

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

FORM 10-Q

(Mark One)

QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the quarterly period ended September 30, 2020

or

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

For the transition period from _____ to _____

Commission File Number 1-5828

CARPENTER TECHNOLOGY CORPORATION

(Exact name of Registrant as specified in its Charter)

Delaware

(State or other jurisdiction of incorporation or organization)

23-0458500

(I.R.S. Employer Identification No.)

1735 Market Street

Philadelphia

(Address of principal executive offices)

15th Floor

Pennsylvania

19103

(Zip Code)

610-208-2000

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act:

Common Stock, \$5 Par Value

Title of each class

CRS

Trading Symbol

New York Stock Exchange

Name of each exchange on which registered

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes No

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes No

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company or an emerging growth company. See the definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company” and “emerging growth company” in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input checked="" type="checkbox"/>		Accelerated filer	<input type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	(Do not check if a smaller reporting company)	Smaller reporting company	<input type="checkbox"/>
			Emerging growth company	<input type="checkbox"/>

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes No

The number of shares outstanding of the issuer’s common stock as of October 16, 2020 was 48,018,407.

CARPENTER TECHNOLOGY CORPORATION
FORM 10-Q
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PART I - FINANCIAL INFORMATION**Item 1. Financial Statements**

CARPENTER TECHNOLOGY CORPORATION
CONSOLIDATED BALANCE SHEETS
(Unaudited)

(\$ in millions, except share data)	September 30, 2020	June 30, 2020
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 218.9	\$ 193.1
Accounts receivable, net	250.5	292.3
Inventories	633.9	724.3
Other current assets	84.6	56.6
Total current assets	1,187.9	1,266.3
Property, plant and equipment, net	1,334.1	1,351.1
Goodwill	292.3	290.4
Other intangibles, net	46.5	52.1
Deferred income taxes	4.7	4.9
Other assets	263.2	262.4
Total assets	\$ 3,128.7	\$ 3,227.2
LIABILITIES		
Current liabilities:		
Short-term credit agreement borrowings	\$ —	\$ 170.0
Accounts payable	114.2	124.2
Accrued liabilities	150.3	157.9
Total current liabilities	264.5	452.1
Long-term debt	693.8	551.8
Accrued pension liabilities	386.4	399.5
Accrued postretirement benefits	137.7	137.4
Deferred income taxes	130.7	130.2
Other liabilities	108.1	110.5
Total liabilities	1,721.2	1,781.5
Contingencies and commitments (see Note 11)		
STOCKHOLDERS' EQUITY		
Common stock — authorized 100,000,000 shares; issued 56,012,748 shares at September 30, 2020 and 56,012,748 shares at June 30, 2020; outstanding 47,981,735 shares at September 30, 2020 and 47,850,468 shares at June 30, 2020	280.1	280.1
Capital in excess of par value	315.9	321.4
Reinvested earnings	1,511.2	1,568.0
Common stock in treasury (8,031,013 shares and 8,162,280 shares at September 30, 2020 and June 30, 2020, respectively), at cost	(319.3)	(325.8)
Accumulated other comprehensive loss	(380.4)	(398.0)
Total stockholders' equity	1,407.5	1,445.7
Total liabilities and stockholders' equity	\$ 3,128.7	\$ 3,227.2

See accompanying notes to consolidated financial statements.

CARPENTER TECHNOLOGY CORPORATION
CONSOLIDATED STATEMENTS OF OPERATIONS
(Unaudited)

(in millions, except per share data)	Three Months Ended September 30,	
	2020	2019
Net sales	\$ 353.3	\$ 585.4
Cost of sales	349.8	472.8
Gross profit	3.5	112.6
Selling, general and administrative expenses	42.3	52.8
Restructuring and asset impairment charges	10.0	—
Operating (loss) income	(48.8)	59.8
Interest expense, net	(14.9)	(5.4)
Other expense, net	(2.3)	(0.3)
(Loss) income before income taxes	(66.0)	54.1
Income tax (benefit) expense	(18.9)	12.9
Net (loss) income	\$ (47.1)	\$ 41.2
(LOSS) EARNINGS PER COMMON SHARE:		
Basic	\$ (0.98)	\$ 0.85
Diluted	\$ (0.98)	\$ 0.85
WEIGHTED AVERAGE COMMON SHARES OUTSTANDING:		
Basic	48.3	47.9
Diluted	48.3	48.3

See accompanying notes to consolidated financial statements.

