020 and 3.6 in 2019. These increases were primarily due to higher debt.

The Adjusted net debt to Adjusted earnings before interest, tax, depreciation, and amortization ("EBITDA") ratio was 4.8 in 2021, compared with 2.5 in 2020 and 2.4 in 2019. The increase in the ratio from 2020 to 2021 was primarily due to a higher debt balance in connection with the KCS acquisition. The increase from 2019 to 2020 was primarily due to a higher debt balance, partially offset by an increase in Adjusted EBITDA. Adjusted net debt to Adjusted EBITDA ratio is defined and reconciled in Non-GAAP Measures of this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations. Over the long term, CP targets an Adjusted net debt to Adjusted EBITDA ratio of 2.0 to 2.5.

Although CP has provided a target Non-GAAP measure (Adjusted net debt to Adjusted EBITDA ratio), management is unable to reconcile, without unreasonable efforts, the target Adjusted net debt to Adjusted EBITDA ratio to the most comparable GAAP measure (Long-term debt to Net income ratio), due to unknown variables and uncertainty related to future results. These unknown variables may include unpredictable transactions of significant value. In recent years, CP has recognized acquisition-related costs (including legal, consulting, and financing fees, fair value gain or loss on FX forward contracts and interest rate hedges, FX gain on U.S. dollar-denominated cash on hand from the issuances of long-term debt to fund the KCS acquisition, and transaction costs (net of tax) incurred by KCS which were recognized within the Equity loss of KCS), the merger termination payment received, changes in the outside basis tax difference between the carrying amount of CP's equity investment in KCS and its tax basis of the investment, changes in income tax rates, and a change to an uncertain tax item. KCS has also recognized significant transaction costs and FX gains and losses. These or other similar, large unforeseen transactions affect Net income but may be excluded from CP's Adjusted EBITDA. Additionally, the U.S.-to-Canada dollar exchange rate is unpredictable and can have a significant impact on CP's reported results but may be excluded from CP's Adjusted EBITDA. In particular, CP excludes the FX impact of translating the Company's debt and lease liabilities, interest and taxes from Adjusted EBITDA. Please see Forward-Looking Statements in this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations for further discussion.

Dividend Payout Ratio

The dividend payout ratio was 18.2% in 2021, compared with 19.8% in 2020 and 17.9% in 2019. The decrease in the ratio from 2020 to 2021 was due to higher diluted EPS, partially offset by higher dividends declared per share. The increase in the ratio from 2019 to 2020 was due to higher dividends declared per share, partially offset by higher diluted EPS.

The Adjusted dividend payout ratio was 20.2% in 2021, compared with 20.1% in 2020 and 19.1% in 2019. These increases were due to higher dividends declared per share, partially offset by higher Adjusted diluted EPS. Adjusted dividend payout ratio is defined and reconciled in Non-GAAP Measures of this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations. Over the long term, CP targets an Adjusted dividend payout ratio of 25.0% to 30.0%.

Although CP has provided a target Non-GAAP measure (Adjusted dividend payout ratio), management is unable to reconcile, without unreasonable efforts, the target Adjusted dividend payout ratio to the most comparable GAAP measure (Dividend payout ratio), due to unknown variables and uncertainty related to future results. These unknown variables may include unpredictable transactions of significant value. In recent years, CP has recognized acquisition-related costs (including legal, consulting, and financing fees, fair value gain or loss on FX forward contracts and interest rate hedges, FX gain on U.S. dollar-denominated cash on hand from the issuances of long-term debt to fund the KCS acquisition, and transaction costs (net of tax) incurred by KCS which were recognized within the Equity loss of KCS), the merger termination payment received, outside basis tax differences related to KCS equity earnings or loss, changes in income tax rates, and a change to an uncertain tax item. KCS has also recognized significant transaction costs and FX gains and losses. These or other similar, large unforeseen transactions affect Diluted EPS but may be excluded from CP's Adjusted diluted EPS. Additionally, the U.S.-to-Canada dollar exchange rate is unpredictable and can have a significant impact on CP's reported results but may be excluded from CP's Adjusted diluted EPS. In particular, CP excludes the FX impact of translating the Company's debt and lease liabilities from Adjusted diluted EPS. Please see Forward-Looking Statements in this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations for further discussion.

Supplemental Guarantor Financial Information

Canadian Pacific Railway Company ("CPRC"), a 100%-owned subsidiary of Canadian Pacific Railway Limited ("CPRL"), is the issuer of certain securities which are fully and unconditionally guaranteed by CPRL on an unsecured basis. The other subsidiaries of CPRC do not guarantee the securities and are referred to below as the "Non-Guarantor Subsidiaries". The following is a description of the terms and conditions of the guarantees with respect to securities for which CPRC is the issuer and CPRL provides a full and unconditional guarantee.

As of the date of the filing of the Form 10-K, CPRC had U.S. \$12,050 million principal amount of debt securities outstanding due through 2115, and U.S. \$30 million and GBP £3 million in perpetual 4% consolidated debenture stock, for all of which CPRL is the guarantor subject to Section 13(a) or 15(d) of the Securities Exchange Act of 1934 (the "Exchange Act"), as amended. As of the same date, CPRC also had \$3,300 million principal amount of debt securities issued under Canadian Securities Law due through 2050 for which CPRL is the guarantor and not subject to the Exchange Act.

CPRL fully and unconditionally guarantees the payment of the principal (and premium, if any) and interest on the debt securities and consolidated debenture stock issued by CPRC, any sinking fund or analogous payments payable with respect to such securities, and any additional amounts payable when they become due, whether at maturity or otherwise. The guarantee is CPRL's unsubordinated and unsecured obligation and ranks equally with all of CPRL's other unsecured, unsubordinated obligations.

CPRL will be released and relieved of its obligations under the guarantees after obligations to the holders are satisfied in accordance with the terms of the respective instruments.

Pursuant to Rule 13-01 of the SEC's Regulation S-X, the Company provides summarized financial and non-financial information of CPRC in lieu of providing separate financial statements of CPRL.

More information on the securities under this guarantee structure can be found in Exhibit 22.1 List of Issuers and Guarantor Subsidiaries of this annual report.

Summarized Financial Information

The following tables present summarized financial information for CPRC (Subsidiary Issuer) and CPRL (Parent Guarantor) on a combined basis after elimination of (i) intercompany transactions and balances among CPRC and CPRL; (ii) equity in earnings from and investments in the Non-Guarantor Subsidiaries; and (iii) intercompany dividend income.

Statements of Income

(in millions of Canadian dollars)	CPRC (Subsidiary Issuer) and CPRL (Parent Guarantor)	
	For the year ended December 31, 2021	For the year ended December 31, 2020
Total revenues	\$ 5,924	\$ 5,797
Total operating expenses	3,712	3,263
Operating income ⁽¹⁾	2,212	2,534
Less: Other ⁽²⁾	(522)	127
Income before income tax expense	2,734	2,407
Net income	\$ 2,548	\$ 1,792

⁽¹⁾ Includes net lease costs incurred from non-guarantor subsidiaries for the year ended December 31, 2021 and 2020 of \$431 million and \$435 million, respectively.

⁽²⁾ Includes Other expense (income), Merger termination fee, Other components of net periodic benefit recovery, and Net interest expense.

Balance Sheets

(in millions of Canadian dollars)	CPRC (Subsidiary Issuer) and CPRL (Parent Guarantor)	
	As at December 31, 2021	As at December 31, 2020
Assets		
Current assets	\$ 963	\$ 907
Properties	11,342	10,865
Other non-current assets	2,536	1,151
Liabilities		
Current liabilities	\$ 2,789	\$ 2,290
Long-term debt	18,574	8,585
Other non-current liabilities	3,008	2,981

Excluded from the Income Statements and Balance Sheets above are the following significant intercompany transactions and balances that CPRC and CPRL have with the Non-Guarantor Subsidiaries:

Cash Transactions with Non-Guarantor Subsidiaries

(in millions of Canadian dollars)	CPRC (Subsidiary Issuer) and CPRL (Parent Guarantor)	
	For the year ended December 31, 2021	For the year ended December 31, 2020
Dividend income from non-guarantor subsidiaries	\$ 297	\$ 163
Capital contributions to non-guarantor subsidiaries	(134)	—
Return of capital from non-guarantor subsidiaries	1,370	198

Balances with Non-Guarantor Subsidiaries

(in millions of Canadian dollars)	CPRC (Subsidiary Issuer) and CPRL (Parent Guarantor)	
	As at December 31, 2021	As at December 31, 2020
Assets		
Accounts Receivable, intercompany	\$ 344	\$ 327
Short-term advances to affiliates	2,859	20
Long-term advances to affiliates	7,616	9
Liabilities		
Accounts payable, intercompany	\$ 212	\$ 179
Short-term advances from affiliates	2,777	3,658
Long-term advances from affiliates	82	82

Share Capital

At February 22, 2022, the latest practicable date prior to the date of this Annual Report on Form 10-K, there were 929,712,071 Common Shares and no preferred shares issued and outstanding, which consists of 15,332 holders of record of the Common Shares. In addition, CP has a Management Stock Option Incentive Plan ("MSOIP"), under which key officers and employees are granted options to purchase the Common Shares. Options issued prior to the share split further described in Results of Operations of this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations now each provide rights over five shares. For consistency, all number of options presented herein are shown on the basis of the number of shares subject to the options. At February 22, 2022, 8,144,004 options were outstanding under the MSOIP and stand-alone option agreements entered into with Mr. Keith Creel. There are 2,504,311 options available to be issued by the Company's MSOIP in the future. CP also has a Director's Stock Option Plan ("DSOP"), under which directors are granted options to purchase Common Shares. There are no outstanding options under the DSOP, which has 1,700,000 options available to be issued in the future.

Non-GAAP Measures

The Company presents Non-GAAP measures to provide a basis for evaluating underlying earnings and liquidity trends in the Company's business that can be compared with the results of operations in prior periods. In addition, these Non-GAAP measures facilitate a multi-period assessment of long-term profitability, allowing management and other external users of the Company's consolidated financial information to compare profitability on a long-term basis, including assessing future profitability, with that of the Company's peers.

These Non-GAAP measures have no standardized meaning and are not defined by GAAP and, therefore, may not be comparable to similar measures presented by other companies. The presentation of these Non-GAAP measures is not intended to be considered in isolation from, as a substitute for, or as superior to the financial information presented in accordance with GAAP.

Non-GAAP Performance Measures

The Company uses adjusted earnings results including Adjusted income, Adjusted diluted earnings per share, Adjusted operating income, and Adjusted operating ratio to evaluate the Company's operating performance and for planning and forecasting future business operations and future profitability.

These Non-GAAP measures are discussed further in other sections of this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations. These Non-GAAP measures provide meaningful supplemental information regarding operating results because they exclude certain significant items that are not considered indicative of future financial trends either by nature or amount. As a result, these items are excluded for management assessment of operational performance, allocation of resources, and preparation of annual budgets. These significant items may include, but are not limited to, restructuring and asset impairment charges, individually significant gains and losses from sales of assets, acquisition-related costs (including legal, consulting, and financing fees, fair value gain or loss on FX forward contracts and interest rate hedges, FX gain on U.S. dollar-denominated cash on hand from the issuances of long-term debt to fund the KCS acquisition, and transaction costs (net of tax) incurred by KCS which were recognized within the Equity loss of KCS), the merger termination payment received, the FX impact of translating the Company's debt and lease liabilities (including borrowings under the credit facility), discrete tax items, changes in the outside basis tax difference between the carrying amount of CP's equity investment in KCS and its tax basis of this investment, changes in income tax rates, changes to an uncertain tax item, and certain items outside the control of management. These items may not be non-recurring. However, excluding these significant items from GAAP results allows for a consistent understanding of the Company's consolidated financial performance when performing a multi-period assessment including assessing the likelihood of future results. Accordingly, these Non-GAAP financial measures may provide insight to investors and other external users of the Company's consolidated financial information.

In 2021, there were four significant items included in Net income as follows:

- in the fourth quarter, a deferred tax recovery of \$33 million on changes in the outside basis difference of the equity investment in KCS that favourably impacted Diluted EPS by 5 cents;
- in the second quarter, merger termination payment received of \$845 million (\$748 million after current taxes) in connection with KCS's termination of the Original Merger Agreement effective May 21, 2021, that favourably impacted Diluted EPS by \$1.11;
- during the course of the year, acquisition-related costs of \$599 million in connection with the KCS acquisition (\$500 million after current tax recovery of \$107 million net of deferred tax expense of \$8 million), including an expense of \$183 million recognized in Purchased services and other, \$169 million recognized in Equity loss of KCS, and \$247 million recognized in Other expense (income), that unfavourably impacted Diluted EPS by 75 cents as follows:
 - in the fourth quarter, acquisition-related costs of \$157 million (\$157 million after current tax recovery of \$13 million net of deferred tax expense of \$13 million), including costs of \$36 million recognized in Purchased services and other, \$169 million in Equity loss of KCS, and a \$48 million recovery recognized in Other (income) expense, that unfavourably impacted Diluted EPS by 22 cents;
 - in the third quarter, acquisition-related costs of \$98 million (\$80 million after current tax recovery of \$61 million net of deferred tax expense of \$43 million), including costs of \$15 million recognized in Purchased services and other and \$83 million recognized in Other expense (income), that unfavourably impacted Diluted EPS by 12 cents;
 - in the second quarter, acquisition-related costs of \$308 million (\$236 million after current taxes of \$25 million and deferred taxes of \$47 million), including costs of \$99 million recognized in Purchased services and other and \$209 million recognized in Other expense (income), that unfavourably impacted Diluted EPS by 35 cents; and
 - in the first quarter, acquisition-related costs of \$36 million (\$27 million after current taxes of \$8 million and deferred taxes of \$1 million), including costs of \$33 million recognized in Purchased services and other and \$3 million recognized in Other expense (income), that unfavourably impacted Diluted EPS by 4 cents; and
- during the course of the year, a net non-cash gain of \$7 million (\$6 million after deferred tax) due to FX translation of debt and lease liabilities that favourably impacted Diluted EPS by 1 cent as follows:
 - in the fourth quarter, a \$32 million loss (\$28 million after deferred tax) that unfavourably impacted Diluted EPS by 4 cents;
 - in the third quarter, a \$46 million loss (\$40 million after deferred tax) that unfavourably impacted Diluted EPS by 6 cents;
 - in the second quarter, a \$52 million gain (\$45 million after deferred tax) that favourably impacted Diluted EPS by 7 cents; and
 - in the first quarter, a \$33 million gain (\$29 million after deferred tax) that favourably impacted Diluted EPS by 4 cents.

In 2020, there were two significant items included in Net income as follows:

- in the fourth quarter, a deferred tax recovery of \$29 million due to a change relating to a tax return filing election for the state of North Dakota that favourably impacted Diluted EPS by 5 cents; and
- during the course of the year, a net non-cash gain of \$14 million (\$12 million after deferred tax) due to FX translation of debt and lease liabilities that favourably impacted Diluted EPS by 2 cents as follows:
 - in the fourth quarter, a \$103 million gain (\$90 million after deferred tax) that favourably impacted Diluted EPS by 13 cents;
 - in the third quarter, a \$40 million gain (\$38 million after deferred tax) that favourably impacted Diluted EPS by 6 cents;
 - in the second quarter, an \$86 million gain (\$82 million after deferred tax) that favourably impacted Diluted EPS by 12 cents; and
 - in the first quarter, a \$215 million loss (\$198 million after deferred tax) that unfavourably impacted Diluted EPS by 28 cents.

In 2019, there were three significant items included in Net income as follows:

- in the fourth quarter, a deferred tax expense of \$24 million as a result of a provision for an uncertain tax item of a prior period that unfavourably impacted Diluted EPS by 3 cents;
- in the second quarter, a deferred tax recovery of \$88 million due to the change in the Alberta provincial corporate income tax rate that favourably impacted Diluted EPS by 13 cents; and

- during the course of the year, a net non-cash gain of \$94 million (\$86 million after deferred tax) due to FX translation of debt and lease liabilities that favourably impacted Diluted EPS by 12 cents as follows:
 - in the fourth quarter, a \$37 million gain (\$32 million after deferred tax) that favourably impacted Diluted EPS by 4 cents;
 - in the third quarter, a \$25 million loss (\$22 million after deferred tax) that unfavourably impacted Diluted EPS by 3 cents;
 - in the second quarter, a \$37 million gain (\$34 million after deferred tax) that favourably impacted Diluted EPS by 4 cents; and
 - in the first quarter, a \$45 million gain (\$42 million after deferred tax) that favourably impacted Diluted EPS by 6 cents.

In 2018, there were two significant items included in Net income as follows:

- in the second quarter, a deferred tax recovery of \$21 million due to reductions in the Missouri and Iowa state tax rates that favourably impacted Diluted EPS by 3 cents; and
- during the course of the year, a net non-cash loss of \$168 million (\$150 million after deferred tax) due to FX translation of debt that unfavourably impacted Diluted EPS by 21 cents as follows:
 - in the fourth quarter, a \$113 million loss (\$103 million after deferred tax) that unfavourably impacted Diluted EPS by 14 cents;
 - in the third quarter, a \$38 million gain (\$33 million after deferred tax) that favourably impacted Diluted EPS by 5 cents;
 - in the second quarter, a \$44 million loss (\$38 million after deferred tax) that unfavourably impacted Diluted EPS by 5 cents; and
 - in the first quarter, a \$49 million loss (\$42 million after deferred tax) that unfavourably impacted Diluted EPS by 6 cents.

In 2017, there were five significant items included in Net income as follows:

- in the second quarter, a charge on hedge roll and de-designation of \$13 million (\$10 million after deferred tax) that unfavourably impacted Diluted EPS by 2 cents;
- in the second quarter, an insurance recovery of a legal settlement of \$10 million (\$7 million after current tax) that favourably impacted Diluted EPS by 1 cent;
- in the first quarter, a management transition recovery of \$51 million related to the retirement of Mr. E. Hunter Harrison as CEO of CP (\$39 million after deferred tax) that favourably impacted Diluted EPS by 5 cents;
- during the course of the year, a net deferred tax recovery of \$541 million as a result of changes in income tax rates that favourably impacted Diluted EPS by 75 cents as follows:
 - in the fourth quarter, a deferred tax recovery of \$527 million, primarily due to the U.S. tax reform, that favourably impacted Diluted EPS by 73 cents;
 - in the third quarter, a deferred tax expense of \$3 million as a result of the change in the Illinois state corporate income tax rate change that had no impact to Diluted EPS; and
 - in the second quarter, a deferred tax recovery of \$17 million as a result of the change in the Saskatchewan provincial corporate income tax rate that favourably impacted Diluted EPS by 3 cents; and
- during the course of the year, a net non-cash gain of \$186 million (\$162 million after deferred tax) due to FX translation of debt that favourably impacted Diluted EPS by 22 cents as follows:
 - in the fourth quarter, a \$14 million loss (\$12 million after deferred tax) that unfavourably impacted Diluted EPS by 2 cents;
 - in the third quarter, a \$105 million gain (\$91 million after deferred tax) that favourably impacted Diluted EPS by 12 cents;
 - in the second quarter, a \$67 million gain (\$59 million after deferred tax) that favourably impacted Diluted EPS by 8 cents; and
 - in the first quarter, a \$28 million gain (\$24 million after deferred tax) that favourably impacted Diluted EPS by 4 cents.

Reconciliation of GAAP Performance Measures to Non-GAAP Performance Measures

The following tables reconcile the most directly comparable measures presented in accordance with GAAP to the Non-GAAP measures as discussed further in other sections of this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations:

Adjusted income is calculated as Net income reported on a GAAP basis adjusted for significant items.

(in millions of Canadian dollars)	For the year ended December 31				
	2021	2020	2019	2018	2017
Net income as reported	\$ 2,852	\$ 2,444	\$ 2,440	\$ 1,951	\$ 2,405
Less significant items (pre-tax):					
Insurance recovery of legal settlement	—	—	—	—	10
Charge on hedge roll and de-designation	—	—	—	—	(13)
Management transition recovery	—	—	—	—	51
Acquisition-related costs	(599)	—	—	—	—
Merger termination fee	845	—	—	—	—
Impact of FX translation gain (loss) on debt and lease liabilities	7	14	94	(168)	186
Add:					
Tax effect of adjustments ⁽¹⁾	(1)	2	8	(18)	36
Deferred tax recovery on the outside basis difference of the investment in KCS	(33)	—	—	—	—
Income tax rate changes	—	(29)	(88)	(21)	(541)
Provision for uncertain tax item	—	—	24	—	—
Adjusted income	\$ 2,565	\$ 2,403	\$ 2,290	\$ 2,080	\$ 1,666

⁽¹⁾ The tax effect of adjustments was calculated as the pre-tax effect of the adjustments multiplied by the applicable tax rate for the above items of 0.51%, 13.58%, 8.55%, 10.64% and 15.27% for the years presented, respectively. The applicable tax rates reflect the taxable jurisdictions and nature, being on account of capital or income, of the significant items.

Adjusted diluted earnings per share is calculated using Adjusted income, as defined above, divided by the weighted-average diluted number of Common Shares outstanding during the period as determined in accordance with GAAP.

	For the year ended December 31				
	2021	2020	2019	2018	2017
Diluted earnings per share as reported	\$ 4.18	\$ 3.59	\$ 3.50	\$ 2.72	\$ 3.29
Less significant items (pre-tax):					
Insurance recovery of legal settlement	—	—	—	—	0.01
Charge on hedge roll and de-designation	—	—	—	—	(0.02)
Management transition recovery	—	—	—	—	0.07
Acquisition-related costs	(0.88)	—	—	—	—
Merger termination fee	1.24	—	—	—	—
Impact of FX translation gain (loss) on debt and lease liabilities	0.01	0.02	0.13	(0.23)	0.25
Add:					
Tax effect of adjustments ⁽¹⁾	—	—	0.01	(0.02)	0.05
Deferred tax recovery on the outside basis difference of the investment in KCS	(0.05)	—	—	—	—
Income tax rate changes	—	(0.04)	(0.13)	(0.03)	(0.75)
Provision for uncertain tax item	—	—	0.04	—	—
Adjusted diluted earnings per share	\$ 3.76	\$ 3.53	\$ 3.29	\$ 2.90	\$ 2.28

⁽¹⁾ The tax effect of adjustments was calculated as the pre-tax effect of the adjustments multiplied by the applicable tax rate for the above items of 0.51%, 13.58%, 8.55%, 10.64% and 15.27% for the years presented, respectively. The applicable tax rates reflect the taxable jurisdictions and nature, being on account of capital or income, of the significant items.

Adjusted operating income is calculated as Operating income reported on a GAAP basis less significant items.

(in millions of Canadian dollars)	For the year ended December 31				
	2021	2020	2019	2018	2017
Operating income as reported	\$ 3,206	\$ 3,311	\$ 3,124	\$ 2,831	\$ 2,519
Less significant item:					
Management transition recovery	—	—	—	—	51
Acquisition-related costs	(183)	—	—	—	—
Adjusted operating income	\$ 3,389	\$ 3,311	\$ 3,124	\$ 2,831	\$ 2,468

Operating ratio is calculated as operating expenses divided by revenues. Adjusted operating ratio excludes those significant items that are reported within Operating income.

	For the year ended December 31				
	2021	2020	2019	2018	2017
Operating ratio as reported	59.9 %	57.1 %	59.9 %	61.3 %	61.6 %
Less significant item:					
Management transition recovery	—	—	—	—	(0.8)
Acquisition-related costs	2.3	—	—	—	—
Adjusted operating ratio	57.6 %	57.1 %	59.9 %	61.3 %	62.4 %

Adjusted ROIC

Return on average shareholders' equity is calculated as Net income divided by average shareholders' equity, averaged between the beginning and ending balance over a rolling 12-month period. Adjusted ROIC is calculated as Adjusted return divided by Adjusted average invested capital. Adjusted return is defined as Net income adjusted for interest expense, tax effected at the Company's adjusted annualized effective tax rate, and significant items in the Company's Consolidated Financial Statements, tax effected at the applicable tax rate. Adjusted average invested capital is defined as the sum of total Shareholders' equity, Long-term debt, and Long-term debt maturing within one year, as presented in the Company's Consolidated Financial Statements, each averaged between the beginning and ending balance over a rolling 12-month period, adjusted for the impact of significant items, tax effected at the applicable tax rate, on closing balances as part of this average. Adjusted ROIC excludes significant items reported in the Company's Consolidated Financial Statements, as these significant items are not considered indicative of future financial trends either by nature or amount, and excludes interest expense, net of tax, to incorporate returns on the Company's overall capitalization. Adjusted ROIC is a performance measure that measures how productively the Company uses its long-term capital investments, representing critical indicators of good operating and investment decisions made by management, and is an important performance criteria in determining certain elements of the Company's long-term incentive plan. Adjusted ROIC, which is reconciled below from Return on average shareholders' equity, the most comparable measure calculated in accordance with GAAP, is discussed further in Results of Operations of this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Calculation of Return on average shareholders' equity

(in millions of Canadian dollars, except for percentages)	For the year ended December 31				
	2021	2020	2019	2018	2017
Net income as reported	\$ 2,852	\$ 2,444	\$ 2,440	\$ 1,951	\$ 2,405
Average shareholders' equity	\$ 20,574	\$ 7,194	\$ 6,853	\$ 6,537	\$ 5,539
Return on average shareholders' equity	13.9%	34.0%	35.6%	29.8%	43.4%

Reconciliation of Net Income to Adjusted Return

(in millions of Canadian dollars)	For the year ended December 31				
	2021	2020	2019	2018	2017
Net income as reported	\$ 2,852	\$ 2,444	\$ 2,440	\$ 1,951	\$ 2,405
Add:					
Net interest expense	440	458	448	453	473
Tax on interest ⁽¹⁾	(106)	(113)	(112)	(112)	(126)
Significant items (pre-tax):					
Insurance recovery of legal settlement	—	—	—	—	(10)
Charge on hedge roll and de-designation	—	—	—	—	13
Management transition recovery	—	—	—	—	(51)
Acquisition-related costs	599	—	—	—	—
Merger termination fee	(845)	—	—	—	—
Impact of FX translation (gain) loss on debt and lease liabilities	(7)	(14)	(94)	168	(186)
Tax on significant items ⁽²⁾	(1)	2	8	(18)	36
Deferred tax recovery on the outside basis difference of the investment in KCS	(33)	—	—	—	—
Income tax rate changes	—	(29)	(88)	(21)	(541)
Provision for uncertain tax item	—	—	24	—	—
Adjusted return	\$ 2,899	\$ 2,748	\$ 2,626	\$ 2,421	\$ 2,013

⁽¹⁾ Tax was calculated at the adjusted annualized effective tax rate of 23.85%, 24.61%, 24.96%, 24.55%, and 26.42% for each of the above items for the years presented, respectively.

⁽²⁾ Tax was calculated as the pre-tax effect of the adjustments multiplied by the applicable tax rate of 0.51%, 13.58%, 8.55%, 10.64%, and 15.27% for each of the above items for the years presented, respectively. The applicable tax rates reflect the taxable jurisdictions and nature, being on account of capital or income, of the significant items.

Reconciliation of Average shareholders' equity to Adjusted average invested capital

(in millions of Canadian dollars)	For the year ended December 31				
	2021	2020	2019	2018	2017
Average shareholders' equity	\$ 20,574	\$ 7,194	\$ 6,853	\$ 6,537	\$ 5,539
Average Long-term debt, including long-term debt maturing within one year					
Average Long-term debt, including long-term debt maturing within one year	14,949	9,264	8,726	8,427	8,422
	\$ 35,523	\$ 16,458	\$ 15,579	\$ 14,964	\$ 13,961
Less:					
Significant items (pre-tax):					
Insurance recovery of legal settlement	—	—	—	—	5
Charge on hedge roll and de-designation	—	—	—	—	(7)
Management transition recovery	—	—	—	—	26
Acquisition-related costs	(300)	—	—	—	—
Merger termination fee	423	—	—	—	—
Tax on significant items ⁽¹⁾	1	—	—	—	(5)
Deferred tax recovery on the outside basis difference of the investment in KCS	16	—	—	—	—
Income tax rate changes	—	15	44	11	270
Provision for uncertain tax item	—	—	(12)	—	—
Adjusted average invested capital	\$ 35,383	\$ 16,443	\$ 15,547	\$ 14,953	\$ 13,672

⁽¹⁾ Tax was calculated as the pre-tax effect of the adjustments multiplied by the applicable tax rate of 0.90% and 15.27% for 2021 and 2017, respectively. The applicable tax rate reflects the taxable jurisdictions and nature, being on account of capital or income, of the significant items.

Calculation of Adjusted ROIC

(in millions of Canadian dollars, except for percentages)	For the year ended December 31				
	2021	2020	2019	2018	2017
Adjusted return	\$ 2,899	\$ 2,748	\$ 2,626	\$ 2,421	\$ 2,013
Adjusted average invested capital	\$ 35,383	\$ 16,443	\$ 15,547	\$ 14,953	\$ 13,672
Adjusted ROIC	8.2%	16.7%	16.9%	16.2%	14.7%

Free Cash

Free cash is calculated as Cash provided by operating activities, less Cash used in investing activities, adjusted for changes in cash and cash equivalents balances resulting from FX fluctuations, cash settlement of hedges settled upon issuance of debt, the operating cash flow impacts of acquisition-related costs associated with the KCS transaction including settlement of cash flow hedges upon debt issuance and FX gain on U.S. dollar-denominated cash held to fund the KCS acquisition, the merger termination payment received related to KCS's termination of the Original Merger Agreement, and the acquisitions of KCS, Central Maine & Québec Railway ("CMQ"), and DRTP. Free cash is a measure that management considers to be a valuable indicator of liquidity. Free cash is useful to investors and other external users of the Company's Consolidated Financial Statements as it assists with the evaluation of the Company's ability to generate cash to satisfy debt obligations and discretionary activities such as dividends, share repurchase programs, and other strategic opportunities. The cash settlement of forward starting swaps that occurred in conjunction with the issuance of long-term debt, the acquisition-related costs associated with the KCS acquisition, and the merger termination payment received related to KCS's termination of the Original Merger Agreement are not indicative of operating trends and have been excluded from Free cash. Similarly, the acquisitions of KCS, CMQ, and DRTP are not indicative of investment trends and have also been excluded from Free cash. Free cash should be considered in addition to, rather than as a substitute for, Cash provided by operating activities. Free cash is discussed further in Liquidity and Capital Resources of this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Reconciliation of Cash Provided by Operating Activities to Free Cash

(in millions of Canadian dollars)	For the year ended December 31				
	2021	2020	2019	2018	2017
Cash provided by operating activities	\$ 3,688	\$ 2,802	\$ 2,990	\$ 2,712	\$ 2,182
Cash used in investing activities	(13,730)	(2,030)	(1,803)	(1,458)	(1,295)
Effect of foreign currency fluctuations on U.S. dollar-denominated cash and cash equivalents	41	6	(4)	11	(13)
Less:					
Settlement of forward starting swaps on debt issuance	—	—	—	(24)	—
Acquisition-related costs ⁽¹⁾	(340)	—	—	—	—
Merger termination fee	845	—	—	—	—
Investment in Kansas City Southern	(12,299)	—	—	—	—
Investment in Central Maine & Québec Railway	—	19	(174)	—	—
Investment in Detroit River Tunnel Partnership	—	(398)	—	—	—
Free cash	\$ 1,793	\$ 1,157	\$ 1,357	\$ 1,289	\$ 874

⁽¹⁾ Including settlement of cash flow hedges upon debt issuance of \$226 million for the year ended December 31, 2021.

