ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following discussion and analysis should be read in conjunction with the Company's Interim Consolidated Financial Statements and the related notes for the three and nine months ended September 30, 2020 in Item 1. Financial Statements, other information in this report, and Item 8. Financial Statements and Supplementary Data of the Company's 2019 Annual Report on Form 10-K. 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 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.

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 as soon as reasonably practicable after such reports are filed with or furnished to the Securities and Exchange Commission ("SEC"). Our website also contains charters for our Board of Directors and each of its committees, our corporate governance guidelines and our Code of Business Ethics. SEC filings made by CP are also accessible through the SEC's website at www.sec.gov. The information on our website is not part of this quarterly report on Form 10-Q.

The Company has included the Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO") certifications regarding the Company's public disclosure required by Section 302 of the Sarbanes-Oxley Act of 2002 as Exhibits to this report.

Executive Summary

Third Quarter of 2020 Results

- *Financial performance* - In the third quarter of 2020, CP reported Diluted earnings per share ("EPS") of $4.41, a decrease of 1% compared to the same period of 2019 and Net income of $598 million in the third quarter of 2020, a decrease of 3% compared to the same period of 2019. These decreases were primarily due to lower Operating income in the third quarter of 2020, partially offset by foreign exchange ("FX") translation gains on debt and lease liabilities in 2020 compared to FX losses during the same period of 2019.

  Adjusted diluted EPS was $4.12 in the third quarter of 2020, a decrease of 11% compared to the same period of 2019. Adjusted income was $560 million in the third quarter of 2020, a decrease of 13% compared to the same period of 2019. These decreases were primarily due to lower Operating income in the third quarter of 2020.

  Adjusted diluted EPS and Adjusted income are defined and reconciled in Non-GAAP Measures and discussed further in Results of Operations of this Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

  CP reported an Operating ratio of 58.2% in the third quarter of 2020, a 210 basis point increase as compared to the same period of 2019. This increase was primarily due to higher stock-based compensation expense associated with the impacts of changes to stock price.

- *Total revenues* - Total revenues decreased by 6% in the third quarter of 2020 to $1,863 million compared to the same period of 2019. This decrease was primarily due to lower volumes as measured by revenue ton-miles ("RTMs") primarily due to the impacts of the novel strain of Coronavirus ("COVID-19").

- *Operating performance* - CP's average train weight increased by 7% to 9,857 tons and average train length increased by 9% to 8,082 feet, compared to the same period in 2019. These increases were a result of improvements in operating plan efficiency and continued improvements in operational efficiency for Potash and Grain trains, in each case compared to the same period in 2019. These metrics are discussed further in Performance Indicators of this Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Recent Developments

- On October 15, 2020, CP entered into an agreement to acquire full ownership of the Detroit River Tunnel Partnership, which owns a 1.6-mile rail tunnel linking Windsor, Ontario, and Detroit, Michigan. The purchase price for the transaction is approximately U.S. $312 million subject to customary closing adjustments. CP currently owns a 16.5 percent interest in the partnership and is its designated operator. The acquisition will reduce CP's operating costs related to movements through the tunnel while further integrating the eastern part of our network. The transaction is currently expected to close at the end of 2020 and remains subject to customary closing conditions, including regulatory approvals.

- In the third quarter of 2020, the effects of the COVID-19 pandemic on consumer demand resulted in lower volumes in the following lines of business: Energy, chemicals and plastics and Metals, minerals and consumer products. The future impacts of the COVID-19 pandemic on CP's business continue to be unknown, however the Company has put forward our current estimate of the impact on our business in our revised 2020 outlook discussed below. CP continues to adapt our resources in real time and deliver for our customers and the North American economy.

As COVID-19 continued to spread throughout Canada and the United States during the three months ended September 30, 2020, CP conducted business as usual, to the greatest extent possible in the circumstances, while continuing to apply principles of precision scheduled railroading to respond to changes in demand. The Company is continuing to take a variety of measures to ensure the availability of its transportation services throughout our network, promote the safety and security of our employees, and support the communities in which we operate. CP is also supporting employees by working with labour unions to shorten recall times, to be prepared for demand increases. Certain modifications the Company has made in response to the COVID-19 pandemic include but are not limited to: implementing a period of working at home for all non-essential support staff; restricting employee business travel; implementing post-travel employee screening; strengthening clean workplace practices; reinforcing socially responsible sick leave recommendations; limiting visitor and third-party access to Company facilities; launching internal COVID-19 resources for employees; creating a pandemic response team comprised of employees and members of senior management; encouraging telephonic and video conference-based meetings along with other hygiene and social distancing practices recommended by health authorities including Health Canada, the U.S. Centers for Disease Control and Prevention, and the World Health Organization; and supplementing employment insurance payments and maintaining health benefit coverage of employees through the pandemic. CP is responding to this crisis through measures designed to protect our workforce and prevent disruptions to the central role the Company's operations provide to the North American economy. CP's service is deemed essential as part of the transportation industry. We believe that we remain well positioned to adjust to market conditions to assist our customers as they work to manage their supply chain and inventories.

The Company's phased reintegration back into the workplace of non-essential office employees who had been working remotely is nearing completion. Preventative measures that serve to minimize the risk of exposure to COVID-19 remain in effect, including modifying our workspace to implement physical distancing measures, and continuously reevaluating our efforts with safety as a top priority.

In addition to the above, we have observed many other companies, including companies in our industry, taking precautionary and preemptive actions to address the COVID-19 pandemic, and companies may take further actions that alter their normal business operations. We will continue to actively monitor the situation and may take further actions that could materially 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, shareholders, partners, suppliers, and other stakeholders.

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

- In the third quarter of 2020, CP released its first public statement on climate change, acknowledging the effects of rising global temperatures and our commitment to ongoing efforts to mitigate the impacts. The statement supports the goals of the Paris Agreement and the Pan-Canadian Framework on Clean Growth and Climate Change, which seek to limit global temperature rise to well below 2°C above pre-industrial levels. In support of this initiative, we plan to establish a science-based emissions reduction target to guide our climate action.

Prior Developments

- On July 21, 2020, CP declared a quarterly dividend of $0.95 per share on the outstanding Common Shares, an increase from $0.83 per share from the prior quarter. The dividend is payable on October 26, 2020 to holders of record at the close of business on September 25, 2020.

- In the first six months of 2020, the effects of the COVID-19 pandemic on consumer demand resulted in lower volumes in the following lines of business: Energy, chemicals and plastics, Metals, minerals and consumer products, Intermodal, and Automotive.

- In the second quarter of 2020, CP completed its previously announced acquisition of Central Maine and Québec Railway U.S. Inc. ("CMQ U.S."). Together with the earlier completion of the previously announced acquisition of Central Maine & Québec Railway Canada Inc. ("CMQ Canada"), the acquisition of CMQ U.S. completed CP's purchase of the entire CMQ network originally announced on November 20, 2019. CMQ U.S. and CMQ Canada will continue to operate in the U.S. and in Canada respectively as subsidiaries of CP. This allows CP to integrate CMQ U.S.'s 244.2 route-miles of rail line in Maine and Vermont into CP's network. The transaction also included 57.3 route-miles leased from the Maine Department of Transportation. CMQ U.S.'s network links CP directly to the Atlantic Ocean port of Searsport, Maine, and to Port Saint John in New Brunswick through connections with Eastern Maine Railway and New Brunswick Southern Railway. With the CMQ acquisition, CP is now a 13,000-mile rail network connecting the Atlantic coast to the Pacific coast across six Canadian provinces and 11 U.S. states.

- The Company’s annual meeting of shareholders, held on April 21, 2020, was conducted via a virtual-only format by live webcast online for the first time. All 11 director nominees were elected.

- During the first quarter of 2019, the Company experienced severe winter operating conditions and an increase in the frequency and severity of casualty incidents and derailments. As a result, the Company incurred significant costs to manage severe weather conditions, as well as direct casualty costs, and higher operating costs. During this period and the subsequent network recovery the Company also experienced losses and deferrals of potential revenues.

2020 Outlook

Based on the strength of the Company's performance to date, on October 20, 2020, CP updated the outlook for 2020 that CP had previously updated on July 22, 2020. The Company now expects to deliver at least mid-single digit Adjusted diluted EPS growth year over year based on Adjusted diluted EPS of $16.44 in 2019. CP now expects volume, as measured in RTMs, to be down low-single digits and continues to expect capital expenditures of $1.6 billion. CP's revised earnings guidance assumes an FX rate of $1.35 CAD/USD, other components of net periodic benefit recovery to decrease by approximately $40 million as compared to 2019 and an effective tax rate of approximately 24.8 percent as a result of the accelerated reduction of the Alberta corporate tax rate as compared to 25.0 percent previously. Adjusted diluted EPS is defined and reconciled in Non-GAAP Measures and discussed further in Results of Operations of this Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Although CP has provided a forward-looking Non-GAAP measure (Adjusted diluted EPS), management is unable to reconcile, without unreasonable efforts, the forward-looking Adjusted diluted EPS to the most comparable GAAP measure, due to unknown variables and uncertainty related to future results. These unknown variables may include unpredictable transactions of significant value. In past years, CP has recognized significant asset impairment charges, management transition costs related to senior executives and discrete tax items. 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-Canadian 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, the impact from changes in income tax rates and a provision for uncertain tax item from Adjusted diluted EPS. Please see Forward-Looking Statements in this Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations for further discussion.

Performance Indicators

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

	For the three months ended September 30			For the nine months ended September 30		
	2020	2019[(1)]	% Change	**2020**	2019[(1)]	% Change
Operations Performance						
Gross ton-miles ("GTMs") (millions)	**65,997**	71,658	(8)	**200,383**	209,229	(4)
Train miles (thousands)	**7,247**	8,354	(13)	**22,479**	24,550	(8)
Average train weight - excluding local traffic (tons)	**9,857**	9,173	7	**9,644**	9,117	6
Average train length - excluding local traffic (feet)	**8,082**	7,446	9	**7,831**	7,382	6
Average terminal dwell (hours)	**6.7**	5.8	16	**6.5**	6.7	(3)
Average train speed (miles per hour, or "mph")	**22.5**	22.7	(1)	**22.1**	22.1	—
Locomotive productivity (GTMs / operating horsepower)	**207**	208	—	**207**	200	4
Fuel efficiency (U.S. gallons of locomotive fuel consumed / 1,000 GTMs)	**0.926**	0.927	—	**0.940**	0.956	(2)
Total Employees and Workforce						
Total employees (average)	**12,156**	13,203	(8)	**12,214**	13,107	(7)
Total employees (end of period)	**12,166**	13,104	(7)	**12,166**	13,104	(7)
Workforce (end of period)	**12,185**	13,134	(7)	**12,185**	13,134	(7)
Safety Indicators[(1)]						
FRA personal injuries per 200,000 employee-hours	**1.06**	1.44	(26)	**1.13**	1.45	(22)
FRA train accidents per million train-miles	**1.13**	1.31	(14)	**1.06**	1.29	(18)

(1) FRA personal injuries per 200,000 employee-hours for the three and nine months ended September 30, 2019 were previously reported as 1.39 and 1.44, restated to 1.44 and 1.45, respectively in this report. FRA train accidents per million train-miles for the three and nine months ended September 30, 2019 were previously reported as 1.10 and 1.19, restated to 1.31 and 1.29, respectively in this report. These restatements reflect new information available within specified periods stipulated by the FRA but that exceed the Company's financial reporting timeline.

For key measures of the Company's revenue performance, refer to Operating Revenues of this Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

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.