CARPENTER TECHNOLOGY CORPORATION
CONSOLIDATED STATEMENTS OF COMPREHENSIVE (LOSS) INCOME
(Unaudited)

(\$ in millions)	Three Months Ended September 30,	
	2020	2019
Net (loss) income	\$ (47.1)	\$ 41.2
Other comprehensive (loss) income, net of tax		
Pension and postretirement benefits, net of tax of \$(1.1) and \$(1.0), respectively	3.6	3.0
Net gain on derivative instruments, net of tax of \$(2.7) and \$(8.5), respectively	8.3	26.7
Foreign currency translation gain (loss)	5.7	(5.5)
Other comprehensive income, net of tax	17.6	24.2
Comprehensive (loss) income	\$ (29.5)	\$ 65.4

See accompanying notes to consolidated financial statements.

CARPENTER TECHNOLOGY CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)

(\$ in millions)	Three Months Ended September 30,	
	2020	2019
OPERATING ACTIVITIES		
Net (loss) income	\$ (47.1)	\$ 41.2
Adjustments to reconcile net (loss) income to net cash provided from operating activities:		
Loss on debt prepayment	8.2	—
Depreciation and amortization	30.9	30.6
Non-cash restructuring and asset impairment charges	8.7	—
Deferred income taxes	(3.9)	3.5
Net pension expense	4.1	3.8
Share-based compensation expense	2.7	4.1
Net loss on disposals of property, plant and equipment	0.1	—
Changes in working capital and other:		
Accounts receivable	42.0	(2.1)
Inventories	84.9	(51.1)
Other current assets	(23.0)	(10.1)
Accounts payable	(7.4)	18.0
Accrued liabilities	(8.0)	(30.8)
Pension plan contributions	(2.9)	(2.4)
Other postretirement plan contributions	(0.6)	(0.9)
Other, net	(0.7)	(3.1)
Net cash provided from operating activities	88.0	0.7
INVESTING ACTIVITIES		
Purchases of property, plant, equipment and software	(33.3)	(47.5)
Proceeds from disposals of property, plant and equipment	—	0.1
Proceeds from divestiture of business	17.6	—
Net cash used for investing activities	(15.7)	(47.4)
FINANCING ACTIVITIES		
Credit agreement borrowings	—	88.1
Credit agreement repayments	—	(38.1)
Net change in short-term credit agreement borrowings	(170.0)	7.9
Payments on long-term debt	(250.0)	—
Proceeds from issuance of long-term debt, net of offering costs	395.5	—
Payments for debt prepayment costs, net	(8.2)	—
Payments for debt issue costs	(1.1)	—
Dividends paid	(9.7)	(9.7)
Proceeds from stock options exercised	—	2.6
Withholding tax payments on share-based compensation awards	(2.2)	(7.5)
Net cash (used for) provided from financing activities	(45.7)	43.3
Effect of exchange rate changes on cash and cash equivalents	(0.8)	1.0
INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	25.8	(2.4)
Cash and cash equivalents at beginning of period	193.1	27.0
Cash and cash equivalents at end of period	\$ 218.9	\$ 24.6
SUPPLEMENTAL CASH FLOW INFORMATION:		
Non-cash investing activities: Acquisition of property, plant, equipment and software	\$ 9.0	\$ 19.6

See accompanying notes to consolidated financial statements.

CARPENTER TECHNOLOGY CORPORATION
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY
FOR THE THREE MONTHS ENDED SEPTEMBER 30, 2020 AND 2019
(Unaudited)

(\$ in millions, except per share data)	Common Stock		Reinvested Earnings	Common Stock in Treasury	Accumulated Other Comprehensive (Loss) Income	Total Equity
	Par Value of \$5	Capital in Excess of Par Value				
Balances at June 30, 2020	\$ 280.1	\$ 321.4	\$ 1,568.0	\$ (325.8)	\$ (398.0)	\$ 1,445.7
Net (loss)			(47.1)			(47.1)
Pension and postretirement benefits gain, net of tax					3.6	3.6
Net gain on derivative instruments, net of tax					8.3	8.3
Foreign currency translation					5.7	5.7
Cash Dividends:						
Common @ \$0.20 per share			(9.7)			(9.7)
Share-based compensation plans		(5.5)		6.5		1.0
Balances at September 30, 2020	\$ 280.1	\$ 315.9	\$ 1,511.2	\$ (319.3)	\$ (380.4)	\$ 1,407.5