Foreign Exchange Adjusted % Change

FX adjusted % change allows certain financial results to be viewed without the impact of fluctuations in foreign currency exchange rates, thereby facilitating period-to-period comparisons in the analysis of trends in business performance. Financial result variances at constant currency are obtained by translating the comparable period of the prior year results denominated in U.S. dollars at the foreign exchange rates of the current period.

FX adjusted % changes in revenues are further used in calculating FX adjusted % change in freight revenue per carload and RTM. These items are presented in Operating Revenues of this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

(in millions of Canadian dollars)	Reported 2021	2021 vs. 2020				2020 vs. 2019			
		Reported 2020	Reported 2019	Variance due to FX	FX Adjusted 2020	FX Adj. % Change	Variance due to FX	FX Adjusted 2019	FX Adj. % Change
Freight revenues by line of business									
Grain	\$ 1,684	\$ 1,829	\$ 1,684	\$ (48)	\$ 1,781	(5)	\$ 8	\$ 1,692	8
Coal	625	566	682	(4)	562	11	1	683	(17)
Potash	463	493	462	(16)	477	(3)	2	464	6
Fertilizers and sulphur	305	290	250	(14)	276	11	2	252	15
Forest products	348	328	304	(18)	310	12	3	307	7
Energy, chemicals and plastics	1,563	1,519	1,534	(53)	1,466	7	3	1,537	(1)
Metals, minerals, and consumer products	728	629	752	(31)	598	22	7	759	(17)
Automotive	376	324	352	(15)	309	22	3	355	(9)
Intermodal	1,724	1,563	1,593	(27)	1,536	12	4	1,597	(2)
Freight revenues	7,816	7,541	7,613	(226)	7,315	7	33	7,646	(1)
Non-freight revenues	179	169	179	(2)	167	7	—	179	(6)
Total revenues	\$ 7,995	\$ 7,710	\$ 7,792	\$ (228)	\$ 7,482	7	\$ 33	\$ 7,825	(1)

FX adjusted % changes in operating expenses are discussed in Operating Expenses of this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

(in millions of Canadian dollars)	Reported 2021	2021 vs. 2020				2020 vs. 2019			
		Reported 2020	Reported 2019	Variance due to FX	FX Adjusted 2020	FX Adj. % Change	Variance due to FX	FX Adjusted 2019	FX Adj. % Change
Compensation and benefits									
Compensation and benefits	\$ 1,570	\$ 1,560	\$ 1,540	\$ (27)	\$ 1,533	2	\$ 5	\$ 1,545	1
Fuel	854	652	882	(29)	623	37	8	890	(27)
Materials	215	216	210	(3)	213	1	—	210	3
Equipment rents	121	142	137	(8)	134	(10)	2	139	2
Depreciation and amortization	811	779	706	(14)	765	6	2	708	10
Purchased services and other	1,218	1,050	1,193	(30)	1,020	19	6	1,199	(12)
Total operating expenses	\$ 4,789	\$ 4,399	\$ 4,668	\$ (111)	\$ 4,288	12	\$ 23	\$ 4,691	(6)

Dividend Payout Ratio and Adjusted Dividend Payout Ratio

Dividend payout ratio is calculated as dividends declared per share divided by Diluted EPS. Adjusted dividend payout ratio is calculated as dividends declared per share divided by Adjusted diluted EPS, as defined above. This ratio is a measure of shareholder return and provides information on the Company's ability to declare dividends on an ongoing basis, excluding significant items. Dividend payout ratio and Adjusted dividend payout ratio are discussed further in Liquidity and Capital Resources of this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Calculation of Dividend Payout Ratio

	For the year ended December 31				
(in dollars, except for percentages)	2021	2020	2019	2018	2017
Dividends declared per share	\$ 0.7600	\$ 0.7120	\$ 0.6280	\$ 0.5025	\$ 0.4375
Diluted EPS	4.18	3.59	3.50	2.72	3.29
Dividend payout ratio	18.2%	19.8%	17.9%	18.5%	13.3%

Calculation of Adjusted Dividend Payout Ratio

	For the year ended December 31				
(in dollars, except for percentages)	2021	2020	2019	2018	2017
Dividends declared per share	\$ 0.7600	\$ 0.7120	\$ 0.6280	\$ 0.5025	\$ 0.4375
Adjusted diluted EPS	3.76	3.53	3.29	2.90	2.28
Adjusted dividend payout ratio	20.2%	20.1%	19.1%	17.3%	19.2%

Adjusted Net Debt to Adjusted EBITDA Ratio

Adjusted net debt to Adjusted earnings before interest, tax, depreciation and amortization ("EBITDA") ratio is calculated as Adjusted net debt divided by Adjusted EBITDA. The Adjusted net debt to Adjusted EBITDA ratio is a key credit measure used to assess the Company's financial capacity. The ratio provides information on the Company's ability to service its debt and other long-term obligations from operations, excluding significant items. The Adjusted net debt to Adjusted EBITDA ratio, which is reconciled below from the Long-term debt to Net income ratio, the most comparable measure calculated in accordance with GAAP, and is also discussed further in Liquidity and Capital Resources of this Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Calculation of Long-term Debt to Net Income Ratio

Long-term debt to Net income ratio is calculated as long-term debt, including long-term debt maturing within one year, divided by Net income.

(in millions of Canadian dollars, except for ratios)	2021	2020	2019	2018	2017
Long-term debt including long-term debt maturing within one year as at December 31	\$ 20,127	\$ 9,771	\$ 8,757	\$ 8,696	\$ 8,159
Net income for the year ended December 31	2,852	2,444	2,440	1,951	2,405
Long-term debt to Net income ratio	7.1	4.0	3.6	4.5	3.4

Reconciliation of Long-term Debt to Adjusted Net Debt

Adjusted net debt is defined as Long-term debt, Long-term debt maturing within one year and Short-term borrowing as reported on the Company's Consolidated Balance Sheets adjusted for pension plans deficit, operating lease liabilities recognized on the Company's Consolidated Balance Sheets, and Cash and cash equivalents. Adjusted net debt is used as a measure of debt and long-term obligations as part of the calculation of Adjusted Net Debt to Adjusted EBITDA.

(in millions of Canadian dollars)	2021	2020	2019	2018	2017
Long-term debt including long-term debt maturing within one year as at December 31	\$ 20,127	\$ 9,771	\$ 8,757	\$ 8,696	\$ 8,159
Add:					
Pension plans deficit ⁽¹⁾	263	328	294	266	278
Operating lease liabilities	283	311	354	387	281
Less:					
Cash and cash equivalents	69	147	133	61	338
Adjusted net debt as at December 31	\$ 20,604	\$ 10,263	\$ 9,272	\$ 9,288	\$ 8,380

⁽¹⁾ Pension plans deficit is the total funded status of the Pension plans in deficit only.

Reconciliation of Net Income to EBIT, Adjusted EBIT and Adjusted EBITDA

Earnings before interest and tax ("EBIT") is calculated as Net income before Net interest expense and Income tax expense. Adjusted EBIT excludes significant items reported in both Operating income and Other (income) expense. Adjusted EBITDA is calculated as Adjusted EBIT plus operating lease expense and Depreciation and amortization, less Other components of net periodic benefit recovery. Adjusted EBITDA is used as a measure of liquidity derived from operations, excluding significant items, as part of the calculation of Adjusted Net Debt to Adjusted EBITDA.

(in millions of Canadian dollars)	For the year ended December 31				
	2021	2020	2019	2018	2017
Net income as reported	\$ 2,852	\$ 2,444	\$ 2,440	\$ 1,951	\$ 2,405
Add:					
Net interest expense	440	458	448	453	473
Income tax expense	768	758	706	637	93
EBIT	4,060	3,660	3,594	3,041	2,971
Less significant items (pre-tax):					
Insurance recovery of legal settlement	—	—	—	—	10
Charge on hedge roll and de-designation	—	—	—	—	(13)
Management transition recovery	—	—	—	—	51
Acquisition-related costs	(599)	—	—	—	—
Merger termination fee	845	—	—	—	—
Impact of FX translation gain (loss) on debt and lease liabilities	7	14	94	(168)	186
Adjusted EBIT	3,807	3,646	3,500	3,209	2,737
Add:					
Operating lease expense	72	78	83	97	104
Depreciation and amortization	811	779	706	696	661
Less:					
Other components of net periodic benefit recovery	387	342	381	384	274
Adjusted EBITDA	\$ 4,303	\$ 4,161	\$ 3,908	\$ 3,618	\$ 3,228

Calculation of Adjusted Net Debt to Adjusted EBITDA Ratio

(in millions of Canadian dollars, except for ratios)	2021	2020	2019	2018	2017
Adjusted net debt as at December 31	\$ 20,604	\$ 10,263	\$ 9,272	\$ 9,288	\$ 8,380
Adjusted EBITDA for the year ended December 31	4,303	4,161	3,908	3,618	3,228
Adjusted net debt to Adjusted EBITDA ratio	4.8	2.5	2.4	2.6	2.6

Critical Accounting Estimates

To prepare the Consolidated Financial Statements that conform with GAAP, the Company is required to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the Consolidated Financial Statements and the reported amounts of revenues and expenses during the reported periods. Using the most current information available, the Company reviews estimates on an ongoing basis, including those related to environmental liabilities, pensions and other benefits, property, plant and equipment, deferred income taxes, and personal injury and other claims liabilities.

The development, selection and disclosure of these estimates, and this Management's Discussion and Analysis of Financial Condition and Results of Operations, have been reviewed by the Board of Directors' Audit and Finance Committee, which is composed entirely of independent directors.

Environmental Liabilities

Environmental remediation accruals cover site-specific remediation programs. CP estimates of the probable costs to be incurred in the remediation of properties contaminated by past activities reflect the nature of contamination at individual sites according to typical activities and scale of operations conducted. The Company screens and classifies sites according to typical activities and scale of operations conducted. CP has developed remediation strategies for each property based on the nature and extent of the contamination, as well as the location of the property and surrounding areas that may be adversely affected by the presence of contaminants. CP also considers available technologies, treatment and disposal facilities and the acceptability of site-specific plans based on the local regulatory environment. Site-specific plans range from containment and risk management of the contaminants through to the removal and treatment of the contaminants and affected soils and groundwater. The details of the estimates reflect the environmental liability at each property. The Company is committed to fully meeting regulatory and legal obligations with respect to environmental matters.

Some sites include remediation activities that are projected beyond the 10-year period, which CP is unable to reasonably estimate and determine. Therefore, CP's accruals of the environmental liabilities are based on an estimate of costs for a rolling 10-year period covered by the environmental program. Payments are expected to be made over 10 years to 2031.

As of December 31, 2021 and 2020 the Company's provision for specific environmental sites was as follows:

(in millions of Canadian dollars)	2021	2020
Beginning of the year	\$ 80	\$ 77
Accruals and other	10	10
Payments	(10)	(6)
Foreign Exchange	(1)	(1)
End of the year	\$ 79	\$ 80
Current portion – end of the year	\$ 11	\$ 9

Provisions for environmental remediation costs are recorded in "Other long-term liabilities" (refer to Item 8. Financial Statements and Supplementary Data, Note 20 Other long-term liabilities), except for the current portion which is recorded in "Accounts payable and accrued liabilities" (refer to Item 8. Financial Statements and Supplementary Data, Note 17 Accounts payable and accrued liabilities). The accruals for environmental remediation represent CP's best estimate of its probable future obligations and include both asserted and unasserted claims, without reduction for anticipated recoveries from third parties. Although the recorded accruals include CP's best estimate of all probable costs, CP's total environmental remediation costs cannot be predicted with certainty. Accruals for environmental remediation may change from time to time as new information about previously untested sites becomes known, environmental laws and regulations evolve and advances are made in environmental remediation technology. The accruals may also vary as the courts decide legal proceedings against outside parties responsible for contamination. These potential charges, which cannot be quantified at this time, are not expected to be material to the Company's financial position, but may materially affect income in the period in which a charge is recognized.

The environmental liabilities are also sensitive to the increase in cost of materials which would be reflected as increases to "Other long-term liabilities" and "Accounts payable and accrued liabilities" on the Company's Consolidated Balance Sheets and to "Purchased services and other" within Operating expenses on the Company's Consolidated Statements of Income. CP's cash payments for environmental initiatives were \$6 million in 2020, \$10 million in 2021 and are estimated to be approximately \$11 million in 2022, \$9 million in 2023, \$8 million in 2024 and a total of approximately \$53 million over the remaining years through 2031. All payments will be funded from general operations.

Pensions and Other Benefits

CP has defined benefit and defined contribution pension plans. Other benefits include post-retirement medical and life insurance for pensioners, and some post-employment workers' compensation and long-term disability benefits in Canada. Workers' compensation and long-term disability benefits are discussed in the Personal Injury and Other Claims Liabilities section below.

The obligations and costs for pensions and other benefits are based on the discounted present value of future benefits. The underlying benefits are paid over many years and are estimated based on uncertain demographic and economic assumptions. As a result, the obligations and costs themselves involve a significant amount of estimation uncertainty.

Information concerning the measurement of obligations and costs for pensions and other benefits is discussed in Item 8. Financial Statements and Supplementary Data, Note 1 Summary of significant accounting policies and Note 24 Pensions and other benefits. Note 24 Pensions and other benefits includes three years of results for obligations, costs and significant actuarial assumptions.

Net Periodic Benefit Costs

The Company reports the current service cost component of net periodic benefit cost in "Compensation and benefits" for pensions and post-retirement benefits and in "Purchased services and other" for self-insured workers' compensation and long-term disability benefits on the Company's Consolidated Statements of Income. The Other components of net periodic benefit recovery are reported as a separate line item outside of Operating income on the Company's Consolidated Statements of Income. Components of the net periodic benefit costs (credits) are as follows:

(in millions of Canadian dollars)	2021			2020		
	Current service cost	Other components	Total	Current service cost	Other components	Total
Defined benefit pensions	\$ 171	\$ (402)	\$ (231)	\$ 140	\$ (363)	\$ (223)
Defined contribution pensions	13	—	13	12	—	12
Post-retirement benefits	5	17	22	4	17	21
Self-insured workers' compensation and long-term disability benefits	8	(2)	6	8	4	12
All plans	\$ 197	\$ (387)	\$ (190)	\$ 164	\$ (342)	\$ (178)

CP estimates net periodic benefit credits for defined benefit pensions to be approximately \$275 million in 2022 (\$147 million in current service cost and \$422 million in other components of net periodic recovery), and net periodic benefit costs for defined contribution pensions to be approximately \$13 million in 2022. Net periodic benefit costs for post-retirement benefits in 2022 are expected to be slightly lower than the 2021 costs. Total net periodic benefit credits for all plans are estimated to be approximately \$234 million in 2022 (2021 – \$190 million), comprising \$171 million (2021 – \$197 million) in current service cost and \$405 million (2021 – \$387 million) in other components of net periodic recovery. The expected rate of return on the market-related asset value used to compute the net periodic benefit credit was 7.25% in 2020 and 6.90% in 2021. For computing the net periodic benefit credit in 2022, the Company is continuing to use 6.90% to reflect CP's current view of future long-term investment returns. Net periodic benefit costs and credits are discussed further in Item 8. Financial Statements and Supplementary Data, Note 24 Pensions and other benefits.

Pension Plan Contributions

The Company made contributions of \$18 million to the defined benefit pension plans in 2021, compared with \$27 million in 2020. The Company's main Canadian defined benefit pension plan accounts for nearly all of CP's pension obligation and can produce significant volatility in pension funding requirements, given the pension fund's size, the many factors that drive the pension plan's funded status, and Canadian statutory pension funding requirements. The Company made voluntary prepayments of \$600 million in 2011, \$650 million in 2010, and \$500 million in 2009 to the Company's main Canadian defined benefit pension plan. CP has applied \$1,324 million of these voluntary prepayments to reduce its pension funding requirements in 2012–2021, leaving \$426 million of the voluntary prepayments still available at December 31, 2021 to reduce CP's pension funding requirements in 2022 and future years. CP continues to have significant flexibility with respect to the rate at which the remaining voluntary prepayments are applied to reduce future years' pension contribution requirements, which allows CP to manage the volatility of future pension funding requirements. At this time, CP estimates it will not apply any of the remaining voluntary prepayments against its 2022 pension funding requirements.

CP estimates its aggregate pension contributions, including its defined benefit and defined contribution plans, to be in the range of \$25 million to \$35 million in 2022, and in the range of \$25 million to \$50 million per year from 2023 to 2025. These estimates reflect the Company's current intentions with respect to the rate at which CP will apply the remaining voluntary prepayments against contribution requirements in the next few years.

Future pension contributions will be highly dependent on the Company's actual experience with respect to variables such as investment returns, interest rate fluctuations, and demographic changes, on the rate at which previous years' voluntary prepayments are applied against pension contribution requirements, and on any changes in the regulatory environment. CP will continue to make contributions to the pension plans that, at a minimum, meet pension legislative requirements.

Pension Plan Risks

Fluctuations in the obligations and net periodic benefit costs for pensions result from favourable or unfavourable investment returns, changes to the outlook for future investment returns, and changes in long-term interest rates. The impact of favourable or unfavourable investment returns is moderated by the use of a market-related asset value for the main Canadian defined benefit pension plan's public equity securities and absolute return strategies. The impact of changes in long-term interest rates on pension obligations is partially offset by their impact on the pension funds' investments in fixed income assets.

The plans' investment policy provides a target allocation of approximately 45% of the plans' assets to be invested in public equity securities. As a result, stock market performance is a key driver in determining the pension funds' asset performance. If the rate of investment return on the plans' public equity securities in 2021 had been 10% higher (or lower) than the actual 2021 rate of investment return on such securities, 2022 net periodic benefit costs for pensions would be lower (or higher) by approximately \$26 million.

Changes to the outlook for future long-term investment returns can result in changes to the expected rate of return on the market-related asset value used to compute the net periodic benefit credit. If the expected rate of return as at December 31, 2021 had been higher (or lower) by 0.1%, 2022 net periodic benefit recoveries for pensions would be higher (or lower) by approximately \$14 million.

Changes in bond yields can result in changes to discount rates and to the value of fixed income assets. If the discount rate as at December 31, 2021 had been higher (or lower) by 0.1% with no related changes in the value of the pension funds' investment in fixed income assets, 2022 net periodic benefit recoveries for pensions would be higher (or lower) by approximately \$14 million and 2022 current service costs for pensions would be lower (or higher) by approximately \$6 million. However, a change in bond yields would also lead to a change in the value of the pension funds' investment in fixed income assets, and this change would partially offset the impact on net periodic benefit costs noted above.

The Company estimates that an increase in the discount rate of 0.1% would decrease the defined benefit pension plans' projected benefit obligations by approximately \$182 million, and that a decrease in the discount rate of 0.1% would increase the defined benefit pension plans' projected benefit obligations by approximately \$187 million. Similarly, for every 0.1% the actual return on assets varies above (or below) the estimated return for the year, the value of the defined benefit pension plans' assets would increase (or decrease) by approximately \$15 million.

Adverse experience with respect to these factors could eventually increase funding and pension expense significantly, while favourable experience with respect to these factors could eventually decrease funding and pension expense significantly.

Fluctuations in the post-retirement benefit obligation also can result from changes in the discount rate used. A 0.1% increase (decrease) in the discount rate would decrease (increase) the obligation by approximately \$5 million.

CP reviews its pensioner mortality experience to ensure that the mortality assumption continues to be appropriate, or to determine what changes to the assumption are needed.

Property, Plant and Equipment

The Company follows the group depreciation method under which a single depreciation rate is applied to the total cost in a particular class of property, despite differences in the service life or salvage value of individual properties within the same class. CP performs depreciation studies of each property asset class approximately every three years to update depreciation rates. The studies are conducted with assistance from third-party specialists and analyzed and reviewed by the Company's management. Depreciation studies for U.S. assets are reviewed and approved by the STB. Depreciation studies for Canadian assets are provided to the Canadian Transportation Agency (the "Agency"), but the Agency does not approve depreciation rates. In determining appropriate depreciation rates, management is required to make judgments and assumptions about a variety of key factors that are subject to future variability due to inherent uncertainties. These include the following:

Key Assumptions	Assessments
<ul style="list-style-type: none"> • Whole and remaining asset lives • Salvage values 	<ul style="list-style-type: none"> • Statistical analysis of historical retirement patterns; • Evaluation of management strategy and its impact on operations and the future use of specific property assets; • Assessment of technological advances; • Engineering estimates of changes in current operations and analysis of historic, current and projected future usage; • Additional factors considered for track assets: density of traffic and whether rail is new or has been re-laid in a subsequent position; • Assessment of policies and practices for the management of assets including maintenance; and • Comparison with industry data. • Analysis of historical, current and estimated future salvage values.

CP depreciates the cost of properties, net of salvage, on a straight-line basis over the estimated useful life of the class of property. The estimates of economic lives are uncertain and can vary due to changes in any of the assessed factors noted in the table above for whole and remaining asset lives. Additionally, the depreciation rates are updated to reflect the change in residual values of the assets in the class.

It is anticipated that there will be changes in the estimates of weighted-average useful lives and net salvage for each property asset class as assets are acquired, used and retired. Substantial changes in either the useful lives of properties or the salvage assumptions could result in significant changes to depreciation expense. For example, if the estimated average life of track assets, including rail, ties, ballast and other track material, increased (or decreased) by one year, annual depreciation expense would decrease (or increase) by approximately \$18 million.

Due to the capital intensive nature of the railway industry, depreciation represents a significant part of operating expenses. The estimated useful lives of properties have a direct impact on the amount of depreciation recorded as a component of "Properties" on the Company's Consolidated Balance Sheets. At December 31, 2021 and 2020, accumulated depreciation was \$8,651 million and \$8,629 million, respectively.

Deferred Income Taxes

CP accounts for deferred income taxes based on the liability method. This method focuses on the Company's balance sheet and the temporary differences otherwise calculated from the comparison of book versus tax values. The provision for deferred income taxes arises from temporary differences in the carrying values of assets and liabilities for financial statement and income tax purposes and the effect of loss carry forwards. The provision amount is sensitive to any changes in book and tax values and changes to statutory tax rates. For example, a change in temporary differences of \$10 million would result in an approximate deferred income tax change of \$3 million. It is assumed that such temporary differences will be settled in the deferred income tax assets and liabilities at the balance sheet date.

In determining deferred income taxes, the Company makes estimates and assumptions regarding deferred tax matters, including estimating the timing of the realization and settlement of deferred income tax assets (including the benefit of tax losses) and liabilities, and estimating unrecognized tax benefits for uncertain tax positions. Deferred income taxes are calculated using enacted federal, provincial, and state future income tax rates, which may differ in future periods.

Deferred income tax expense is included in "Income tax expense" on the Company's Consolidated Statements of Income. At December 31, 2021 and 2020, deferred income tax expense was \$242 million and \$221 million, respectively. Management does anticipate the total net deferred tax liabilities will change significantly within the next 12 months as a result of the pending business combination with KCS, subject to STB approval. A future fair value remeasurement of the carrying value of the Company's investment in KCS would result in a change in the deferred tax liability recognized in CP's income statement. Upon the Company obtaining control, the entire deferred tax liability reflecting the outside basis of the investment in KCS would be reversed through deferred tax expense in CP's income statement. Under a business combination, the Company would allocate the purchase price to the individual assets and liabilities assumed, and goodwill would be recognized. A deferred tax liability would be recognized on an inside basis based on the liability

method described above with a resultant offsetting increase in goodwill. Additional disclosures are provided in Item 8. Financial Statements and Supplementary Data, Note 6 Income taxes.

Personal Injury and Other Claims Liabilities

CP estimates the potential liability arising from incidents, claims and pending litigations relating to personal injury claims by employees, third-party claims, certain occupation-related claims and property damage claims.

Personal Injury

In Canada, employee occupational injuries are governed by provincial workers' compensation legislation. Occupational injury claims in the provinces of Québec, Ontario, Manitoba and B.C. are self-insured and administered through each Worker's Compensation Board ("WCB"). The future costs related to occupation-related injuries are actuarially determined based on past experience and assumptions associated with the injury, compensation, income replacement, health care and administrative costs. In the four provinces where the Company is self-insured, a discount rate is applied to the future estimated costs based on market rates for investment-grade corporate bonds to determine the liability. An actuarial study is performed on an annual basis. In the provinces of Saskatchewan and Alberta, the Company is assessed an annual WCB contribution on a premium basis and this amount is not subject to estimation by management. Changes to these assumptions could have a material adverse impact to the Company's results of operations, financial position and liquidity. At December 31, 2021 and 2020, respectively, the WCB liability was \$77 million and \$84 million in "Pension and other benefit liabilities"; \$11 million and \$11 million in "Accounts payable and accrued liabilities", offset by deposits paid to WCB of \$1 million and \$1 million in "Other assets" on the Company's Consolidated Balance Sheets.

Fluctuations in WCB can result from changes in the discount rate used. A 0.1% increase (decrease) in the discount rate would decrease (increase) the obligation by approximately \$1 million.

U.S. railway employees are covered by federal law under the Federal Employers' Liability Act ("FELA") rather than workers' compensation programs. Accruals are set for individual cases based on facts, legal opinion and statistical analysis. U.S. accruals are also set and include alleged occupational exposure or injury.

Other Claims

A provision for litigation matters, equipment damages or other claims will be accrued according to applicable accounting standards and any such accrual will be based on an ongoing assessment of the strengths and weaknesses of the litigation or claim and its likelihood of success, together with an evaluation of the damages or other monetary relief sought. CP accrues for probable claims when the facts of an incident become known and investigation results provide a reasonable basis for estimating the liability. The lower end of the range is accrued if the facts and circumstances permit only a range of reasonable estimates and no single amount in that range is a better estimate than any other. Facts and circumstances related to asserted claims can change, and a process is in place to monitor accruals for changes in accounting estimates. The final outcome with respect to actions outstanding or pending at December 31, 2021 or with respect to future claims cannot be predicted with certainty. Material changes to litigation trends, equipment damages or other claims could have a material adverse impact to the Company's results of operations, financial position and liquidity.

Forward-Looking Statements

This Management's Discussion and Analysis of Financial Condition and Results of Operations and Annual Report on Form 10-K contains certain forward-looking statements within the meaning of the *United States Private Securities Litigation Reform Act of 1995* and forward-looking information within the meaning of other relevant securities legislation, including applicable securities laws in Canada (collectively referred to herein as "forward-looking statements"). Forward-looking statements typically include words such as "financial expectations", "key assumptions", "anticipate", "believe", "expect", "plan", "will", "outlook", "should" or similar words suggesting future outcomes. To the extent that CP has provided forecasts or targets using Non-GAAP financial measures, the Company may not be able to provide a reconciliation to a GAAP measure without unreasonable efforts, due to unknown variables and uncertainty related to future results.

This Management's Discussion and Analysis of Financial Condition and Results of Operations and Annual Report on Form 10-K includes forward-looking statements relating, but not limited to statements concerning the Company's defined benefit pension expectations for 2022 and through 2025, expected impacts resulting from changes in the U.S.-to-Canadian dollar exchange rate, and the effective tax rate, as well as statements concerning the Company's operations, anticipated financial performance, business prospects and strategies, including statements concerning the anticipation that cash flow from operations and various sources of financing will be sufficient to meet debt repayments and obligations in the foreseeable future and concerning anticipated capital programs, and statements regarding future payments including income taxes and pension contributions.

The forward-looking statements contained in this Management's Discussion and Analysis of Financial Condition and Results of Operations and Annual Report on Form 10-K are based on current expectations, estimates, projections and assumptions, having regard to the Company's experience and its perception of historical trends, and includes, but is not limited to, expectations, estimates, projections and assumptions relating to: North American and global economic growth; commodity demand growth; sustainable industrial and agricultural production; commodity prices and interest rates; foreign

exchange rates (as specified herein); effective tax rates (as specified herein); performance of our assets and equipment; sufficiency of our budgeted capital expenditures in carrying out our business plan; geopolitical conditions; applicable laws, regulations and government policies; the availability and cost of labour, services and infrastructure; the satisfaction by third parties of their obligations to the Company; and the anticipated impacts of the COVID-19 pandemic on the Company's business, operating results, cash flows and/or financial condition. Although the Company believes the expectations, estimates, projections and assumptions reflected in the forward-looking statements presented herein are reasonable as of the date hereof, there can be no assurance that they will prove to be correct. Current conditions, economic and otherwise, render assumptions, although reasonable when made, subject to greater uncertainty.

With respect to the pending KCS business combination, we can provide no assurance when or if the combination will be completed. Completion of the combination is subject to the receipt of final approval from the STB of the CP-KCS control application by December 31, 2023. There can be no assurance of receipt of this final approval by December 31, 2023 or, if received, the successful integration of KCS.

Undue reliance should not be placed on forward-looking statements as actual results may differ materially from those expressed or implied by forward-looking statements. By their nature, forward-looking statements involve numerous inherent risks and uncertainties that could cause actual results to differ materially from the forward-looking statements, including but not limited to the following factors: changes in business strategies; general North American and global economic, credit and business conditions; risks associated with agricultural production such as weather conditions and insect populations; the availability and price of energy commodities; the effects of competition and pricing pressures; industry capacity; shifts in market demand; changes in commodity prices; uncertainty surrounding timing and volumes of commodities being shipped via CP; inflation; geopolitical instability; changes in laws, regulations and government policies, including regulation of rates; changes in taxes and tax rates; potential increases in maintenance and operating costs; changes in fuel prices; uncertainties of investigations, proceedings or other types of claims and litigation; labour disputes; risks and liabilities arising from derailments; transportation of dangerous goods; timing of completion of capital and maintenance projects; currency and interest rate fluctuations; effects of changes in market conditions and discount rates on the financial position of pension plans and investments; trade restrictions or other changes to international trade arrangements; climate change; various events that could disrupt operations, including severe weather, such as droughts, floods, avalanches and earthquakes, and cybersecurity attacks, as well as security threats and governmental response to them, and technological changes; and the pandemic created by the outbreak of COVID-19 and its variants and resulting effects on economic conditions, the demand environment for logistics requirements and energy prices, restrictions imposed by public health authorities or governments, fiscal and monetary policy responses by governments and financial institutions, and disruptions to global supply chains. The foregoing list of factors is not exhaustive.

There are more specific factors that could cause actual results to differ materially from those described in the forward-looking statements contained in this Management's Discussion and Analysis of Financial Condition and Results of Operations and Annual Report on Form 10-K. These more specific factors are identified and discussed in Item 1A. Risk Factors. Other risks are detailed from time to time in reports filed by CP with securities regulators in Canada and the United States.