Three months ended September 30, 2020 compared to the three months ended September 30, 2019

- 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 decreased by 8% in the third quarter of 2020 compared to the same period of 2019. This decrease was mainly attributable to lower volumes of crude, Coal, and frac sand. This decrease was partially offset by higher volumes of Canadian grain and Potash.

- **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, indicate improved train productivity. Train miles decreased by 13% in the third quarter of 2020 compared to the same period of 2019. This decrease reflects the impact of an 8% decrease in workload (GTMs) as well as a 7% 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 railroads' 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 increased by 7% in the third quarter of 2020 compared to the same period of 2019. This increase was a result of improvements in operating plan efficiency and continued improvements in operational efficiency due to moving longer and heavier export potash and Grain trains. 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 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 increased by 9% in the third quarter of 2020 compared to the same period of 2019. This increase was a result of improvements in operating plan efficiency and improvements in operational efficiency due to moving longer export potash and Grain 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 increased by 16% in the third quarter of 2020 compared to the same period of 2019. This increase was a result of aligning the operating plan to demand in order to maintain efficiencies in train 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 railroads 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 decreased by 1% in the third quarter of 2020 compared to the same period of 2019 as a result of increased track and roadway capital programs.

- **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 flat in the third quarter of 2020 compared to the same period of 2019.

- **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 was flat in the third quarter of 2020 compared to the same period of 2019.

Nine months ended September 30, 2020 compared to the nine months ended September 30, 2019

- **GTMs** decreased by 4% for the first nine months of 2020 compared to the same period of 2019. This decrease was primarily due to decreased volumes of Coal, crude, and frac sand. This decrease was partially offset by increased volumes of Canadian grain and Potash.

- **Train miles** decreased by 8% for the first nine months of 2020 compared to the same period of 2019. This decrease reflected the impact of a 4% decrease in workload (GTMs), as well as a 6% increase in average train weights.

- **Average train weight** increased by 6% for the first nine months of 2020 compared to the same period of 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 lower volumes of heavier commodities such as Canadian coal. Improvements for Grain trains were driven by the 8,500-foot HEP train model.

- **Average train length** increased by 6% for the first nine months of 2020 from the same period of 2019. This increase was primarily due to improvements in operating plan efficiency and continued improvements in operational efficiency due to moving longer export potash and Grain trains. This increase was partially offset by 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** decreased by 3% in the first nine months of 2020 compared to the same period of 2019. This favourable decrease was due to improved network fluidity as a result of a continued focus on velocity and terminal efficiency in the first quarter of 2020, partially offset by the alignment of the operating plan to demand in order to maintain efficiencies in train productivity in the second and third quarter of 2020.

- **Average train speed** was flat in the first nine months of 2020 compared to the same period of 2019.

- **Locomotive productivity** increased by 4% in the first nine months of 2020 compared to the same period of 2019. This increase was driven by improvements in operating plan efficiency.

- **Fuel efficiency** improved by 2% in the first nine months of 2020 compared to the same period of 2019. This increase in efficiency was primarily due to improved winter operating conditions in the first quarter of 2020 and increased train productivity.

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 decreased by 8% and 7% for the three and nine months ended September 30, 2020, respectively, compared to the same periods of 2019. The total number of employees as at September 30, 2020 was 12,166, a decrease of 938, or 7%, compared to 13,104 as at September 30, 2019. The total workforce as at September 30, 2020 was 12,185, a decrease of 949, or 7%, compared to 13,134 as at September 30, 2019. The decrease in total employees and workforce is due to more efficient resource planning, including furloughs associated with the economic downturn caused by COVID-19, partially offset by the addition of employees from the acquisition of CMQ.

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 1.06 in the third quarter of 2020, a decrease from 1.44 in the same period of 2019. For the first nine months of 2020, the FRA personal injury rate per 200,000 employee-hours for CP was 1.13, a decrease from 1.45 in the same period of 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. $10,700 in damage.

The FRA train accidents per million train-miles was 1.13 in the third quarter of 2020, a decrease from 1.31 in the same period of 2019. For the first nine months of 2020, the FRA train accidents per million train-miles was 1.06, a decrease from 1.29 in the same period of 2019.

Financial Highlights

The following table presents selected financial data related to the Company's financial results as of, and for the three and nine months ended, September 30, 2020 and the comparative figures in 2019. The financial highlights should be read in conjunction with Item 1. Financial Statements and this Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

	For the three months ended September 30		For the nine months ended September 30	
(in millions, except per share data, percentages and ratios)	**2020**	2019	**2020**	2019
Financial Performance and Liquidity				
Total revenues	**$ 1,863**	$ 1,979	**$ 5,698**	$ 5,723
Operating income	**779**	869	**2,383**	2,234
Net income	**598**	618	**1,642**	1,776
Adjusted income[(1)]	**560**	640	**1,720**	1,634
Basic EPS	**4.42**	4.47	**12.09**	12.75
Diluted EPS	**4.41**	4.46	**12.04**	12.70
Adjusted diluted EPS[(1)]	**4.12**	4.61	**12.62**	11.68
Dividends declared per share	**0.9500**	0.8300	**2.6100**	2.3100
Cash provided by operating activities	**493**	823	**1,817**	1,957
Cash used in investing activities	**(483)**	(461)	**(1,313)**	(1,135)
Cash used in financing activities	**(100)**	(263)	**(466)**	(737)
Free cash[(1)]	**6**	363	**497**	821

Financial Position	**As at September 30, 2020**	As at December 31, 2019
Total assets	**$ 23,787**	$ 22,367
Total long-term debt, including current portion	**9,786**	8,757
Total shareholders' equity	**7,579**	7,069

	For the three months ended September 30		For the nine months ended September 30	
Financial Ratios	**2020**	2019	**2020**	2019
Operating ratio[(2)]	**58.2%**	56.1%	**58.2%**	61.0%

	For the twelve months ended September 30	
	2020	2019
Return on average shareholders' equity[(3)]	**31.2%**	32.4%
Adjusted return on invested capital ("Adjusted ROIC")[(1)]	**16.2%**	16.6%
Long-term debt to Net income ratio[(4)]	**4.2**	3.9
Adjusted net debt to adjusted EBITDA ratio[(1)]	**2.5**	2.4

(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 Non-GAAP Measures of this Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

(2) Operating ratio is defined as operating expenses divided by revenues, further discussed in Results of Operations of this Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

(3) Return on average shareholders' equity is defined as Net income divided by average shareholders' equity, averaged between the beginning and ending balance over a rolling 12-month period, further discussed in Results of Operations of this Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

(4) Long-term debt to Net income ratio is defined as long-term debt, including long-term debt maturing within one year, divided by Net income, further discussed in Liquidity and Capital Resources of this Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Results of Operations

Three months ended September 30, 2020 compared to the three months ended September 30, 2019

Income

Operating income was $779 million in the third quarter of 2020, a decrease of $90 million, or 10%, from $869 million in the same period of 2019. This decrease was primarily due to lower volumes as measured by RTMs due to the impacts of COVID-19 and higher stock-based compensation primarily driven by the impact of changes in share price. This decrease was partially offset by liquidated damages, including customer volume commitments, and higher freight rates, and the efficiencies generated from improved operating performance and asset utilization.

Net income was $598 million in the third quarter of 2020, a decrease of $20 million, or 3%, from $618 million in the same period of 2019. This decrease was primarily due to lower Operating income in 2020, partially offset by an FX translation gain on U.S. dollar-denominated debt and lease liabilities of $40 million, compared to an FX translation loss of $25 million in the same period of 2019.

Adjusted income, defined and reconciled in Non-GAAP Measures of this Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations, was $560 million in the third quarter of 2020, a decrease of $80 million, or 13%, from $640 million in the same period of 2019. This decrease was primarily due to lower Operating income in 2020.

Diluted Earnings per Share

Diluted EPS was $4.41 in the third quarter of 2020, a decrease of $0.05, or 1%, from $4.46 in the same period of 2019. This decrease was due to lower Net income, partially offset by a lower average number of outstanding shares due to the Company's share repurchase program.

Adjusted diluted EPS, defined and reconciled in Non-GAAP Measures of this Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations, was $4.12 in the third quarter of 2020, a decrease of $0.49, or 11%, from $4.61 in the same period of 2019. This decrease was primarily due to lower Adjusted income in 2020, partially offset by a lower average number of outstanding shares due to the Company's share repurchase program.

Operating Ratio

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 58.2% in the third quarter of 2020, a 210 basis point increase from 56.1% in the same period of 2019. This increase was primarily due to:

- increased stock-based compensation primarily driven by the impact of changes in share price;
- lower volumes as measured by RTMs;
- higher casualty costs incurred in 2020; and
- cost inflation.

This increase was partially offset by:

- liquidated damages, including customer volume commitments, and higher freight rates;
- the favourable impact of changes in fuel prices; and
- the efficiencies generated from improved operating performance and asset utilization.

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

Return on average shareholders' equity and 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 31.2% for the twelve months ended September 30, 2020, a 120 basis point decrease compared to 32.4% for the twelve months ended September 30, 2019. This decrease was due to a higher average shareholders' equity due to accumulated Net income, partially offset by the impact of the Company's share repurchase program.

Adjusted ROIC was 16.2% for the twelve months ended September 30, 2020, a 40 basis point decrease compared to 16.6% for the twelve months ended September 30, 2019. This decrease was primarily due to higher average long-term debt, partially offset by the impact of the Company's share repurchase program. 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 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Nine months ended September 30, 2020 compared to the nine months ended September 30, 2019

Income

Operating income was $2,383 million in the first nine months of 2020, an increase of $149 million, or 7%, from $2,234 million in the same period of 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;
- the impact of harsher winter operating conditions in 2019; and
- the favourable impact of changes in fuel prices.

This increase was partially offset by:

- lower volumes as measured by RTMs;
- higher depreciation and amortization of $51 million (excluding FX); and
- cost inflation.

Net income was $1,642 million in the first nine months of 2020, a decrease of $134 million, or 8%, from $1,776 million in the same period of 2019. This decrease was primarily due to an FX translation loss on U.S. dollar-denominated debt and lease liabilities of $89 million, compared to an FX translation gain of $57 million in the same period of 2019 and an income tax recovery of $88 million associated with a change in tax rate in 2019, partially offset by higher Operating income in 2020.

Adjusted income was $1,720 million in the first nine months of 2020, an increase of $86 million, or 5%, from $1,634 million in the same period of 2019. This increase was primarily due to higher Operating income in 2020, partially offset by higher taxes due to higher taxable income.

Diluted Earnings per Share

Diluted EPS was $12.04 in the first nine months of 2020, a decrease of $0.66, or 5%, from $12.70 in the same period of 2019. This decrease was due to lower Net income, partially offset by a lower average number of outstanding shares due to the Company's share repurchase program.

Adjusted diluted EPS was $12.62 in the first nine months of 2020, an increase of $0.94, or 8%, from $11.68 in the same period of 2019. This increase was primarily due to higher Adjusted income and a lower average number of outstanding shares due to the Company's share repurchase program.

Operating Ratio

The Company's Operating ratio was 58.2% in the first nine months of 2020, a 280 basis point improvement from 61.0% in the same period of 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; and
- the efficiencies generated from improved operating performance and asset utilization.

This improvement was partially offset by higher depreciation and amortization and cost inflation.