(\$ in millions, except per share data)	Common Stock		Reinvested Earnings	Common Stock in Treasury	Accumulated Other Comprehensive (Loss) Income	Total Equity
	Par Value of \$5	Capital in Excess of Par Value				
Balances at June 30, 2019	\$ 279.0	\$ 320.4	\$ 1,605.3	\$ (332.8)	\$ (351.8)	\$ 1,520.1
Net income			41.2			41.2
Pension and postretirement benefits gain, net of tax					3.0	3.0
Net gain on derivative instruments, net of tax					26.7	26.7
Foreign currency translation					(5.5)	(5.5)
Cash Dividends:						
Common @ \$0.20 per share			(9.7)			(9.7)
Share-based compensation plans	0.4	(5.1)		3.3		(1.4)
Stock options exercised	0.4	2.2				2.6
Balances at September 30, 2019	\$ 279.8	\$ 317.5	\$ 1,636.8	\$ (329.5)	\$ (327.6)	\$ 1,577.0

See accompanying notes to consolidated financial statements.

CARPENTER TECHNOLOGY CORPORATION
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

1. Basis of Presentation

The accompanying unaudited consolidated financial statements have been prepared in accordance with accounting principles generally accepted in the United States of America for interim financial information and the instructions to Form 10-Q and Article 10 of Regulation S-X. Accordingly, they do not include all of the information and footnotes required by accounting principles generally accepted in the United States of America for complete financial statements. In the opinion of management, all adjustments, consisting of normal and recurring adjustments, considered necessary for a fair statement of the results are reflected in the interim periods presented. The June 30, 2020 consolidated balance sheet data was derived from audited financial statements, but does not include all of the disclosures required by accounting principles generally accepted in the United States of America. These unaudited consolidated financial statements should be read in conjunction with the consolidated financial statements and footnotes thereto included in Carpenter Technology's Annual Report on Form 10-K for the fiscal year ended June 30, 2020 (the "2020 Form 10-K"). Operating results for the three months ended September 30, 2020 are not necessarily indicative of the operating results for any future period.

As used throughout this report, unless the context requires otherwise, the terms "Carpenter", "Carpenter Technology", the "Company", "Registrant", "Issuer", "we" and "our" refer to Carpenter Technology Corporation.

2. Restructuring and Asset Impairment Charges

Restructuring and asset impairment charges for the three months ended September 30, 2020 were \$10.0 million. There were no restructuring or asset impairment charges for the three months ended September 30, 2019.

During the first quarter ended September 30, 2020, the Company initiated a restructuring plan to consolidate certain operations within the Additive business in the Performance Engineered Products "PEP" segment. This included \$8.7 million of non-cash impairment charges related primarily to certain long-lived assets and certain definite-lived intangible assets. The Company also recognized \$1.3 million of charges primarily related to various personnel-related costs for severance payments, medical coverage and related items.

In the fourth quarter of fiscal year 2020, the Company approved actions to reduce overhead costs and position the Company to drive long-term, profitable growth. These actions included implementing a restructuring plan aimed at reducing fixed costs by eliminating 20 percent of global salaried positions across all business segments. The restructuring charge consisted primarily of various personnel-related costs for severance payments, medical coverage and related items. In addition, the Company also recorded non-cash asset impairment charges related to the closure of two domestic powder facilities in the PEP segment, non-cash asset impairment charges related to the decision to exit the Amega West business, and a non-cash write-down of software that will no longer be implemented at a particular business unit. At this time, the Company does not expect any additional charges related to these restructuring actions in the future.

The reserve balances and activity for restructuring charges were as follows:

(\$ in millions)	Reserve Balance
Reserve balance at June 30, 2020	\$ 9.5
Restructuring charges	1.3
Cash payments	(6.5)
Reserve balance at September 30, 2020	\$ 4.3

3. Recent Accounting Pronouncements

Recently Issued Accounting Pronouncements - Adopted in current fiscal year

At this time there are no issued pronouncements adopted in the current fiscal year that would materially impact the Company.