The forward-looking statements contained in this Management's Discussion and Analysis of Financial Condition and Results of Operations and Annual Report on Form 10-K are made as of the date hereof. Except as required by law, CP undertakes no obligation to update publicly or otherwise revise any forward-looking statements, or the foregoing assumptions and risks affecting such forward-looking statements, whether as a result of new information, future events or otherwise.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Foreign Exchange Risk

Although CP conducts business primarily in Canada, a significant portion of its revenues, expenses, assets and liabilities including debt are denominated in U.S. dollars. In addition, equity earnings or losses of KCS are denominated in U.S. dollars. The value of the Canadian dollar is affected by a number of domestic and international factors, including, without limitation, economic performance, and Canadian, U.S. and international monetary policies. Consequently, the Company's results are affected by fluctuations in the exchange rate between these currencies. In 2022, CP expects that every \$0.01 weakening (or strengthening) of the Canadian dollar relative to the U.S. dollar, positively (or negatively) impacts Total revenues by approximately \$30 million (2020 – approximately \$27 million), negatively (or positively) impacts Operating expenses by approximately \$13 million (2020 – approximately \$14 million), and negatively (or positively) impacts Net interest expense by approximately \$3 million (2020 – approximately \$3 million) on an annualized basis.

CP uses U.S. dollar-denominated debt and operating lease liabilities to hedge its net investment in U.S. operations. As at December 31, 2021, the net investment in U.S. operations is greater than the total U.S. denominated debt. Consequently, FX translation on the Company's unhedged net investment in U.S. operations is recognized in Other comprehensive income. There is no additional impact on earnings in Other expense (income) related to the FX translation on the Company's debt and operating lease liabilities.

To manage its exposure to fluctuations in exchange rates between Canadian and U.S. dollars, CP may sell or purchase U.S. dollar forwards at fixed rates in future periods. In addition, changes in the exchange rate between the Canadian dollar and other currencies (including the U.S. dollar) make the goods transported by the Company more or less competitive in the world marketplace and may in turn positively or negatively affect revenues.

Subject to final approval by the STB, CP anticipates consummating a business combination with KCS at which time CP will also reassess its functional currency.

Share Price Impact on Stock-Based Compensation

Based on information available at December 31, 2021 and expectations for 2022 grants, for every \$1.00 change in share price, stock-based compensation expense has a corresponding change of approximately \$1.5 million to \$2.0 million (2020 – approximately \$2.0 million to \$2.8 million). This excludes the impact of changes in share price relative to the S&P/TSX 60 Index, S&P 500 Industrials Index, and to Class I railways, which may trigger different performance share unit payouts. Stock-based compensation may also be impacted by non-market performance conditions.

Additional information concerning stock-based compensation is included in Item 8. Financial Statements and Supplementary Data, Note 25 Stock-based compensation.

Interest Rate Risk

Debt financing forms part of the Company's capital structure. The debt agreements entered into expose CP to increased interest costs on future fixed debt instruments and existing variable rate debt instruments, should market rates increase. As at December 31, 2021, a hypothetical one percentage point change in interest rates on the Company's floating rate debt obligations outstanding is not material. In addition, the present value of the Company's assets and liabilities will also vary with interest rate changes. To manage interest rate exposure, CP may enter into forward rate agreements such as treasury rate locks or bond forwards that lock in rates for a future date, thereby protecting against interest rate increases. CP may also enter into swap agreements whereby one party agrees to pay a fixed rate of interest while the other party pays a floating rate. Contingent on the direction of interest rates, the Company may incur higher costs depending on the contracted rate.

The fair value of the Company's fixed rate debt may fluctuate with changes in market interest rates. A hypothetical one percentage point decrease in interest rates as of December 31, 2021 would result in an increase of approximately \$2.3 billion to the fair value of the Company's debt as at December 31, 2021 (December 31, 2020 - approximately \$1.5 billion). Fair values of CP's fixed rate debt are estimated by considering the impact of the hypothetical interest rates on quoted market prices and current borrowing rates, but do not consider other factors that could impact actual results.

Information concerning market risks is supplemented in Item 8. Financial Statements and Supplementary Data, Note 19 Financial instruments.

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 Canadian Pacific Railway Limited

Opinion on the Financial Statements

We have audited the accompanying consolidated balance sheets of Canadian Pacific Railway Limited and subsidiaries (the "Company") as of December 31, 2021 and 2020, the related consolidated statements of income, comprehensive income, cash flows, and changes in shareholders' equity, for each of the three years in the period ended December 31, 2021, and the related notes and the schedule listed in the Index at Item 15 (collectively referred to as the "financial statements"). In our opinion, the financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2021 and 2020, and the results of its operations and its cash flows for each of the three years in the period ended December 31, 2021, in conformity with accounting principles generally accepted in the United States of America ("US GAAP").

We have also audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) ("PCAOB"), the Company's internal control over financial reporting as of December 31, 2021, 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 23, 2022, expressed an unqualified opinion on the Company's internal control over financial reporting.

Basis for Opinion

These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on the Company'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 Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the 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 Matters

The critical audit matters communicated below are matters arising from the current-period audit of the financial statements that were communicated or required to be communicated to the audit committee and that (1) relate to accounts or disclosures that are material to the financial statements and (2) involved our especially challenging, subjective, or complex judgements. 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 matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Properties – Direct Costs that are Capitalized to Self-constructed Assets – Refer to Notes 1, 14 and 21 to the Financial Statements

Critical Audit Matter Description

The Company recognizes direct costs as capitalized additions to self-constructed assets, within properties, based on expenditures necessary to make an asset ready for its intended use. The capitalization of self-constructed assets requires management to make significant estimates and assumptions related to the capitalization of direct cost additions to self-constructed assets based on whether the expenditures meet capitalization criteria under US GAAP.

We identified the capitalization of direct cost additions to self-constructed assets as a critical audit matter because the judgements and assumptions management makes could have a significant impact on the capitalization of direct cost additions. As such auditing the capitalization of direct cost additions involved a high degree of auditor judgement.

How the Critical Audit Matter was Addressed in the Audit

Our audit procedures related to the capitalization of direct cost additions to self-constructed assets included the following, among others:

- Evaluating the effectiveness of controls over self-constructed assets, including those over the capitalization of direct cost additions to self-constructed assets.
- Selecting a sample of direct costs, and obtaining evidence to support the capitalized additions to self-constructed assets and assessing whether these expenditures met the capitalization criteria under US GAAP.

Defined Benefit Pension – Refer to Notes 1 and 24 to the Financial Statements

Critical Audit Matter Description

The Company's accounting of its defined benefit pension plans involves the measurement of the projected benefit obligation and fair value of fund assets. The measurement of the projected-benefit obligation requires management to make significant estimates and assumptions in the determination of the discount rate, which is based on blended market interest rates of high-quality corporate debt instruments with matching cash flows. The measurement of the fair value of fund assets required management to make significant estimates and assumptions in the determination of the expected return on fund assets, which is calculated using the market-related value of assets.

We identified the determination of the discount rate (for the projected benefit obligation), and the determination of the expected return on fund assets (for the determination of the net period benefit cost) as the critical audit matters because the significant estimates and assumptions management makes could have a significant impact on the projected benefit obligation and the fair value of fund assets. As such auditing the determination of the discount rate and the expected return on fund assets involved a high degree of auditor judgement as the estimates and assumptions made by management contain significant measurement uncertainty and resulted in an increased extent of effort, which included the need to involve an actuarial specialist.

How the Critical Audit Matter was Addressed in the Audit

Our audit procedures related to the determination of the discount rate (for the projected benefit obligation), and the expected return on fund assets (for the determination of the fair value of fund assets) included the following, among others:

- Evaluating the effectiveness of controls over defined benefit pension plans, including those over the determination of the discount rate and the expected return on fund assets.
- With the assistance of an actuarial specialist, evaluating the reasonableness of the discount rate by:
 - Assessing the methodology used in management's determination of the discount rate,
 - Testing the underlying source information, and
 - Developing a range of independent estimates and comparing those to the discount rate selected by management.
- With the assistance of an actuarial specialist, evaluating the reasonableness of the expected return on fund assets by:
 - Assessing the methodology used in management's determination of the expected return on fund assets,
 - Testing the underlying source information, and
 - Comparing management's assumptions to historical data and available market trends.
- Evaluating management's ability to accurately forecast the discount rate and expected return on fund assets by comparing actual results to management's historical forecasts.

Investment in Kansas City Southern – Recognition of CN Merger Termination Fees - Refer to Note 11 to the Financial Statements

Critical Audit Matter Description

On September 15, 2021, the Company entered into an Agreement and Plan of Merger (the "Merger Agreement") to acquire all of the outstanding common stock of Kansas City Southern ("KCS"). Pursuant to the Merger Agreement, the Company remitted \$1,773 million to KCS in connection with KCS' payment of the CN merger termination fees (the "CN Merger Termination Fees") and included this as part of the cost of acquisition of KCS.

The determination of the accounting treatment of the CN Merger Termination Fees required management to make judgements on whether or not the CN Merger Termination Fees met the definition of consideration in accordance with US GAAP. Auditing the accounting treatment required a high degree of subjectivity. This resulted in an increased extent of effort, which included the need to involve technical accounting specialists.

How the Critical Audit Matter was Addressed in the Audit

Our audit procedures related to the recognition of CN Merger Termination Fees included the following, among others:

- Evaluating the effectiveness of controls over the determination of the accounting treatment of the CN Merger Termination Fees.
- With the assistance of technical accounting specialists, evaluating the CN Merger Termination Fees accounting treatment by:
 - Assessing the executed Merger Agreement to understand the nature of the transaction and to determine whether all key facts and circumstances were incorporated into management's assessment, and
 - Analyzing relevant accounting standards, including various aspects of US GAAP, conceptual frameworks and guidance.

/s/ Deloitte LLP

Chartered Professional Accountants
Calgary, Canada
February 23, 2022

We have served as the Company's auditor since 2011.

CONSOLIDATED STATEMENTS OF INCOME

Year ended December 31 (in millions of Canadian dollars, except share and per share data)	2021	2020	2019
Revenues (Note 3)			
Freight	\$ 7,816	\$ 7,541	\$ 7,613
Non-freight	179	169	179
Total revenues	7,995	7,710	7,792
Operating expenses			
Compensation and benefits (Note 24, 25)	1,570	1,560	1,540
Fuel	854	652	882
Materials	215	216	210
Equipment rents	121	142	137
Depreciation and amortization	811	779	706
Purchased services and other (Note 10, 11)	1,218	1,050	1,193
Total operating expenses	4,789	4,399	4,668
Operating income	3,206	3,311	3,124
Less:			
Equity loss of Kansas City Southern (Note 11)	141	—	—
Other expense (income) (Note 4, 11)	237	(7)	(89)
Merger termination fee (Note 11)	(845)	—	—
Other components of net periodic benefit recovery (Note 24)	(387)	(342)	(381)
Net interest expense (Note 5)	440	458	448
Income before income tax expense	3,620	3,202	3,146
Income tax expense (Note 6)	768	758	706
Net income	\$ 2,852	\$ 2,444	\$ 2,440
Earnings per share (Note 7)			
Basic earnings per share	\$ 4.20	\$ 3.61	\$ 3.52
Diluted earnings per share	\$ 4.18	\$ 3.59	\$ 3.50
Weighted-average number of shares (millions) (Note 7)			
Basic	679.7	677.2	693.8
Diluted	682.8	679.9	696.3

See Notes to Consolidated Financial Statements.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

Year ended December 31 (in millions of Canadian dollars)	2021	2020	2019
Net income	\$ 2,852	\$ 2,444	\$ 2,440
Net (loss) gain in foreign currency translation adjustments, net of hedging activities	(291)	18	37
Change in derivatives designated as cash flow hedges	48	10	12
Change in pension and post-retirement defined benefit plans	1,286	(407)	(661)
Equity accounted investments	9	(1)	(2)
Other comprehensive income (loss) before income taxes	1,052	(380)	(614)
Income tax (expense) recovery on above items	(341)	88	135
Other comprehensive income (loss) (Note 8)	711	(292)	(479)
Comprehensive income	\$ 3,563	\$ 2,152	\$ 1,961

See Notes to Consolidated Financial Statements.

CONSOLIDATED BALANCE SHEETS

As at December 31 (in millions of Canadian dollars, except Common Shares)	2021	2020
Assets		
Current assets		
Cash and cash equivalents	\$ 69	\$ 147
Restricted cash and cash equivalents	13	—
Accounts receivable, net (Note 9)	819	825
Materials and supplies	235	208
Other current assets	216	141
	1,352	1,321
Investment in Kansas City Southern (Note 12)	42,309	—
Investments (Note 13)	209	199
Properties (Note 14, 21)	21,200	20,422
Goodwill and intangible assets (Note 11, 15)	371	366
Pension asset (Note 24)	2,317	894
Other assets (Note 16, 21)	419	438
Total assets	68,177	23,640
Liabilities and shareholders' equity		
Current liabilities		
Accounts payable and accrued liabilities (Note 17, 21)	\$ 1,609	\$ 1,467
Long-term debt maturing within one year (Note 18, 19, 21)	1,550	1,186
	3,159	2,653
Pension and other benefit liabilities (Note 24)	718	832
Other long-term liabilities (Note 20, 21)	542	585
Long-term debt (Note 18, 19, 21)	18,577	8,585
Deferred income taxes (Note 6)	11,352	3,666
Total liabilities	34,348	16,321
Shareholders' equity		
Share capital (Note 22)		
Authorized unlimited Common Shares without par value. Issued and outstanding are 929.7 million and 666.3 million as at December 31, 2021 and 2020, respectively.	25,475	1,983
Authorized unlimited number of first and second preferred shares; none outstanding.		
Additional paid-in capital	66	55
Accumulated other comprehensive loss (Note 8)	(2,103)	(2,814)
Retained earnings	10,391	8,095
	33,829	7,319
Total liabilities and shareholders' equity	\$ 68,177	\$ 23,640

See Commitments and contingencies (Note 27).
See Notes to Consolidated Financial Statements.

Approved on behalf of the Board:

/s/ ISABELLE COURVILLE

Isabelle Courville, Director,
Chair of the Board

/s/ JANE L. PEVERETT

Jane L. Peverett, Director,
Chair of the Audit and Finance Committee

CONSOLIDATED STATEMENTS OF CASH FLOWS

Year ended December 31 (in millions of Canadian dollars)	2021	2020	2019
Operating activities			
Net income	\$ 2,852	\$ 2,444	\$ 2,440
Reconciliation of net income to cash provided by operating activities:			
Depreciation and amortization	811	779	706
Deferred income tax expense (Note 6)	242	221	181
Pension recovery and funding (Note 24)	(249)	(250)	(360)
Equity loss of Kansas City Southern (Note 11)	141	—	—
Foreign exchange gain on debt and lease liabilities (Note 4)	(7)	(14)	(94)
Other operating activities, net	(36)	11	143
Change in non-cash working capital balances related to operations (Note 23)	(66)	(389)	(26)
Cash provided by operating activities	3,688	2,802	2,990
Investing activities			
Additions to properties	(1,532)	(1,671)	(1,647)
Investment in Kansas City Southern (Note 11)	(12,299)	—	—
Investment in Detroit River Tunnel Partnership (Note 11)	—	(398)	—
Investment in Central Maine & Québec Railway (Note 11)	—	19	(174)
Proceeds from sale of properties and other assets	96	22	26
Other	5	(2)	(8)
Cash used in investing activities	(13,730)	(2,030)	(1,803)
Financing activities			
Dividends paid	(507)	(467)	(412)
Issuance of CP Common Shares (Note 25)	25	52	26
Purchase of CP Common shares (Note 22)	—	(1,509)	(1,134)
Issuance of long-term debt, excluding commercial paper (Note 18)	10,673	958	397
Repayment of long-term debt, excluding commercial paper (Note 18)	(359)	(84)	(500)
Proceeds from term loan (Note 18)	633	—	—
Net (repayment) issuance of commercial paper (Note 18)	(454)	270	524
Net increase in short-term borrowings	—	5	—
Acquisition-related financing fees (Note 11)	(51)	—	—
Other	(24)	11	(12)
Cash provided by (used in) financing activities	9,936	(764)	(1,111)
Effect of foreign currency fluctuations on U.S. dollar-denominated cash and cash equivalents	41	6	(4)
Cash position			
(Decrease) increase in cash, cash equivalents, and restricted cash	(65)	14	72
Cash, cash equivalents, and restricted cash at beginning of year	147	133	61
Cash, cash equivalents, and restricted cash at end of year	\$ 82	\$ 147	\$ 133
Supplemental disclosures of cash flow information:			
Income taxes paid	\$ 552	\$ 582	\$ 506
Interest paid	\$ 426	\$ 443	\$ 444

See Notes to Consolidated Financial Statements.

CONSOLIDATED STATEMENTS OF CHANGES IN SHAREHOLDERS' EQUITY

(in millions of Canadian dollars, except per share data)	Share capital	Additional paid-in capital	Accumulated other comprehensive loss	Retained earnings	Total shareholders' equity
Balance at December 31, 2018	\$ 2,002	\$ 42	\$ (2,043)	\$ 6,635	\$ 6,636
Impact of accounting change ⁽¹⁾	—	—	—	(5)	(5)
Balance at January 1, 2019, as restated	2,002	42	(2,043)	6,630	6,631
Net income	—	—	—	2,440	2,440
Other comprehensive loss (Note 8)	—	—	(479)	—	(479)
Dividends declared (\$0.628 per share)	—	—	—	(434)	(434)
Effect of stock-based compensation expense	—	15	—	—	15
CP Common Shares repurchased (Note 22)	(54)	—	—	(1,086)	(1,140)
Shares issued under stock option plan (Note 22)	45	(9)	—	—	36
Balance at December 31, 2019	1,993	48	(2,522)	7,550	7,069
Impact of accounting change ⁽²⁾	—	—	—	(1)	(1)
Balance at January 1, 2020, as restated	1,993	48	(2,522)	7,549	7,068
Net income	—	—	—	2,444	2,444
Other comprehensive loss (Note 8)	—	—	(292)	—	(292)
Dividends declared (\$0.712 per share)	—	—	—	(479)	(479)
Effect of stock-based compensation expense	—	17	—	—	17
CP Common Shares repurchased (Note 22)	(58)	—	—	(1,419)	(1,477)
Shares issued under stock option plan (Note 22)	48	(10)	—	—	38
Balance at December 31, 2020	1,983	55	(2,814)	8,095	7,319
Net income	—	—	—	2,852	2,852
Other comprehensive income (Note 8)	—	—	711	—	711
Dividends declared (\$0.760 per share)	—	—	—	(556)	(556)
Effect of stock-based compensation expense	—	23	—	—	23
Shares issued for Kansas City Southern acquisition (Note 11, 22)	23,461	(5)	—	—	23,456
Shares issued under stock option plan (Note 22)	31	(7)	—	—	24
Balance at December 31, 2021	\$ 25,475	\$ 66	\$ (2,103)	\$ 10,391	\$ 33,829

⁽¹⁾ Impact of the adoption of ASU 2016-02, Leases (Topic 842) on January 1, 2019.

⁽²⁾ Impact of the adoption of ASU 2016-13, Financial Instruments - Credit Losses (Topic 326) on January 1, 2020.

See Notes to Consolidated Financial Statements.

CANADIAN PACIFIC RAILWAY LIMITED

Notes to Consolidated Financial Statements

December 31, 2021

Canadian Pacific Railway Limited ("CPRL"), through its subsidiaries (collectively referred to as "CP" or "the Company"), operates a transcontinental railway in Canada and the United States ("U.S."). CP provides rail and intermodal transportation services over a network of approximately 13,000 miles, serving the principal business centres of Canada from Montréal, Québec, to Vancouver, British Columbia, and the U.S. Northeast and Midwest regions. CP's railway network feeds directly into the U.S. heartland from the East and West coasts. Agreements with other carriers extend the Company's market reach in Canada, throughout the U.S. and into Mexico. CP transports bulk commodities, merchandise freight and intermodal traffic. Bulk commodities include grain, coal, fertilizers and sulphur. Merchandise freight consists of finished vehicles and automotive parts, as well as forest, industrial and consumer products. Intermodal traffic consists largely of retail goods in overseas containers that can be transported by train, ship and truck, and in domestic containers and trailers that can be moved by train and truck.

1. Summary of significant accounting policies

Accounting principles generally accepted in the United States of America ("GAAP")

These Consolidated Financial Statements are expressed in Canadian dollars and have been prepared in accordance with GAAP.

Principles of consolidation

These Consolidated Financial Statements include the accounts of CP and all its subsidiaries. The Company's investments in which it has significant influence are accounted for using the equity method. Distributions received from equity method investees are classified using the nature of the distribution approach for cash flow presentation purposes, whereby distributions received are classified based on the nature of the activity or activities of the investee that generated the distribution as either a return on investment (classified as a cash inflow from operating activities) or a return of investment (classified as a cash inflow from investing activities). All intercompany accounts and transactions have been eliminated.

Common Stock split

On April 21, 2021, the Company's shareholders approved a five-for-one stock split to shareholders of record as of May 5, 2021. Proportional adjustments were made to all outstanding awards under the Company's stock-based compensation plans in order to reflect the share split. All share and per share amounts have been retroactively adjusted to reflect the impact of the stock split.

Use of estimates

The preparation of these Consolidated Financial Statements in conformity with GAAP requires management to make estimates and assumptions that affect the reported amounts of revenues and expenses during the year, the reported amounts of assets and liabilities, and the disclosure of contingent assets and liabilities at the date of the financial statements. Management regularly reviews its estimates, including those related to environmental liabilities, pensions and other benefits, depreciable lives of properties, deferred income tax assets and liabilities, as well as legal and personal injury liabilities based upon currently available information. Actual results could differ from these estimates.

Revenue recognition

Revenue is recognized when obligations under the terms of a contract with a customer are satisfied. Revenue is measured as the amount of consideration the Company expects to receive in exchange for providing services. Government imposed taxes that the Company collects concurrent with revenue generating activities are excluded from revenue. In the normal course of business, the Company does not generate any material revenue through acting as an agent for other entities.

The Company provides rail freight transportation services to a wide variety of customers and transports bulk commodities, merchandise freight and intermodal traffic. The Company signs master service agreements with customers that dictate future services the Company is to perform for a customer at the time a bill of lading or service request is received. Each bill of lading or service request represents a separate distinct performance obligation that the Company is obligated to satisfy. The transaction price is generally in the form of a fixed fee determined at the inception of the bill of lading or service request. The Company allocates the transaction price to each distinct performance obligation based on the estimated standalone selling price for each performance obligation. As each bill of lading or service request represents a separate distinct performance obligation, the estimated standalone selling price is assessed at an observable price which is fair market value. Certain customer agreements include variable consideration in the form of rebates, discounts, or incentives. The expected value method is used to estimate variable consideration and is allocated to the applicable performance obligation and is recognized when the related performance obligation is satisfied. Additionally, the Company offers published rates for services through public tariff agreements in which a customer can request service, triggering a performance obligation the Company must satisfy. Railway freight revenues are recognized over time as services are provided based on the percentage of completed service method. Volume rebates to customers are accrued as a

reduction of freight revenues based on estimated volumes and contract terms as freight service is provided. Freight revenues also include certain ancillary and other services provided in association with the performance of rail freight movements. Revenues from these activities are not material and therefore have been aggregated with the freight revenues from customer contracts with which they are associated.

Non-freight revenues, including revenues earned from passenger service operators, switching fees, and revenues from logistics services, are recognized at the point in time the services are provided or when the performance obligations are satisfied. Non-freight revenues also include leasing revenues.

Payment by customers is due upon satisfaction of performance obligations. Payment terms are such that amounts outstanding at the period end are expected to be collected within one reporting period. The Company invoices customers at the time the bill of lading or service request is processed and therefore the Company has no material unbilled receivables and no contract assets. All performance obligations not fully satisfied at period end are expected to be satisfied within the reporting period immediately following. Contracted customer incentives are amortized to income over the term of the related revenue contract.

Income taxes

The Company follows the liability method of accounting for income taxes. Deferred income tax assets and liabilities are determined based on differences between the financial reporting and tax bases of assets and liabilities using enacted tax rates and laws that will be in effect when the differences are expected to reverse.

The effect of a change in income tax rates on deferred income tax assets and liabilities is recognized in income in the period during which the change occurs.

When appropriate, the Company records 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, CP considers whether it is more likely than not that all or some portion of CP's deferred tax assets will not be realized, based on management's judgment using available evidence about future events.

At times, tax benefit claims may be challenged by a tax authority. Tax benefits are recognized only for tax positions that are more likely than not sustainable upon examination by tax authorities. The amount recognized is measured as the largest amount of benefit that is greater than 50% likely to be realized upon settlement. A liability for "unrecognized tax benefits" is recorded for any tax benefits claimed in CP's tax returns that do not meet these recognition and measurement standards.

Investment and other similar tax credits are deferred on the Company's Consolidated Balance Sheets and amortized to "Income tax expense" as the related asset is recognized in income. Income tax recovery or expense on items in "Accumulated other comprehensive loss" are recognized in "Income tax expense" as the related item is recognized in income.

Earnings per share

Basic earnings per share are calculated using the weighted-average number of the Company's Common Shares ("Common Shares") outstanding during the year. Diluted earnings per share are calculated using the treasury stock method for determining the dilutive effect of options.

Foreign currency translation

Assets and liabilities denominated in foreign currencies, other than those held through foreign subsidiaries, are translated into Canadian dollars at the year-end exchange rate for monetary items and at the historical exchange rates for non-monetary items. Foreign currency revenues and expenses are translated at the exchange rates in effect on the dates of the related transactions. Foreign exchange ("FX") gains and losses, other than those arising from the translation of the Company's net investment in foreign subsidiaries, are included in income.

The accounts of the Company's foreign subsidiaries and foreign equity method investees are translated into Canadian dollars using the year-end exchange rate for assets and liabilities and the average exchange rates during the year for revenues, expenses, gains, and losses. FX gains and losses arising from the translation of the foreign subsidiaries' and foreign equity method investees' assets and liabilities are included in "Other comprehensive income (loss)". Debt instruments and finance lease obligations ("long-term debt") and operating lease liabilities denominated in U.S. dollars have been designated as a hedge of the net investment in foreign subsidiaries and foreign equity method investees. As a result, unrealized FX gains and losses on U.S. dollar-denominated long-term debt and operating lease liabilities, designated as a hedge, are offset against FX gains and losses arising from the translation of foreign subsidiaries' and foreign equity method investees' accounts in "Other comprehensive income (loss)".

Cash and cash equivalents

Cash and cash equivalents include highly liquid short-term investments that are readily convertible to cash with original maturities of three months or less, but excludes cash and cash equivalents subject to restrictions.

Restricted cash and cash equivalents

Cash and cash equivalents that are restricted as to withdrawal or usage, in accordance with specific agreements, are presented as restricted cash and cash equivalents on the Company's Consolidated Balance Sheets when applicable. In the Company's Consolidated Statements of Cash Flows, these balances, if any, are included with cash and cash equivalents.

Accounts receivable

Accounts receivable from customers are recognized initially at fair value and subsequently measured at amortized cost less allowance for expected credit losses. Losses on accounts receivable are estimated based on historical credit loss experience of receivables with similar risk characteristics. Historical loss experience is adjusted to reflect any management expectations that current or future conditions will differ from conditions that existed for the period over which historical information is evaluated.

To determine expected credit losses, receivables are disaggregated by credit characteristics, type of customer service, customer line of business, and receivable aging. Receivables are considered to be in default and are written off against the allowance for credit losses when it is probable that all remaining contractual payments due will not be collected in accordance with the terms of the customer contracts. Subsequent recoveries of amounts previously written off are credited to earnings in the period recovered.

Materials and supplies

Materials and supplies are carried at the lower of average cost or market value and consist primarily of fuel and parts used in the repair and maintenance of track structures, equipment, locomotives and freight cars.

Properties

Fixed asset additions and major renewals are recorded at cost, including direct costs, attributable indirect costs and carrying costs, less accumulated depreciation and any impairment. When there is a legal obligation associated with the retirement of property, a liability, when reliably estimable, is initially recognized at its fair value and a corresponding asset retirement cost is added to the gross book value of the related asset and amortized to expense over the estimated term to retirement. The Company reviews the carrying amounts of its properties whenever changes in circumstances indicate that such carrying amounts may not be recoverable based on future undiscounted cash flows. When such properties are determined to be impaired, recorded asset values are revised to their fair value and an impairment loss is recognized.

The Company recognizes expenditures as additions to properties or operating expenses based on whether the expenditures increase the output or service capacity, lower the associated operating costs or extend the useful life of the properties and whether the expenditures exceed minimum physical and financial thresholds.

Much of the additions to properties, both new and replacement properties, are self-constructed. These are initially recorded at cost, including direct costs and attributable indirect costs, overheads and carrying costs. Direct costs include, among other things, labour costs, purchased services, equipment costs, material costs, project supervision costs, and fringe benefits. Attributable indirect costs and overheads include incremental long-term variable costs resulting from the execution of capital projects. Indirect costs mainly include work trains, material distribution, highway vehicles and work equipment. Overheads primarily include a portion of the engineering department's costs, which plans, designs and administers these capital projects. These costs are allocated to projects by applying a measure consistent with the nature of the cost, based on cost studies. For replacement properties, the project costs are allocated to dismantling and installation based on cost studies. Dismantling work, which is expensed, is performed concurrently with the installation.

Ballast programs including undercutting, shoulder ballasting and renewal programs that form part of the annual track program are capitalized as this work, and the related added ballast material, significantly improves drainage, which in turn extends the life of ties and other track materials. These costs are tracked separately from the underlying assets and depreciated over the period to the next estimated similar ballast program. Spot replacement of ballast is considered a repair which is expensed as incurred.

The costs of large refurbishments are capitalized and locomotive overhauls are expensed as incurred, except where overhauls represent a betterment of the locomotive in which case costs are capitalized.

The Company capitalizes development costs for major new computer systems.

The Company follows group depreciation, which groups assets which are similar in nature and have similar economic lives. The property groups are depreciated on a straight-line basis reflecting their expected economic lives determined by depreciation studies. Depreciation studies are regular reviews of asset service lives, salvage values, accumulated depreciation and other related factors. Depreciation rates are established through these studies. Actual use and retirement of assets may vary from current estimates, and would be identified in the next study. These changes in expected economic lives would impact the amount of depreciation expense recognized in future periods. All track assets are depreciated using a straight-line method which recognizes the value of the asset consumed as a percentage of the whole life of the asset.

When depreciable property is retired or otherwise disposed of in the normal course of business, the book value, less net salvage proceeds, is charged to accumulated depreciation and if different than the assumptions under the depreciation study could potentially result in adjusted depreciation expense over a period of years. However, when removal costs exceed the salvage value on assets and the Company has no legal obligation to remove the assets, the removal costs incurred are charged to income in the period in which the assets are removed and are not charged to accumulated depreciation.