Impact of FX 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. In the third quarter of 2020, the impact of a stronger U.S. dollar resulted in an increase in total revenues of $9 million, an increase in total operating expenses of $5 million, and an increase in interest expense of $1 million from the same period of 2019. In the first nine months of 2020, the impact of a stronger U.S. dollar resulted in an increase in total revenues of $50 million, an increase in total operating expenses of $30 million, and an increase in interest expense of $6 million from the same period of 2019.

On October 16, 2020, the noon buying rate certified for customs purposes by the U.S. Federal Reserve Bank of New York was U.S. $1.00 = $1.32 Canadian dollar.

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)	**2020**	2019
For the three months ended - September 30	**$ 1.33**	$ 1.32
For the nine months ended - September 30	**$ 1.35**	$ 1.33

Ending exchange rates (Canadian/U.S. dollar)	**2020**	2019
Beginning of year - January 1	**$ 1.30**	$ 1.36
Beginning of quarter - July 1	**$ 1.36**	$ 1.31
End of quarter - September 30	**$ 1.33**	$ 1.32

	For the three months ended September 30		**For the nine months ended September 30**	
High/Low exchange rates (Canadian/U.S. dollar)	**2020**	2019	**2020**	2019
High	**$ 1.36**	$ 1.33	**$ 1.45**	$ 1.36
Low	**$ 1.30**	$ 1.30	**$ 1.30**	$ 1.30

The impact of FX on total revenues and operating expenses is discussed further in Item 3. Quantitative and Qualitative Disclosures About Market Risk, in the Foreign Exchange Risk section.

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 an impact on earnings due to the timing of recoveries from CP's fuel cost adjustment program. The following table indicates the average fuel price for the three and nine months ended September 30, 2020 and the comparative periods of 2019.

Average Fuel Price (U.S. dollars per U.S. gallon)	**2020**	2019
For the three months ended - September 30	**$ 1.72**	$ 2.41
For the nine months ended - September 30	**$ 1.90**	$ 2.48

The impact of fuel prices on earnings includes the impacts of carbon taxes, levies, and obligations under cap-and-trade programs recovered and paid, on revenues and expenses, respectively.

In the third quarter of 2020, the unfavourable impact of fuel prices on Operating income was $10 million. Lower fuel prices resulted in a decrease in Total operating expenses of $51 million. Lower fuel prices, and the unfavourable impact of the timing of recoveries from CP's fuel cost adjustment program, partially offset by increased carbon tax recoveries, resulted in a decrease in Total revenues of $61 million from the same period of 2019.

In the first nine months of 2020, the favourable impact of fuel prices on Operating income was $26 million. Lower fuel prices resulted in a decrease in Total operating expenses of $143 million. Lower fuel prices, partially offset by the timing of recoveries from CP's fuel cost adjustment program, and increased carbon tax recoveries, resulted in a decrease in Total revenues of $117 million from the same period of 2019.

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". The following tables indicate the opening and closing Common Share price on the TSX and the NYSE for the three and nine months ended September 30, 2020 and the comparative periods in 2019.

TSX (in Canadian dollars)	**2020**	2019
Opening Common Share price, as at January 1	**$ 331.03**	$ 242.24
Ending Common Share price, as at June 30	**$ 345.32**	$ 308.43
Ending Common Share price, as at September 30	**$ 405.05**	$ 294.42
Change in Common Share price for the three months ended September 30	**$ 59.73**	$ (14.01)
Change in Common Share price for the nine months ended September 30	**$ 74.02**	$ 52.18

NYSE (in U.S. dollars)	**2020**	2019
Opening Common Share price, as at January 1	**$ 254.95**	$ 177.62
Ending Common Share price, as at June 30	**$ 255.34**	$ 235.24
Ending Common Share price, as at September 30	**$ 304.43**	$ 222.46
Change in Common Share price for the three months ended September 30	**$ 49.09**	$ (12.78)
Change in Common Share price for the nine months ended September 30	**$ 49.48**	$ 44.84

In the third quarter of 2020, the impact of the change in Common Share prices resulted in an increase in stock-based compensation expense of $32 million compared to a decrease of $9 million in the same period of 2019.

In the first nine months of 2020, the impact of the change in Common Share prices resulted in an increase in stock-based compensation expense of $35 million compared to an increase of $20 million in the same period of 2019.

The impact of share price on stock-based compensation is discussed further in Item 3. Quantitative and Qualitative Disclosures About Market Risk, Share Price Impact on Stock-Based Compensation.

Operating Revenues

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, equipment rents, and crew costs. Non-freight revenues are generated from leasing of certain assets; other arrangements, including logistical services and contracts with passenger service operators; and switching fees.

For the three months ended September 30	**2020**	2019	Total Change	% Change	FX Adjusted % Change[(2)]
Freight revenues (in millions)[(1)]	**$ 1,821**	$ 1,932	$ (111)	(6)	(6)
Non-freight revenues (in millions)	**42**	47	(5)	(11)	(11)
Total revenues (in millions)	**$ 1,863**	$ 1,979	$ (116)	(6)	(6)
Carloads (in thousands)	**659.0**	711.9	(52.9)	(7)	N/A
Revenue ton-miles (in millions)	**36,690**	39,172	(2,482)	(6)	N/A
Freight revenue per carload (in dollars)	**$ 2,763**	$ 2,714	$ 49	2	1
Freight revenue per revenue ton-mile (in cents)	**4.96**	4.93	0.03	1	—

(1) Freight revenues include fuel surcharge revenues of $55 million in 2020 and $119 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 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Freight revenues were $1,821 million in the third quarter of 2020, a decrease of $111 million, or 6%, from $1,932 million in the same period of 2019. This decrease was primarily due to lower volumes as measured by RTMs. This decrease was partially offset by higher freight revenue per revenue ton-mile.

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 the third quarter of 2020 were 36,690 million, a decrease of

2,482 million, or 6%, compared with 39,172 million in the same period of 2019. This decrease was mainly attributable to lower volumes of crude, Coal, and frac sand. This decrease was partially offset by higher volumes of Canadian grain and Potash.

Freight revenue per revenue ton-mile 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 revenue ton-mile was 4.96 cents in the third quarter of 2020, an increase of 0.03 cents, or 1%, from 4.93 cents in the same period of 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 $9 million. This increase was partially offset by the unfavourable impact of lower fuel surcharge revenue, as a result of lower fuel prices of $61 million.

Carloads are defined as revenue-generating shipments of containers and freight cars. Carloads were 659.0 thousand in the third quarter of 2020, a decrease of 52.9 thousand, or 7%, from 711.9 thousand in the same period of 2019. This decrease was primarily due to lower volumes of crude, Intermodal, Coal, and frac sand. This decrease was partially offset by higher volumes of Canadian grain and Potash.

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 $2,763 in the third quarter of 2020, an increase of $49, or 2%, from $2,714 in the same period of 2019. This increase was primarily due to liquidated damages, including customer volume commitments, higher freight rates, and the favourable impact of the change in FX of $9 million. This increase was partially offset by the unfavourable impact of lower fuel surcharge revenue, as a result of lower fuel prices of $61 million.

Non-freight revenues were $42 million in the third quarter of 2020, a decrease of $5 million, or 11%, from $47 million in the same period of 2019. This decrease was primarily due to lower passenger revenues and switching fees.

For the nine months ended September 30	**2020**	2019	Total Change	% Change	FX Adjusted % Change[(2)]
Freight revenues (in millions)[(1)]	**$ 5,573**	$ 5,589	$ (16)	—	(1)
Non-freight revenues (in millions)	**125**	134	(9)	(7)	(7)
Total revenues (in millions)	**$ 5,698**	$ 5,723	$ (25)	—	(1)
Carloads (in thousands)	**1,980.6**	2,064.3	(83.7)	(4)	N/A
Revenue ton-miles (in millions)	**111,635**	114,994	(3,359)	(3)	N/A
Freight revenue per carload (in dollars)	**$ 2,814**	$ 2,707	$ 107	4	3
Freight revenue per revenue ton-mile (in cents)	**4.99**	4.86	0.13	3	2

(1) Freight revenues include fuel surcharge revenues of $237 million in 2020 and $352 million in 2019. Fuel surcharge revenues include carbon taxes, levies, and obligations recovered 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 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Freight revenues were $5,573 million in the first nine months of 2020, a decrease of $16 million, or flat, from $5,589 million in the same period of 2019. This decrease was primarily due to lower volumes as measured by RTMs, partially offset by higher freight revenue per revenue ton-mile.

RTMs for the first nine months of 2020 were 111,635 million, a decrease of 3,359 million, or 3% compared with 114,994 million in the same period of 2019. This decrease was mainly attributable to lower volumes of Coal, crude, and frac sand. This decrease was partially offset by higher volumes of Canadian grain and Potash.

Freight revenue per revenue ton-mile was 4.99 cents in the first nine months of 2020, an increase of 0.13 cents, or 3%, from 4.86 cents in the same period of 2019. This increase was primarily due to liquidated damages, including customer volume commitments, higher freight rates, and the favourable impact of the change in FX of $50 million. This increase was partially offset by the unfavourable impact of lower fuel surcharge revenue, as a result of lower fuel prices, of $117 million and moving lower volumes of Automotive, which has a higher freight revenue per revenue ton-mile compared to the corporate average.

Carloads were 1,980.6 thousand in the first nine months of 2020, a decrease of 83.7 thousand, or 4%, from 2,064.3 thousand in the same period of 2019. This decrease was primarily due to lower volumes of Coal, frac sand, crude, and Automotive. This decrease was partially offset by higher volumes of Canadian grain and Potash.

Freight revenue per carload was $2,814 in the first nine months of 2020, an increase of $107, or 4%, from $2,707 in the same period of 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 $50 million. This increase is partially offset by the unfavourable impact of lower fuel surcharge revenue, as a result of lower fuel prices, of $117 million.

Non-freight revenues were $125 million in the first nine months of 2020, a decrease of $9 million, or 7%, from $134 million in the same period of 2019. This decrease was primarily due to lower passenger revenues and switching fees.

Fuel Cost Adjustment Program

Freight revenues include fuel surcharge revenues associated with CP's fuel cost adjustment program, which is designed to respond to fluctuations in fuel prices and help reduce exposure to changing fuel prices. The surcharge is applied to shippers through tariffs and by contract, within agreed-upon guidelines. This program includes recoveries of carbon taxes, levies, and obligations under cap-and-trade programs. Freight revenues included fuel surcharge revenues of $55 million in the third quarter of 2020, a decrease of $64 million, or 54%, from $119 million in the same period of 2019. This decrease was primarily due to lower fuel prices and lower volumes.

In the first nine months of 2020, fuel surcharge revenues were $237 million, a decrease of $115 million, or 33%, from $352 million in the same period of 2019. This decrease was primarily due to lower fuel prices. This decrease was partially offset by the timing of recoveries from CP's fuel cost adjustment program and increased carbon tax recoveries.

Lines of Business

Grain

For the three months ended September 30	**2020**	2019	Total Change	% Change	FX Adjusted % Change[(1)]
Freight revenues (in millions)	**$ 457**	$ 409	$ 48	12	11
Carloads (in thousands)	**124.5**	106.6	17.9	17	N/A
Revenue ton-miles (in millions)	**10,549**	8,953	1,596	18	N/A
Freight revenue per carload (in dollars)	**$ 3,671**	$ 3,837	$ (166)	(4)	(5)
Freight revenue per revenue ton-mile (in cents)	**4.33**	4.57	(0.24)	(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 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Grain revenue was $457 million in the third quarter of 2020, an increase of $48 million, or 12%, from $409 million in the same period of 2019. This increase was primarily due to moving record volumes of Canadian grain primarily to Vancouver, B.C., higher freight rates, and the favourable impact of the change in FX. This increase was partially offset by decreased freight revenue per revenue ton-mile due to moving higher volumes of long haul Canadian grain to Vancouver and the unfavourable impact of lower fuel surcharge revenue as a result of lower fuel prices.