CARPENTER TECHNOLOGY CORPORATION
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

Recently Issued Accounting Pronouncements - Pending Adoption

In March 2020, the FASB issued ASU 2020-04 Reference Rate Reform (Topic 848). The guidance in ASU 2020-04 provides optional expedients and exceptions for applying GAAP to contracts, hedging relationships, and other transactions affected by reference rate reform, if certain criteria are met. The amendments apply only to contracts and hedging relationships that reference LIBOR or another reference rate expected to be discontinued due to reference rate reform. These amendments are effective immediately and may be applied prospectively to contract modifications made and hedging relationships entered into or evaluated on or before December 31, 2022. The Company is currently evaluating the potential impact of the adoption of ASU 2020-04 on the consolidated financial statements.

4. Revenue

The Company recognizes revenue in accordance with Topic 606, Revenue from Contracts. The Company applies the five-step model in the FASB's guidance, which requires the Company to: (i) identify the contract with a customer; (ii) identify the performance obligations in the contract; (iii) determine the transaction price; (iv) allocate the transaction price to the performance obligations in the contract; and (v) recognize revenue when, or as, the Company satisfies a performance obligation.

The Company recognizes revenue when performance obligations under the terms of a customer purchase order or contract are satisfied. This occurs when control of the goods and services has transferred to the customer, which is generally determined when title, ownership, and risk of loss pass to the customer, all of which occurs upon shipment or delivery of the product or the service is performed. Consignment transactions are arrangements where the Company transfers product to a customer location but retains ownership and control of such product until it is used by the customer. Revenue for consignment arrangements is recognized upon usage by the customer. Service revenue is recognized as the services are performed.

Each customer purchase order or contract for goods transferred has a single performance obligation for which revenue is recognized at a point in time. The standard terms and conditions of a customer purchase order include general rights of return and product warranty provisions related to nonconforming product. Depending on the circumstances, the product is either replaced or a quality adjustment is issued. Such warranties do not represent a separate performance obligation.

Each customer purchase order or contract sets forth the transaction price for the products and services purchased under that arrangement. Some customer arrangements include variable consideration, such as volume rebates, which generally depend upon the Company's customers meeting specified performance criteria, such as a purchasing level over a period of time. The Company exercises judgment to estimate the most likely amount of variable consideration at each reporting date.

Revenue is measured as the amount of consideration the Company expects to receive in exchange for its product. The standard payment terms are 30 days. The Company has elected to use the practical expedient that permits a Company to not adjust for the effects of a significant financing component if it expects that at the contract inception, the period between when the Company transfers a promised good or service to a customer and when the customer pays for that good or service will be one year or less.

Amounts billed to customers for shipping and handling activities to fulfill the Company's promise to transfer the goods are included in revenues and costs incurred by the Company for the delivery of goods and are classified as cost of sales in the consolidated statements of income. Shipping terms may vary for products shipped outside the United States depending on the mode of transportation, the country where the material is shipped and any agreements made with the customers.

Contract liabilities are recognized when the Company has received consideration from a customer to transfer goods or services at a future point in time when the Company performs under the purchase order or contract. Contract liabilities were \$11.3 million and \$12.3 million at September 30, 2020 and June 30, 2020, respectively, and are included in accrued liabilities on the consolidated balance sheets.

The Company has elected to use the practical expedient that permits the omission of disclosure for remaining performance obligations which are expected to be satisfied in one year or less.