For certain asset classes, the historical cost of the asset is separately recorded in the Company's property records. This amount is retired from the property records upon retirement of the asset. For assets for which the historical cost cannot be separately identified the amount of the gross book value to be retired is estimated using either an indexation methodology, whereby the current replacement cost of the asset is indexed to the estimated year of installation for the asset, or a first-in, first-out approach, or statistical analysis is used to determine the age of the retired asset. CP uses indices that closely correlate to the principal costs of the assets.

There are a number of estimates inherent in the depreciation and retirement processes and as it is not possible to precisely estimate each of these variables until a group of property is completely retired, CP regularly monitors the estimated service lives of assets and the associated accumulated depreciation for each asset class to ensure depreciation rates are appropriate. If the recorded amounts of accumulated depreciation are greater or less than the amounts indicated by the depreciation studies, then the excess or deficit is amortized as a component of depreciation expense over the remaining service lives of the applicable asset classes.

For the sale or retirement of larger groups of depreciable assets that are unusual and were not considered in the Company's depreciation studies, CP records a gain or loss for the difference between net proceeds and net book value of the assets sold or retired. The accumulated depreciation to be retired includes asset-specific accumulated depreciation, when known, and an appropriate portion of the accumulated depreciation recorded for the relevant asset class as a whole, calculated using a cost-based allocation.

Revisions to the estimated useful lives and net salvage projections constitute a change in accounting estimate and are addressed prospectively by amending depreciation rates.

Equipment under finance lease is included in Properties and depreciated over the period of expected use.

Leases

The Company has leases for rolling stock, buildings, vehicles, railway equipment, roadway machines, and information systems hardware. CP has entered into rolling stock and roadway machine leases that are fully variable or contain both fixed and variable components. Variable components are dependent on the hours and miles that the underlying equipment has been used. Fixed term, short-term, and variable operating lease costs are recorded in "Equipment rents" and "Purchased services and other" on the Company's Consolidated Statements of Income. Components of finance lease costs are recorded in "Depreciation and amortization" and "Net interest expense" on the Company's Consolidated Statements of Income.

The Company determines lease existence and classification at the lease inception date. Leases are identified when an agreement conveys the right to control identified property for a period of time in exchange for consideration. The Company recognizes both an operating lease liability and right-of-use ("ROU") asset for operating leases with fixed terms and in-substance fixed terms. ROU assets represent our right to use an underlying asset for the lease term and lease liabilities represent our obligation to make lease payments arising from the lease. Operating and finance lease ROU assets and liabilities are recognized at the lease commencement date based on the present value of lease payments over the lease term. Lease payments include fixed and variable payments that are based on an index or a rate. If the Company's leases do not provide a readily determinable implicit interest rate, the Company uses internal incremental secured borrowing rates for comparable tenor in the same currency at the commencement date in determining the present value of lease payments. Operating and finance lease ROU assets also include lease prepayments and initial direct costs, but are reduced by lease incentives. The lease term may include periods associated with options to extend or exclude periods associated with options to terminate the lease when it is reasonably certain that the Company will exercise these options.

The Company has short-term operating leases with terms of 12 months or less, some of which include options to purchase that the Company is not reasonably certain to exercise. The Company has elected to apply the recognition exemption and, as such, accounts for leases with a term of 12 months or less off-balance sheet. Therefore, lease payments on these short-term operating leases are not included in operating lease ROU assets and liabilities, but are recognized as an expense in the Company's Consolidated Statements of Income on a straight-line basis over the term of the lease. Further, the Company has elected to combine lease and non-lease components for all leases, except for leases of roadway machines and information systems hardware.

Assets held for sale

Assets to be disposed that meet the held for sale criteria are reported in "Other assets" at the lower of their carrying amount and fair value, less costs to sell, and are no longer depreciated. This classification is applied at the date at which applicable criteria for recognition are met.

Goodwill and intangible assets

Goodwill represents the excess of the purchase price in a business combination over the fair value of identifiable net assets acquired. Goodwill is allocated at the date of the business combination to the reporting unit that is expected to benefit from the business acquisition which, after integration of operations with the railway network, may be different than the acquired business.

The carrying value of goodwill, which is not amortized, is assessed for impairment annually in the fourth quarter of each year as at October 1st, or more frequently as economic events dictate. The Company has the option of performing an assessment of certain qualitative factors to determine if it is more likely than not that the fair value of a reporting unit is less than its carrying value or proceeding directly to a quantitative impairment test. Qualitative factors include but are not limited to, economic, market and industry conditions, cost factors, overall financial performance of the reporting unit, and events such as notable changes in management or customers. If the assessment of qualitative factors indicates that the carrying value is less than the fair value, then performing the quantitative goodwill impairment test is unnecessary. The quantitative assessment compares the fair value of the reporting unit to its carrying value, including goodwill. If the fair value of the reporting unit is less than its carrying value, goodwill is impaired. The impairment charge that would be recognized is the excess of the carrying value over the fair value of the reporting unit, limited to the total amount of goodwill allocated to the reporting unit.

The Company defines the fair value of a reporting unit as the price expected to be received to sell the entire reporting unit in an orderly transaction between market participants as of the impairment date. In order to determine the fair value of a reporting unit, the Company uses the discounted cash flow method with a pre-tax discount rate, reflecting current market assessments of the time value of money and the risks specific to the asset(s).

Intangible assets with finite lives are amortized on a straight-line basis over the estimated useful lives of the respective assets. Favourable leases, customer relationships and interline contracts have amortization periods ranging from 15 to 20 years. When there is a change in the estimated useful life of an intangible asset with a finite life, amortization is adjusted prospectively.

The Company tests the recoverability of its intangible assets whenever future undiscounted cash flows indicate that the carrying amount may not be recoverable. If the carrying amount of an intangible asset exceeds the fair value, an impairment loss will be recognized in the Company's Consolidated Statements of Income for the difference between the carrying amount of the asset and fair value.

Pensions and other benefits

Pension costs are actuarially determined using the projected-benefit method pro-rated over the credited service periods of employees. This method incorporates management's best estimates of expected plan investment performance, salary escalation and retirement ages of employees. The expected return on fund assets is calculated using market-related asset values developed from a five-year average of market values for the fund's public equity securities and absolute return strategies (with each prior year's market value adjusted to the current date for assumed investment income during the intervening period) plus the market value of the fund's fixed income, real estate, infrastructure and private debt securities, subject to the market-related asset value not being greater than 120% of the market value nor being less than 80% of the market value. The discount rate used to determine the projected-benefit obligation is based on blended market interest rates on high-quality debt instruments with matching cash flows. Unrecognized actuarial gains and losses in excess of 10% of the greater of the benefit obligation and the market-related value of plan assets are amortized over the expected average remaining service period of active employees expected to receive benefits under the plan (approximately 12 years). Prior service costs arising from collectively bargained amendments to pension plan benefit provisions are amortized over the term of the applicable union agreement. Prior service costs arising from all other sources are amortized over the expected average remaining service period of active employees who are expected to receive benefits under the plan at the date of amendment.

Costs for post-retirement and post-employment benefits other than pensions, including post-retirement health care and life insurance and some workers' compensation and long-term disability benefits in Canada, are actuarially determined on a basis similar to pension costs.

The over or under funded status of defined benefit pension and other post-retirement benefit plans are measured as the difference between the fair value of the plan assets and the benefit obligation, and are recognized on the balance sheets. In addition, any unrecognized actuarial gains and losses and prior service costs and credits that arise during the period are recognized as a component of "Other comprehensive income (loss)", net of tax.

Gains and losses on post-employment benefits that do not vest or accumulate, including some workers' compensation and long-term disability benefits in Canada, are included immediately on the Company's Consolidated Statements of Income as "Other components of net periodic benefit cost or recovery".

The current service cost component of net periodic benefit cost is reported in "Compensation and benefits" for pensions and post-retirement benefits, and in "Purchased services and other" for self-insured workers' compensation and long-term disability benefits on the Company's Consolidated Statements of Income. Other components of net periodic benefit cost or recovery are reported in "Other components of net periodic benefit cost or recovery" outside of Operating income on the Company's Consolidated Statements of Income.

Capitalization of pension costs, when applicable, is restricted to the current service cost component of net periodic benefit cost.

Financial instruments

Financial instruments are contracts that give rise to a financial asset of one party and a financial liability or equity instrument of another party. Financial instruments are recognized initially at fair value, which is the amount of consideration that would be agreed upon in an arm's-length transaction between willing parties.

Subsequent measurement depends on how the financial instruments have been classified. Accounts receivable and other investments, classified as loans and receivables, are measured at amortized cost, using the effective interest method. Cash and cash equivalents and derivatives are classified as held for trading and are measured at fair value. Accounts payable, accrued liabilities, short-term borrowings, other long-term liabilities, and long-term debt are also measured at amortized cost.

Derivative financial instruments

Derivative financial and commodity instruments may be used from time to time by the Company to manage its exposure to risks relating to foreign currency exchange rates, stock-based compensation, interest rates, and fuel prices. When CP utilizes derivative instruments in hedging relationships, CP identifies, designates, and documents those hedging transactions and regularly tests the transactions to demonstrate effectiveness in order to continue hedge accounting.

All derivative instruments are classified as held for trading and recorded at fair value. Any change in the fair value of derivatives that are not designated as hedges is recognized in the period in which the change occurs in the Company's Consolidated Statements of Income in the line item to which the derivative instrument is related.

For fair value hedges, the periodic changes in value are recognized in income, on the same line as the changes in value of the hedged items are also recorded. For designated cash flow hedges, the changes in value of the hedging instrument is recognized in "Other comprehensive income (loss)" and remains in "Accumulated other comprehensive loss" until the related hedged item settles, at which time amounts recognized in "Accumulated other comprehensive loss" are reclassified to the same income or balance sheet account that records the hedged item. The changes in value of the hedging instrument is recognized in the Company's Consolidated Statements of Income if derivatives designated as cash flow hedges are subsequently de-designated.

Cash flows relating to derivative instruments designated as hedges are included in the same category as the related hedged items on the Company's Consolidated Statements of Cash Flows.

Environmental remediation

Environmental remediation accruals, recorded on an undiscounted basis unless a reliably determinable estimate as to amount and timing of costs can be established, cover site-specific remediation programs. The accruals are recorded when the costs to remediate are probable and reasonably estimable. Certain future costs to monitor sites are discounted at an adjusted risk-free rate. Provisions for environmental remediation costs are recorded in "Other long-term liabilities", except for the current portion, which is recorded in "Accounts payable and accrued liabilities".

Stock-based compensation

CP follows the fair value based approach to account for stock options. Compensation expense and an increase in "Additional paid-in capital" are recognized for stock options over their vesting period or over the period from the grant date to the date employees become eligible to retire, when this is shorter than the vesting period, based on their fair values on the grant date as determined using the Black-Scholes option-pricing model. Forfeitures are estimated at issuance and monitored on a periodic basis. Any consideration paid by employees on exercise of stock options is credited to "Share capital" when the option is exercised and the recorded fair value of the option is removed from "Additional paid-in capital" and credited to "Share capital".

Compensation expense is also recognized for performance share units ("PSUs"), performance deferred share units ("PDSUs"), deferred share units ("DSUs"), and restricted share units ("RSUs") that settle in cash using the fair value method. Compensation expense is recognized over the vesting period or over the period from the grant date to the date employees become eligible to retire, when this is shorter than the vesting period where applicable. Forfeitures are estimated at issuance and monitored on a periodic basis.

The employee share purchase plan gives rise to compensation expense that is recognized using the issue price by amortizing the cost over the vesting period.

2. Accounting changes

Implemented in 2021

No accounting pronouncements that became effective during 2021 had a material impact on the Company's Consolidated Balance Sheets, Consolidated Statements of Income, or Consolidated Statements of Cash Flows.

Future Changes

Disclosures about Government Assistance

In November 2021, the Financial Accounting Standards Board ("FASB") issued ASU 2021-10, Government Assistance (Topic 832), Disclosures by Business Entities about Government Assistance. The amendment is made to increase transparency by introducing specific disclosure requirements to FASB ASC Topic 832 for transactions with a government that are accounted for by applying a grant or contribution accounting model by analogy. The amendment is effective January 1, 2022 and is not expected to have a significant impact on the Company's disclosures.

Contract Assets and Contract Liabilities Acquired in a Business Combination

In October 2021, the FASB issued ASU 2021-08, Business Combinations (Topic 805), Accounting for Contract Assets and Contract Liabilities from Contracts with Customers. This amendment introduces the requirement for an acquirer to recognize and measure contract assets and contract liabilities acquired in a business combination in accordance with the requirements of FASB ASC Topic 606, Revenue from Contracts with Customers, rather than at fair value. This amendment will be effective prospectively from January 1, 2023, with early adoption permitted. The Company is currently assessing the impact of this amendment.

All other recently issued accounting pronouncements have been assessed and are not expected to have a significant impact on our consolidated financial statements and related disclosures.

3. Revenues

The following table disaggregates the Company's revenues from contracts with customers by major source:

(in millions of Canadian dollars)	2021	2020	2019
Freight			
Grain	\$ 1,684	\$ 1,829	\$ 1,684
Coal	625	566	682
Potash	463	493	462
Fertilizers and sulphur	305	290	250
Forest products	348	328	304
Energy, chemicals and plastics	1,563	1,519	1,534
Metals, minerals and consumer products	728	629	752
Automotive	376	324	352
Intermodal	1,724	1,563	1,593
Total freight revenues	7,816	7,541	7,613
Non-freight excluding leasing revenues	100	107	116
Revenues from contracts with customers	7,916	7,648	7,729
Leasing revenues	79	62	63
Total revenues	\$ 7,995	\$ 7,710	\$ 7,792

Contract liabilities

Contract liabilities represent payments received for performance obligations not yet satisfied and relate to deferred revenue and are presented as components of "Accounts payable and accrued liabilities" and "Other long-term liabilities" on the Company's Consolidated Balance Sheets.

The following table summarizes the changes in contract liabilities for the years ended December 31, 2021 and 2020:

(in millions of Canadian dollars)	2021	2020
Opening balance	\$ 61	\$ 146
Revenue recognized that was included in the contract liability balance at the beginning of the period	(48)	(100)
Increase due to consideration received, net of revenue recognized during the period	54	15
Closing balance	\$ 67	\$ 61

4. Other expense (income)

(in millions of Canadian dollars)	2021	2020	2019
Foreign exchange gain on debt and lease liabilities	\$ (7)	\$ (14)	\$ (94)
Other foreign exchange gains	(4)	(1)	(4)
Acquisition-related costs (Note 11)	247	—	—
Other	1	8	9
Other expense (income)	\$ 237	\$ (7)	\$ (89)

5. Net interest expense

(in millions of Canadian dollars)	2021	2020	2019
Interest cost	\$ 459	\$ 478	\$ 471
Interest capitalized to Properties	(13)	(16)	(17)
Interest expense	446	462	454
Interest income	(6)	(4)	(6)
Net interest expense	\$ 440	\$ 458	\$ 448

Interest expense includes interest on finance leases of \$10 million for the year ended December 31, 2021 (2020 – \$11 million; 2019 – \$11 million).

6. Income taxes

The following is a summary of the major components of the Company's income tax expense:

(in millions of Canadian dollars)	2021	2020	2019
	\$	\$	\$
Current income tax expense	526	537	525
Deferred income tax expense			
Origination and reversal of temporary differences	259	277	316
Effect of tax rate decrease	(11)	(32)	(95)
Effect of hedge of net investment in foreign subsidiaries	(3)	(18)	(38)
Other	(3)	(6)	(2)
Total deferred income tax expense	242	221	181
Total income taxes	768	758	706
Income before income tax expense			
Canada	2,899	2,518	2,392
Foreign	721	684	754
Total income before income tax expense	3,620	3,202	3,146
Income tax expense			
Current			
Canada	404	412	410
Foreign	122	125	115
Total current income tax expense	526	537	525
Deferred			
Canada	(179)	231	141
Foreign	421	(10)	40
Total deferred income tax expense	242	221	181
Total income taxes	768	758	706

The provision for deferred income taxes arises from temporary differences in the carrying values of assets and liabilities for financial statement and income tax purposes and the effect of loss carry forwards. The items comprising the deferred income tax assets and liabilities are as follows:

(in millions of Canadian dollars)	2021	2020
Deferred income tax assets		
Amount related to tax losses carried forward	\$ 17	17
Liabilities carrying value in excess of tax basis	124	131
Unrealized foreign exchange losses	—	4
Environmental remediation costs	22	22
Other	7	4
Total net deferred income tax assets	170	178
Deferred income tax liabilities		
Investment in Kansas City Southern (Note 11)	7,079	—
Properties carrying value in excess of tax basis	3,887	3,708
Pensions carrying value in excess of tax basis	441	43
Unrealized foreign exchange gains	13	—
Other	102	93
Total deferred income tax liabilities	11,522	3,844
Total net deferred income tax liabilities	\$ 11,352	\$ 3,666

The Company's consolidated effective income tax rate differs from the expected Canadian statutory tax rates. Expected income tax expense at statutory rates is reconciled to income tax expense as follows:

(in millions of Canadian dollars, except percentage)	2021	2020	2019
Statutory federal and provincial income tax rate (Canada)	26.12 %	26.31 %	26.77 %
Expected income tax expense at Canadian enacted statutory tax rates	\$ 946	\$ 842	\$ 842
(Decrease) increase in taxes resulting from:			
Gains not subject to tax	(116)	(23)	(19)
Canadian tax rate differentials	(22)	(3)	—
Foreign tax rate differentials	(37)	(32)	(33)
Effect of tax rate decrease	(11)	(32)	(95)
Valuation allowance	—	—	(5)
Unrecognized tax benefits	(2)	(7)	33
Other	10	13	(17)
Income tax expense	\$ 768	\$ 758	\$ 706

In 2021, the Company recorded a deferred tax liability of \$7.2 billion (U.S. \$5.6 billion) on the outside basis difference of its investment in KCS. This balance is held in a U.S. functional currency entity and subsequently revalued to \$7.1 billion due to changes in FX. The outside basis difference is the excess of the carrying amount of CP's investment in KCS for financial reporting over the tax basis of this investment. Reversal of this deferred tax liability is expected to be recognized through income tax expense.

In 2021, the Company recorded a deferred tax recovery of \$33 million (U.S. \$26 million) on the outside basis difference of the change in the equity investment in KCS from initial recognition on December 14, 2021.

In 2020, the Company revalued its deferred income tax balances as a result of a tax filing election for the state of North Dakota resulting in a lower corporate income tax rate and a net recovery of \$29 million.

In 2019, the Company revalued its deferred income tax balances as a result of a corporate income tax rate decrease in the province of Alberta, resulting in a net recovery of \$88 million.

The Company has not provided a deferred liability for the income taxes, if any, which might become payable on any temporary difference associated with its foreign investments because the Company intends to indefinitely reinvest in its foreign investments and has no intention to realize this difference by a sale of its interest in foreign investments. It is not practical to calculate the amount of the deferred tax liability.

It is more likely than not that the Company will realize the majority of its deferred income tax assets from the generation of future taxable income, as the payments for provisions, reserves and accruals are made and losses and tax credits carried forward are utilized.

At December 31, 2021, the Company had tax effected operating losses carried forward of \$15 million (2020 – \$15 million), which have been recognized as a deferred tax asset. The losses carried forward will begin to expire in 2034. The Company expects to fully utilize these tax effected operating losses before their expiry. The Company did not have any minimum tax credits or investment tax credits carried forward.

At December 31, 2021, the Company had \$2 million (2020 – \$2 million) in tax effected capital losses carried forward recognized as a deferred tax asset. The Company has no unrecognized tax benefits from capital losses at December 31, 2021 and 2020.

The following table provides a reconciliation of uncertain tax positions in relation to unrecognized tax benefits for Canada and the U.S. for the year ended December 31:

(in millions of Canadian dollars)	2021	2020	2019
Unrecognized tax benefits at January 1	\$ 55	\$ 52	\$ 13
Increase in unrecognized:			
Tax benefits related to the current year	—	—	9
Tax benefits related to prior years	—	10	34
Dispositions:			
Gross uncertain tax benefits related to prior years	(6)	(9)	—
Settlements with taxing authorities	—	2	(4)
Unrecognized tax benefits at December 31	\$ 49	\$ 55	\$ 52

If these uncertain tax positions were recognized, all of the amount of unrecognized tax positions as at December 31, 2021 would impact the Company's effective tax rate.

During the fourth quarter of 2019, a tax authority proposed an adjustment for a prior tax year without assessing taxes. Although the Company had commenced action to have the proposal removed, an increase in uncertain tax position was recorded on deferred income tax liability and expense in the amount of \$24 million. While the proposed adjustment was withdrawn during 2020, the ultimate resolution of this matter may give rise to further favourable or unfavourable adjustments to deferred tax, the timing and amount of which are not determinable at this time.

The Company recognizes accrued interest and penalties related to unrecognized tax benefits as a component of "Income tax expense" in the Company's Consolidated Statements of Income. The net amount of accrued interest and penalties in 2021 was a \$4 million expense (2020 – \$1 million recovery; 2019 – \$1 million recovery). The total amount of accrued interest and penalties associated with unrecognized tax benefits at December 31, 2021 was \$13 million (2020 – \$9 million; 2019 – \$10 million).

The Company and its subsidiaries are subject to either Canadian federal and provincial income tax, U.S. federal, state and local income tax, or the relevant income tax in other international jurisdictions. The Company has substantially concluded all Canadian federal and provincial income tax matters for the years through 2014. The federal and provincial income tax returns filed for 2015 and subsequent years remain subject to examination by the Canadian taxation authorities. The income tax returns for 2018 and subsequent years continue to remain subject to examination by the IRS and U.S. state tax jurisdictions. The Company believes that it has recorded sufficient income tax reserves at December 31, 2021 with respect to these income tax examinations.

7. Earnings per share

Basic earnings per share has been calculated using Net income for the year divided by the weighted-average number of shares outstanding during the year.

Diluted earnings per share has been calculated using the treasury stock method which assumes that any proceeds received from the exercise of in-the-money options would be used to purchase CP Common Shares at the average market price for the period. For purposes of this calculation, at December 31, 2021, there were 7.5 million dilutive options outstanding (2020 – 7.0 million; 2019 – 7.9 million).

The number of shares used in the earnings per share calculations are reconciled as follows:

(in millions of Canadian dollars, except per share data)	2021	2020	2019
Net income	\$ 2,852	\$ 2,444	\$ 2,440
Weighted-average basic shares outstanding (millions)	679.7	677.2	693.8
Dilutive effect of stock options (millions)	3.1	2.7	2.5
Weighted-average diluted shares outstanding (millions)	682.8	679.9	696.3
Earnings per share – basic	\$ 4.20	\$ 3.61	\$ 3.52
Earnings per share – diluted	\$ 4.18	\$ 3.59	\$ 3.50

In 2021, there were 0.1 million options excluded from the computation of diluted earnings per share because their effects were not dilutive (2020 – nil; 2019 – 0.2 million).

8. Other comprehensive income (loss) and accumulated other comprehensive loss

The components of Other comprehensive income (loss) and the related tax effects are as follows:

(in millions of Canadian dollars)	Before tax amount	Income tax (expense) recovery	Net of tax amount
For the year ended December 31, 2021			
Unrealized foreign exchange (loss) gain on:			
Translation of the net investment in U.S. subsidiaries and equity method investees	\$ (316)	\$ —	\$ (316)
Translation of the U.S. dollar-denominated long-term debt designated as a hedge of the net investment in U.S. subsidiaries and equity method investees (Note 19)	25	(3)	22
Change in derivatives designated as cash flow hedges:			
Realized loss on derivatives designated as cash flow hedges recognized in income	10	(3)	7
Unrealized gain on cash flow hedges	38	(9)	29
Change in pension and other benefits actuarial gains and losses	1,286	(323)	963
Equity accounted investments	9	(3)	6
Other comprehensive income	\$ 1,052	\$ (341)	\$ 711
For the year ended December 31, 2020			
Unrealized foreign exchange (loss) gain on:			
Translation of the net investment in U.S. subsidiaries	\$ (118)	\$ —	\$ (118)
Translation of the U.S. dollar-denominated long-term debt designated as a hedge of the net investment in U.S. subsidiaries (Note 19)	136	(18)	118
Realized loss on derivatives designated as cash flow hedges recognized in income ⁽¹⁾	10	(3)	7
Change in pension and other benefits actuarial gains and losses	(403)	108	(295)
Change in prior service pension and other benefit costs	(4)	1	(3)
Equity accounted investments ⁽¹⁾	(1)	—	(1)
Other comprehensive loss	\$ (380)	\$ 88	\$ (292)
For the year ended December 31, 2019			
Unrealized foreign exchange (loss) gain on:			
Translation of the net investment in U.S. subsidiaries	\$ (251)	\$ —	\$ (251)
Translation of the U.S. dollar-denominated long-term debt designated as a hedge of the net investment in U.S. subsidiaries (Note 19)	288	(38)	250
Realized loss on derivatives designated as cash flow hedges recognized in income ⁽¹⁾	12	(2)	10
Change in pension and other benefits actuarial gains and losses	(661)	175	(486)
Equity accounted investments ⁽¹⁾	(2)	—	(2)
Other comprehensive loss	\$ (614)	\$ 135	\$ (479)

⁽¹⁾ Comparative figures have been reclassified to conform with current period presentation.

The components of Accumulated other comprehensive loss, net of tax, are as follows:

(in millions of Canadian dollars)	2021	2020
Unrealized foreign exchange gain on translation of the net investment in U.S. subsidiaries	\$ 177	\$ 493
Unrealized foreign exchange loss on translation of the U.S. dollar-denominated long-term debt designated as a hedge of the net investment in U.S. subsidiaries	(359)	(381)
Net deferred losses on derivatives ⁽¹⁾	(4)	(40)
Amounts for defined benefit pension and other post-retirement plans not recognized in income (Note 24)	(1,915)	(2,878)
Equity accounted investments ⁽¹⁾	(2)	(8)
Accumulated other comprehensive loss	\$ (2,103)	\$ (2,814)

⁽¹⁾ Comparative figures have been reclassified to conform with current period presentation.

Changes in Accumulated other comprehensive loss by component are as follows:

(in millions of Canadian dollars)	Foreign currency net of hedging activities ⁽¹⁾	Derivatives ⁽¹⁾⁽²⁾	Pension and post- retirement defined benefit plans ⁽¹⁾	Equity accounted investments ⁽¹⁾⁽²⁾	Total ⁽¹⁾
Opening balance, January 1, 2021	\$ 112	\$ (40)	\$ (2,878)	\$ (8)	\$ (2,814)
Other comprehensive (loss) income before reclassifications	(294)	28	808	6	548
Amounts reclassified from accumulated other comprehensive loss	—	8	155	—	163
Net other comprehensive (loss) income	(294)	36	963	6	711
Closing balance, December 31, 2021	\$ (182)	\$ (4)	\$ (1,915)	\$ (2)	\$ (2,103)
Opening balance, January 1, 2020	\$ 112	\$ (47)	\$ (2,580)	\$ (7)	\$ (2,522)
Other comprehensive loss before reclassifications	—	(1)	(430)	(1)	(432)
Amounts reclassified from accumulated other comprehensive loss	—	8	132	—	140
Net other comprehensive income (loss)	—	7	(298)	(1)	(292)
Closing balance, December 31, 2020	\$ 112	\$ (40)	\$ (2,878)	\$ (8)	\$ (2,814)

⁽¹⁾ Amounts are presented net of tax.

⁽²⁾ Comparative figures have been reclassified to conform with current period presentation.

Amounts in Pension and post-retirement defined benefit plans reclassified from Accumulated other comprehensive loss are as follows:

(in millions of Canadian dollars)	2021	2020
Amortization of prior service costs ⁽¹⁾	\$ —	\$ (1)
Recognition of net actuarial loss ⁽¹⁾	210	180
Total before income tax	210	179
Income tax recovery	(55)	(47)
Total net of income tax	\$ 155	\$ 132

⁽¹⁾ Impacts "Other components of net periodic benefit recovery" on the Consolidated Statements of Income.

9. Accounts receivable, net

(in millions of Canadian dollars)	As at December 31, 2021			As at December 31, 2020		
	Freight	Non-Freight	Total	Freight	Non-Freight	Total
Total accounts receivable	\$ 614	\$ 239	\$ 853	\$ 662	\$ 203	\$ 865
Allowance for credit losses	(20)	(14)	(34)	(25)	(15)	(40)
Total accounts receivable, net	\$ 594	\$ 225	\$ 819	\$ 637	\$ 188	\$ 825

(in millions of Canadian dollars)	For the twelve months ended December 31, 2021			For the twelve months ended December 31, 2020		
	Freight	Non-Freight	Total	Freight	Non-Freight	Total
Allowance for credit losses, opening balance	\$ (25)	\$ (15)	\$ (40)	\$ (27)	\$ (16)	\$ (43)
Current period credit loss provision, net	5	1	6	2	1	3
Allowance for credit losses, closing balance	\$ (20)	\$ (14)	\$ (34)	\$ (25)	\$ (15)	\$ (40)

10. Property sale

During the first quarter of 2021, the Company exchanged property and property easements in Chicago with a government agency for proceeds of \$103 million including cash of \$61 million and property and permanent easement assets at a fair value of \$33 million and \$9 million, respectively. Fair value was determined based on comparable market transactions. The Company recorded a gain within "Purchased services and other" of \$50 million (\$38 million after tax) from the transaction, and a deferred gain of \$53 million which is being recognized in income over the period of use of certain easements. The Company recognized \$13 million of the deferred gain into income in 2021.

11. Business acquisitions

KCS

On March 21, 2021, the Company entered into the Original Merger Agreement with KCS, under which CP agreed to acquire KCS in a stock and cash transaction. KCS is a U.S. Class I railway with approximately 7,100 route miles extending from the midwest and southeast portions of the United States south into Mexico and connects with all Class I railways. KCS is connected to the CP network at Kansas City.

On May 21, 2021, KCS terminated the Original Merger Agreement in order to enter into a merger agreement with Canadian National Railway ("CN") (the "CN Merger Agreement"). As a result, and under the terms of the Original Merger Agreement, KCS concurrently paid a merger termination fee of \$845 million (U.S. \$700 million) to the Company, recorded as "Merger termination fee" in the Company's Consolidated Statements of Income.

On August 10, 2021, CP submitted a proposal to acquire KCS in a stock and cash transaction representing an enterprise value of approximately U.S. \$31 billion, based on the CP closing price on August 9, 2021, which includes the assumption of U.S. \$3.8 billion of outstanding KCS debt. The terms of the proposal were very similar in nearly every respect to those in the Original Merger Agreement, except for an increase in the share exchange ratio from 2.445 to 2.884. Following the Surface Transportation Board's ("STB") decision on August 31, 2021 to refuse CN and KCS's joint motion for voting trust approval in respect of the CN Merger Agreement, and after renewed negotiations with CP, KCS's Board of Directors deemed CP's proposal a "Company Superior Proposal", as defined in the CN Merger Agreement, and terminated the CN Merger Agreement.