For the nine months ended September 30	**2020**	2019	Total Change	% Change	FX Adjusted % Change[(1)]
Freight revenues (in millions)	**$ 1,321**	$ 1,211	$ 110	9	8
Carloads (in thousands)	**343.5**	312.5	31.0	10	N/A
Revenue ton-miles (in millions)	**29,734**	26,757	2,977	11	N/A
Freight revenue per carload (in dollars)	**$ 3,846**	$ 3,875	$ (29)	(1)	(2)
Freight revenue per revenue ton-mile (in cents)	**4.44**	4.53	(0.09)	(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 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Grain revenue was $1,321 million in the first nine months of 2020, an increase of $110 million, or 9%, from $1,211 million in the same period of 2019. This increase was primarily due to moving record volumes of Canadian grain, primarily to Vancouver and Thunder Bay, higher freight rates, and the favourable impact of the change in FX. This increase was partially offset by decreased freight revenue per revenue ton-mile and moving lower volumes of U.S. grain, primarily corn, to western Canada. Freight revenue per revenue ton-mile decreased due to moving higher volumes of long haul Canadian grain to Vancouver and the unfavourable impact of lower fuel surcharge revenue as a result of lower fuel prices.

Coal

For the three months ended September 30		2020		2019		Total Change	% Change	FX Adjusted % Change[(1)]
Freight revenues (in millions)	**$**	**130**	$	183	$	(53)	(29)	(29)
Carloads (in thousands)		**63.5**		81.2		(17.7)	(22)	N/A
Revenue ton-miles (in millions)		**4,437**		5,761		(1,324)	(23)	N/A
Freight revenue per carload (in dollars)	**$**	**2,047**	$	2,254	$	(207)	(9)	(10)
Freight revenue per revenue ton-mile (in cents)		**2.93**		3.18		(0.25)	(8)	(8)

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

Coal revenue was $130 million in the third quarter of 2020, a decrease of $53 million, or 29%, from $183 million in the same period of 2019. This decrease was primarily due to lower volumes of Canadian coal, 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 revenue ton-mile. Freight revenue per revenue ton-mile decreased due to the unfavourable impact of lower fuel surcharge revenue as a result of lower fuel prices.

For the nine months ended September 30		2020		2019		Total Change	% Change	FX Adjusted % Change[(1)]
Freight revenues (in millions)	**$**	**411**	$	514	$	(103)	(20)	(20)
Carloads (in thousands)		**186.7**		229.3		(42.6)	(19)	N/A
Revenue ton-miles (in millions)		**13,209**		16,485		(3,276)	(20)	N/A
Freight revenue per carload (in dollars)	**$**	**2,201**	$	2,242	$	(41)	(2)	(2)
Freight revenue per revenue ton-mile (in cents)		**3.11**		3.12		(0.01)	—	—

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

Coal revenue was $411 million in the first nine months of 2020, a decrease of $103 million, or 20%, from $514 million in the same period of 2019. This decrease was primarily due to lower volumes of Canadian coal, driven by supply chain challenges at both the mines and ports, lower volumes of U.S. coal to Wisconsin, and decreased freight revenue per revenue ton-mile. Freight revenue per revenue ton-mile decreased due to the unfavourable impact of lower fuel surcharge revenue as a result of lower fuel prices.

Potash

For the three months ended September 30		2020		2019		Total Change	% Change	FX Adjusted % Change[(1)]
Freight revenues (in millions)	**$**	**132**	$	117	$	15	13	13
Carloads (in thousands)		**43.6**		36.3		7.3	20	N/A
Revenue ton-miles (in millions)		**5,036**		4,188		848	20	N/A
Freight revenue per carload (in dollars)	**$**	**3,028**	$	3,223	$	(195)	(6)	(6)
Freight revenue per revenue ton-mile (in cents)		**2.62**		2.79		(0.17)	(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 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Potash revenue was $132 million in the third quarter of 2020, an increase of $15 million, or 13%, from $117 million in the same period of 2019. This increase was primarily due to higher volumes of export potash following resolved international contract negotiations, higher volumes of domestic potash, and higher freight rates. This increase was partially offset by decreased freight revenue per revenue ton-mile due to the unfavourable impact of lower fuel surcharge revenue as a result of lower fuel prices.

For the nine months ended September 30		2020		2019		Total Change	% Change	FX Adjusted % Change[(1)]
Freight revenues (in millions)	$	**390**	$	367	$	23	6	5
Carloads (in thousands)		**127.0**		118.6		8.4	7	N/A
Revenue ton-miles (in millions)		**14,664**		14,003		661	5	N/A
Freight revenue per carload (in dollars)	$	**3,071**	$	3,094	$	(23)	(1)	(2)
Freight revenue per revenue ton-mile (in cents)		**2.66**		2.62		0.04	2	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 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Potash revenue was $390 million in the first nine months of 2020, an increase of $23 million, or 6%, from $367 million in the same period of 2019. This increase was primarily due to higher volumes of export potash following resolved international contract negotiations, higher volumes of domestic potash, and increased freight revenue per revenue ton-mile. This increase was partially offset by lower fuel surcharge revenue as a result of lower fuel prices. Freight revenue per revenue ton-mile increased due to higher freight rates and the favourable impact of the change in FX. Carloads increased more than RTMs driven by moving higher volumes of domestic potash within western Canada, which has a shorter length of haul.

Fertilizers and Sulphur

For the three months ended September 30		2020		2019		Total Change	% Change	FX Adjusted % Change[(1)]
Freight revenues (in millions)	$	**65**	$	66	$	(1)	(2)	(3)
Carloads (in thousands)		**13.9**		14.8		(0.9)	(6)	N/A
Revenue ton-miles (in millions)		**1,059**		1,030		29	3	N/A
Freight revenue per carload (in dollars)	$	**4,676**	$	4,459	$	217	5	3
Freight revenue per revenue ton-mile (in cents)		**6.14**		6.41		(0.27)	(4)	(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 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Fertilizers and sulphur revenue was $65 million in the third quarter of 2020, a decrease of $1 million, or 2%, from $66 million in the same period of 2019. This decrease was primarily due to decreased freight revenue per revenue-ton mile due to lower fuel surcharge revenue as a result of lower fuel prices. This decrease was partially offset by higher volumes of dry fertilizers, and the favourable impact of the change in FX. Carloads decreased while RTMs increased due to moving lower volumes of wet fertilizers within Alberta, which has a shorter length of haul.

For the nine months ended September 30		2020		2019		Total Change	% Change	FX Adjusted % Change[(1)]
Freight revenues (in millions)	$	**212**	$	186	$	26	14	12
Carloads (in thousands)		**45.7**		42.6		3.1	7	N/A
Revenue ton-miles (in millions)		**3,387**		2,872		515	18	N/A
Freight revenue per carload (in dollars)	$	**4,639**	$	4,366	$	273	6	5
Freight revenue per revenue ton-mile (in cents)		**6.26**		6.48		(0.22)	(3)	(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 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Fertilizers and sulphur revenue was $212 million in the first nine months of 2020, an increase of $26 million, or 14%, from $186 million in the same period of 2019. This increase was primarily due to higher volumes of dry fertilizers, wet fertilizers, and sulphur as well as the favourable impact of the change in FX. This increase was partially offset by decreased freight revenue per revenue ton-mile 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 fertilizers within Alberta, which has a shorter length of haul.

Forest Products

For the three months ended September 30	2020	2019	Total Change	% Change	FX Adjusted % Change[(1)]
Freight revenues (in millions)	**$ 85**	$ 78	$ 7	9	8
Carloads (in thousands)	**17.9**	18.5	(0.6)	(3)	N/A
Revenue ton-miles (in millions)	**1,463**	1,278	185	14	N/A
Freight revenue per carload (in dollars)	**$ 4,749**	$ 4,216	$ 533	13	11
Freight revenue per revenue ton-mile (in cents)	**5.81**	6.10	(0.29)	(5)	(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 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Forest products revenue was $85 million in the third quarter of 2020, an increase of $7 million, or 9%, from $78 million in the same period of 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 revenue ton-mile due to lower fuel surcharge revenue as a result of lower fuel prices. RTMs increased while carloads decreased due to moving higher volumes of panel products and wood pulp from eastern Canada to the U.S., which have a longer length of haul.

For the nine months ended September 30	2020	2019	Total Change	% Change	FX Adjusted % Change[(1)]
Freight revenues (in millions)	**$ 244**	$ 229	$ 15	7	5
Carloads (in thousands)	**53.5**	54.1	(0.6)	(1)	N/A
Revenue ton-miles (in millions)	**4,059**	3,746	313	8	N/A
Freight revenue per carload (in dollars)	**$ 4,561**	$ 4,233	$ 328	8	6
Freight revenue per revenue ton-mile (in cents)	**6.01**	6.11	(0.10)	(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 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Forest products revenue was $244 million in the first nine months of 2020, an increase of $15 million, or 7%, from $229 million in the same period of 2019. This increase was primarily due to higher volumes of lumber, wood pulp, and panel products, higher freight rates, and the favourable impact of the change in FX. This increase was partially offset by decreased freight revenue per revenue ton-mile due to lower fuel surcharge revenue as a result of lower fuel prices. RTMs increased while carloads decreased due to moving higher volumes of panel products and wood pulp from eastern Canada to the U.S., which have a longer length of haul.

Energy, Chemicals and Plastics

For the three months ended September 30	2020	2019	Total Change	% Change	FX Adjusted % Change[(1)]
Freight revenues (in millions)	**$ 321**	$ 382	$ (61)	(16)	(16)
Carloads (in thousands)	**63.6**	90.8	(27.2)	(30)	N/A
Revenue ton-miles (in millions)	**4,620**	7,571	(2,951)	(39)	N/A
Freight revenue per carload (in dollars)	**$ 5,047**	$ 4,207	$ 840	20	19
Freight revenue per revenue ton-mile (in cents)	**6.95**	5.05	1.90	38	37

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

Energy, chemicals and plastics revenue was $321 million in the third quarter of 2020, a decrease of $61 million, or 16%, from $382 million in the same period of 2019. This decrease was primarily due to lower volumes of crude, gasoline, and liquefied petroleum gas ("LPG") as a result of the COVID-19 pandemic and lower fuel surcharge revenue as a result of lower fuel prices. This decrease was partially offset by higher volumes of plastics and increased freight revenue per revenue ton-mile. Freight revenue per revenue ton-mile 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.