CARPENTER TECHNOLOGY CORPORATION
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

Disaggregation of Revenue

The Company operates in two business segments, Specialty Alloys Operations (“SAO”) and PEP. Revenue is disaggregated within these two business segments by diversified end-use markets and by geographical location. Comparative information of the Company’s overall revenues by end-use markets and geography for the three months ended September 30, 2020 and 2019 were as follows:

End-Use Market Data (\$ in millions)	Three Months Ended September 30,	
	2020	2019
Aerospace and Defense	\$ 172.0	\$ 353.3
Medical	32.8	48.9
Transportation	29.1	40.0
Energy	25.1	39.3
Industrial and Consumer	73.4	73.3
Distribution	20.9	30.6
Consolidated net sales	<u>\$ 353.3</u>	<u>\$ 585.4</u>

Geographic Data (\$ in millions)	Three Months Ended September 30,	
	2020	2019
United States	\$ 224.7	\$ 384.9
Europe	61.3	101.5
Asia Pacific	37.9	53.4
Mexico	13.1	21.9
Canada	7.8	13.4
Other	8.5	10.3
Consolidated net sales	<u>\$ 353.3</u>	<u>\$ 585.4</u>

5. Divestiture

On September 30, 2020, the Company divested the Amega West business for a total sale price of \$20.0 million. In connection with the divestiture, the Company received \$17.6 million of cash in the quarter ended September 30, 2020 and the remaining \$2.4 million is held in escrow. The operations of the Amega West business were historically included in our PEP segment and the Energy end-use market. The Company does not have any significant continuing involvement in the operations of Amega West after the divestiture.

6. Earnings (Loss) per Common Share

The Company calculates basic and diluted (loss) earnings per share using the two class method. Under the two class method, (loss) earnings are allocated to common stock and participating securities (non-vested restricted shares and units that receive non-forfeitable dividends) according to their participation rights in dividends and undistributed earnings. The (loss) earnings available to each class of stock are divided by the weighted average number of outstanding shares for the period in each class. Diluted (loss) earnings per share assumes the issuance of common stock for all potentially dilutive share equivalents outstanding. For the three months ended September 30, 2020, the Company incurred a net loss and accordingly excluded all potentially dilutive securities from the determination of diluted loss per share as their impact was anti-dilutive.

CARPENTER TECHNOLOGY CORPORATION
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

The calculations of basic and diluted (loss) earnings per common share for the three months ended September 30, 2020 and 2019 were as follows:

(in millions, except per share data)	Three Months Ended September 30,	
	2020	2019
Net (loss) income	\$ (47.1)	\$ 41.2
Less: (loss) earnings and dividends allocated to participating securities	—	(0.4)
(Loss) earnings available for common stockholders used in calculation of basic (loss) earnings per common share	\$ (47.1)	\$ 40.8
Weighted average number of common shares outstanding, basic	48.3	47.9
Basic (loss) earnings per common share	\$ (0.98)	\$ 0.85
Net (loss) income	\$ (47.1)	\$ 41.2
Less: earnings and dividends allocated to participating securities	—	(0.4)
(Loss) earnings available for common stockholders used in calculation of diluted (loss) earnings per common share	\$ (47.1)	\$ 40.8
Weighted average number of common shares outstanding, basic	48.3	47.9
Effect of shares issuable under share-based compensation plans	—	0.4
Weighted average number of common shares outstanding, diluted	48.3	48.3
Diluted (loss) earnings per common share	\$ (0.98)	\$ 0.85

The following awards issued under share-based compensation plans were excluded from the above calculations of diluted earnings per share because their effects were anti-dilutive:

(in millions)	Three Months Ended September 30,	
	2020	2019
Stock options	2.1	0.8

7. Inventories

Inventories consisted of the following components as of September 30, 2020 and June 30, 2020:

(\$ in millions)	September 30, 2020	June 30, 2020
Raw materials and supplies	\$ 192.1	\$ 217.6
Work in process	264.3	312.3
Finished and purchased products	177.5	194.4
Total inventories	\$ 633.9	\$ 724.3

Inventories are valued at the lower of cost or market. Cost for inventories is principally determined using the last-in, first-out (“LIFO”) inventory costing method. The Company also uses the first-in, first-out (“FIFO”) and average cost methods. As of September 30, 2020 and June 30, 2020, \$126.1 million and \$136.3 million of inventory, respectively, was accounted for using a method other than the LIFO inventory costing method.