On September 15, 2021, upon KCS's termination of the CN Merger Agreement, the Company entered into an Agreement and Plan of Merger (the "Merger Agreement") with KCS. Pursuant to the terms of the CN Merger Agreement, KCS paid a merger termination fee of U.S. \$700 million and refunded the CP merger termination fee of U.S. \$700 million to CN (together, the "CN merger termination fees"). In connection with the Merger Agreement, the Company remitted \$1,773 million (U.S. \$1,400 million) to KCS on September 15, 2021 in connection with KCS's payment of the CN merger termination fees, included as part of the cost of the acquisition of KCS within "Investment in Kansas City Southern" in the Company's Consolidated Balance Sheets. This payment is included in "Investment in Kansas City Southern" on the Company's Consolidated Statements of Cash Flows.

On December 14, 2021, following approval of the transaction by the shareholders of both the Company and KCS, receipt of Mexican regulatory approvals, satisfaction or waiver of customary closing conditions and pursuant to the terms set forth in the Merger Agreement, the acquisition of KCS was consummated and all outstanding stock of KCS was deposited into a voting trust and held by a single trustee as trust stock. KCS's management and Board of Directors will continue to steward KCS while it is in trust, pursuing its independent business plan and growth strategies. Under the terms of the Merger Agreement, the Company issued approximately 262.6 million Common Shares to existing KCS common stockholders at the exchange ratio of 2.884 Common Shares per share of KCS common stock (valued at \$23.5 billion (U.S. \$18.3 billion)) and paid cash consideration to existing KCS

stockholders of U.S. \$90 per share of KCS common stock and U.S. \$37.50 per share of KCS preferred stock for a total of approximately \$10.5 billion (U.S. \$8.2 billion). Share consideration, cash consideration, and the above described payments to KCS totalled approximately \$36 billion (U.S. \$28 billion). The cash consideration paid was financed by issuances of long-term debt of approximately \$2.2 billion and \$8.6 billion (U.S. \$6.7 billion) on November 24, 2021 and December 2, 2021, respectively (see Note 18).

The Company accounts for its investment in KCS using the equity method of accounting while the STB considers the Company's application to control KCS. During this time the shares of KCS are held in the voting trust (See Notes 12 and 26). Subject to final approval by the STB, expected in the fourth quarter of 2022, at which time the Company would obtain control of KCS, CP expects to account for its acquisition of KCS as a business combination using the acquisition method of accounting. The investment in KCS of \$42,309 million at December 31, 2021 includes \$141 million of equity loss of KCS since the date the acquisition closed into the voting trust, after \$8 million amortization (net of tax) of the approximately \$30 billion basis difference (see Note 12).

During the year ended December 31, 2021, the Company incurred \$599 million in acquisition-related costs associated with the Original Merger Agreement and Merger Agreement, of which \$183 million were recorded within "Purchased services and other" and \$247 million were recorded within "Other expense (income)" in the Company's Consolidated Statements of Income. Acquisition-related costs of \$169 million, incurred by KCS during the 18 days from the date the acquisition closed into the voting trust, are included within "Equity loss of Kansas City Southern" in the Company's Consolidated Statements of Income. The acquisition-related costs recorded within "Other expense (income)" include the changes in fair value and realized gain from settlement of the FX forward contracts, changes in fair value and realized loss of the bond locks and forward starting floating-to-fixed interest rate swaps associated with the debt issuances (see Note 18), amortization of financing fees associated with the credit facilities (see Note 18), and FX gains on U.S. dollar-denominated cash on hand from the issuances of long-term debt to fund the KCS acquisition. Total financing fees paid for a bridge facility associated with the KCS acquisition for the year ended December 31, 2021 were \$51 million, presented under Cash provided by (used in) financing activities in the Company's Consolidated Statements of Cash Flows.

DRTP

On December 22, 2020, CP completed its acquisition of the 83.5% ownership of the Detroit River Tunnel Partnership ("DRTP") held by OMERS Infrastructure Management Inc. ("OMERS") for cash, net of cash acquired, of \$398 million. The purchase price was subject to customary closing adjustments, including any final adjustment for closing working capital and certain closing costs. With this acquisition CP obtained 100% ownership of DRTP. The acquisition of DRTP will reduce CP's operating costs related to movements through the tunnel which amounted to approximately \$34 million in 2020, and better integrate the eastern part of the network. DRTP owns a 1.6-mile rail tunnel linking Windsor, Ontario, and Detroit, Michigan and additional, separate lands in both cities. The acquisition was funded with cash from operations and CP's commercial paper program.

The acquisition of DRTP was accounted for as a business combination under the acquisition method of accounting. The acquired assets and assumed liabilities were recorded at their estimated fair values at the date of acquisition. The fair values were estimated by applying an income approach using the discounted cash flow method of future cash flows, appraised land values reflecting a corridor enhancement factor where appropriate, and depreciated replacement cost for depreciable assets including the tunnel, track, signaling systems, and other railway related infrastructure assets.

Prior to the close of the transaction, CP owned a 16.5% interest in DRTP, which was accounted for as an equity method investment. The previously held equity investment was remeasured to fair value which was determined from the negotiated purchase price that reflected a market value established in a competitive bid process. As a result of the acquisition, in 2020, the Company recognized a before-tax gain of \$68 million on the remeasurement to fair value of its equity interest within "Purchased services and other", calculated as the difference between the fair value of CP's 16.5% interest in DRTP of \$81 million and the book value of the interest of \$13 million. The following summarizes the fair values of the acquired assets and liabilities of DRTP:

(in millions of Canadian dollars)	December 22, 2020
Fair value of net assets acquired:	
Accounts receivable, net	\$ 5
Properties	436
Intangible assets (Note 15)	4
Accounts payable and accrued liabilities	(1)
Deferred taxes	(55)
Total identifiable assets and liabilities	\$ 389
Goodwill (Note 15)	90
	\$ 479
Consideration:	
Cash, net of cash acquired	\$ 398
Fair value of previously held equity method investment	81
Total consideration	\$ 479

The goodwill of \$90 million relates primarily to the contract that DRTP has for CP's use of the tunnel and deferred taxes recognized as a result of the purchase price allocation. The goodwill recognized is not deductible for tax purposes.

Prior to the acquisition of DRTP, CP had pre-existing agreements to use the tunnel and to operate and manage the tunnel on behalf of DRTP. On acquisition, no gain or loss was recognized in respect of the effective settlement of these pre-existing relationships as they were determined to be at fair market value based on an assessment of current market conditions and market participants.

Acquired cash and cash equivalents of \$6 million is presented as a reduction of cash used in investing activities in the Company's 2020 Consolidated Statements of Cash Flows.

CP has not provided pro forma information relating to the pre-acquisition period as it is not material.

CMQ

On December 30, 2019, CP purchased 100% of Central Maine & Québec Railway Canada Inc. ("CMQ Canada") and Central Maine & Quebec Railway U.S. Inc. ("CMQ U.S.") (together "CMQ") for cash consideration of \$174 million. CMQ owns 237 miles of rail lines in Québec and 244 miles of rail lines in Maine and Vermont. The acquisition of CMQ Canada was completed on December 30, 2019.

CMQ U.S.

The acquisition of CMQ U.S. was subject to approval from the STB. From the December 30, 2019 date of purchase, all purchased shares of CMQ U.S. were held in an independent voting trust (the "Trust") pending the STB's approval of CP's application for control of CMQ U.S. Approval was granted with an effective date of June 3, 2020. Between December 30, 2019 and June 3, 2020, CP accounted for its acquisition of CMQ U.S. as an equity method investment. During this time, CP paid additional consideration for CMQ of \$3 million, representing changes from the finalization of previously estimated closing date working capital.

On June 3, 2020 the Trust was dissolved and CP assumed control of CMQ U.S. At this time, CP accounted for its acquisition in CMQ U.S. as a business combination using the acquisition method of accounting. Accordingly, the acquired tangible and intangible assets and assumed liabilities were recorded at their estimated fair values as at June 3, 2020 and results from operations and cash flows were consolidated prospectively. There was no material change in the acquisition-date fair value of the equity interest held by the Company in CMQ U.S. immediately before the acquisition date. Fair values were determined primarily through the use of an income approach.

After a measurement period adjustment of \$1 million to increase Other long-term liabilities and goodwill resulting from the finalization of acquisition date deferred tax, the final allocation of total consideration to the fair values of the acquired assets and liabilities of CMQ U.S. is summarized as follows:

(in millions of Canadian dollars)	June 3, 2020
Fair value of net assets acquired:	
Cash and cash equivalents	\$ 22
Accounts receivable, net	2
Properties	54
Intangible assets (Note 15)	27
Accounts payable and accrued liabilities	(13)
Other long-term liabilities	(6)
Total identifiable assets and liabilities	\$ 86
Goodwill (Note 15)	52
	\$ 138
Consideration:	
Fair value of previously held equity method investment	\$ 138

Goodwill of \$52 million relates primarily to expected operating business synergies between the Company and CMQ U.S. The factors that contribute to the goodwill are revenue growth from customers which are currently not served by CP, access to new routes, and an assembled workforce. Goodwill recognized is not deductible for tax purposes.

Intangible assets of \$27 million reflect customer lists acquired in the purchase of CMQ U.S., and have amortization periods of 20 years.

Acquired cash and cash equivalents of \$22 million is presented as a reduction of cash used in investing activities on the Company's Consolidated Statement of Cash Flows, and is presented net of finalized closing working capital adjustments for CMQ of \$3 million as described above.

CP has not provided pro forma information relating to the pre-acquisition period as it is not material.

12. Investment in KCS

On December 14, 2021, the Company acquired KCS and deposited 100% of the outstanding KCS common stock into a voting trust. The Company recorded its investment in KCS at its acquisition cost under the equity method of accounting while the STB considers the Company's application to control KCS.

The investment carrying cost of \$42,309 million reported on the Company's Consolidated Balance Sheets as at December 31, 2021 reflects the total of the consideration paid to acquire KCS, the offsetting asset recorded on recognition of a deferred tax liability computed on an outside basis (see Note 6), the subsequent recognition of equity loss, and foreign currency translation based on the year-end exchange rate.

The approximate \$30 billion difference in value between the consideration paid to acquire KCS and the underlying carrying value of the net assets of KCS as at December 14, 2021, immediately prior to the acquisition by the Company, is the basis difference. The Company has estimated the fair value of KCS and its underlying net assets for the purposes of amortizing the basis difference, as required by the equity method of accounting. The fair value of KCS' underlying net assets, including property, plant and equipment, identifiable intangible assets, and other assets and liabilities, have been estimated on a preliminary basis and may be subject to change as additional information becomes available.

The basis difference related to depreciable property, plant and equipment, intangible assets with definite lives, and long-term debt is amortized over the related assets' remaining useful lives, and the remaining terms to maturity of the debt instruments. The remainder of the basis difference, relating to non-depreciable property, plant and equipment, intangible assets with indefinite life, and equity method goodwill, is not amortized and is carried at cost subject to an assessment for impairment.

Subject to final approval by the STB, the Company would obtain control of KCS and would account for its acquisition of KCS as a business combination using the acquisition method of accounting. As a result, the Company would be required to remeasure the carrying value of its equity method investment in KCS to fair value. Any resultant change in the value of the investment in KCS would be recognized as a gain or loss in the Company's income

statement, including the write down of that portion of the carrying value of the investment in KCS recorded as an offsetting asset to the outside basis deferred tax liability (see Note 6).

The following tables present summarized financial information for KCS, on its historical cost basis, for the period December 14 to December 31, 2021 and as at December 31, 2021:

Statement of Income

(in millions of Canadian dollars) ⁽¹⁾	For the period December 14 to December 31, 2021
Total revenues	\$ 178
Total operating expenses	287
Operating loss	(109)
Less: Other ⁽²⁾	12
Loss before income taxes	(121)
Net loss	\$ (106)

⁽¹⁾ Amounts translated at the average FX rate from December 14-31, 2021 of \$1.0000 USD = \$1.2836 CAD.

⁽²⁾ Includes Equity in net earnings of KCS' affiliates, Interest expense, FX loss, and Other income, net.

Balance Sheet

(in millions of Canadian dollars) ⁽¹⁾	As at December 31, 2021	
Assets		
Current assets	\$ 1,120	
Properties	11,676	
Other non-current assets	425	
Liabilities		
Current liabilities	\$ 619	
Long-term debt	4,778	
Other non-current liabilities	1,823	
Non-controlling interest	416	

⁽¹⁾ Amounts translated at the December 31, 2021 year-end FX rate of \$1.0000 USD = \$1.2678 CAD.

13. Investments

(in millions of Canadian dollars)	2021	2020
Rail investments accounted for on an equity basis ⁽¹⁾	\$ 161	\$ 150
Other investments	48	49
Total investments	\$ 209	\$ 199

⁽¹⁾ Excludes investment in KCS (see Note 12).

14. Properties

(in millions of Canadian dollars except percentages)	2021		2021			2020	
	Weighted-average annual depreciation rate	Cost	Accumulated depreciation	Net book value	Cost	Accumulated depreciation	Net book value
Track and roadway	2.8 %	\$ 21,210	\$ 5,893	\$ 15,317	\$ 20,676	\$ 5,859	\$ 14,817
Buildings	2.9 %	1,022	266	756	937	259	678
Rolling stock	2.9 %	4,793	1,419	3,374	4,702	1,498	3,204
Information systems software ⁽¹⁾	8.1 %	603	279	324	569	253	316
Other	5.3 %	2,223	794	1,429	2,167	760	1,407
Total		\$ 29,851	\$ 8,651	\$ 21,200	\$ 29,051	\$ 8,629	\$ 20,422

⁽¹⁾ During 2021, CP capitalized costs attributable to the design and development of internal-use software in the amount of \$47 million (2020 – \$45 million; 2019 – \$55 million). Current year depreciation expense related to internal use software was \$40 million (2020 – \$42 million; 2019 – \$44 million).

Finance leases included in properties

(in millions of Canadian dollars)	2021			2020		
	Cost	Accumulated depreciation	Net book value	Cost	Accumulated depreciation	Net book value
Rolling stock	\$ 291	\$ 133	\$ 158	\$ 302	\$ 138	\$ 164
Other	9	1	8	8	1	7
Total assets held under finance lease	\$ 300	\$ 134	\$ 166	\$ 310	\$ 139	\$ 171

15. Goodwill and intangible assets

(in millions of Canadian dollars)	Goodwill		Intangible assets			Net carrying amount	Total goodwill and intangible assets
	Cost	Net carrying amount	Cost	Accumulated amortization			
Balance at December 31, 2019	\$ 194	\$ 27	\$ (15)	\$ 12	\$ 206		
Additions (Note 11)	142	31	—	31	173		
Amortization	—	—	(3)	(3)	(3)		
Foreign exchange impact	(7)	(3)	—	(3)	(10)		
Balance at December 31, 2020	329	55	(18)	37	366		
Additions (Note 10)	—	9	—	9	9		
Amortization	—	—	(3)	(3)	(3)		
Foreign exchange impact	(1)	—	—	—	(1)		
Balance at December 31, 2021	\$ 328	\$ 64	\$ (21)	\$ 43	\$ 371		

16. Other assets

(in millions of Canadian dollars)	2021	2020
Operating lease ROU assets (Note 21)	\$ 287	\$ 316
Contracted customer incentives	77	60
Long-term materials	34	37
Other	21	25
Total other assets	\$ 419	\$ 438

17. Accounts payable and accrued liabilities

(in millions of Canadian dollars)	2021	2020
Trade payables	\$ 432	\$ 401
Accrued charges	286	294
Accrued interest	141	134
Dividends payable	177	127
Stock-based compensation liabilities	126	121
Income and other taxes payable	164	115
Payroll-related accruals	65	68
Operating lease liabilities (Note 21)	59	63
Accrued vacation	60	59
Personal injury and other claims provision	49	37
Deferred revenue (Note 3)	20	27
Deferred real estate lease and license revenue	14	11
Provision for environmental remediation (Note 20)	11	9
Other	5	1
Total accounts payable and accrued liabilities	\$ 1,609	\$ 1,467

18. Debt

The following table outlines the Company's outstanding long-term debt as at December 31, 2021:

(in millions of Canadian dollars except percentages)		Maturity	Currency in which payable	2021	2020
9.450%	30-year Debentures	(A)	Aug 2021	U.S.\$	—
5.100%	10-year Medium Term Notes	(A)	Jan 2022	CDN\$	125
4.500%	10-year Notes	(A)	Jan 2022	U.S.\$	317
4.450%	12.5-year Notes	(A)	Mar 2023	U.S.\$	444
1.589%	2-year Notes	(A)	Nov 2023	CDN\$	1,000
1.350%	3-year Notes	(A)	Dec 2024	U.S.\$	1,899
2.900%	10-year Notes	(A)	Feb 2025	U.S.\$	887
3.700%	10.5-year Notes	(A)	Feb 2026	U.S.\$	317
1.750%	5-year Notes	(A)	Dec 2026	U.S.\$	1,266
2.540%	6.3-year Notes	(A)	Feb 2028	CDN\$	1,200
4.000%	10-year Notes	(A)	Jun 2028	U.S.\$	634
3.150%	10-year Notes	(A)	Mar 2029	CDN\$	399
2.050%	10-year Notes	(A)	Mar 2030	U.S.\$	633
7.125%	30-year Debentures	(A)	Oct 2031	U.S.\$	444
2.450%	10-year Notes	(A)	Dec 2031	U.S.\$	1,774
5.750%	30-year Debentures	(A)	Mar 2033	U.S.\$	311
4.800%	20-year Notes	(A)	Sep 2035	U.S.\$	379
5.950%	30-year Notes	(A)	May 2037	U.S.\$	564
6.450%	30-year Notes	(A)	Nov 2039	CDN\$	400
3.000%	20-year Notes	(A)	Dec 2041	U.S.\$	1,261

5.750%	30-year Notes	(A)	Jan 2042	U.S.\$	312	313
4.800%	30-year Notes	(A)	Aug 2045	U.S.\$	695	698
3.050%	30-year Notes	(A)	Mar 2050	CDN\$	298	298
3.100%	30-year Notes	(A)	Dec 2051	U.S.\$	2,266	—
6.125%	100-year Notes	(A)	Sep 2115	U.S.\$	1,141	1,146
5.41%	Senior Secured Notes	(B)	Mar 2024	U.S.\$	80	89
6.91%	Secured Equipment Notes	(C)	Oct 2024	CDN\$	58	75
7.49%	Equipment Trust Certificates		Jan 2021	U.S.\$	—	14
Obligations under finance leases						
1.99% - 4.13%		(D)	2022 - 2024	CDN\$/U.S.\$	2	4
6.99%		(D)	Mar 2022	U.S.\$	97	97
6.57%		(D)	Dec 2026	U.S.\$	33	38
12.77%		(D)	Jan 2031	CDN\$	4	4
1.93%		(D)	Feb 2041	U.S.\$	4	—
Commercial Paper			up to Jan 2022	U.S.\$	336	820
Term Credit Facility			Mar 2022	U.S.\$	634	—
Demand Promissory Note				CDN\$	6	—
					20,220	9,788
Perpetual 4% Consolidated Debenture Stock		(E)		U.S.\$	38	39
Perpetual 4% Consolidated Debenture Stock		(E)		G.B.F	6	6
					20,264	9,833
Unamortized fees on long-term debt					(137)	(62)
					20,127	9,771
Less: Long-term debt maturing within one year					1,550	1,186
					\$ 18,577	\$ 8,585

At December 31, 2021, the gross amount of long-term debt denominated in U.S. dollars was U.S. \$13,265 million (2020 – U.S. \$6,713 million).

Annual maturities and principal repayment requirements, excluding those pertaining to finance leases, for each of the five years following 2021 are (in millions): 2022 – \$1,446; 2023 – \$1,473; 2024 – \$1,984; 2025 – \$888; 2026 – \$1,585.

Fees on long-term debt are amortized to income over the term of the related debt.

A. These debentures and notes are presented net of unamortized discounts, pay interest semi-annually, and are unsecured but carry a negative pledge.

During the fourth quarter of 2021, the Company issued the following securities for total net proceeds of \$10.7 billion to fund the cash consideration component of the KCS acquisition:

Date Issued	Description of Securities	Maturity	Net Proceeds
November 24, 2021	\$1.0 billion 1.589% Notes	Nov 2023	\$1.00 billion
	\$1.2 billion 2.540% Notes	Feb 2028	\$1.20 billion
December 2, 2021	U.S. \$1.5 billion 1.350% Notes	Dec 2024	\$1.91 billion (U.S. \$1.49 billion)
	U.S. \$1.0 billion 1.750% Notes	Dec 2026	\$1.27 billion (U.S. \$0.99 billion)
	U.S. \$1.4 billion 2.450% Notes	Dec 2031	\$1.78 billion (U.S. \$1.39 billion)
	U.S. \$1.0 billion 3.000% Notes	Dec 2041	\$1.26 billion (U.S. \$0.99 billion)
	U.S. \$1.8 billion 3.100% Notes	Dec 2051	\$2.26 billion (U.S. \$1.77 billion)

The U.S. \$1.4 billion 2.450% Notes and the U.S. \$1.0 billion 3.000% Notes include a special mandatory redemption provision which provides that if STB final approval of CP's application to control KCS is not received prior to March 25, 2023 or, if in the Company's judgment, STB final approval will not be sought or received by this date, the Company will be required to redeem all of such outstanding notes at a price equal to 101% of the aggregate principal amount of the applicable notes plus accrued and unpaid interest.

In conjunction with the above debt issuances, the Company cash settled a notional \$600 million of interest rate bond locks and a notional U.S. \$2.4 billion of forward starting floating-to-fixed interest rate swap agreements ("forward starting swaps") for a payment of \$226 million (see Note 19). This payment was included in cash provided by operating activities consistent with the location of the related hedged item on the Company's Consolidated Statements of Cash Flows.

During the third quarter of 2021, the Company also repaid U.S. \$250 million 9.450% 30-year debentures at maturity for a total of U.S. \$250 million (\$312 million).

In 2020, the Company issued U.S. \$500 million 2.050% 10-year notes due March 5, 2030 for net proceeds of U.S. \$495 million (\$662 million) and \$300 million 3.050% 30-year notes due March 9, 2050 for net proceeds of \$296 million.

B. The 5.41% senior secured notes are collateralized by specific locomotive units with a carrying value of \$92 million at December 31, 2021. The Company pays equal blended semi-annual payments of principal and interest. Final repayment of the remaining principal of U.S. \$44 million is due in March 2024.

C. The 6.91% secured equipment notes are full recourse obligations of the Company collateralized by a first charge on specific locomotive units with a carrying value of \$34 million at December 31, 2021. The Company pays equal blended semi-annual payments of principal and interest. Final repayment of the remaining principal of \$11 million is due in October 2024.

D. The carrying value of the assets collateralizing finance lease obligations was \$166 million at December 31, 2021.

E. The Consolidated Debenture Stock, authorized by an *Act of Parliament of 1889*, constitutes a first charge upon and over the whole of the undertaking, railways, works, rolling stock, plant, property and effects of the Company, with certain exceptions.

Credit facility

CP has a revolving credit facility (the "facility") agreement with 14 highly rated financial institutions for a commitment amount of U.S. \$1.3 billion. The facility can accommodate draws of cash and/or letters of credit at market competitive pricing. Effective September 24, 2021, the Company extended the maturity dates of the U.S. \$1.0 billion tranche to September 27, 2026 and the U.S. \$300 million tranche to September 27, 2023. During 2021, the Company amended the financial covenant within the facility agreement to provide flexibility upon closing of the KCS acquisition. As at December 31, 2021 and 2020, the Company was in compliance with all terms and conditions of the credit facility arrangements and satisfied the financial covenant. As at December 31, 2021 and 2020, the facility was undrawn.

In 2021, the Company entered into a U.S. \$500 million unsecured non-revolving term credit facility (the "term facility") with an initial due date of March 15, 2022. As at December 31, 2021, the Company had borrowings of U.S. \$500 million (\$634 million) under this term facility at a weighted-average interest rate of 1.38%. The agreement requires the Company to maintain a financial covenant in conjunction with the term facility. As at December 31, 2021, the Company satisfied the financial covenant.

The Company also has a commercial paper program which enables it to issue commercial paper up to a maximum aggregate principal amount of U.S. \$1.0 billion in the form of unsecured promissory notes. This commercial paper program is backed by the revolving credit facility. As at December 31, 2021, the Company had total commercial paper borrowings of U.S. \$265 million (\$336 million), included in "Long-term debt maturing within one year" on the Company's Consolidated Balance Sheets (December 31, 2020 – \$820 million). The weighted-average interest rate on these borrowings was 0.32% (December 31, 2020 - 0.27%). The Company presents issuances and repayments of commercial paper, all of which have a maturity of less than 90 days, in the Company's Consolidated Statements of Cash Flows on a net basis.

CP has bilateral letter of credit facilities with six highly rated financial institutions to support its requirement to post letters of credit in the ordinary course of business. Under these agreements, the Company has the option to post collateral in the form of cash or cash equivalents, equal at least to the face value of the letter of credit issued. These agreements permit CP to withdraw amounts posted as collateral at any time; therefore, the amounts posted as collateral are presented as "Cash and cash equivalents" on the Company's Consolidated Balance Sheets. As at December 31, 2021 and 2020, the Company did not have any collateral posted on its bilateral letter of credit facilities but had letters of credit drawn of \$58 million (December 31, 2020 – \$59 million) from a total available amount of \$300 million.

19. Financial instruments

A. Fair values of financial instruments

The Company categorizes its financial assets and liabilities measured at fair value into a three-level hierarchy established by GAAP that prioritizes those inputs to valuation techniques used to measure fair value based on the degree to which they are observable. The three levels of the fair value hierarchy are as follows: Level 1 inputs are quoted prices in active markets for identical assets and liabilities; Level 2 inputs, other than quoted prices included within Level 1, are observable for the asset or liability either directly or indirectly; and Level 3 inputs are not observable in the market.

The Company's short-term financial instruments include cash and cash equivalents, restricted cash and cash equivalents, accounts receivable, accounts payable and accrued liabilities, and short-term borrowings including commercial paper and term loans. The carrying value of short-term financial instruments approximate their fair values.

The carrying value of the Company's long-term debt does not approximate its fair value. The estimated fair value has been determined based on market information where available, or by discounting future payments of principal and interest at estimated interest rates expected to be available to the Company at period end. All measurements are classified as Level 2. The Company's long-term debt, including current maturities, with a carrying value of \$19,151 million at December 31, 2021 (December 31, 2020 - \$8,951 million), had a fair value of \$21,265 million (December 31, 2020 - \$11,597 million).

B. Financial risk management

Derivative financial instruments

Derivative financial instruments may be used to selectively reduce volatility associated with fluctuations in interest rates, FX rates, the price of fuel, and stock-based compensation expense. Where derivatives are designated as hedging instruments, the relationship between the hedging instruments and their associated hedged items is documented, as well as the risk management objective and strategy for the use of the hedging instruments. This documentation includes linking the derivatives that are designated as fair value or cash flow hedges to specific assets or liabilities on the Company's Consolidated Balance Sheets, commitments, or forecasted transactions. At the time a derivative contract is entered into and at least quarterly thereafter, an assessment is made as to whether the derivative item is effective in offsetting the changes in fair value or cash flows of the hedged items. The derivative qualifies for hedge accounting treatment if it is effective in substantially mitigating the risk it was designed to address.

It is not the Company's intent to use financial derivatives or commodity instruments for trading or speculative purposes.

Credit risk management

Credit risk refers to the possibility that a customer or counterparty will fail to fulfill its obligations under a contract and as a result create a financial loss for the Company.

The railway industry predominantly serves financially established customers, and the Company has experienced limited financial losses with respect to credit risk. The credit worthiness of customers is assessed using credit scores supplied by a third party and through direct monitoring of their financial well-being on a continual basis. The Company establishes guidelines for customer credit limits and should thresholds in these areas be reached, appropriate precautions are taken to improve collectability.

Counterparties to financial instruments expose the Company to credit losses in the event of non-performance. Counterparties for derivative and cash transactions are limited to high credit quality financial institutions, which are monitored on an ongoing basis. Counterparty credit assessments are based on the financial health of the institutions and their credit ratings from external agencies. The Company does not anticipate non-performance that would materially impact the Company's financial statements. In addition, the Company believes there are no significant concentrations of credit risk.

FX management

The Company conducts business transactions and owns assets in both Canada and the United States. As a result, the Company is exposed to fluctuations in the value of financial commitments, assets, liabilities, income, or cash flows due to changes in FX rates. The Company may enter into FX risk management transactions primarily to manage fluctuations in the exchange rate between Canadian and U.S. currencies. FX exposure is primarily mitigated through natural offsets created by revenues, expenditures, and balance sheet positions incurred in the same currency. Where appropriate, the Company may negotiate with customers and suppliers to reduce the net exposure.

Net investment hedge

The FX gains and losses on long-term debt are mainly unrealized and can only be realized when U.S. dollar-denominated long-term debt matures or is settled. The Company also has long-term FX exposure on its investment in foreign subsidiaries with a U.S. dollar functional currency. The majority of the Company's U.S. dollar-denominated long-term debt has been designated as a hedge of the net investment in these foreign subsidiaries. This designation has the effect of mitigating volatility on Net income by offsetting long-term FX gains and losses on U.S. dollar-denominated long-term debt and gains and losses on its net investment. The effect of the net investment hedge recognized in "Other comprehensive income (loss)" in 2021 was an FX gain of \$25 million, the majority of which was unrealized (2020 – unrealized gain of \$136 million; 2019 – unrealized gain of \$288 million) (see Note 8).

FX forward contracts

During 2021, the Company entered into various FX forward contracts totalling a notional U.S. \$1.0 billion to fix the FX rate and lock-in a portion of the amount of Canadian dollars it could have borrowed to finance the U.S. dollar-denominated cash portion of the total consideration payable pursuant to the Original Merger Agreement with KCS. During the third quarter of 2021, the Company settled the FX forward contracts and did not have any such contracts remaining as at December 31, 2021. The realized gain from settlement of the FX forward contracts was \$13 million and was recorded in "Other expense (income)" on the Company's Consolidated Statements of Income.

Interest rate management

The Company is exposed to interest rate risk, which is the risk that the fair value or future cash flows of a financial instrument will vary as a result of changes in market interest rates. In order to manage funding needs or capital structure goals, the Company enters into debt or finance lease agreements that are subject to either fixed market interest rates set at the time of issue or floating rates determined by ongoing market conditions. Debt subject to variable interest rates exposes the Company to variability in interest expense, while debt subject to fixed interest rates exposes the Company to variability in the fair value of debt.

To manage interest rate exposure, the Company accesses diverse sources of financing and manages borrowings in line with a targeted range of capital structure, debt ratings, liquidity needs, maturity schedule, and currency and interest rate profiles. In anticipation of future debt issuances, the Company may enter into forward rate agreements, that are designated as cash flow hedges, to substantially lock in all or a portion of the effective future interest expense. The Company may also enter into swap agreements, designated as fair value hedges, to manage the mix of fixed and floating rate debt.