For the nine months ended September 30		2020		2019		Total Change	% Change	FX Adjusted % Change[(1)]
Freight revenues (in millions)	$	**1,153**	$	1,043	$	110	11	10
Carloads (in thousands)		**228.2**		257.0		(28.8)	(11)	N/A
Revenue ton-miles (in millions)		**17,981**		20,901		(2,920)	(14)	N/A
Freight revenue per carload (in dollars)	$	**5,053**	$	4,058	$	995	25	24
Freight revenue per revenue ton-mile (in cents)		**6.41**		4.99		1.42	28	27

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

Energy, chemicals and plastics revenue was $1,153 million in the first nine months of 2020, an increase of $110 million, or 11%, from $1,043 million in the same period of 2019. This increase was primarily due to higher freight revenue per revenue ton-mile and higher volumes of plastics. This increase was partially offset by lower volumes of crude and LPG as a result of the COVID-19 pandemic and lower fuel surcharge revenue as a result of lower fuel prices. Freight revenue per revenue ton-mile increased primarily due to higher liquidated damages, including customer volume commitments, higher freight rates and the favourable impact of the change in FX. 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 three months ended September 30		2020		2019		Total Change	% Change	FX Adjusted % Change[(1)]
Freight revenues (in millions)	$	**152**	$	201	$	(49)	(24)	(25)
Carloads (in thousands)		**50.8**		62.9		(12.1)	(19)	N/A
Revenue ton-miles (in millions)		**2,303**		2,910		(607)	(21)	N/A
Freight revenue per carload (in dollars)	$	**2,992**	$	3,196	$	(204)	(6)	(7)
Freight revenue per revenue ton-mile (in cents)		**6.60**		6.91		(0.31)	(4)	(5)

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Metals, minerals and consumer products revenue was $152 million in the third quarter of 2020, a decrease of $49 million, or 24%, from $201 million in the same period of 2019. This decrease was primarily due to lower volumes of frac sand and steel as a result of the COVID-19 pandemic and decreased freight revenue per revenue ton-mile. This decrease was partially offset by the favourable impact of the change in FX. Freight revenue per revenue ton-mile decreased due to lower fuel surcharge revenue as a result of lower fuel prices. RTMs decreased more than carloads due to moving lower volumes of frac sand to the Bakken, which has a longer length of haul.

For the nine months ended September 30		2020		2019		Total Change	% Change	FX Adjusted % Change[(1)]
Freight revenues (in millions)	$	**474**	$	579	$	(105)	(18)	(19)
Carloads (in thousands)		**154.1**		180.1		(26.0)	(14)	N/A
Revenue ton-miles (in millions)		**6,951**		8,225		(1,274)	(15)	N/A
Freight revenue per carload (in dollars)	$	**3,076**	$	3,215	$	(139)	(4)	(6)
Freight revenue per revenue ton-mile (in cents)		**6.82**		7.04		(0.22)	(3)	(5)

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Metals, minerals and consumer products revenue was $474 million in the first nine months of 2020, a decrease of $105 million, or 18%, from $579 million in the same period of 2019. This decrease was primarily due to moving lower volumes of frac sand and steel as a result of the COVID-19 pandemic and decreased freight revenue per revenue ton-mile. This decrease was partially offset by the favourable impact of the change in FX. Freight revenue per revenue ton-mile decreased due to lower fuel surcharge revenue as a result of lower fuel prices.

Automotive

For the three months ended September 30		2020	2019	Total Change	% Change	FX Adjusted % Change[(1)]
Freight revenues (in millions)	$	**94**	$ 87	$ 7	8	7
Carloads (in thousands)		**31.2**	29.2	2.0	7	N/A
Revenue ton-miles (in millions)		**390**	351	39	11	N/A
Freight revenue per carload (in dollars)	$	**3,013**	$ 2,979	$ 34	1	—
Freight revenue per revenue ton-mile (in cents)		**24.10**	24.79	(0.69)	(3)	(4)

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Automotive revenue was $94 million in the third quarter of 2020, an increase of $7 million, or 8%, from $87 million in the same period of 2019. This increase was primarily due to the onboarding of customers moving to and from Vancouver, higher freight rates and the favourable impact of the change in FX. This increase was partially offset by decreased freight revenue per revenue ton-mile due to lower fuel surcharge revenue as a result of lower fuel prices. RTMs increased more than carloads due to moving higher volumes to and from Vancouver, which has a longer length of haul.

For the nine months ended September 30		2020	2019	Total Change	% Change	FX Adjusted % Change[(1)]
Freight revenues (in millions)	$	**215**	$ 267	$ (52)	(19)	(21)
Carloads (in thousands)		**71.3**	85.8	(14.5)	(17)	N/A
Revenue ton-miles (in millions)		**846**	1,125	(279)	(25)	N/A
Freight revenue per carload (in dollars)	$	**3,015**	$ 3,112	$ (97)	(3)	(5)
Freight revenue per revenue ton-mile (in cents)		**25.41**	23.73	1.68	7	5

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Automotive revenue was $215 million in the first nine months of 2020, a decrease of $52 million, or 19%, from $267 million in the same period of 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 lower fuel surcharge revenue as a result of lower fuel prices. This decrease was partially offset by higher freight revenue per revenue ton-mile. Freight revenue per revenue ton-mile increased due to higher freight rates and the favourable impact of the change in FX. RTMs decreased more than carloads due to moving higher volumes within southern Ontario, which has a shorter length of haul.

Intermodal

For the three months ended September 30		2020	2019	Total Change	% Change	FX Adjusted % Change[(1)]
Freight revenues (in millions)	$	**385**	$ 409	$ (24)	(6)	(6)
Carloads (in thousands)		**250.0**	271.6	(21.6)	(8)	N/A
Revenue ton-miles (in millions)		**6,833**	7,130	(297)	(4)	N/A
Freight revenue per carload (in dollars)	$	**1,540**	$ 1,506	$ 34	2	2
Freight revenue per revenue ton-mile (in cents)		**5.63**	5.74	(0.11)	(2)	(2)

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Intermodal revenue was $385 million in the third quarter of 2020, a decrease of $24 million, or 6%, from $409 million in the same period of 2019. This decrease was primarily due to lower volumes of international intermodal driven by the completion of a customer contract, and decreased freight revenue per revenue ton-mile. This decrease was partially offset by higher volumes of domestic intermodal, and higher freight rates. Freight revenue per revenue ton-mile decreased due to lower fuel surcharge revenue as a result of lower fuel prices. Carloads decreased more than RTMs due to moving proportionately lower volumes of international intermodal, which has a shorter length of haul.

For the nine months ended September 30		2020		2019		Total Change	% Change	FX Adjusted % Change[(1)]
Freight revenues (in millions)	$	**1,153**	$	1,193	$	(40)	(3)	(4)
Carloads (in thousands)		**770.6**		784.3		(13.7)	(2)	N/A
Revenue ton-miles (in millions)		**20,804**		20,880		(76)	—	N/A
Freight revenue per carload (in dollars)	$	**1,496**	$	1,521	$	(25)	(2)	(2)
Freight revenue per revenue ton-mile (in cents)		**5.54**		5.71		(0.17)	(3)	(3)

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Intermodal revenue was $1,153 million in the first nine months of 2020, a decrease of $40 million, or 3%, from $1,193 million in the same period of 2019. This decrease was primarily due to decreased freight revenue per revenue ton-mile, lower volumes of international intermodal driven by the completion of a customer contract, and as a result of the COVID-19 pandemic. This decrease was partially offset by the onboarding of a new international intermodal customer and the favourable impact of the change in FX. Freight revenue per revenue ton-mile decreased due to lower fuel surcharge revenues as a result of lower fuel prices. Carloads decreased more than RTMs due to moving proportionately lower volumes of international intermodal, which has a shorter length of haul.

Operating Expenses

For the three months ended September 30 (in millions)		2020		2019		Total Change	% Change	FX Adjusted % Change[(1)]
Compensation and benefits	$	**382**	$	355	$	27	8	7
Fuel		**140**		210		(70)	(33)	(34)
Materials		**53**		50		3	6	6
Equipment rents		**39**		33		6	18	15
Depreciation and amortization		**195**		185		10	5	5
Purchased services and other		**275**		277		(2)	(1)	(1)
Total operating expenses	$	**1,084**	$	1,110	$	(26)	(2)	(3)

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Operating expenses were $1,084 million in the third quarter of 2020, a decrease of $26 million, or 2%, from $1,110 million in the same period of 2019. This decrease was primarily due to:

- the favourable impact of $51 million from lower fuel prices;
- lower volume variable expense; and
- efficiencies generated from improved operating performance and asset utilization.

This decrease was partially offset by:

- increased stock-based compensation primarily driven by a $41 million impact of changes in share price;
- cost inflation;
- increased operating expense associated with higher casualty costs incurred in 2020 of $11 million; and
- higher depreciation and amortization of $9 million (excluding FX).

For the nine months ended September 30 (in millions)		2020		2019		Total Change	% Change	FX Adjusted % Change[(1)]
Compensation and benefits	$	**1,127**	$	1,144	$	(17)	(1)	(2)
Fuel		**483**		655		(172)	(26)	(27)
Materials		**162**		161		1	1	1
Equipment rents		**108**		102		6	6	4
Depreciation and amortization		**582**		528		54	10	10
Purchased services and other		**853**		899		(46)	(5)	(6)
Total operating expenses	$	**3,315**	$	3,489	$	(174)	(5)	(6)

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Operating expenses were $3,315 million in the first nine months of 2020, a decrease of $174 million, or 5%, from $3,489 million in the same period of 2019. This decrease was primarily due to:
- the favourable impact of $143 million from lower fuel prices;
- lower volume variable expenses;
- efficiencies generated from improved operating performance and asset utilization; and
- the impact of harsher winter operating conditions in 2019.

This decrease was partially offset by:
- higher depreciation and amortization of $51 million (excluding FX);
- cost inflation; and
- the unfavourable impact of the change in FX of $30 million.

Compensation and Benefits

Compensation and benefits expense includes employee wages, salaries, fringe benefits, and stock-based compensation. Compensation and benefits expense was $382 million in the third quarter of 2020, an increase of $27 million, or 8%, from $355 million in the same period of 2019. This increase was primarily due to:
- increased stock-based compensation primarily driven by a $41 million impact of changes in share price;
- higher pension current service cost of $8 million; and
- the impact of wage and benefit inflation.

This increase was partially offset by:
- labour efficiencies;
- lower volume variable expense as a result of decreased workload as measured by GTMs; and
- reduced training costs.

Compensation and benefits expense was $1,127 million in the first nine months of 2020, a decrease of $17 million, or 1%, from $1,144 million in the same period of 2019. This decrease was primarily due to:
- labour efficiencies;
- 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.

This decrease was partially offset by:
- the impact of wage and benefit inflation;
- higher pension current service cost of $24 million;
- increased stock-based compensation primarily driven by the impact of changes in share price of $15 million; and
- the unfavourable impact of the change in FX of $7 million.

Fuel

Fuel expense consists mainly of fuel used by locomotives and includes provincial, state, and federal fuel taxes. Fuel expense was $140 million in the third quarter of 2020, a decrease of $70 million, or 33%, from $210 million in the same period of 2019. This decrease was primarily due to the favourable impact of $51 million from lower fuel prices and a decrease in workload, as measured by GTMs.

This decrease was partially offset by the unfavourable impact of the change in FX of $1 million.

Fuel expense was $483 million in the first nine months of 2020, a decrease of $172 million, or 26%, from $655 million in the same period of 2019. This decrease was primarily due to:
- the favourable impact of $143 million from lower fuel prices;
- a decrease in workload, as measured by GTMs; and
- an improvement in fuel efficiency of 2% from improved winter operating conditions in the first quarter of 2020 and increased train productivity.

This decrease was partially offset by the unfavourable impact of the change in FX of $10 million.

Materials

Materials expense includes the cost of materials used for the maintenance of track, locomotives, freight cars, and buildings, as well as software sustainment. Materials expense was $53 million in the third quarter of 2020, an increase of $3 million, or 6%, from $50 million in the same period of 2019. This increase was due to higher track maintenance and repairs.