CARPENTER TECHNOLOGY CORPORATION
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

8. Accrued Liabilities

Accrued liabilities consisted of the following as of September 30, 2020 and June 30, 2020:

(\$ in millions)	September 30, 2020	June 30, 2020
Accrued compensation and benefits	\$ 47.0	\$ 50.4
Accrued pension liabilities	27.3	20.2
Accrued postretirement benefits	14.0	14.0
Contract liabilities	11.3	12.3
Current portion of lease liabilities	11.1	11.5
Derivative financial instruments	7.0	11.1
Accrued interest expense	5.4	10.4
Accrued income taxes	0.7	1.0
Other	26.5	27.0
Total accrued liabilities	<u>\$ 150.3</u>	<u>\$ 157.9</u>

9. Pension and Other Postretirement Benefits

The components of the net periodic benefit cost related to the Company's pension and other postretirement benefits for the three months ended September 30, 2020 and 2019 were as follows:

Three months ended September 30, (\$ in millions)	Pension Plans		Other Postretirement Plans	
	2020	2019	2020	2019
Service cost	\$ 2.4	\$ 2.4	\$ 0.7	\$ 0.7
Interest cost	9.9	11.7	1.9	2.3
Expected return on plan assets	(13.9)	(15.5)	(1.6)	(1.8)
Amortization of net loss	4.3	3.9	0.9	0.6
Amortization of prior service cost (benefit)	0.5	0.5	(1.0)	(1.0)
Net periodic benefit costs	<u>\$ 3.2</u>	<u>\$ 3.0</u>	<u>\$ 0.9</u>	<u>\$ 0.8</u>

During the three months ended September 30, 2020 and 2019, the Company made \$2.9 million and \$2.4 million, respectively, of contributions to its qualified defined benefit pension plans. The Company currently expects to contribute \$16.4 million to its qualified defined benefit pension plans during the remainder of fiscal year 2021.

CARPENTER TECHNOLOGY CORPORATION
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

10. Debt

On July 10, 2020, the Company completed its offering and sale of \$400 million in aggregate principal amount of 6.375% Senior Notes due 2028 (the “Notes”). The Notes accrue interest at the rate of 6.375% per annum, with interest payable in cash semi-annually in arrears on each January 15 and July 15, commencing January 15, 2021. The Notes will mature on July 15, 2028. The Notes are senior unsecured indebtedness of the Company, ranking equally in right of payment with all its existing and future senior unsecured indebtedness and senior to any future subordinated indebtedness. The Company utilized a portion of the net proceeds from the issuance of the Notes to repay in full \$250.0 million in aggregate principal amount of its senior unsecured notes due July 2021. The Company used or intends to use the remaining net proceeds from the issuance of the Notes for general corporate purposes.

The Company maintains a \$400.0 million unsecured revolving credit facility (“Credit Agreement”) that extends to March 2022. Interest on the borrowings under the Credit Agreement accrue at variable rates, based upon LIBOR or a defined “Base Rate”. Both are determined based upon the credit rating of the Company’s senior unsecured long-term debt (the “Debt Rating”). The applicable margin to be added to LIBOR ranges from 1.00% to 1.75% (1.25% as of September 30, 2020), and for Base Rate-determined loans, from 0.00% to 0.75% (0.25% as of September 30, 2020). The Company also pays a quarterly commitment fee ranging from 0.125% to 0.400% (0.20% as of September 30, 2020), determined based upon the Debt Rating, of the unused portion of the \$400.0 million commitment under the Credit Agreement. In addition, the Company must pay certain letter of credit fees, ranging from 1.00% to 1.75% (1.50% as of September 30, 2020), with respect to letters of credit issued under the Credit Agreement. The Company has the right to voluntarily prepay and re-borrow loans and to terminate or reduce the commitments under the facility. As of September 30, 2020, the Company had \$6.0 million of issued letters of credit and no short-term borrowings under the Credit Agreement with the balance of \$394.0 million available to the Company. As of September 30, 2020, the borrowing rate for the Credit Agreement was 1.65%.

The Company is subject to certain financial and restrictive covenants under the Credit Agreement, which, among other things, require the maintenance of a minimum interest coverage ratio of 3.50 to 1.00. The interest coverage ratio is defined in the Credit Agreement as, for any period, the ratio of consolidated earnings before interest, taxes, depreciation and amortization and non-cash net pension expense (“EBITDA”) to consolidated interest expense for such period. The Credit Agreement also requires the Company to maintain a debt to capital ratio of less than 55 percent. The debt to capital ratio is defined in the Credit Agreement as the ratio of consolidated indebtedness, as defined therein, to consolidated capitalization, as defined therein. As of September 30, 2020 and June 30, 2020, the Company was in compliance with all of the covenants of the Credit Agreement.