Forward starting swaps

In the first half of 2021, the Company entered into forward starting swaps with terms of up to 30 years, totalling a notional U.S. \$2.4 billion to fix the benchmark rate on cash flows associated with highly probable forecasted issuances of long-term notes.

On May 21, 2021, the Original Merger Agreement with KCS was terminated which resulted in the Company ceasing hedge accounting for the U.S. \$2.4 billion of forward starting swaps. However, as the note issuances were still reasonably possible to occur, fair value losses of \$73 million prior to this determination remained in "Accumulated other comprehensive loss", net of tax. Fair value losses of \$251 million during the period from May 21, 2021 through to the roll and re-designation described below were recorded within "Other expense (income)" on the Company's Consolidated Statements of Income for twelve months ended December 31, 2021.

Following CP entering into the Merger Agreement with KCS, the Company rolled the notional U.S. \$2.4 billion of forward starting swaps but did not effect a cash settlement. Concurrently, the Company re-designated the forward starting swaps totalling U.S. \$2.4 billion to fix the benchmark rate on cash flows associated with highly probable forecasted issuances of long-term notes. The changes in fair value on the forward starting swaps were recorded in "Accumulated other comprehensive loss", net of tax, as cash flow hedges until the notes were issued. Fair value gains subsequent to re-designation of \$94 million were recorded within "Other comprehensive income" on the Company's Consolidated Statements of Comprehensive Income for the twelve months ended December 31, 2021.

During the fourth quarter of 2021, the Company cash settled all outstanding forward starting swaps related to debt issuances that occurred in the same period. The fair value of these derivative instruments at the time of settlement was a loss of \$230 million. The related \$21 million gain within "Accumulated other comprehensive loss" will be reclassified to "Net interest expense" ratably over the duration of the notes' hedged interest payments.

For the year ended December 31, 2021, a net loss of \$9 million related to settled forward starting swap hedges was amortized from "Accumulated other comprehensive loss" to "Net interest expense" in line with the related hedged interest payments (2020 – net loss of \$9 million; 2019 – net loss of \$9 million). The Company expects that during the next 12 months, \$8 million of net losses will be reclassified to "Net interest expense".

Bond locks

In the first quarter of 2021, the Company entered into seven-year interest rate bond locks totalling a notional \$600 million to fix the benchmark rate on cash flows associated with a highly probable forecasted issuance of long-term notes.

On May 21, 2021, the Original Merger Agreement with KCS was terminated which resulted in the Company ceasing hedge accounting for the \$600 million of bond locks. However, as the note issuances were still reasonably possible to occur, fair value losses of \$2 million prior to this

determination remained in "Accumulated other comprehensive loss", net of tax. Fair value losses of \$10 million during the period from May 21, 2021 through to the roll and re-designation described below were recorded within "Other expense (income)" on the Company's Consolidated Statements of Income for the twelve months ended December 31, 2021.

Following CP entering into the Merger Agreement with KCS, the Company rolled the notional \$600 million of bond locks but did not effect a cash settlement. Concurrently, the Company re-designated the bond locks totalling \$600 million to fix the benchmark rate on cash flows associated with highly probable forecasted issuances of long-term notes. The changes in fair value on the bond locks are recorded in "Accumulated other comprehensive loss", net of tax, as cash flow hedges until the notes were issued. Fair value gains subsequent to re-designation of \$19 million were recorded within "Other comprehensive income" on the Company's Consolidated Statements of Comprehensive Income for the twelve months ended December 31, 2021.

During the fourth quarter of 2021, the Company cash settled all outstanding bond locks related to debt issuances that occurred in the same period. The fair value of these derivative instruments at the time of settlement was a gain of \$7 million. The related \$17 million gain within "Accumulated other comprehensive loss" will be reclassified to "Net interest expense" ratably over the duration of the notes' hedged interest payments.

For the year ended December 31, 2021, a net loss of \$1 million related to settled bond and treasury rate lock hedges was amortized from "Accumulated other comprehensive loss" to "Net interest expense" in line with the related hedged interest payments (2020 – net loss of \$1 million; 2019 – net loss of \$1 million). The Company expects that during the next 12 months, \$2 million of net gains will be reclassified to "Net interest expense".

20. Other long-term liabilities

(in millions of Canadian dollars)	2021	2020
Operating lease liabilities, net of current portion (Note 21)	\$ 224	\$ 248
Stock-based compensation liabilities, net of current portion	125	146
Provision for environmental remediation, net of current portion ⁽¹⁾	68	71
Deferred revenue, net of current portion (Note 3)	47	34
Deferred real estate lease and license revenue, net of current portion ⁽²⁾	10	18
Deferred gains on sale leaseback transactions ⁽²⁾	4	5
Other, net of current portion	64	63
Total other long-term liabilities	\$ 542	\$ 585

⁽¹⁾ As at December 31, 2021, the aggregate provision for environmental remediation, including the current portion was \$79 million (2020 – \$80 million).

⁽²⁾ The deferred real estate lease and license revenue and deferred gains on sale leaseback transactions are being amortized to income on a straight-line basis over the related lease terms.

Environmental remediation accruals

Environmental remediation accruals cover site-specific remediation programs. The estimate of the probable costs to be incurred in the remediation of properties contaminated by past activities reflects the nature of contamination at individual sites according to typical activities and scale of operations conducted. CP has developed remediation strategies for each property based on the nature and extent of the contamination, as well as the location of the property and surrounding areas that may be adversely affected by the presence of contaminants, considering available technologies, treatment and disposal facilities and the acceptability of site-specific plans based on the local regulatory environment. Site-specific plans range from containment and risk management of the contaminants through to the removal and treatment of the contaminants and affected soils and groundwater. The details of the estimates reflect the environmental liability at each property. Provisions for environmental remediation costs are recorded in "Other long-term liabilities", except for the current portion which is recorded in "Accounts payable and accrued liabilities" (see Note 17). Payments are expected to be made over 10 years to 2031.

The accruals for environmental remediation represent CP's best estimate of its probable future obligation and include both asserted and unasserted claims, without reduction for anticipated recoveries from third parties. Although the recorded accruals include CP's best estimate of all probable costs, CP's total environmental remediation costs cannot be predicted with certainty. Accruals for environmental remediation may change from time to time as new information about previously untested sites becomes known, environmental laws and regulations evolve and advances are made in environmental remediation technology. The accruals may also vary as the courts decide legal proceedings against outside parties responsible for contamination. These potential charges, which cannot be quantified at this time, may materially affect income in the particular period in which a charge is recognized. Costs related to existing, but as yet unknown, or future contamination will be accrued in the period in which they become probable and reasonably estimable. Changes to costs are reflected as changes to "Other long-term liabilities" or "Accounts payable and accrued liabilities" on the Company's Consolidated Balance Sheets and to "Purchased services and other" within operating expenses on the Company's Consolidated Statements of Income. The amount charged to income in 2021 was \$10 million (2020 – \$10 million; 2019 – \$6 million).

21. Leases

The Company's leases have remaining terms of less than one year to 19 years, some include options to extend up to an additional 10 years, and some include options to terminate within one year.

Residual value guarantees are provided on certain vehicle operating leases. Cumulatively, these guarantees are limited to \$1 million and are not included in lease liabilities as it is not currently probable that any amounts will be owed.

Components of lease expense for the year ended December 31 are as follows:

(in millions of Canadian dollars)	2021	2020
Operating lease cost	\$ 74	\$ 83
Short-term lease cost	16	10
Variable lease cost	5	13
Sublease income	(3)	(3)
Finance Lease Cost		
Amortization of right-of-use assets	10	9
Interest on lease liabilities	10	11
Total lease costs	\$ 112	\$ 123

Supplemental balance sheet information related to leases is as follows:

(in millions of Canadian dollars)	Classification	2021	2020
Assets			
Operating	Other assets	\$ 287	\$ 316
Finance	Properties, net book value	166	171
Liabilities			
Current			
Operating	Accounts payable and accrued liabilities	59	63
Finance	Long-term debt maturing within one year	104	8
Long-term			
Operating	Other long-term liabilities	224	248
Finance	Long-term debt	36	135

The following table provides the Company's weighted-average remaining lease terms and discount rates:

	2021	2020
Weighted-Average Remaining Lease Term		
Operating leases	6 years	7 years
Finance leases	2 years	3 years
Weighted-Average Discount Rate		
Operating leases	3.18 %	3.32 %
Finance leases	6.96 %	7.06 %

Supplemental information related to leases is as follows:

(in millions of Canadian dollars)	2021	2020
Cash paid for amounts included in measurement of lease liabilities		
Operating cash outflows from operating leases	\$ 64	\$ 74
Operating cash outflows from finance leases	10	10
Financing cash outflows from finance leases	8	8
Right-of-use assets obtained in exchange for lease liabilities		
Operating leases	36	34
Finance leases	5	4

The following table provides the maturities of lease liabilities for the next five years and thereafter as at December 31, 2021:

(in millions of Canadian dollars)	Finance Leases	Operating Leases
2022	\$ 107	\$ 66
2023	9	62
2024	9	50
2025	9	39
2026	9	34
Thereafter	7	60
Total lease payments	150	311
Imputed interest	(10)	(28)
Present value of lease payments	\$ 140	\$ 283

22. Shareholders' equity

Authorized and issued share capital

The Company is authorized to issue an unlimited number of Common Shares, an unlimited number of First Preferred Shares, and an unlimited number of Second Preferred Shares. At December 31, 2021, no First or Second Preferred Shares had been issued.

The following table summarizes information related to Common Share balances as at December 31:

(number of shares in millions)	2021	2020	2019
Share capital, January 1	666.3	685.0	702.9
CP Common Shares repurchased	—	(20.4)	(19.0)
Shares issued under stock option plan	0.8	1.7	1.1
Shares issued for KCS acquisition (Note 11)	262.6	—	—
Share capital, December 31	929.7	666.3	685.0

The change in the "Share capital" balance includes \$7 million of stock-based compensation transferred from "Additional paid-in capital" (2020 – \$10 million; 2019 – \$7 million).

Share repurchases

On January 27, 2021, the Company announced a normal course issuer bid ("NCIB"), commencing January 29, 2021, to purchase up to 16.7 million Common Shares in the open market for cancellation on or before January 28, 2022. As at December 31, 2021, the Company had not purchased any Common Shares under this NCIB.

On December 17, 2019, the Company announced a NCIB, commencing December 20, 2019, to purchase up to 24.0 million Common Shares in the open market for cancellation on or before December 19, 2020. Upon expiry of this NCIB, the Company had purchased 21.4 million Common Shares for \$1,577 million.

On October 19, 2018, the Company announced a NCIB, commencing October 24, 2018, to purchase up to 28.4 million Common Shares for cancellation on or before October 23, 2019. The Company completed this NCIB on October 23, 2019.

All purchases were made in accordance with the respective NCIB at prevailing market prices plus brokerage fees, or such other prices that were permitted by the Toronto Stock Exchange ("TSX"), with consideration allocated to "Share capital" up to the average carrying amount of the shares and any excess allocated to "Retained earnings".

The following table provides activities under the share repurchase programs for each of the years ended December 31:

	2021	2020	2019
Number of Common Shares repurchased ⁽¹⁾	—	19,865,380	18,970,745
Weighted-average price per share ⁽²⁾	\$ —	\$ 74.35	\$ 60.13
Amount of repurchase (in millions) ⁽²⁾	\$ —	\$ 1,477	\$ 1,141

⁽¹⁾ Includes shares repurchased but not yet cancelled at year end.

⁽²⁾ Includes brokerage fees.

23. Change in non-cash working capital balances related to operations

(in millions of Canadian dollars)	2021	2020	2019
Source (use) of cash:			
Accounts receivable, net	\$ 32	\$ (61)	\$ 27
Materials and supplies	(14)	(15)	(8)
Other current assets	24	(5)	(24)
Accounts payable and accrued liabilities	(108)	(308)	(21)
Change in non-cash working capital	\$ (66)	\$ (389)	\$ (26)

24. Pensions and other benefits

The Company has both defined benefit ("DB") and defined contribution ("DC") pension plans. At December 31, 2021, the Canadian pension plans represent nearly all of total combined pension plan assets and nearly all of total combined pension plan obligations.

The DB plans provide for pensions based principally on years of service and compensation rates near retirement. Pensions for Canadian pensioners are partially indexed to inflation. Annual employer contributions to the DB plans, which are actuarially determined, are made on the basis of being not less than the minimum amounts required by federal pension supervisory authorities.

The Company has other benefit plans including post-retirement health and life insurance for pensioners, and post-employment long-term disability and workers' compensation benefits, which are based on Company-specific claims. At December 31, 2021, the Canadian other benefits plans represent nearly all of total combined other plan obligations.

The Audit and Finance Committee of the Board of Directors has approved an investment policy that establishes long-term asset mix targets which take into account the Company's expected risk tolerances. Pension plan assets are managed by a suite of independent investment managers, with the allocation by manager reflecting these asset mix targets. Most of the assets are actively managed with the objective of outperforming applicable benchmarks. In accordance with the investment policy, derivative instruments may be used by investment managers to hedge or adjust existing or anticipated exposures.

To develop the expected long-term rate of return assumption used in the calculation of net periodic benefit cost applicable to the market-related value of plan assets, the Company considers the expected composition of the plans' assets, past experience, and future estimates of long-term investment returns. Future estimates of investment returns reflect the long-term return expectation for fixed income, public equity, real estate, infrastructure, private debt, and absolute return investments, and the expected added value (relative to applicable benchmark indices) from active management of pension fund assets.

The Company has elected to use a market-related value of assets for the purpose of calculating net periodic benefit cost, developed from a five year average of market values for the plans' public equity and absolute return investments (with each prior year's market value adjusted to the current date for assumed investment income during the intervening period) plus the market value of the plans' fixed income, real estate, infrastructure, and private debt securities.

The benefit obligation is discounted using a discount rate that is a blended yield to maturity for a hypothetical portfolio of high-quality debt instruments with cash flows matching projected benefit payments. The discount rate is determined by management.

Net periodic benefit cost

The elements of net periodic benefit cost for DB pension plans and other benefits recognized in the year include the following components:

(in millions of Canadian dollars)	Pensions			Other benefits		
	2021	2020	2019	2021	2020	2019
Current service cost (benefits earned by employees)	\$ 171	\$ 140	\$ 107	\$ 13	\$ 12	\$ 11
Other components of net periodic benefit (recovery) cost:						
Interest cost on benefit obligation	351	406	450	16	17	20
Expected return on fund assets	(959)	(945)	(947)	—	—	—
Recognized net actuarial loss	206	177	84	(1)	4	12
Amortization of prior service (recoveries) costs	—	(1)	(1)	—	—	1
Total other components of net periodic benefit (recovery) cost	(402)	(363)	(414)	15	21	33
Net periodic benefit (recovery) cost	\$ (231)	\$ (223)	\$ (307)	\$ 28	\$ 33	\$ 44

Projected benefit obligation, fund assets, and funded status

Information about the Company's DB pension plans and other benefits, in aggregate, is as follows:

(in millions of Canadian dollars)	Pensions		Other benefits	
	2021	2020	2021	2020
Change in projected benefit obligation:				
Benefit obligation at January 1	\$ 13,799	\$ 12,610	\$ 553	\$ 541
Current service cost	171	140	13	12
Interest cost	351	406	16	17
Employee contributions	42	42	—	—
Benefits paid	(667)	(653)	(31)	(34)
Foreign currency changes	—	(5)	—	—
Plan amendments and other	—	3	—	—
Actuarial loss (gain)	(812)	1,256	(48)	17
Projected benefit obligation at December 31	\$ 12,884	\$ 13,799	\$ 503	\$ 553

The net actuarial gains for Pensions and Other benefits in 2021 were primarily due to the increase in discount rate from 2.58% to 3.01%. The net actuarial losses for Pensions and Other benefits in 2020 were primarily due to the decrease in discount rate from 3.25% to 2.58%.

(in millions of Canadian dollars)	Pensions		Other benefits	
	2021	2020	2021	2020
Change in fund assets:				
Fair value of fund assets at January 1	\$ 14,365	\$ 13,319	\$ 5	\$ 5
Actual return on fund assets	1,180	1,634	—	—
Employer contributions	18	27	31	34
Employee contributions	42	42	—	—
Benefits paid	(667)	(653)	(31)	(34)
Foreign currency changes	—	(4)	—	—
Fair value of fund assets at December 31	\$ 14,938	\$ 14,365	\$ 5	\$ 5
Funded status – plan surplus (deficit)	\$ 2,054	\$ 566	\$ (498)	\$ (548)

The table below shows the aggregate pension projected benefit obligation and aggregate fair value of plan assets for pension plans with fair value of plan assets in excess of projected benefit obligations (i.e. surplus), and for pension plans with projected benefit obligations in excess of fair value of plan assets (i.e. deficit):

(in millions of Canadian dollars)	2021		2020	
	Pension plans in surplus	Pension plans in deficit	Pension plans in surplus	Pension plans in deficit
Projected benefit obligation at December 31	\$ (12,346)	\$ (538)	\$ (13,220)	\$ (579)
Fair value of fund assets at December 31	14,663	275	14,114	251
Funded status	\$ 2,317	\$ (263)	\$ 894	\$ (328)

The DB pension plans' accumulated benefit obligation as at December 31, 2021 was \$12,591 million (2020 – \$13,528 million). The accumulated benefit obligation is calculated on a basis similar to the projected benefit obligation, except no future salary increases are assumed in the projection of future benefits. For pension plans with accumulated benefit obligations in excess of fair value of plan assets (i.e. deficit), the aggregate pension accumulated benefit obligation as at December 31, 2021 was \$410 million (2020 – \$443 million) and the aggregate fair value of plan assets as at December 31, 2021 was \$201 million (2020 – \$187 million).

All Other benefits plans were in a deficit position at December 31, 2021 and 2020.

Pension asset and liabilities in the Company's Consolidated Balance Sheets

Amounts recognized in the Company's Consolidated Balance Sheets are as follows:

(in millions of Canadian dollars)	Pensions		Other benefits	
	2021	2020	2021	2020
Pension asset	\$ 2,317	\$ 894	—	—
Accounts payable and accrued liabilities	(11)	(11)	(32)	(33)
Pension and other benefit liabilities	(252)	(317)	(466)	(515)
Total amount recognized	\$ 2,054	\$ 566	\$ (498)	\$ (548)

The measurement date used to determine the plan assets and the benefit obligation is December 31. The most recent actuarial valuation for pension funding purposes for the Company's main Canadian pension plan was performed as at January 1, 2021. During 2022, the Company expects to file with the pension regulator a new valuation performed as at January 1, 2022.

Accumulated other comprehensive loss

Amounts recognized in accumulated other comprehensive loss are as follows:

(in millions of Canadian dollars)	Pensions		Other benefits	
	2021	2020	2021	2020
Net actuarial loss:				
Other than deferred investment gains	\$ 3,298	\$ 3,960	\$ 57	\$ 104
Deferred investment gains	(672)	(95)	—	—
Prior service cost	5	5	1	1
Deferred income tax	(759)	(1,070)	(15)	(27)
Total (Note 8)	\$ 1,872	\$ 2,800	\$ 43	\$ 78

Actuarial assumptions

Weighted-average actuarial assumptions used were approximately:

(percentages)	2021	2020	2019
Benefit obligation at December 31:			
Discount rate	3.01	2.58	3.25
Projected future salary increases	2.75	2.75	2.75
Health care cost trend rate ⁽¹⁾	5.00	5.00	5.50
Benefit cost for year ended December 31:			
Discount rate	2.58	3.25	4.01
Expected rate of return on fund assets ⁽²⁾	6.90	7.25	7.50
Projected future salary increases	2.75	2.75	2.75
Health care cost trend rate ⁽¹⁾	5.00	5.50	6.00

⁽¹⁾ The health care cost trend rate was assumed to be 6.00% in 2019 and 5.50% in 2020 and is assumed to be 5.00% per year in 2021 and thereafter.

⁽²⁾ The expected rate of return on fund assets that will be used to compute the 2022 net periodic benefit credit is 6.90%.

Plan assets

Plan assets are recorded at fair value. The major asset categories are public equity securities, fixed income securities, real estate, infrastructure, absolute return investments, and private debt. The fair values of the public equity and fixed income securities are primarily based on quoted market prices. Real estate and infrastructure values are based on the value of each fund's assets as calculated by the fund manager, generally using third party appraisals or discounted cash flow analysis and taking into account current market conditions and recent sales transactions where practical and appropriate. Private debt values are based on the value of each fund's assets as calculated by the fund manager taking into account current market conditions and reviewed annually by external parties. Absolute return investments are a portfolio of units of externally managed hedge funds and are valued by the fund administrators.

The Company's pension plan asset allocation, the weighted-average asset allocation targets, and the weighted average policy range for each major asset class at year end were as follows:

Asset allocation (percentage)	Asset allocation target	Policy range	Percentage of plan assets at December 31	
			2021	2020
Cash and cash equivalents	1.2	0 – 10	3.1	2.0
Fixed income	24.1	20 – 40	24.1	28.1
Public equity	45.1	35 – 55	50.5	49.3
Real estate and infrastructure	9.8	4 – 13	6.7	6.3
Private debt	9.8	4 – 13	4.6	3.3
Absolute return	10.0	4 – 13	11.0	11.0
Total	100.0		100.0	100.0

Summary of the assets of the Company's DB pension plans

The following is a summary of the assets of the Company's DB pension plans at December 31, 2021 and 2020. As of December 31, 2021 and 2020, there were no plan assets classified as Level 3 valued investments.

(in millions of Canadian dollars)	Assets Measured at Fair Value				Total Plan Assets
	Quoted prices in active markets for identical assets (Level 1)	Significant other observable inputs (Level 2)	Investments measured at NAV ⁽¹⁾		
December 31, 2021					
Cash and cash equivalents	\$ 363	\$ —	\$ —	\$ 363	
Fixed income					
Government bonds ⁽²⁾	232	1,704	—	—	1,936
Corporate bonds ⁽²⁾	569	868	—	—	1,437
Mortgages ⁽³⁾	230	4	—	—	234
Public equities					
Canada	1,004	—	—	—	1,004
U.S. and international	6,536	—	—	—	6,536
Real estate ⁽⁴⁾	—	—	732	—	732
Infrastructure ⁽⁵⁾	—	—	263	—	263
Private debt ⁽⁶⁾	—	—	682	—	682
Derivative instruments ⁽⁷⁾	—	106	—	—	106
Absolute return ⁽⁸⁾					
Funds of hedge funds	—	—	1,621	—	1,621
Multi-strategy funds	—	—	24	—	24
	\$ 8,934	\$ 2,682	\$ 3,322	\$ 14,938	
December 31, 2020					
Cash and cash equivalents	\$ 219	\$ —	\$ —	\$ 219	
Fixed income					
Government bonds ⁽²⁾	284	1,699	—	—	1,983
Corporate bonds ⁽²⁾	691	1,144	—	—	1,835
Mortgages ⁽³⁾	220	5	—	—	225
Public equities					
Canada	1,183	—	—	—	1,183
U.S. and international	5,871	28	—	—	5,899
Real estate ⁽⁴⁾	—	—	704	—	704
Infrastructure ⁽⁵⁾	—	—	199	—	199
Private debt ⁽⁶⁾	—	—	465	—	465
Derivative instruments ⁽⁷⁾	—	71	—	—	71
Absolute return ⁽⁸⁾					
Funds of hedge funds	—	—	1,560	—	1,560
Multi-strategy funds	—	—	22	—	22
	\$ 8,468	\$ 2,947	\$ 2,950	\$ 14,365	

⁽¹⁾ Investments measured at net asset value ("NAV"):

Amounts are comprised of certain investments measured using NAV (or its equivalent) as a practical expedient. These investments have not been classified in the fair value hierarchy.

(2) Government & Corporate Bonds:

Fair values for bonds are based on market prices supplied by independent sources as of the last trading day.

(3) Mortgages:

The fair values of mortgages are based on current market yields of financial instruments of similar maturity, coupon and risk factors.

(4) Real estate:

Real estate fund values are based on the NAV of the funds that invest directly in real estate investments. The values of the investments have been estimated using the capital accounts representing the plan's ownership interest in the funds. Of the total, \$613 million is subject to redemption frequencies ranging from monthly to annually and a redemption notice period of 90 days (2020 – \$580 million). The remaining \$119 million is not subject to redemption and is normally returned through distributions as a result of the liquidation of the underlying real estate investments (2020 – \$124 million). As at December 31, 2021, there are \$32 million of unfunded commitments for real estate investments (December 31, 2020 – \$32 million).

(5) Infrastructure:

Infrastructure fund values are based on the NAV of the funds that invest directly in infrastructure investments. The values of the investments have been estimated using the capital accounts representing the plans' ownership interest in the funds. Of the total, \$107 million is subject to redemption frequencies ranging from monthly to annually and a redemption notice period of 90 days (2020 – \$112 million). The remaining \$156 million is not subject to redemption and is normally returned through distributions as a result of the liquidation of the underlying infrastructure investments (2020 – \$87 million). As at December 31, 2021, there are \$814 million of unfunded commitments for infrastructure investments (December 31, 2020 – \$491 million).

(6) Private debt:

Private debt fund values are based on the NAV of the funds that invest directly in private debt investments. The values of the investments have been estimated using the capital accounts representing the plans' ownership interest in the funds. Of the total, \$152 million is subject to redemption frequencies ranging from monthly to annually and a redemption notice period of 90 days (2020 – \$154 million). The remaining \$530 million is not subject to redemption and is normally returned through distributions as a result of the repayment of the underlying loans (2020 - \$311 million). As at December 31, 2021, there are \$774 million of unfunded commitments for private debt investments (December 31, 2020 – \$533 million).

(7) Derivatives:

The investment managers may utilize the following derivative instruments: equity futures to replicate equity index returns (Level 2); currency forwards to partially hedge foreign currency exposures (Level 2); bond forwards to reduce asset/liability interest rate risk exposures (Level 2); interest rate swaps to manage duration and interest rate risk (Level 2); credit default swaps to manage credit risk (Level 2); and options to manage interest rate risk and volatility (Level 2). The Company may utilize derivatives directly, but only for the purpose of hedging foreign currency exposures. As at December 31, 2021, there are currency forwards with a notional value of nil (December 31, 2020 – \$1,041 million) and a fair value of \$6 million (December 31, 2020 – \$73 million). The fixed income investment manager utilizes a portfolio of bond forwards for the purpose of reducing asset/liability interest rate exposure. As at December 31, 2021, there are bond forwards with a notional value of \$2,967 million (December 31, 2020 – \$3,540 million) and a fair value of \$100 million (December 31, 2020 – \$(2) million).

(8) Absolute return:

The value of absolute return fund investments is based on the NAV reported by the fund administrators. The funds have different redemption policies with redemption notice periods varying from 60 to 95 days and frequencies ranging from monthly to triennially.

Additional plan assets information

The Company's primary investment objective for pension plan assets is to achieve a long-term return, net of all fees and expenses, that is sufficient for the plan's assets to satisfy the current and future obligations to plan beneficiaries, while minimizing the financial impact on the Company. In identifying the asset allocation ranges, consideration was given to the long-term nature of the underlying plan liabilities, the solvency and going-concern financial position of the plan, long-term return expectations, and the risks associated with key asset classes as well as the relationships of returns on key asset classes with each other, inflation, and interest rates. When advantageous and with due consideration, derivative instruments may be utilized by investment managers, provided the total value of the underlying assets represented by financial derivatives (excluding currency forwards, liability hedging derivatives in fixed income portfolios, and derivatives held by absolute return funds) is limited to 30% of the market value of the fund.

The funded status of the plans is exposed to fluctuations in interest rates, which affects the relative values of the plans' liabilities and assets. In order to mitigate interest rate risk, the Company's main Canadian defined benefit pension plan utilizes a liability driven investment strategy in its fixed income portfolio, which uses a combination of long duration bonds and derivatives to hedge interest rate risk, managed by the investment manager. At December 31, 2021, the plan's solvency funded position was 47% hedged against interest rate risk (2020 – 47%).

When investing in foreign securities, the plans are exposed to foreign currency risk; the effect of which is included in the valuation of the foreign securities. At December 31, 2021, the plans were 43% exposed to the U.S. dollar, 5% exposed to the Euro, and 10% exposed to various other currencies. At December 31, 2020, the plans were 33% exposed to the U.S. dollar net of currency forwards (40% excluding the currency forwards), 6% exposed to the Euro, and 14% exposed to various other currencies.

At December 31, 2021, fund assets included 426,304 of the Common Shares of the Company (2020 – 545,040) at a market value of \$39 million (2020 – \$48 million) and Fixed Income securities of the Company at a market value of \$5 million (2020 – nil).

Estimated future benefit payments

The estimated future DB pension and other benefit payments to be paid by the plans for each of the next five years and the subsequent five-year period are as follows:

(in millions of Canadian dollars)	Pensions	Other benefits
2022	\$ 645	32
2023	637	31
2024	638	30
2025	639	29
2026	640	29
2027-2031	3,209	136

The benefit payments from the Canadian registered and U.S. qualified DB pension plans are payable from their respective pension funds. Benefit payments from the supplemental pension plan and from the other benefits plans are payable directly by the Company.

Defined contribution plan

Canadian non-unionized employees hired prior to July 1, 2010 had the option to participate in the Canadian DC plan. All Canadian non-unionized employees hired after such date must participate in this plan. Employee contributions are based on a percentage of salary. The Company matches employee contributions to a maximum percentage each year.

Effective July 1, 2010, a new U.S. DC plan was established. All U.S. non-unionized employees hired after such date must participate in this plan. Employees do not contribute to the plan. The Company annually contributes a percentage of salary.

The DC plans provide a pension based on total employee, where appropriate, and employer contributions plus investment income earned on those contributions.

In 2021, the net cost of the DC plans, which generally equals the employer's required contribution, was \$13 million (2020 – \$12 million; 2019 – \$11 million).

Contributions to multi-employer plans

Some of the Company's unionized employees in the U.S. are members of a U.S. national multi-employer benefit plan. Contributions made by the Company to this plan in 2021 in respect of post-retirement medical benefits were \$3 million (2020 – \$3 million; 2019 – \$3 million).

25. Stock-based compensation

At December 31, 2021, the Company had several stock-based compensation plans including stock option plans, various cash-settled liability plans, and an employee share purchase plan. These plans resulted in an expense of \$131 million in 2021 (2020 – \$170 million; 2019 – \$133 million) and the total tax benefit related to these plans was \$29 million in 2021 (2020 – \$42 million; 2019 – \$33 million).