Materials expense was $162 million in the first nine months of 2020, an increase of $1 million, or 1%, from $161 million in the same period of 2019. This increase was due to higher locomotive maintenance and cost inflation, partially offset by lower freight car maintenance, net of recoveries.

Equipment Rents

Equipment rents expense includes the cost associated with using other railways' freight cars, intermodal equipment, and locomotives, net of rental income received from other railroads for the use of CP's equipment. Equipment rents expense was $39 million in the third quarter of 2020, an increase of $6 million, or 18%, from $33 million in the same period of 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 $1 million.

Equipment rents expense was $108 million in the first nine months of 2020, an increase of $6 million, or 6%, from $102 million in the same period of 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. This increase was partially offset by lower usage of pooled freight cars by CP.

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 $195 million in the third quarter of 2020, an increase of $10 million, or 5%, from $185 million in the same period of 2019. This increase was primarily due to a higher depreciable asset base and the unfavourable impact of the change in FX of $1 million.

Depreciation and amortization expense was $582 million in the first nine months of 2020, an increase of $54 million, or 10%, from $528 million in the same period of 2019. This increase was primarily due to a higher depreciable asset base, the unfavourable impact of the change in FX of $3 million, and other adjustments made in 2019.

Purchased Services and Other

For the three months ended September 30 (in millions)	**2020**	2019	Total Change	% Change
Support and facilities	**$ 68**	$ 70	$ (2)	(3)
Track and operations	**65**	66	(1)	(2)
Intermodal	**51**	54	(3)	(6)
Equipment	**27**	31	(4)	(13)
Casualty	**31**	24	7	29
Property taxes	**28**	31	(3)	(10)
Other	**5**	1	4	400
Land sales	**—**	—	—	—
Total Purchased services and other	**$ 275**	$ 277	$ (2)	(1)

Purchased services and other expense encompasses a wide range of third-party costs, including expenses for joint facilities, personal injuries and damage claims, environmental remediation, property taxes, contractor and consulting fees, insurance, and gains on land sales. Purchased services and other expense was $275 million in the third quarter of 2020, a decrease of $2 million from $277 million in the same period of 2019. This decrease was primarily due to:

- lower business travel and event costs due to COVID-19, reported primarily in Support and facilities and Track and operations;
- efficiencies generated from improved operating performance, reported in Intermodal and Equipment; and
- lower property taxes.

This decrease was partially offset by higher expenses primarily due to the increased number and severity of casualty incidents, reported in Casualty and the unfavourable impact of the change in FX of $1 million.

For the nine months ended September 30 (in millions)	**2020**	2019	Total Change	% Change
Support and facilities	**$ 198**	$ 207	$ (9)	(4)
Track and operations	**210**	215	(5)	(2)
Intermodal	**154**	165	(11)	(7)
Equipment	**85**	98	(13)	(13)
Casualty	**100**	109	(9)	(8)
Property taxes	**95**	103	(8)	(8)
Other	**15**	19	(4)	(21)
Land sales	**(4)**	(17)	13	(76)
Total Purchased services and other	**$ 853**	$ 899	$ (46)	(5)

Purchased services and other expense was $853 million in the first nine months of 2020, a decrease of $46 million, or 5%, from $899 million in the same period of 2019. This decrease was primarily due to:

- reduced business travel and event costs due to COVID-19, reported in Support and facilities and Track and operations;
- lower snow removal and other weather related costs reported in Track and operations;
- a decrease in charges associated with contingencies of $10 million, reported in Other;
- lower property taxes; and
- lower expenses primarily due to the reduced number and severity of casualty incidents, reported in Casualty.

This decrease was partially offset by higher gains on land sales of $13 million in 2019, reported in Land sales and the unfavourable impact of the change in FX of $8 million.

Other Income Statement Items

Other (Income) Expense

Other (income) expense 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 income was $36 million in the third quarter of 2020, a change of $65 million, or 224%, compared to an expense of $29 million in the same period of 2019. This change was due to an FX translation gain on U.S. dollar-denominated debt and lease liabilities of $40 million, compared to an FX translation loss of $25 million in the same period of 2019.

Other expense was $89 million in the first nine months of 2020, a change of $147 million, or 253%, compared to an income of $58 million in the same period of 2019. This change was primarily due to an FX translation loss on U.S. dollar-denominated debt and lease liabilities of $89 million, compared to an FX translation gain of $57 million in the same period of 2019.

FX translation gains and losses on debt and lease liabilities are discussed further in Non-GAAP Measures of this Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Other Components of Net Periodic Benefit Recovery

Other components of net periodic recovery was $86 million in the third quarter of 2020, a decrease of $13 million or 13%, compared to $99 million in the same period of 2019 and was $257 million in the first nine months of 2020, a decrease of $37 million or 13%, compared to $294 million in the same period of 2019. These decreases were primarily due to increases in the recognized net actuarial loss.

Net Interest Expense

Net interest expense includes interest on long-term debt and finance leases. Net interest expense was $114 million in the third quarter of 2020, an increase of $4 million, or 4%, from $110 million in the same period of 2019. This increase was primarily due to the unfavourable impacts of an increase in debt levels of $12 million and change in FX of $1 million. This was partially offset by a reduction in interest related to long-term debt of $7 million as a result of a lower effective interest rate following the Company's debt refinancing completed in 2019 and 2020, as well as a decrease in commercial paper interest of $3 million.

Net interest expense was $346 million in the first nine months of 2020, an increase of $10 million, or 3%, from $336 million in the same period of 2019. This increase was primarily due to:

- the unfavourable impact of an increase in debt levels of $23 million;
- the unfavourable impact of the change in FX of $6 million; and
- a decrease in interest income of $2 million.

This was partially offset by a reduction in interest related to long-term debt of $22 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 $189 million in the third quarter of 2020, a decrease of $22 million, or 10%, from $211 million in the same period of 2019. This decrease was primarily due to lower taxable earnings and a lower effective tax rate.

Income tax expense was $563 million in the first nine months of 2020, an increase of $89 million, or 19%, from $474 million in the same period of 2019. This increase was primarily due to the decrease in Alberta's provincial corporate tax rate enacted in 2019 resulting in deferred income tax recoveries of $88 million.

The effective tax rate in the third quarter of 2020, including discrete items, was 23.97% compared to 25.43% in the same period of 2019. The effective tax rate in the first nine months of 2020, including discrete items, was 25.52% compared to 21.06% in the same period of 2019. The effective tax rate in the third quarter and first nine months of 2020, excluding discrete items, was 25.00% for both periods compared to 25.11% and 25.50%, respectively, in 2019. The decrease in the effective tax rate excluding discrete items was primarily due to the decrease in Alberta's provincial corporate tax rate and the 2020 U.S. track maintenance credit.

The Company expects an effective tax rate in 2020 of 24.80%. The Company’s 2020 outlook for its effective income 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. This is discussed further in Item 1A. Risk Factors of CP's 2019 Annual Report on Form 10-K.

Share Capital

At October 19, 2020, the latest practicable date, there were 134,499,003 Common Shares and no preferred shares issued and outstanding, which consists of 13,837 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. Each option granted can be exercised for one Common Share. At October 19, 2020, 1,485,981 options were outstanding under the MSOIP and stand-alone option agreements entered into with Mr. Keith Creel. There are 897,266 options available to be issued by the Company’s MSOIP in the future. CP 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 340,000 options available to be issued in the future.

Liquidity and Capital Resources

The Company believes adequate amounts of Cash and cash equivalents are available in the normal course of business to provide for ongoing operations, including the obligations identified in Contractual Commitments of this Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations. The Company is not aware of any trends or expected fluctuations in the Company's liquidity that would create any deficiencies. The Company's primary sources of liquidity include its Cash and cash equivalents, its commercial paper program, its bilateral letter of credit facilities, and its revolving credit facility.

As at September 30, 2020, the Company had $183 million of Cash and cash equivalents compared to $133 million at December 31, 2019.

As at September 30, 2020, the Company's revolving credit facility was undrawn (December 31, 2019 - undrawn), from a total available amount of U.S. $1.3 billion. The agreement requires the Company to maintain a financial covenant in conjunction with the credit facility. As at September 30, 2020, the Company was in compliance with all terms and conditions of the credit facility arrangements and satisfied the financial covenant.

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 September 30, 2020, total commercial paper borrowings was U.S. $345 million, compared to U.S. $397 million as at December 31, 2019.

As at September 30, 2020, under its bilateral letter of credit facilities, the Company had letters of credit drawn of $61 million from a total available amount of $300 million. This compares to letters of credit drawn of $80 million from a total available amount of $300 million as at December 31, 2019. 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 September 30, 2020 and December 31, 2019, the Company did not have any collateral posted on its bilateral letter of credit facilities.

The following discussion of operating, investing, and financing activities describes the Company’s indicators of liquidity and capital resources.

Operating Activities

Cash provided by operating activities was $493 million in the third quarter of 2020, a decrease of $330 million, or 40%, compared to $823 million in the same period of 2019. This decrease was primarily due to an unfavourable change in working capital, which included higher income tax payments, as well as a decrease in cash generating income during the third quarter of 2020, compared to the same period of 2019. The Company had higher income tax payments in the third quarter of 2020 as a result of the deferral of Canadian federal and provincial as well as U.S. federal payments until the third quarter of 2020 due to COVID-19.

Cash provided by operating activities was $1,817 million in the first nine months of 2020, a decrease of $140 million, or 7%, compared to $1,957 million in the same period of 2019. This decrease was primarily due to an unfavourable change in working capital and a decrease in receipts from customers in advance of performing services in the nine months ended September 30, 2020, compared to the same period of 2019.

Investing Activities

Cash used in investing activities was $483 million in the third quarter of 2020, an increase of $22 million, or 5%, compared to $461 million in the same period of 2019, and was $1,313 million in the first nine months of 2020, an increase of $178 million, or 16%, compared to $1,135 million in the same period of 2019. These increases were primarily due to higher capital additions during 2020 compared to the same periods of 2019.

Free Cash

CP generated positive Free cash of $6 million in the third quarter of 2020, a decrease of $357 million, or 98%, from $363 million in the same period of 2019. This decrease was primarily due to a decrease in cash provided by operating activities.

For the first nine months of 2020, CP generated positive Free cash of $497 million, a decrease of $324 million, or 39%, from $821 million in the same period of 2019. This decrease was primarily due to higher additions to properties and 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. Free cash is defined and reconciled in Non-GAAP Measures of this Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Financing Activities

Cash used in financing activities was $100 million in the third quarter of 2020, a decrease of $163 million, or 62%, compared to $263 million in the same period of 2019. This decrease was primarily due to higher net issuances of commercial paper as well as lower payments to buy back shares under the Company's share repurchase program during the three months ended September 30, 2020. This was partially offset by higher repayments of long-term debt compared to the same period of 2019.

Cash used in financing activities was $466 million in the first nine months of 2020, a decrease of $271 million, or 37%, compared to $737 million in the same period of 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, compared to the issuance of $400 million 3.150% notes due March 13, 2029 in the same period of 2019, as well as the principal repayment of U.S. $350 million of the Company's 7.250% notes during the nine months ended September 30, 2019. This was partially offset by net repayments of commercial paper during the nine months ended September 30, 2020, compared to net issuances in the same period of 2019.

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 mid-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 September 30, 2020, CP's credit ratings from Standard & Poor's Rating Services ("Standard & Poor's") and Moody's Investor Service ("Moody's") remain unchanged from December 31, 2019.

Credit ratings as at September 30, 2020[1]

Long-term debt			Outlook
Standard & Poor's			
	Long-term corporate credit	**BBB+**	stable
	Senior secured debt	**A**	stable
	Senior unsecured debt	**BBB+**	stable
Moody's			
	Senior unsecured debt	**Baa1**	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 for the twelve months ended September 30, 2020 and September 30, 2019 was 4.2 and 3.9, respectively. This increase was primarily due to higher debt balance.

The Adjusted net debt to Adjusted earnings before interest, tax, depreciation and amortization ("EBITDA") ratio for the twelve months ended September 30, 2020 and September 30, 2019 was 2.5 and 2.4, respectively. The increase was primarily due to a higher debt balance as at September 30, 2020, partially offset by an increase in Adjusted EBITDA. The Adjusted net debt to Adjusted EBITDA ratio is a Non-GAAP measure, which is defined and reconciled from the Long-term debt to Net income ratio, the most comparable measure calculated in accordance with GAAP, in Non-GAAP Measures of this Item 2. 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 past years, CP has recognized significant asset impairment charges, management transition costs related to senior executives and discrete tax items. 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 2. 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 September 30, 2020, CPRC has $7,803 million principal amount of debt securities outstanding due through 2115, and $46 million in perpetual 4% consolidated debenture stock, for all of which CPRL is the guarantor.

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.

The Company early adopted Rule 13-01 of the SEC's Regulation S-X which simplifies the existing disclosure requirements relating to our guaranteed securities and allows such disclosure to be included within this Part 1, Item II, "Management's Discussion and

Analysis of Financial Condition and Results of Operations." Pursuant to Rule 13-01, we are eligible to provide this summarized financial and non-financial information in lieu of providing separate financial statements of CPRC.

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

	CPRC (Subsidiary Issuer) and CPRL (Parent Guarantor)	
(in millions of Canadian dollars)	**For the nine months ended September 30, 2020**	For the year ended December 31, 2019
Total revenues	**$ 4,271**	$ 5,662
Total operating expenses	**2,498**	3,446
Operating income[(1)]	**1,773**	2,216
Less: Other[(2)]	**203**	(13)
Income before income tax expense	**1,570**	2,229
Net income	**$ 1,138**	$ 1,704

(1) Includes net lease costs incurred from non-guarantor subsidiaries for the nine months ended September 30, 2020 and for the year ended December 31, 2019 of $240 million and $320 million, respectively.

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

Balance Sheets

	CPRC (Subsidiary Issuer) and CPRL (Parent Guarantor)	
(in millions of Canadian dollars)	**As at September 30, 2020**	As at December 31, 2019
Assets		
Current assets	**$ 900**	$ 842
Properties	**10,855**	10,287
Other non-current assets	**1,548**	1,208
Liabilities		
Current liabilities	**$ 1,824**	$ 1,833
Long-term debt	**8,946**	8,145
Other non-current liabilities	**2,870**	2,711

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

	CPRC (Subsidiary Issuer) and CPRL (Parent Guarantor)	
(in millions of Canadian dollars)	**For the nine months ended September 30, 2020**	For the year ended December 31, 2019
Dividend income from non-guarantor subsidiaries	**$ 139**	$ 158
Capital contributions to non-guarantor subsidiaries	**—**	(125)
Redemption of shares by non-guarantor subsidiaries	**45**	1,345

Balances with Non-Guarantor Subsidiaries

(in millions of Canadian dollars)	CPRC (Subsidiary Issuer) and CPRL (Parent Guarantor) As at September 30, 2020	As at December 31, 2019
Assets		
Accounts receivable, intercompany	**$ 267**	$ 318
Short-term advances to affiliates	**17**	14
Long-term advances to affiliates	**9**	7
Liabilities		
Accounts payable, intercompany	**$ 162**	$ 249
Short-term advances from affiliates	**3,762**	3,700
Long-term advances from affiliates	**86**	84

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 and Adjusted diluted earnings per share to evaluate the Company's operating performance and for planning and forecasting future business operations and future profitability. These Non-GAAP measures are presented in Financial Highlights and discussed further in other sections of this Item 2. 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, the FX impact of translating the Company's debt and lease liabilities (including borrowings under the credit facility), discrete tax items, 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 the first nine months of 2020, there was one significant item included in Net income as follows:

- during the year to date, a non-cash loss of $89 million ($78 million after deferred tax) due to FX translation of debt and lease liabilities that unfavourably impacted Diluted EPS by 58 cents as follows:
  - in the third quarter, an $40 million gain ($38 million after deferred tax) that favourably impacted Diluted EPS by 29 cents;
  - in the second quarter, an $86 million gain ($82 million after deferred tax) that favourably impacted Diluted EPS by 59 cents; and
  - in the first quarter, a $215 million loss ($198 million after deferred tax) that unfavourably impacted Diluted EPS by $1.44.

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 17 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 63 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 unfavourably impacted Diluted EPS by 62 cents as follows:
  - in the fourth quarter, a $37 million gain ($32 million after deferred tax) that favourably impacted Diluted EPS by 22 cents;
  - in the third quarter, a $25 million loss ($22 million after deferred tax) that unfavourably impacted Diluted EPS by 15 cents;
  - in the second quarter, a $37 million gain ($34 million after deferred tax) that favourably impacted Diluted EPS by 24 cents; and

– in the first quarter, a $45 million gain ($42 million after deferred tax) that favourably impacted Diluted EPS by 30 cents.

In the three months ended December 31, 2018, there was one significant item included in Net income as follows:

- a non-cash loss of $113 million ($103 million after deferred tax) due to FX translation of debt that unfavourably impacted Diluted EPS by 72 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 presented in Financial Highlights and discussed further in other sections of this Item 2. 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.

	For the three months ended September 30		For the nine months ended September 30		For the twelve months ended December 31
(in millions)	**2020**	2019	**2020**	2019	2019
Net income as reported	**$ 598**	$ 618	**$ 1,642**	$ 1,776	$ 2,440
Less significant items (pre-tax):					
Impact of FX translation gain (loss) on debt and lease liabilities	**40**	(25)	**(89)**	57	94
Add:					
Tax effect of adjustments[(1)]	**2**	(3)	**(11)**	3	8
Income tax rate changes	**—**	—	**—**	(88)	(88)
Provision for uncertain tax item	**—**	—	**—**	—	24
Adjusted income	**$ 560**	$ 640	**$ 1,720**	$ 1,634	$ 2,290

(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 4.82% and 12.15% for the three and nine months ended September 30, 2020, respectively,14.23% and 5.05% for the three and nine months ended September 30, 2019, respectively, and 8.55% for the twelve months ended December 31, 2019. 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 three months ended September 30		For the nine months ended September 30		For the twelve months ended December 31
	2020	2019	**2020**	2019	2019
Diluted earnings per share as reported	**$ 4.41**	$ 4.46	**$ 12.04**	$ 12.70	$ 17.52
Less significant items (pre-tax):					
Impact of FX translation gain (loss) on debt and lease liabilities	**0.30**	(0.18)	**(0.65)**	0.41	0.67
Add:					
Tax effect of adjustments[(1)]	**0.01**	(0.03)	**(0.07)**	0.02	0.05
Income tax rate changes	**—**	—	**—**	(0.63)	(0.63)
Provision for uncertain tax item	**—**	—	**—**	—	0.17
Adjusted diluted earnings per share	**$ 4.12**	$ 4.61	**$ 12.62**	$ 11.68	$ 16.44

(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 4.82% and 12.15% for the three and nine months ended September 30, 2020, respectively, 14.23% and 5.05% for the three and nine months ended September 30, 2019, respectively, and 8.55% for the twelve months ended December 31, 2019. The applicable tax rates reflect the taxable jurisdictions and nature, being on account of capital or income, of the significant items.

Adjusted ROIC

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 also presented in Financial Highlights and discussed further in Results of Operations of this Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Beginning in the first quarter of 2020, CP aligned the reconciliation sequence for Adjusted ROIC to start with Net income, with no change to the calculated Adjusted return.

Calculation of Return on average shareholders' equity

	For the twelve months ended September 30	
(in millions, except for percentages)	**2020**	2019
Net income as reported	**$ 2,306**	$ 2,321
Average shareholders' equity	**$ 7,397**	$ 7,172
Return on average shareholders' equity	**31.2%**	32.4%

Reconciliation of Net income to Adjusted return

	For the twelve months ended September 30	
(in millions)	**2020**	2019
Net income as reported	**$ 2,306**	$ 2,321
Add:		
Net interest expense	**458**	450
Tax on interest[1]	**(114)**	(115)
Significant items:		
Impact of FX translation loss on debt and lease liabilities (pre-tax)	**52**	56
Tax on significant items[2]	**(6)**	(7)
Income tax recovery from income tax rate changes	**—**	(88)
Provision for uncertain tax item	**24**	—
Adjusted return	**$ 2,720**	$ 2,617

(1) Tax was calculated at the adjusted annualized effective tax rate of 24.67% and 25.12% for the twelve months ended September 30, 2020 and 2019, respectively.

(2) Tax was calculated as the pre-tax effect of the adjustments multiplied by the applicable tax rate for the above items of 11.22% and 13.64% for the twelve months ended September 30, 2020 and 2019, respectively.

Reconciliation of Average shareholders' equity to Adjusted average invested capital

	For the twelve months ended September 30	
(in millions)	**2020**	2019
Average shareholders' equity	**$ 7,397**	$ 7,172
Average Long-term debt, including long-term debt maturing within one year	**9,385**	8,634
	$ 16,782	$ 15,806
Less:		
Income tax recovery from income tax rate changes	**—**	44
Provision for uncertain tax item	**(12)**	—
Adjusted average invested capital	**$ 16,794**	$ 15,762

Calculation of Adjusted ROIC

	For the twelve months ended September 30	
(in millions, except for percentages)	**2020**	2019
Adjusted return	**$ 2,720**	$ 2,617
Adjusted average invested capital	**$ 16,794**	$ 15,762
Adjusted ROIC	**16.2%**	16.6%

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, and the acquisition of Central Maine and Québec Railway ("CMQ"). Free cash is a measure that management considers to be an 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 from its operations without incurring additional external financing. The acquisition of CMQ is not indicative of investment trends and has also been excluded from Free cash. Positive Free cash indicates the amount of cash available for reinvestment in the business, or cash that can be returned to investors through dividends, stock repurchase programs, debt retirements or a combination of these. Conversely, negative Free cash indicates the amount of cash that must be raised from investors through new debt or equity issues, reduction in available cash balances or a combination of these. Free cash should be considered in addition to, rather than as a substitute for, Cash provided by operating activities. Free cash is presented in Financial Highlights and discussed further in Liquidity and Capital Resources of this Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Reconciliation of Cash Provided by Operating Activities to Free Cash

	For the three months ended September 30		For the nine months ended September 30	
(in millions)	**2020**	2019	**2020**	2019
Cash provided by operating activities	**$ 493**	$ 823	**$ 1,817**	$ 1,957
Cash used in investing activities	**(483)**	(461)	**(1,313)**	(1,135)
Effect of foreign currency fluctuations on U.S. dollar-denominated cash and cash equivalents	**(4)**	1	**12**	(1)
Less:				
Investment in Central Maine and Québec Railway	**—**	—	**19**	—
Free cash	**$ 6**	$ 363	**$ 497**	$ 821