A. Stock option plan

Options issued prior to the share split described in Item 8. Financial Statements and Supplementary Data, Note 1 Summary of significant accounting policies now each provide rights over five shares. For consistency, all number of options presented herein are calculated and shown on the basis of the number of shares subject to the options. The following table summarizes information related to the stock option plan as at December 31, 2021:

	Options outstanding		Non-vested options	
	Number of options	Weighted-average exercise price	Number of options	Weighted-average grant date fair value
Outstanding, January 1, 2021	6,936,830	\$ 45.04	3,885,385	\$ 11.68
Granted	1,346,358	\$ 87.51	1,346,358	\$ 19.06
Exercised	(723,276)	\$ 35.20	N/A	N/A
Vested	N/A	N/A	(1,315,036)	\$ 11.83
Forfeited	(167,724)	\$ 54.54	(167,724)	\$ 12.23
Outstanding, December 31, 2021	7,392,188	\$ 53.36	3,748,983	\$ 14.25
Vested or expected to vest at December 31, 2021 ⁽¹⁾	7,340,397	\$ 53.21	N/A	N/A
Exercisable, December 31, 2021	3,643,205	\$ 41.64	N/A	N/A

⁽¹⁾ As at December 31, 2021, the weighted-average remaining term of vested or expected to vest options was 4.3 years with an aggregate intrinsic value of \$277 million.

The following table provides the number of stock options outstanding and exercisable as at December 31, 2021 by range of exercise price and their related intrinsic aggregate value, and for options outstanding, the weighted-average years to expiration. The table also provides the aggregate intrinsic value for in-the-money stock options, which represents the amount that would have been received by option holders had they exercised their options on December 31, 2021 at the Company's closing stock price of \$90.98.

Range of exercise prices	Options outstanding				Options exercisable		
	Number of options	Weighted-average years to expiration	Weighted-average exercise price	Aggregate intrinsic value (millions)	Number of options	Weighted-average exercise price	Aggregate intrinsic value (millions)
\$15.14 - \$38.17	1,420,600	2.7	\$ 30.14	\$ 86	1,420,600	\$ 30.14	\$ 87
\$38.18 - \$46.65	2,013,630	2.4	\$ 40.86	\$ 101	1,032,160	\$ 42.64	\$ 50
\$46.66 - \$68.74	2,167,180	4.1	\$ 55.55	\$ 77	1,082,960	\$ 52.89	\$ 41
\$68.75 - \$103.98	1,790,778	5.9	\$ 83.21	\$ 14	107,485	\$ 70.48	\$ 2
Total ⁽¹⁾	7,392,188	3.8	\$ 53.36	\$ 278	3,643,205	\$ 41.64	\$ 180

⁽¹⁾ As at December 31, 2021, the total number of in-the-money stock options outstanding was 7,373,880 with a weighted-average exercise price of \$53.26. The weighted-average years to expiration of exercisable stock options is 3.1 years.

Pursuant to the employee plan, options may be exercised upon vesting, which is between 12 months and 48 months after the grant date, and will expire after seven years. Under the fair value method, the fair value of the stock options at grant date was approximately \$26 million for options issued in 2021 (2020 – \$15 million; 2019 – \$14 million). The weighted-average fair value assumptions were approximately:

	2021	2020	2019
Expected option life (years) ⁽¹⁾	4.75	4.75	5.00
Risk-free interest rate ⁽²⁾	0.53%	1.28%	2.22%
Expected stock price volatility ⁽³⁾	27.14%	23.14%	25.04%
Expected annual dividends per share ⁽⁴⁾	\$ 0.760	\$ 0.664	\$ 0.524
Expected forfeiture rate ⁽⁵⁾	2.62%	4.41%	6.05%
Weighted-average grant date fair value of options granted during the year	\$ 19.06	\$ 13.80	\$ 12.74

⁽¹⁾ Represents the period of time that awards are expected to be outstanding. Historical data on exercise behaviour or, when available, specific expectations regarding future exercise behaviour were used to estimate the expected life of the option.

⁽²⁾ Based on the implied yield available on zero-coupon government issues with an equivalent term commensurate with the expected term of the option.

⁽³⁾ Based on the historical volatility of the Company's stock price over a period commensurate with the expected term of the option.

⁽⁴⁾ Determined by the current annual dividend at the time of grant. The Company does not employ different dividend yields throughout the contractual term of the option.

⁽⁵⁾ The Company estimates forfeitures based on past experience. The rate is monitored on a periodic basis.

In 2021, the expense for stock options (regular and performance) was \$23 million (2020 – \$16 million; 2019 – \$14 million). At December 31, 2021, there was \$16 million of total unrecognized compensation related to stock options which is expected to be recognized over a weighted-average period of approximately 0.9 years.

The total fair value of shares vested for the stock option plan during 2021 was \$18 million (2020 – \$10 million; 2019 – \$8 million).

The following table provides information related to all options exercised in the stock option plan during the years ended December 31:

(in millions of Canadian dollars)	2021	2020	2019
Total intrinsic value	\$ 43	\$ 52	\$ 63
Cash received by the Company upon exercise of options	25	52	26

B. Other share-based plans

Performance share unit plans

During 2021, the Company issued 431,430 PSUs with a grant date fair value of approximately \$37 million and 12,694 PDSUs with a grant date fair value, including value of expected future matching units, of approximately \$1 million. PSUs and PDSUs attract dividend equivalents in the form of additional units based on dividends paid on the Company's Common Shares, and vest approximately three years after the grant date, contingent upon CP's performance ("performance factor"). The fair value of these PSUs and PDSUs is measured periodically until settlement using closing share price on the date of measurement. The fair value of units that are probable of vesting based on forecasted performance factors over the three-year performance period is recognized as expense in the Consolidated Statements of Income. Vested PSUs are settled in cash. Vested PDSUs are settled in cash pursuant to the DSU plan and are eligible for a 25% match if the holder has not exceeded their share ownership requirements, and are paid out only when the holder ceases their employment with CP.

The performance period for PSUs and PDSUs issued in 2021 is January 1, 2021 to December 31, 2023, and the performance factors are Return on Invested Capital ("ROIC"), Total Shareholder Return ("TSR") compared to the S&P/TSX 60 Index, and TSR compared to Class I railways.

The performance period for 489,990 PSUs and 50,145 PDSUs issued in 2020 is January 1, 2020 to December 31, 2022, and the performance factors for these PSUs are ROIC, TSR compared to the S&P/TSX 60 Index, and TSR compared to Class I railways.

The performance period for 668,405 PSUs issued in 2019 was January 1, 2019 to December 31, 2021, and the performance factors for these PSUs were ROIC, TSR compared to the S&P/TSX 60 Index, and TSR compared to Class I Railways. The resulting estimated payout on these awards was 200% on 630,129 total outstanding awards representing a total fair value of \$116 million at December 31, 2021, calculated using the Company's average share price of the last 30 trading days preceding December 31, 2021. The performance factors for the remaining 2,895 PSUs were annual revenue for the fiscal year 2020, diluted earnings per share for the fiscal year 2020, and share price appreciation.

The performance period for 626,400 PSUs issued in 2018 was January 1, 2018 to December 31, 2020, and the performance factors were ROIC, TSR compared to the S&P/TSX Capped Industrial Index, and TSR compared to the S&P 1500 Road and Rail Index. The resulting payout was 200% of the

outstanding units multiplied by the Company's average share price calculated using the last 30 trading days preceding December 31, 2020. In the first quarter of 2021, payouts occurred on 570,056 total outstanding awards, including dividends reinvested, totalling \$98 million. The performance factors for the remaining 184,875 PSUs were annual revenue for the fiscal year 2020, diluted earnings per share for the fiscal year 2020, and share price appreciation. The resulting payout was 125% of the outstanding units multiplied by the Company's average share price calculated using the last 30 trading days preceding the vesting dates. In the second half of 2021, payouts occurred on 173,456 total outstanding awards, including the 2,895 units issued in 2019 and dividends reinvested, totalling \$21 million.

The following table summarizes information related to PSUs and PDSUs as at December 31:

	2021	2020
Outstanding, January 1	1,909,345	2,015,680
Granted	444,124	540,135
Units in lieu of dividends	14,668	19,215
Settled	(743,512)	(606,125)
Forfeited	(46,844)	(59,560)
Outstanding, December 31	1,577,781	1,909,345

In 2021, the expense for PSUs and PDSUs was \$91 million (2020 – \$121 million; 2019 – \$89 million). At December 31, 2021, there was \$35 million of total unrecognized compensation related to these awards which is expected to be recognized over a weighted-average period of approximately 1.4 years.

Deferred share unit plan

The Company established the DSU plan as a means to compensate and assist in attaining share ownership targets set for certain key employees and Directors. A DSU entitles the holder to receive, upon redemption, a cash payment equivalent to the Company's average share price using the 10 trading days prior to redemption. DSUs vest over various periods of up to 36 months and are only redeemable for a specified period after employment is terminated.

Senior managers may elect to receive DSUs in lieu of annual bonus cash payments in the bonus deferral program. In addition, senior managers will be granted a 25% company match of DSUs when deferring cash to DSUs to meet ownership targets. The election to receive eligible payments in DSUs is no longer available to a participant when the value of the participant's DSUs is sufficient to meet the Company's stock ownership guidelines. Senior managers have five years to meet their ownership targets.

The expense for DSUs is recognized over the vesting period for both the initial subscription price and the change in value between reporting periods.

The following table summarizes information related to DSUs as at December 31:

	2021	2020
Outstanding, January 1	774,053	806,095
Granted	70,112	95,204
Units in lieu of dividends	6,753	7,553
Settled	(6,677)	(133,940)
Forfeited	(2,908)	(859)
Outstanding, December 31	841,333	774,053

During 2021, the Company granted 70,112 DSUs with a grant date fair value of approximately \$6 million. In 2021, the expense for DSUs was \$6 million (2020 – \$21 million; 2019 – \$20 million). At December 31, 2021, there was \$1 million of total unrecognized compensation related to DSUs which is expected to be recognized over a weighted-average period of approximately 1.0 year.

Summary of share-based liabilities paid

The following table summarizes the total share-based liabilities paid for each of the years ended December 31:

(in millions of Canadian dollars)	2021	2020	2019
Plan			
PSUs	\$ 119	\$ 76	\$ 54
DSUs	1	9	4
Other	6	1	—
Total	\$ 126	\$ 86	\$ 58

C. Employee share purchase plan

The Company has an employee share purchase plan whereby both employee and the Company contributions are used to purchase shares on the open market for employees. The Company's contributions are expensed over the one year vesting period. Under the plan, the Company matches \$1 for every \$3 contributed by employees up to a maximum employee contribution of 6% of annual salary.

The total number of shares purchased in 2021 on behalf of participants, including the Company's contributions, was 538,022 (2020 – 576,720; 2019 – 689,710). In 2021, the Company's contributions totalled \$11 million (2020 – \$9 million; 2019 – \$8 million) and the related expense was \$8 million (2020 – \$7 million; 2019 – \$6 million).

26. Variable interest entities

The Company leases equipment from certain trusts, which have been determined to be variable interest entities financed by a combination of debt and equity provided by unrelated third parties. The lease agreements, which are classified as operating leases, have fixed price purchase options which create the Company's variable interests and result in the trusts being considered variable interest entities.

Maintaining and operating the leased assets according to specific contractual obligations outlined in the terms of the lease agreements and industry standards is the Company's responsibility. The rigour of the contractual terms of the lease agreements and industry standards are such that the Company has limited discretion over the maintenance activities associated with these assets. As such, the Company concluded these terms do not provide the Company with the power to direct the activities of the variable interest entities in a way that has a significant impact on the entities' economic performance.

The financial exposure to the Company as a result of its involvement with the variable interest entities is equal to the fixed lease payments due to the trusts. In 2021, lease payments after tax were \$14 million. Future minimum lease payments, before tax, of \$107 million will be payable over the next 9 years. The Company does not guarantee the residual value of the assets to the lessor; however, it must deliver to the lessor the assets in good operating condition, subject to normal wear and tear, at the end of the lease term.

As the Company's actions and decisions do not significantly affect the variable interest entities' performance, and the Company's fixed price purchase option is not considered to be potentially significant to the variable interest entities, the Company is not considered to be the primary beneficiary, and does not consolidate these variable interest entities.

Additionally, as further discussed in Note 11, as at December 31, 2021, an indirect wholly owned subsidiary of the Company is the sole beneficiary of an independent voting trust that holds 100% of the equity interest in KCS. The trust is governed by a single trustee who is responsible to act in the interest of CP as the beneficial owner of the shares of KCS. As a result of KCS's equity being held in trust, CP's interest in KCS does not have the attributes of a typical equity holder as CP has no power to direct KCS's activities during the trust period and therefore the trust is considered to be a variable interest entity that CP cannot consolidate.

The risks associated with CP's investment in KCS include normal corporate and business risks associated with railroad operations. During the trust period, KCS is subject to contractual restrictions related to acquiring assets, entering into material contracts, or making certain additional capital expenditures that could have a negative impact on their operations. CP's investment in KCS is also subject to the risk that the STB will not approve CP's application to control KCS by December 31, 2023 or, by a final and non-appealable order, refuse to provide final approval in which cases CP would be required to dispose of its investment in KCS. Similarly, if the STB imposes onerous conditions on its final approval, CP may choose to dispose of its initial investment in KCS rather than agreeing to the conditions imposed by the STB. The Company may not be able to sell its investment at a price that recovers its initial investment and may incur a loss up to the full carrying value of its investment in KCS, in addition to incurring significant expenses in connection to such transaction. All of these risks can impact the overall value of CP's investment in KCS.

27. Commitments and contingencies

In the normal course of its operations, the Company becomes involved in various legal actions, including claims relating to injuries and damage to property. The Company maintains provisions it considers to be adequate for such actions. While the final outcome with respect to actions outstanding or pending at December 31, 2021 cannot be predicted with certainty, it is the opinion of management that their resolution will not have a material adverse effect on the Company's business, financial position, or results of operations. However, an unexpected adverse resolution of one or more of these legal actions could have a material adverse effect on the Company's business, financial position, results of operations, or liquidity in a particular quarter or fiscal year.

Commitments

At December 31, 2021, the Company had committed to total future capital expenditures amounting to \$455 million and operating expenditures relating to supplier purchase obligations, such as bulk fuel purchase agreements, locomotive maintenance and overhaul agreements, as well as agreements to purchase other goods and services amounting to approximately \$1.6 billion for the years 2022–2035.

Commitments related to leases, including minimum annual payments for the next five years and thereafter, are included in Note 21.

Legal proceedings related to Lac-Mégantic rail accident

On July 6, 2013, a train carrying petroleum crude oil operated by Montréal Maine and Atlantic Railway ("MMAR") or a subsidiary, Montréal Maine & Atlantic Canada Co. ("MMAC" and collectively the "MMA Group"), derailed in Lac-Mégantic, Québec. The derailment occurred on a section of railway owned and operated by the MMA Group and while the MMA Group exclusively controlled the train.

Following the derailment, MMAC sought court protection in Canada under the *Companies' Creditors Arrangement Act* and MMAR filed for bankruptcy in the U.S. Plans of arrangement were approved in both Canada and the U.S. (the "Plans"), providing for the distribution of approximately \$440 million amongst those claiming derailment damages.

A number of legal proceedings, set out below, were commenced in Canada and the U.S. against CP and others:

- (1) Québec's Minister of Sustainable Development, Environment, Wildlife and Parks ordered various parties, including CP, to remediate the derailment site (the "Cleanup Order") and served CP with a Notice of Claim for \$95 million for those costs. CP appealed the Cleanup Order and contested the Notice of Claim with the Administrative Tribunal of Québec. These proceedings are stayed pending determination of the Attorney General of Québec ("AGQ") action (paragraph 2 below).
- (2) The AGQ sued CP in the Québec Superior Court claiming \$409 million in damages, which was amended and reduced to \$315 million (the "AGQ Action"). The AGQ Action alleges that: (i) CP was responsible for the petroleum crude oil from its point of origin until its delivery to Irving Oil Ltd.; and (ii) CP is vicariously liable for the acts and omissions of the MMA Group.
- (3) A class action in the Québec Superior Court on behalf of persons and entities residing in, owning or leasing property in, operating a business in, or physically present in Lac-Mégantic at the time of the derailment was certified against CP on May 8, 2015 (the "Class Action"). Other defendants including MMAC and Mr. Thomas Harding ("Harding") were added to the Class Action on January 25, 2017. On November 28, 2019, the plaintiffs' motion to discontinue their action against Harding was granted. The Class Action seeks unquantified damages, including for wrongful death, personal injury, property damage, and economic loss.
- (4) Eight subrogated insurers sued CP in the Québec Superior Court claiming approximately \$16 million in damages, which was amended and reduced to approximately \$15 million (the "Promutuel Action"), and two additional subrogated insurers sued CP claiming approximately \$3 million in damages (the "Royal Action"). Both actions contain similar allegations as the AGQ Action. The actions do not identify the subrogated parties. As such, the extent of any overlap between the damages claimed in these actions and under the Plans is unclear. The Royal Action is stayed pending determination of the consolidated proceedings described below.

On December 11, 2017, the AGQ Action, the Class Action and the Promutuel Action were consolidated. The joint liability trial of these consolidated claims commenced on September 21, 2021, and will be followed by a damages trial, if necessary.

- (5) Forty-eight plaintiffs (all individual claims joined in one action) sued CP, MMAC, and Harding in the Québec Superior Court claiming approximately \$5 million in damages for economic loss and pain and suffering, and asserting similar allegations as in the Class Action and the AGQ Action. The majority of the plaintiffs opted-out of the Class Action and all but two are also plaintiffs in litigation against CP, described in paragraph 7 below. This action is stayed pending determination of the consolidated claims described above.
- (6) The MMAR U.S. bankruptcy estate representative commenced an action against CP in November 2014 in the Maine Bankruptcy Court claiming that CP failed to abide by certain regulations and seeking approximately U.S. \$30 million in damages for MMAR's loss in business value according to a

recent expert report filed by the bankruptcy estate. This action asserts that CP knew or ought to have known that the shipper misclassified the petroleum crude oil and therefore should have refused to transport it.

- (7) The class and mass tort action commenced against CP in June 2015 in Texas (on behalf of Lac-Mégantic residents and wrongful death representatives) and the wrongful death and personal injury actions commenced against CP in June 2015 in Illinois and Maine, were all transferred and consolidated in Federal District Court in Maine (the "Maine Actions"). The Maine Actions allege that CP negligently misclassified and improperly packaged the petroleum crude oil. On CP's motion, the Maine Actions were dismissed. The plaintiffs appealed the dismissal decision to the United States First Circuit Court of Appeals, which dismissed the plaintiffs' appeal on June 2, 2021. The plaintiffs further petitioned the United States First Circuit Court of Appeals for a rehearing, which was denied on September 8, 2021. On January 24, 2022, the plaintiffs filed a petition for a writ of certiorari with the U.S. Supreme Court on two bankruptcy procedural grounds.
- (8) The trustee for the wrongful death trust commenced Carmack Amendment claims against CP in North Dakota Federal Court, seeking to recover approximately U.S. \$6 million for damaged rail cars and lost crude and reimbursement for the settlement paid by the consignor and the consignee under the Plans (alleged to be U.S. \$110 million and U.S. \$60 million, respectively). The Court issued an Order on August 6, 2020 granting and denying in parts the parties' summary judgment motions which has been reviewed and confirmed following motions by the parties for clarification and reconsideration. This action is scheduled for trial on July 11 to 14, 2022.

At this stage of the proceedings, any potential responsibility and the quantum of potential losses cannot be determined. Nevertheless, CP denies liability and is vigorously defending these proceedings.

28. Guarantees

In the normal course of operating the railway, the Company enters into contractual arrangements that involve providing certain guarantees, which extend over the term of the contracts. These guarantees include, but are not limited to:

- guarantees to pay other parties in the event of the occurrence of specified events, including damage to equipment, in relation to assets used in the operation of the railway through operating leases, rental agreements, easements, trackage, and interline agreements; and
- indemnifications of certain tax-related payments incurred by lessors and lenders.

The maximum amount that could be payable under these guarantees, excluding residual value guarantees, cannot be reasonably estimated due to the nature of certain of these guarantees. All or a portion of amounts paid under guarantees to other parties in the event of the occurrence of specified events could be recoverable from other parties or through insurance. The Company has accrued for all guarantees that it expects to pay. At December 31, 2021, these accruals amounted to \$14 million (2020 – \$18 million), and are recorded in "Accounts payable and accrued liabilities".

Indemnifications

Pursuant to a trust and custodial services agreement with the trustee of the Canadian Pacific Railway Company Pension Plan, the Company has undertaken to indemnify and save harmless the trustee, to the extent not paid by the fund, from any and all taxes, claims, liabilities, damages, costs, and expenses arising out of the performance of the trustee's obligations under the agreement, except as a result of misconduct by the trustee. The indemnity includes liabilities, costs, or expenses relating to any legal reporting or notification obligations of the trustee with respect to the defined benefit and defined contribution options of the pension plans, or otherwise with respect to the assets of the pension plans that are not part of the fund. The indemnity survives the termination or expiry of the agreement with respect to claims and liabilities arising prior to the termination or expiry.

Pursuant to the voting trust agreement executed as part of the KCS acquisition, the Company has undertaken to protect, indemnify and save harmless the trustee from any loss, damages, liability, cost or expense in connection with the independent voting trust (except those resulting from the gross negligence or willful misconduct of the trustee) and any cost or expense of any suit or litigation with respect to the trust stock or the voting trust agreement. The Company has also undertaken to pay all costs, damages and expenses of the trustee, where the trustee is made party to or is the subject of any investigation or proceeding by reason of and with respect to the trust stock or voting trust agreement.

At December 31, 2021, the Company had not recorded a liability associated with this indemnification as it does not expect to make any payments pertaining to it.

29. Segmented and geographic information

Operating segment

The Company operates in only one operating segment: rail transportation. Operating results by geographic areas, railway corridors, or other lower-level components or units of operation are not reviewed by the Company's chief operating decision-maker to make decisions about the allocation of resources to, or the assessment of performance of, such geographic areas, corridors, components, or units of operation.

In the years ended December 31, 2021, 2020, and 2019, no one customer comprised more than 10% of total revenues and accounts receivable.

Geographic information

All of the Company's revenues and long-term assets disclosed in the table below are held within Canada and the United States.

(in millions of Canadian dollars)	Canada	United States	Total
2021			
Revenues	\$ 5,992	\$ 2,003	\$ 7,995
Long-term assets excluding investment in Kansas City Southern, financial instruments, and pension assets	14,922	7,274	22,196
2020			
Revenues	5,829	1,881	7,710
Long-term assets excluding financial instruments and pension assets	14,258	7,165	21,423
2019			
Revenues	5,675	2,117	7,792
Long-term assets excluding financial instruments and pension assets	13,131	7,020	20,151

30. Selected quarterly data (unaudited)

As a result of the five-for-one share split of the Company's issued and outstanding Common Shares, which began trading on a post-split basis on May 14, 2021, per share amounts and all outstanding Common Shares for periods prior to Q2 2021 were retrospectively adjusted. The adjusted amounts are presented below. Total revenues, Operating income, and Net income were not impacted by the share split.

For the quarter ended (in millions of Canadian dollars, except per share data)	2021				2020			
	Dec. 31	Sep. 30	Jun. 30	Mar. 31	Dec. 31	Sep. 30	Jun. 30	Mar. 31
Total revenues	\$ 2,040	\$ 1,942	\$ 2,054	\$ 1,959	\$ 2,012	\$ 1,863	\$ 1,792	\$ 2,043
Operating income	832	774	820	780	928	779	770	834
Net income	532	472	1,246	602	802	598	635	409
Basic earnings per share ⁽¹⁾	\$ 0.74	\$ 0.71	\$ 1.87	\$ 0.90	\$ 1.19	\$ 0.88	\$ 0.94	\$ 0.60
Diluted earnings per share ⁽¹⁾	\$ 0.74	\$ 0.70	\$ 1.86	\$ 0.90	\$ 1.19	\$ 0.88	\$ 0.93	\$ 0.60

⁽¹⁾ Earnings per share for the four quarters combined may not equal earnings per share for the year due to rounding.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

ITEM 9A. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

As of December 31, 2021, an evaluation was carried out under the supervision of and with the participation of CP's management, including CEO and CFO, of the effectiveness of the design and operation of the Company's disclosure controls and procedures as defined in Rules 13a-15(e) and 15d-15(e) of the *Exchange Act*. Based on that evaluation, the CEO and CFO concluded that these disclosure controls and procedures were effective as of December 31, 2021, to ensure that information required to be disclosed by the Company in reports that they file or submit under the *Exchange Act* is (i) recorded, processed, summarized and reported within the time periods specified by the SEC rules and forms and (ii) accumulated and communicated to the Company's management, including the CEO and CFO, as appropriate, to allow timely decisions regarding required disclosure.

Management's Report on Internal Control over Financial Reporting

Management is responsible for the financial statements and for establishing and maintaining adequate internal control over financial reporting for the Company as defined in Rules 13a-15(f) and 15d-15(f) of the *Exchange Act*. 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. Due to 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.

Management has assessed the effectiveness of the Company's internal control over financial reporting in accordance with the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in *Internal Control – Integrated Framework* (2013). Based on this assessment, management concluded that the Company maintained effective internal control over financial reporting as of December 31, 2021. 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 the reliability of financial reporting and preparation of financial statements in accordance with generally accepted accounting principles.

The effectiveness of the Company's internal control over financial reporting as of December 31, 2021 has been audited by Deloitte LLP, the Company's independent registered public accounting firm who audited the Company's Consolidated Financial Statements included in this Form 10-K, as stated in their report, which is included herein.

Changes in Internal Control over Financial Reporting

During the three months ended December 31, 2021, the Company has not identified any changes in internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Report of Independent Registered Public Accounting Firm

To the Shareholders and the Board of Directors of Canadian Pacific Railway Limited

Opinion on Internal Control over Financial Reporting

We have audited the internal control over financial reporting of Canadian Pacific Railway Limited and subsidiaries (the "Company") as of December 31, 2021, 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 Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2021, 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, 2021, of the Company and our report dated February 23, 2022, expressed an unqualified opinion on those financial statements.

Basis for Opinion

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

We conducted our 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.

/s/ Deloitte LLP

Chartered Professional Accountants
Calgary, Canada
February 23, 2022

ITEM 9B. OTHER INFORMATION

None.

ITEM 9C. DISCLOSURE REGARDING FOREIGN JURISDICTIONS THAT PREVENT INSPECTIONS

Not applicable.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

Directors of Registrant

The information required by this Item will be contained in the Company's Form 10-K/A, which will be filed no later than 120 days after December 31, 2021. This information will also be contained in the management proxy circular that we prepare in accordance with applicable Canadian corporate and securities law requirements.

Executive Officers of Registrant

The information regarding executive officers is included in Part I of this annual report under Information about our Executive Officers, following Item 4. Mine Safety Disclosures.

Compliance with Section 16(a) of the Exchange Act

The information required by this Item will be contained in the Company's Form 10-K/A, which will be filed no later than 120 days after December 31, 2021.

Code of Ethics for Chief Executive Officer and Senior Financial Officers

The information required by this Item will be contained in the Company's Form 10-K/A, which will be filed no later than 120 days after December 31, 2021.

ITEM 11. EXECUTIVE COMPENSATION

The information required by this Item will be contained in the Company's Form 10-K/A, which will be filed no later than 120 days after December 31, 2021. This information will also be contained in the management proxy circular that we prepare in accordance with applicable Canadian corporate and securities law requirements.

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The information required by this Item will be contained in the Company's Form 10-K/A, which will be filed no later than 120 days after December 31, 2021.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information required by this Item will be contained in the Company's Form 10-K/A, which will be filed no later than 120 days after December 31, 2021. This information will also be contained in the management proxy circular that we prepare in accordance with applicable Canadian corporate and securities law requirements.

ITEM 14. PRINCIPAL ACCOUNTING FEES AND SERVICES

The information required by this Item will be contained in the Company's Form 10-K/A, which will be filed no later than 120 days after December 31, 2021. This information will also be contained in the management proxy circular that we prepare in accordance with applicable Canadian corporate and securities law requirements.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULE

The following documents are filed as part of this annual report:

(a) Financial Statements

The financial statements filed as part of this filing are listed on the Index to Consolidated Financial Statements in Item 8. Financial Statements and Supplementary Data.

(b) Financial Statement Schedule

Schedule II – Valuation and Qualifying Accounts

	Beginning balance at January 1 (in millions of Canadian dollars)	Additions charged to expenses	Payments and other reductions	Impact of FX	Ending balance at December 31
Accruals for personal injury and other claims provision⁽¹⁾					
2019	\$ 152	\$ 142	\$ (152)	\$ (1)	141
2020	\$ 141	\$ 105	\$ (119)	\$ (1)	126
2021	\$ 126	\$ 114	\$ (117)	\$ —	123
Environmental liabilities					
2019	\$ 82	\$ 6	\$ (8)	\$ (3)	77
2020	\$ 77	\$ 10	\$ (6)	\$ (1)	80
2021	\$ 80	\$ 10	\$ (10)	\$ (1)	79

⁽¹⁾ Includes WCB, FELA, occupational, damage, and other.

(c) Exhibits

Exhibits are listed in the exhibit index below. 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.

Exhibit	Description
2	<i>Plan of Acquisition, Reorganization, Arrangement, Liquidation, or Succession:</i>
2.1	Agreement and Plan of Merger, dated as of March 21, 2021, by and among Canadian Pacific Railway Limited, Cygnus Merger Sub 1 Corporation, Cygnus Merger Sub 2 Corporation and Kansas City Southern (incorporated by reference to Exhibit 2.1 to Canadian Pacific Railway Limited's Current Report on Form 8-K filed with the Securities and Exchange Commission on March 21, 2021, File No. 001-01342).
2.2	Agreement and Plan of Merger, dated as of September 15, 2021, by and among Canadian Pacific Railway Limited, Cygnus Merger Sub 1 Corporation, Cygnus Merger Sub 2 Corporation and Kansas City Southern (incorporated by reference to Exhibit 2.1 to Canadian Pacific Railway Limited's Current Report on Form 8-K filed with the Securities and Exchange Commission on September 16, 2021, File No. 001-01342).
3	<i>Articles of Incorporation and Bylaws:</i>
3.1	Restated Certificate and Articles of Incorporation of Canadian Pacific Railway Limited (incorporated by reference to Exhibit 99.2 to Canadian Pacific Railway Limited's Current Report on Form 6-K filed with the Securities and Exchange Commission on October 22, 2015, File No. 001-01342).
3.2	Articles of Amendment to Restated Certificate and Articles of Incorporation of Canadian Pacific Railway Limited (incorporated by reference to Exhibit 3.1 to Canadian Pacific Railway Limited's Current Report on Form 8-K filed with the Securities and Exchange Commission on May 5, 2021, File No. 001-01342).
3.3	By-law No. 1, as amended, of Canadian Pacific Railway Limited (incorporated by reference to Exhibit 1 to Canadian Pacific Railway Limited's Current Report on Form 6-K filed with the Securities and Exchange Commission on May 22, 2009, File No. 001-01342).
3.4	By-law No. 2 of Canadian Pacific Railway Limited (incorporated by reference to Exhibit 99.1 to Canadian Pacific Railway Limited's Current Report on Form 6-K filed with the Securities and Exchange Commission on March 13, 2015, File No. 001-01342).