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

	For the three months ended September 30				
(in millions)	**Reported 2020**	Reported 2019	Variance due to FX	FX Adjusted 2019	FX Adjusted % Change
Freight revenues by line of business					
Grain	**$ 457**	$ 409	$ 1	$ 410	11
Coal	**130**	183	1	184	(29)
Potash	**132**	117	—	117	13
Fertilizers and sulphur	**65**	66	1	67	(3)
Forest products	**85**	78	1	79	8
Energy, chemicals and plastics	**321**	382	2	384	(16)
Metals, minerals and consumer products	**152**	201	1	202	(25)
Automotive	**94**	87	1	88	7
Intermodal	**385**	409	1	410	(6)
Freight revenues	**1,821**	1,932	9	1,941	(6)
Non-freight revenues	**42**	47	—	47	(11)
Total revenues	**$ 1,863**	$ 1,979	$ 9	$ 1,988	(6)

	For the nine months ended September 30				
(in millions)	**Reported 2020**	Reported 2019	Variance due to FX	FX Adjusted 2019	FX Adjusted % Change
Freight revenues by line of business					
Grain	**$ 1,321**	$ 1,211	$ 11	$ 1,222	8
Coal	**411**	514	1	515	(20)
Potash	**390**	367	3	370	5
Fertilizers and sulphur	**212**	186	3	189	12
Forest products	**244**	229	4	233	5
Energy, chemicals and plastics	**1,153**	1,043	8	1,051	10
Metals, minerals and consumer products	**474**	579	9	588	(19)
Automotive	**215**	267	5	272	(21)
Intermodal	**1,153**	1,193	6	1,199	(4)
Freight revenues	**5,573**	5,589	50	5,639	(1)
Non-freight revenues	**125**	134	—	134	(7)
Total revenues	**$ 5,698**	$ 5,723	$ 50	$ 5,773	(1)

FX adjusted % changes in operating expenses are presented in Operating Expenses of this Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

	For the three months ended September 30				
(in millions)	**Reported 2020**	Reported 2019	Variance due to FX	FX Adjusted 2019	FX Adjusted % Change
Compensation and benefits	**$ 382**	$ 355	$ 1	$ 356	7
Fuel	**140**	210	1	211	(34)
Materials	**53**	50	—	50	6
Equipment rents	**39**	33	1	34	15
Depreciation and amortization	**195**	185	1	186	5
Purchased services and other	**275**	277	1	278	(1)
Total operating expenses	**$ 1,084**	$ 1,110	$ 5	$ 1,115	(3)

	For the nine months ended September 30				
(in millions)	**Reported 2020**	Reported 2019	Variance due to FX	FX Adjusted 2019	FX Adjusted % Change
Compensation and benefits	**$ 1,127**	$ 1,144	$ 7	$ 1,151	(2)
Fuel	**483**	655	10	665	(27)
Materials	**162**	161	—	161	1
Equipment rents	**108**	102	2	104	4
Depreciation and amortization	**582**	528	3	531	10
Purchased services and other	**853**	899	8	907	(6)
Total operating expenses	**$ 3,315**	$ 3,489	$ 30	$ 3,519	(6)

Adjusted Net Debt to Adjusted EBITDA Ratio

Adjusted net debt to Adjusted 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. 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, is also presented in Financial Highlights and discussed further in Results of Operations of this Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

Calculation of Long-term Debt to Net Income Ratio

(in millions, except for ratios)	**2020**	2019
Long-term debt including long-term debt maturing within one year as at September 30	**$ 9,786**	$ 8,983
Net income for the twelve months ended September 30	**$ 2,306**	$ 2,321
Long-term debt to Net income ratio	**4.2**	3.9

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.

(in millions)		**2020**		2019
Long-term debt including long-term debt maturing within one year as at September 30	**$**	**9,786**	$	8,983
Add:				
Pension plans deficit[1]		**287**		260
Operating lease liabilities		**325**		370
Less:				
Cash and cash equivalents		**183**		145
Adjusted net debt as at September 30	**$**	**10,215**	$	9,468

[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.

	For the twelve months ended September 30			
(in millions)		**2020**		2019
Net income as reported	**$**	**2,306**	$	2,321
Add:				
Net interest expense		**458**		450
Income tax expense		**795**		668
EBIT		**3,559**		3,439
Less significant items (pre-tax):				
Impact of FX translation loss on debt and lease liabilities		**(52)**		(56)
Adjusted EBIT		**3,611**		3,495
Add:				
Operating lease expense		**79**		99
Depreciation and amortization		**760**		708
Less:				
Other components of net periodic benefit recovery		**344**		391
Adjusted EBITDA	**$**	**4,106**	$	3,911

Calculation of Adjusted Net Debt to Adjusted EBITDA Ratio

(in millions, except for ratios)		**2020**		2019
Adjusted net debt as at September 30	**$**	**10,215**	$	9,468
Adjusted EBITDA for the twelve months ended September 30	**$**	**4,106**	$	3,911
Adjusted net debt to Adjusted EBITDA ratio		**2.5**		2.4

Off-Balance Sheet Arrangements

Guarantees

As at September 30, 2020, the Company had residual value guarantees on operating lease commitments of $2 million. The maximum amount that could be payable under these and all of the Company's other guarantees cannot be reasonably estimated due to the nature of certain of these guarantees. All or a portion of amounts paid under certain guarantees could be recoverable from other parties or through insurance. The Company accrues for all guarantees that it expects to pay. As at September 30, 2020, these accruals amounted to $14 million, increased from $10 million at December 31, 2019, as the result of new guarantees.

Contractual Commitments

The following table indicates the Company's obligations and commitments to make future payments for contracts such as debt, leases, and commercial arrangements as at September 30, 2020.

Payments due by period (in millions)	Total	2020	2021 & 2022	2023 & 2024	Thereafter
Contractual commitments					
Interest on long-term debt and finance leases	$ **11,423**	$ 65	$ 869	$ 752	$ 9,737
Long-term debt	**9,727**	468	861	582	7,816
Finance leases	**151**	2	117	14	18
Operating leases[1]	**366**	15	128	96	127
Supplier purchases	**1,825**	141	814	479	391
Other long-term liabilities[2]	**460**	15	104	100	241
Total contractual commitments	$ **23,952**	$ 706	$ 2,893	$ 2,023	$ 18,330

(1) Residual value guarantees on certain leased equipment with a maximum exposure of $2 million are not included in the minimum payments shown above.
(2) Includes expected cash payments for environmental remediation, post-retirement benefits, workers' compensation benefits, long-term disability benefits, pension benefit payments for the Company's non-registered supplemental pension plan, and certain other long-term liabilities. Projected payments for post-retirement benefits, workers' compensation benefits, and long-term disability benefits include the anticipated payments for years 2020 to 2029. Pension contributions for the Company's registered pension plans are not included due to the volatility in calculating them. Pension payments are discussed further in Critical Accounting Estimates of Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations of the Company's 2019 Annual Report on Form 10-K.

Certain Other Financial Commitments

In addition to the financial commitments mentioned previously in Off-Balance Sheet Arrangements and those mentioned above, the Company is party to certain other financial commitments discussed below.

Letters of Credit

Letters of credit are obtained mainly to provide security to third parties under the terms of various agreements, including the supplemental pension plan. CP is liable for these contractual amounts in the case of non-performance under these agreements. Letters of credit are accommodated through a revolving credit facility and the Company's bilateral letter of credit facilities.

Capital Commitments

The Company remains committed to maintaining the current high level of quality of our capital assets in pursuing sustainable growth. As part of this commitment, CP has entered into contracts with suppliers to make various capital purchases related to track and rolling stock programs. Payments for these commitments are due in 2020 through 2032. These expenditures are expected to be financed by cash generated from operations or by issuing new debt.

The following table outlines the Company's commitments to make future payments for letters of credit and capital expenditures as at September 30, 2020:

Payments due by period (in millions)	Total	2020	2021 & 2022	2023 & 2024	Thereafter
Certain other financial commitments					
Letters of credit	$ **61**	$ 61	$ —	$ —	$ —
Capital commitments	**516**	101	276	67	72
Total certain other financial commitments	$ **577**	$ 162	$ 276	$ 67	$ 72

Critical Accounting Estimates

To prepare 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. Additional information concerning critical accounting estimates is supplemented in Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations of the Company's 2019 Annual Report on Form 10-K.

Following completion of the January 1, 2020 actuarial valuations of the Canadian pension plans, CP has changed its estimate of aggregate pension contributions, including its defined benefit and defined contribution plans, to be in the range of $40 million to $50 million in 2020, a reduction of $25 million from the previous estimate. The estimate for 2021 to 2023 remains in the range of $50 million to $100 million per year. There have been no other material changes to the Company's critical accounting estimates in the first nine months of 2020.

The development, selection and disclosure of these estimates, and this MD&A, have been reviewed by the Board of Directors' Audit and Finance Committee, which is composed entirely of independent directors.

Forward-Looking Statements

This Management's Discussion and Analysis of Financial Condition and Results of Operations and Quarterly Report on Form 10-Q 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 Quarterly Report on Form 10-Q includes forward-looking statements relating, but not limited to, statements concerning 2020 volume as measured in revenue ton-miles, adjusted diluted EPS, capital program investments, the U.S.-to-Canadian dollar exchange rate and expected impacts resulting from changes therein, annualized effective tax rate, other components of net periodic benefit recovery, and the expected outcome of litigation against the Company, the purpose of which is to assist readers in understanding our expected and targeted financial results, and this information may not be appropriate for other purposes.

The forward-looking statements contained in this Management’s Discussion and Analysis of Financial Condition and Results of Operations and Quarterly Report on Form 10-Q 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.

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 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 Quarterly Report on Form 10-Q. These more specific factors are identified and discussed in Item 1A. Risk Factors of CP's 2019 Annual Report on Form 10-K. Additionally, a specific risk factor related to impacts of the COVID-19 pandemic on CP is included in Item 1A. Risk Factors of this Quarterly Report on Form 10-Q. 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 Quarterly Report on Form 10-Q 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 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

There have been no material changes to interest rate risk during the three and nine months ended September 30, 2020 from the information provided in Item 7A. Quantitative and Qualitative Disclosure about Market Risk of CP's 2019 Annual Report on Form 10-K. Refer to information on foreign exchange risk and share price impact on stock-based compensation discussed below:

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. 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. On an annualized basis, a $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 (2019 - approximately $28 million), negatively (or positively) impacts Operating expenses by approximately $15 million (2019 - approximately $15 million), and negatively (or positively) impacts Net interest expense by approximately $3 million (2019 - approximately $3 million).

CP uses U.S. dollar-denominated debt to hedge its net investment in U.S. operations. As at September 30, 2020, the net investment in U.S. operations is less than the total U.S. denominated debt. Consequently, FX translation on the Company’s undesignated debt and lease liabilities causes additional impacts on earnings in Other (income) expense. For further information on the net investment hedge, please refer to Financial Statements, Note 19 Financial instruments of CP's 2019 Annual Report on Form 10-K.

To manage this 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.

Share Price Impact on Stock-Based Compensation

Based on information available at September 30, 2020, for every $1.00 change in share price, stock-based compensation expense has a corresponding change of approximately $0.5 million to $0.6 million (2019 - approximately $0.4 million to $0.6 million). This excludes the impact of changes in share price relative to the S&P/TSX 60 Index, the S&P/TSX Capped Industrial Index, the S&P 1500 Road and Rail 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 1. Financial Statements, Note 14 Stock-based compensation.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

As of September 30, 2020, an evaluation was carried out under the supervision of and with the participation of CP's management, including its 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 September 30, 2020, to ensure that information required to be disclosed by the Company in reports that it files or submits 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.

Changes in Internal Control over Financial Reporting

During the third quarter of 2020, 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.