3.5	General By-law, as amended, of Canadian Pacific Railway Company, a wholly owned subsidiary of Canadian Pacific Railway Limited (incorporated by reference to Exhibit 2 to Canadian Pacific Railway Limited's Current Report on Form 6-K filed with the Securities and Exchange Commission on May 22, 2009, File No. 001-01342).
4	Instruments Defining the Rights of Security Holders, Including Indentures:
4.1	Indenture dated as of May 8, 2007 between Canadian Pacific Railway Company and The Bank of New York Mellon (incorporated by reference to Exhibit 4.1 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
4.2	First Supplemental Indenture dated as of May 8, 2007 between Canadian Pacific Railway Company and The Bank of New York Mellon (incorporated by reference to Exhibit 4.2 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
4.3	Second Supplemental Indenture dated as of May 20, 2008 between Canadian Pacific Railway Company and The Bank of New York Mellon (incorporated by reference to Exhibit 4.3 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
4.4	Third Supplemental Indenture dated as of May 15, 2009 between Canadian Pacific Railway Company and The Bank of New York Mellon (incorporated by reference to Exhibit 4.4 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
4.5	Fourth Supplemental Indenture dated as of September 23, 2010 between Canadian Pacific Railway Company and The Bank of New York Mellon (incorporated by reference to Exhibit 4.5 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
4.6	Fifth Supplemental Indenture dated as of December 1, 2011 between Canadian Pacific Railway Company and The Bank of New York Mellon (incorporated by reference to Exhibit 4.6 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
4.7	Sixth Supplemental Indenture dated as of February 2, 2015 between Canadian Pacific Railway Company and The Bank of New York Mellon (incorporated by reference to Exhibit 4.7 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
4.8	Seventh Supplemental Indenture dated as of August 3, 2015 between Canadian Pacific Railway Company and The Bank of New York Mellon (incorporated by reference to Exhibit 4.8 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
4.9	Eighth Supplemental Indenture dated as of November 24, 2015 among Canadian Pacific Railway Limited, Canadian Pacific Railway Company and The Bank of New York Mellon (incorporated by reference to Exhibit 4.9 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
4.10	Indenture dated as of October 30, 2001 between Canadian Pacific Railway Company and The Bank of New York Mellon (incorporated by reference to Exhibit 4.10 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
4.11	First Supplemental Indenture dated as of April 23, 2004 between Canadian Pacific Railway Company and The Bank of New York Mellon (incorporated by reference to Exhibit 4.11 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
4.12	Second Supplemental Indenture dated as of October 12, 2011 between Canadian Pacific Railway Limited and The Bank of New York Mellon (incorporated by reference to Exhibit 4.12 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
4.13	Third Supplemental Indenture dated as of October 13, 2011 between Canadian Pacific Railway Company and The Bank of New York Mellon (incorporated by reference to Exhibit 4.13 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
4.14	Fourth Supplemental Indenture dated as of November 24, 2015 among Canadian Pacific Railway Limited, Canadian Pacific Railway Company and The Bank of New York Mellon (incorporated by reference to Exhibit 4.14 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
4.15	Indenture dated as of July 15, 1991 between Canadian Pacific Railway Company and Harris Trust and Savings Bank (incorporated by reference to Exhibit 4.15 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
4.16	First Supplemental Indenture dated as of July 1, 1996 between Canadian Pacific Railway Company and Harris Trust and Savings Bank (incorporated by reference to Exhibit 4.16 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
4.17	Second Supplemental Indenture dated as of November 24, 2015 among Canadian Pacific Railway Limited, Canadian Pacific Railway Company and The Bank of New York Mellon (as successor in interest to Harris Trust and Savings Bank) (incorporated by reference to Exhibit 4.17 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).

4.18	Indenture dated as of May 23, 2008 between Canadian Pacific Railway Company and Computershare Trust Company of Canada (incorporated by reference to Exhibit 4.18 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
4.19	First Supplemental Indenture dated as of November 24, 2015 among Canadian Pacific Railway Limited, Canadian Pacific Railway Company and Computershare Trust Company of Canada (incorporated by reference to Exhibit 4.19 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
4.20	Indenture dated as of September 11, 2015, from Canadian Pacific Railway Company to Wells Fargo Bank, National Association, as Trustee (incorporated by reference to Exhibit 99.1 to Canadian Pacific Railway Limited's Current Report on Form 6-K filed with the Securities and Exchange Commission on September 14, 2015, File No. 001-01342).
4.21	First Supplemental Indenture dated as of September 11, 2015 between Canadian Pacific Railway Company and The Bank of New York Mellon (incorporated by reference to Exhibit 4.21 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
4.22	Second Supplemental Indenture dated as of November 24, 2015 among Canadian Pacific Railway Limited, Canadian Pacific Railway Company and The Bank of New York Mellon (incorporated by reference to Exhibit 4.22 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
4.23	Guarantee of Canadian Pacific Railway Company's Perpetual 4% Consolidated Debenture Stock dated as of December 18, 2015, between Canadian Pacific Railway Limited and Canadian Pacific Railway Company (incorporated by reference to Exhibit 4.23 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
4.24	Third Supplemental Indenture dated as of May 16, 2018 among Canadian Pacific Railway Limited, Canadian Pacific Railway Company and Wells Fargo Bank (incorporated by reference to Exhibit 4.2 to Canadian Pacific Railway Limited's Current Report on Form 8-K filed with the Securities and Exchange Commission on May 16, 2018, File No. 001-01342).
4.25	Officers' Certificate of Canadian Pacific Railway Company dated March 13, 2019 (incorporated by reference to Exhibit 4.1 to Canadian Pacific Railway Limited's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on April 24, 2019, File No. 001-01342).
4.26	Description of Securities – Equity Securities (incorporated by reference to Exhibit 4.26 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 20, 2020, File No. 001-01342).
4.27	Form of 2.050% Note due 2030 (incorporated by reference to Exhibit 4.1 to Canadian Pacific Railway Limited's Current Report on Form 8-K filed with the Securities and Exchange Commission on March 6, 2020, File No. 001-01342).
4.28	Fourth Supplemental Indenture, dated as of March 5, 2020, by and among Canadian Pacific Railway Company, as issuer, Canadian Pacific Railway Limited, as guarantor, and Wells Fargo Bank, National Association, as trustee (incorporated by reference to Exhibit 4.2 to Canadian Pacific Railway Limited's Current Report on Form 8-K filed with the Securities and Exchange Commission on March 6, 2020, File No. 001-01342).
4.29	Second Supplemental Indenture, dated as of March 9, 2020, by and among Canadian Pacific Railway Company, as issuer, Canadian Pacific Railway Limited, as guarantor, and Computershare Trust Company of Canada, as trustee (incorporated by reference to Exhibit 4.3 to Canadian Pacific Railway Limited's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on April 21, 2020, File No. 001-01342).
4.30	Fifth Supplemental Indenture, dated as of December 2, 2021, by and among Canadian Pacific Railway Company, as issuer, Canadian Pacific Railway Limited, as guarantor, and Computershare Trust Company N.A., as successor to Wells Fargo Bank, National Association, as trustee (incorporated by reference to Exhibit 4.1 to Canadian Pacific Railway Limited's Current Report on Form 8-K filed with the Securities and Exchange Commission on December 6, 2021, File No. 001-01342).

9**Voting Trust Agreement:**

9.1	Voting Trust Agreement, dated as of December 14, 2021, by and among Canadian Pacific Railway Limited, Cygnus Holding Corp. and David L. Starling (incorporated by reference to Exhibit 9.1 to Canadian Pacific Railway Limited's Current Report on Form 8-K filed with the Securities and Exchange Commission on December 14, 2021, File No. 001-01342).
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10**Material Contracts:**

10.1*	Compensation letter dated February 14, 2017, between the Company and Nadeem Velani (incorporated by reference to Exhibit 10.1 to Canadian Pacific Railway Limited's Current Report on Form 8-K filed with the Securities and Exchange Commission on February 21, 2017, File No. 001-01342).
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10.2	Fourth Amending Agreement, dated as of June 23, 2017, amending the Credit Agreement, dated September 26, 2014, between Canadian Pacific Railway Company, as Borrower, Canadian Pacific Railway Limited, as Covenantor, Royal Bank of Canada, as Administrative Agent, and the various Lenders party thereto (incorporated by reference to Exhibit 10.1 to Canadian Pacific Railway Limited's Current Report on Form 8-K filed with the Securities and Exchange Commission on June 27, 2017, File No. 001-01342).
10.3*	Amendment dated as of January 31, 2017 to the Executive Employment Agreement dated July 23, 2016 and effective as of July 1, 2017 between Keith Creel and Canadian Pacific Railway Company (incorporated by reference to Exhibit 10.1 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 16, 2017, File No. 001-01342).
10.4*	Offer of Employment Letter to Nadeem Velani dated October 18, 2016 (incorporated by reference to Exhibit 10.3 Canadian Pacific Railway Limited's Current Report on Form 8-K filed with the Securities and Exchange Commission on October 24, 2016, File No. 001-01342).
10.5*	Executive Employment Agreement, between the Canadian Pacific Railway Limited and Keith Creel effective July 1, 2017 (incorporated by reference to Exhibit 10.2 to Canadian Pacific Railway Limited's Current Report on Form 8-K filed with the Securities and Exchange Commission on July 26, 2016, File No. 001-01342).
10.6	Third Amending Agreement, dated as of June 28, 2016, amending the Credit Agreement, dated September 26, 2014, between Canadian Pacific Railway Company, as Borrower, Canadian Pacific Railway Limited, as Covenantor, Royal Bank of Canada, as Administrative Agent, and the various Lenders party thereto (incorporated by reference to Exhibit 10.1 to Canadian Pacific Railway Limited's Current Report on Form 8-K filed with the Securities and Exchange Commission on June 29, 2016, File No. 001-01342).
10.7*	CP 401(k) Savings Plan, as amended and restated effective October 27, 2014 (incorporated by reference to Exhibit 4.5 to Canadian Pacific Railway Limited's Registration Statement on Form S-8 filed with the Securities and Exchange Commission on December 21, 2015, File No. 333-208647).
10.8*	Stand-Alone Option Agreement dated February 4, 2013 between the Registrant and Keith Creel (incorporated by reference to Exhibit 4.2 to Canadian Pacific Railway Limited's Registration Statement on Form S-8 filed with the Securities and Exchange Commission on May 24, 2013, File No. 333-188827).
10.9*	Performance Share Unit Plan for Eligible Employees of Canadian Pacific Railway Limited, adopted with effect from February 17, 2009, as amended February 22, 2013, April 30, 2014 and February 18, 2015 (incorporated by reference to Exhibit 10.3 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
10.10*	Canadian Pacific Railway Limited Amended and Restated Management Stock Option Incentive Plan, as amended and restated effective November 19, 2015 (incorporated by reference to Exhibit 10.4 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
10.11*	Canadian Pacific Railway Limited Employee Share Purchase Plan (U.S.) dated July 1, 2006 ("ESPP (U.S.)"), and Amendment to the ESPP (U.S.) effective January 1, 2015, and Amendment to the ESPP (U.S.) January 1, 2016 (incorporated by reference to Exhibit 10.5 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
10.12*	Directors' Stock Option Plan, effective October 1, 2001 (incorporated by reference to Exhibit 10.7 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
10.13*	Directors' Deferred Share Unit Plan, as amended effective July 1, 2013 (incorporated by reference to Exhibit 10.8 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
10.14*	Senior Executives' Deferred Share Unit Plan, effective as of January 1, 2001, as amended September 6, 2012 (incorporated by reference to Exhibit 10.9 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
10.15*	Canadian Pacific Railway Limited Employee Share Purchase Plan (Canada) dated July 1, 2006 ("ESPP (Canada)"), and Amendment to the ESPP (Canada) effective January 1, 2013, and Amendment to the ESPP (Canada) effective November 5, 2013, and Amendment to the ESPP (Canada) effective July 17, 2014 (incorporated by reference to Exhibit 10.10 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
10.16*	Canadian Pacific U.S. Salaried Retirement Income Plan, as restated effective January 1, 2015 (incorporated by reference to Exhibit 10.11 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
10.17*	Canadian Pacific U.S. Supplemental Executive Retirement Plan, effective January 1, 2013 ("CPUSERP"), and First Amendment to the CPUSERP effective November 14, 2013, and Second Amendment to the CPUSERP effective January 1, 2014 (incorporated by reference to Exhibit 10.12 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).

10.18*	Restricted Share Unit Plan for Eligible Employees of Canadian Pacific Railway Limited, effective August 2, 2011, as amended February 21, 2013 (incorporated by reference to Exhibit 10.13 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
10.19*	Short Term Incentive Plan for Non-Unionized Employees (Canada) and US Salaried Employees, effective January 1, 2014 (incorporated by reference to Exhibit 10.14 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
10.20*	Canadian Pacific Railway Company Pension Plan (Pension Plan Rules), consolidated as at January 1, 2009 (incorporated by reference to Exhibit 10.15 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
10.21*	Amendment Number 1, effective July 1, 2010, to the Defined Contribution Provisions (Appendix B) of the Canadian Pacific Railway Company Pension Plan (Pension Plan Rules), consolidated as at January 1, 2009 (incorporated by reference to Exhibit 10.16 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
10.22*	Amendment Number 2, effective April 1, 2011, to the Defined Contribution Provisions (Appendix B) of the Canadian Pacific Railway Company Pension Plan (Pension Plan Rules), consolidated as at January 1, 2009 (incorporated by reference to Exhibit 10.17 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
10.23*	Amendment Number 3, effective January 1, 2013, to the Defined Contribution Provisions (Appendix B) of the Canadian Pacific Railway Company Pension Plan (Pension Plan Rules), consolidated as at January 1, 2009 (incorporated by reference to Exhibit 10.18 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
10.24*	Amendment Number 1 to the Canadian Pacific Railway Company Pension Plan (Pension Plan Rules), consolidated as at January 1, 2009, approved by the Board of Directors on December 16, 2009 (incorporated by reference to Exhibit 10.19 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
10.25*	Amendment Number 2, effective January 1, 2010, to the Canadian Pacific Railway Company Pension Plan (Pension Plan Rules), consolidated as at January 1, 2009 (incorporated by reference to Exhibit 10.20 to Canadian Pacific Railway Limited's Form Annual Report on 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
10.26*	Amendment Number 3, effective January 1, 2010, to the Canadian Pacific Railway Company Pension Plan (Pension Plan Rules), consolidated as at January 1, 2009 (incorporated by reference to Exhibit 10.21 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
10.27*	Amendment Number 4, effective January 1, 2011, to the Canadian Pacific Railway Company Pension Plan (Pension Plan Rules), consolidated as at January 1, 2009 (incorporated by reference to Exhibit 10.22 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
10.28*	Amendment Number 5, effective January 1, 2011, to the Canadian Pacific Railway Company Pension Plan (Pension Plan Rules), consolidated as at January 1, 2009 (incorporated by reference to Exhibit 10.23 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
10.29*	Amendment Number 6, effective October 1, 2012, to the Canadian Pacific Railway Company Pension Plan (Pension Plan Rules), consolidated as at January 1, 2009 (incorporated by reference to Exhibit 10.24 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
10.30*	Amendment Number 7, effective January 1, 2013, to the Canadian Pacific Railway Company Pension Plan (Pension Plan Rules), consolidated as at January 1, 2009 (incorporated by reference to Exhibit 10.25 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
10.31*	Amendment Number 8, effective January 1, 2013, to the Canadian Pacific Railway Company Pension Plan (Pension Plan Rules), consolidated as at January 1, 2009 (incorporated by reference to Exhibit 10.26 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
10.32*	Amendment Number 9, effective January 1, 2013, to the Canadian Pacific Railway Company Pension Plan (Pension Plan Rules), consolidated as at January 1, 2009 (incorporated by reference to Exhibit 10.27 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
10.33*	Amendment Number 10, effective January 1, 2013, to the Canadian Pacific Railway Company Pension Plan (Pension Plan Rules), consolidated as at January 1, 2009 (incorporated by reference to Exhibit 10.28 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
10.34*	Amendment Number 11, effective January 1, 2013, to the Canadian Pacific Railway Company Pension Plan (Pension Plan Rules), consolidated as at January 1, 2009 (incorporated by reference to Exhibit 10.29 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
10.35*	Amendment Number 12, effective January 1, 2015, to the Canadian Pacific Railway Company Pension Plan (Pension Plan Rules), consolidated as at January 1, 2009 (incorporated by reference to Exhibit 10.30 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).

10.36*	Amendment Number 13, effective January 1, 2015, to the Canadian Pacific Railway Company Pension Plan (Pension Plan Rules), consolidated as at January 1, 2009 (incorporated by reference to Exhibit 10.31 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
10.37*	Canadian Pacific Railway Company Secondary Pension Plan (Pension Plan Rules), effective June 1, 2013 (incorporated by reference to Exhibit 10.32 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
10.38*	Amendment Number 1, effective June 1, 2013, to the Canadian Pacific Railway Company Secondary Pension Plan (Pension Plan Rules), effective June 1, 2013 (incorporated by reference to Exhibit 10.33 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
10.39*	Amendment Number 2, effective January 1, 2015, to the Canadian Pacific Railway Company Secondary Pension Plan (Pension Plan Rules) effective January 1, 2015 (incorporated by reference to Exhibit 10.34 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
10.40*	Canadian Pacific Railway Company Supplemental Retirement Plan, effective January 1, 2011 (incorporated by reference to Exhibit 10.35 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
10.41*	Executive Employment Agreement between Canadian Pacific Railway Company, Soo Line Railroad Company and Keith Creel, effective as of February 5, 2013 (incorporated by reference to Exhibit 10.38 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
10.42*	Amendment dated August 10, 2015, to the Executive Employment Agreement between Canadian Pacific Railway Company, Soo Line Railroad Company and Keith Creel, effective as of February 5, 2013 (incorporated by reference to Exhibit 10.39 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
10.43	Credit Agreement dated as of September 26, 2014 among Canadian Pacific Railway Company and CPR Securities Limited, as borrowers, Canadian Pacific Railway Limited, as covenantor, the Financial Institutions that are signatories to the Credit Agreement, as Lenders, the Royal Bank of Canada, as Administrative Agent, RBC Capital Markets, J.P. Morgan Securities LLC, TD Securities, Morgan Stanley MUFG Loan Partners, LLC and Citibank, N.A., Canadian Branch, as Co-Lead Arrangers, RBC Capital Markets and J.P. Morgan Securities LLC, as Joint Bookrunners, J.P. Morgan Chase Bank, N.A., as Syndication Agent, The Toronto-Dominion Bank, Morgan Stanley MUFG Loan Partners, LLC and Citibank, N.A., Canadian Branch, as Co-Documentation Agents (incorporated by reference to Exhibit 10.45 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
10.44	First Amending Agreement dated as of June 15, 2015, to the Credit Agreement dated September 26, 2014, among Canadian Pacific Railway Company and CPR Securities Limited, as borrowers, Canadian Pacific Railway Limited, as covenantor, the signatories to this First Amending Agreement to the Credit Agreement, as Lenders, the Royal Bank of Canada, as Administrative Agent (incorporated by reference to Exhibit 10.46 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
10.45	Second Amending Agreement dated as of September 17, 2015, to the Credit Agreement dated September 26, 2014, among Canadian Pacific Railway Company and CPR Securities Limited, as borrowers, Canadian Pacific Railway Limited, as covenantor, the signatories to the Second Amending Agreement to this Credit Agreement, as Lenders, the Royal Bank of Canada, as Administrative Agent (incorporated by reference to Exhibit 10.47 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 29, 2016, File No. 001-01342).
10.46	Fifth Amending Agreement, dated as of June 8, 2018, amending the Credit Agreement, dated September 26, 2014, between Canadian Pacific Railway Company, as Borrower, Canadian Pacific Railway Limited, as Covenantor, Royal Bank of Canada, as Administrative Agent, and the various Lenders party thereto (incorporated by reference to Exhibit 10.1 to Canadian Pacific Railway Limited's Current Report on Form 8-K filed with the Securities and Exchange Commission on June 11, 2018, File No. 001-01342).
10.47*	Amendment dated as of January 1, 2019, to the Executive Employment Agreement between Canadian Pacific Railway Company and Keith Creel, dated July 23, 2016 and effective as of July 1, 2017 as amended as of January 31, 2017 (incorporated by reference to Exhibit 10.49 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 15, 2019, File No. 001-01342).
10.48	Amended and Restated Credit Agreement, dated as of September 27, 2019, between Canadian Pacific Railway Company, as Borrower, Canadian Pacific Railway Limited, as Covenantor, Royal Bank of Canada, as Administrative Agent, and the various Lenders party thereto (incorporated by reference to Exhibit 10.1 to Canadian Pacific Railway Limited's Current Report on Form 8-K filed with the Securities and Exchange Commission on October 1, 2019, File No. 001-01342).
10.49*	Amendment Number 3, effective June 1, 2013, to the Canadian Pacific Railway Company Secondary Pension Plan (Pension Plan Rules), effective June 1, 2013 (incorporated by reference to Exhibit 10.49 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 18, 2021, File No. 001-01342).
10.50*	Amendment Number 14, effective May 1, 2017, to the Canadian Pacific Railway Company Pension Plan (Pension Plan Rules) consolidated as at January 1, 2009 (incorporated by reference to Exhibit 10.50 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 18, 2021, File No. 001-01342).

10.51*	Amendment Number 15, effective January 1, 2019, to the Canadian Pacific Railway Company Pension Plan (Pension Plan Rules) consolidated as at January 1, 2009 (incorporated by reference to Exhibit 10.51 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 18, 2021, File No. 001-01342).
10.52*	Amendment Number 16, effective January 1, 2021, to the Canadian Pacific Railway Company Pension Plan (Pension Plan Rules) consolidated as at January 1, 2009 (incorporated by reference to Exhibit 10.52 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 18, 2021, File No. 001-01342).
10.53*	Offer of Employment Letter to Jeffrey Ellis dated October 19, 2015 (incorporated by reference to Exhibit 10.53 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 18, 2021, File No. 001-01342).
10.54*	Offer of Employment Letter to John Brooks dated March 1, 2019 (incorporated by reference to Exhibit 10.54 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 18, 2021, File No. 001-01342).
10.55*	Offer of Employment Letter to Mark Redd dated August 13, 2019 (incorporated by reference to Exhibit 10.55 to Canadian Pacific Railway Limited's Annual Report on Form 10-K filed with the Securities and Exchange Commission on February 18, 2021, File No. 001-01342).
10.56*	Stock Option Agreement and Amendment to the Executive Employment Agreement, dated as of March 21, 2021, by and between Canadian Pacific Railway Limited and Keith Creel (incorporated by reference to Exhibit 10.1 to Canadian Pacific Railway Limited's Current Report on Form 8-K filed with the Securities and Exchange Commission on March 21, 2021, File No. 001-01342).
10.57	First Amending Agreement, dated as of April 9, 2021 among Canadian Pacific Railway Company, as Borrower, Canadian Pacific Railway Limited, as Covenantor, Royal Bank of Canada, a Canadian chartered bank, as administrative agent of the Lenders, and the Consenting Lenders (incorporated by reference to Exhibit 10.2 to Canadian Pacific Railway Limited's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission April 21, 2021, File No. 001-01342).
10.58	Second Amending Agreement dated as of September 24, 2021, amending the Credit Agreement, dated September 27, 2019, among Canadian Pacific Railway Company, as Borrower, Canadian Pacific Railway Limited, as Covenantor, Royal Bank of Canada, as Administrative Agent, and the various Lenders party thereto (incorporated by reference to Exhibit 10.3 to Canadian Pacific Railway Limited's Registration Statement on Form F-4 filed with the Securities and Exchange Commission on October 1, 2021, File No. 333-259991).
10.59	Third Amending Agreement dated as of September 29, 2021, amending the Credit Agreement, dated September 27, 2019, among Canadian Pacific Railway Company, as Borrower, Canadian Pacific Railway Limited, as Covenantor, Royal Bank of Canada, as Administrative Agent, and the various Lenders party thereto (incorporated by reference to Exhibit 10.4 to Canadian Pacific Railway Limited's Registration Statement on Form F-4 filed with the Securities and Exchange Commission on October 1, 2021, File No. 333-259991).
10.60	Credit Agreement, dated as of September 15, 2021, among Canadian Pacific Railway Company, as Borrower, Canadian Pacific Railway Limited, as Covenantor, Bank of Montreal, as Administrative Agent, and the various Lenders party thereto (incorporated by reference to Exhibit 10.5 to Canadian Pacific Railway Limited's Registration Statement on Form F-4 filed with the Securities and Exchange Commission on October 1, 2021, File No. 333-259991).
10.61*	Amendment Number 17, effective January 1, 2022, to the Canadian Pacific Railway Company Pension Plan (Pension Plan Rules) consolidated as at January 1, 2009 (incorporated by reference to Exhibit 10.4 to Canadian Pacific Railway Limited's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on October 20, 2021, File No. 001-01342).
10.62* **	Short Term Incentive Plan for Non-Unionized Employees (Canada) and US Salaried Employees dated January 1, 2014, as amended July 1, 2021.
10.63* **	Canadian Pacific Railway Limited Performance Share Units Notice of Grant and Grant Agreement between Canadian Pacific Railway Limited and Keith Creel dated January 29, 2021.
10.64* **	Form of Canadian Pacific Railway Limited Performance Share Units Notice of Grant and Grant Agreement for United States Executive Officers.
10.65* **	Form of Canadian Pacific Railway Limited Performance Share Units Notice of Grant and Grant Agreement for Canadian Executive Officers.
10.66* **	Regular Stock Option Agreement between Canadian Pacific Railway Limited and Keith Creel dated January 29, 2021.
10.67* **	Form of Regular Stock Option Agreement for United States Executive Officers.
10.68* **	Form of Regular Stock Option Agreement for Canadian Executive Officers.
10.69* *** ***	Canadian Pacific Pension Plan for U.S. Management Employees, Incorporating All Amendments Adopted through December 31, 2014.
21.1**	Subsidiaries of the registrant
22.1**	List of Issuers and Guarantor Subsidiaries
23.1**	Consent of Deloitte LLP, Independent Registered Public Accounting Firm

23.2**	Consent of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm
24.1**	Power of attorney (included on the signature pages of this Annual Report on Form 10-K)
31.1**	CEO Rule 13a-14(a) Certifications
31.2**	CFO Rule 13a-14(a) Certifications
32.1**	CEO Section 1350 Certifications
32.2**	CFO Section 1350 Certifications
99.1**	Audited Consolidated Financial Statements of Kansas City Southern as of December 31, 2021 and 2020 and for the years ended December 31, 2021, 2020 and 2019.
101.INS**	Inline XBRL Instance Document
101.SCH**	Inline XBRL Taxonomy Extension Schema Document
101.CAL**	Inline XBRL Taxonomy Extension Calculation Linkbase Document
101.LAB**	Inline XBRL Taxonomy Extension Label Linkbase Document
101.DEF**	Inline XBRL Taxonomy Extension Definition Linkbase Document
101.PRE**	Inline XBRL Taxonomy Extension Presentation Linkbase Document
	The following financial information from Canadian Pacific Railway Limited's Annual Report on Form 10-K for the year ended December 31, 2021, formatted in Extensible Business Reporting Language (XBRL) includes: (i) the Consolidated Statements of Income for each of the three years ended December 31, 2021, 2020, and 2019; (ii) the Consolidated Statements of Comprehensive Income for each of the three years ended December 31, 2021, 2020, and 2019; (iii) the Consolidated Balance Sheets at December 31, 2021 and 2020; (iv) the Consolidated Statements of Cash Flows for each of the three years ended December 31, 2021, 2020, and 2019; (v) the Consolidated Statements of Changes in Shareholders' Equity for each of the three years ended December 31, 2021, 2020, and 2019; and (vi) the Notes to Consolidated Financial Statements.
104 **	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)

* Management contract or compensatory arrangement

** Filed with this Annual Report on Form 10-K

*** Certain portions of this exhibit have been redacted pursuant to Item 601(b)(10)(iv) of Regulation S-K. An unredacted copy of this exhibit will be furnished separately to the SEC upon request.

ITEM 16. FORM 10-K SUMMARY

Not applicable.

SIGNATURES

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

CANADIAN PACIFIC RAILWAY LIMITED

(Registrant)

By: /s/ KEITH CREEL

Keith Creel

Chief Executive Officer

Dated: February 23, 2022

POWER OF ATTORNEY

Each of the undersigned do hereby appoint each of Nadeem Velani and Jeffrey J. Ellis, 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, 2021, and any and all amendments thereto, and to file the same, with all exhibits thereto, with the Securities and Exchange Commission.

Pursuant to the requirements of the *Securities Exchange Act of 1934*, this report has been signed below by the following persons on behalf of the Company and in the capacities indicated on February 23, 2022.

Signature

/s/ KEITH CREEL

Keith Creel

/s/ NADEEM VELANI

Nadeem Velani

/s/ ISABELLE COURVILLE

Isabelle Courville

/s/ JOHN R. BAIRD

John R. Baird

/s/ GILLIAN H. DENHAM

Gillian H. Denham

/s/ EDWARD R. HAMBERGER

Edward R. Hamberger

/s/ REBECCA MACDONALD

Rebecca MacDonald

/s/ EDWARD L. MONSER

Edward L. Monser

/s/ MATTHEW H. PAULL

Matthew H. Paull

/s/ JANE L. PEVERETT

Jane L. Peverett

/s/ ANDREA ROBERTSON

Andrea Robertson

/s/ GORDON T. TRAFTON

Gordon T. Trafton

Title

Chief Executive Officer and Director

(Principal Executive Officer)

Executive Vice-President and Chief Financial Officer

(Principal Financial Officer)

Chair of the Board of Directors

Director

Director

Director

Director

Director

Director

Director

EXECUTIVE TEAM

Keith Creel

President and Chief Executive Officer

Nadeem Velani

Executive Vice-President and Chief Financial Officer

John Brooks

Executive Vice-President and Chief Marketing Officer

Mark Redd

Executive Vice-President, Operations

Jeffrey Ellis

Chief Legal Officer and Corporate Secretary

Laird Pitz

Senior Vice-President and Chief Risk Officer

James Clements

Senior Vice-President, Strategic Planning
and Technology Transformation

Mike Foran

Vice-President, Market Strategy and Asset Management

Chad Rolstad

Vice-President, Human Resources and Chief Culture Officer

Pam Arpin

Vice-President and Chief Information Officer

BOARD OF DIRECTORS

Isabelle Courville

Chair

Keith Creel

President and Chief Executive Officer

John R. Baird

Director

Jill Denham

Director

Edward R. Hamberger

Director

Rebecca MacDonald

Director

Edward Monser

Director

Matthew H. Paull

Director

Jane L. Peverett

Director

Andrea Robertson

Director

Gordon Trafton

Director

EXCHANGE LISTINGS

The common shares of Canadian Pacific Railway Limited are listed on the Toronto and New York stock exchanges under the symbol CP.

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Transfer Agent and Registrar

Computershare Investor Services Inc. serves as transfer agent and registrar for the common shares in Canada. Computershare Trust Company, N.A. serves as co-transfer agent and co-registrar for the common shares in the U.S. Visit the Computershare website at: investorcentre.com/cp

Auditors

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