Long-term debt outstanding as of September 30, 2020 and June 30, 2020 consisted of the following:

(\$ in millions)	September 30, 2020	June 30, 2020
Senior unsecured notes, 5.20% due July 2021 (face value of \$250.0 million at June 30, 2020)	\$ —	\$ 252.3
Senior unsecured notes, 4.45% due March 2023 (face value of \$300.0 million at September 30, 2020 and June 30, 2020)	299.3	299.5
Senior unsecured notes, 6.375% due July 2028 (face value of \$400.0 million at September 30, 2020)	394.5	—
Total	693.8	551.8
Less: amounts due within one year	—	—
Long-term debt, net of current portion	\$ 693.8	\$ 551.8

At September 30, 2020, capitalized debt issuance costs in connection with the offering and sale of the Notes totaled \$5.6 million. Debt issuance costs are amortized to interest expense over the life of the debt instrument, which is eight years. The Company’s debt issuance cost amortization was \$0.1 million for the three months ended September 30, 2020.

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For the three months ended September 30, 2020 and 2019, interest costs totaled \$17.7 million and \$7.4 million, respectively, of which \$2.8 million and \$2.0 million, respectively, were capitalized as part of the cost of property, plant, equipment and software. Interest expense for the three months ended September 30, 2020 also includes \$10.5 million of debt prepayment costs on the Notes due July 2021 offset by gains of \$2.3 million on related interest rate swaps that were terminated in connection with prepayment.

11. Contingencies and Commitments

Environmental

The Company is subject to various federal, state, local and international environmental laws and regulations relating to pollution, protection of public health and the environment, natural resource damages and occupational safety and health. Although compliance with these laws and regulations may affect the costs of the Company's operations, compliance costs to date have not been material. The Company has environmental remediation liabilities at some of its owned operating facilities and has been designated as a potentially responsible party ("PRP") with respect to certain third party Superfund waste-disposal sites and other third party-owned sites. The Company accrues amounts for environmental remediation costs that represent management's best estimate of the probable and reasonably estimable future costs related to environmental remediation. During the three months ended September 30, 2020, the Company increased the liability for a company-owned former operating site by \$0.1 million. The liabilities recorded for environmental remediation costs at Superfund sites, other third party-owned sites and Carpenter-owned current or former operating facilities remaining at September 30, 2020 and June 30, 2020 were \$16.1 million and \$16.0 million, respectively. Additionally, the Company has been notified that it may be a PRP with respect to other Superfund sites as to which no proceedings have been instituted against the Company. Neither the exact amount of remediation costs nor the final method of their allocation among all designated PRPs at these Superfund sites have been determined. Accordingly, at this time, the Company cannot reasonably estimate expected costs for such matters. The liability for future environmental remediation costs that can be reasonably estimated is evaluated by management on a quarterly basis.

Estimates of the amount and timing of future costs of environmental remediation requirements are inherently imprecise because of the continuing evolution of environmental laws and regulatory requirements, the availability and application of technology, the identification of currently unknown remediation sites and the allocation of costs among the PRPs. Based upon information currently available, such future costs are not expected to have a material effect on the Company's financial position, results of operations or cash flows over the long-term. However, such costs could be material to the Company's financial position, results of operations or cash flows in a particular future quarter or year.

Other

The Company is defending various routine claims and legal actions that are incidental to its business and common to its operations, including those pertaining to product claims, commercial disputes, patent infringement, employment actions, employee benefits, compliance with domestic and foreign laws, personal injury claims and tax issues. Like many other manufacturing companies in recent years, the Company, from time to time, has been named as a defendant in lawsuits alleging personal injury as a result of exposure to chemicals and substances in the workplace such as asbestos. The Company provides for costs relating to these matters when a loss is probable and the amount of the loss is reasonably estimable. The effect of the outcome of these matters on the Company's future results of operations and liquidity cannot be predicted because any such effect depends on future results of operations and the amount and timing (both as to recording future charges to operations and cash expenditures) of the resolution of such matters. While it is not feasible to determine the outcome of these matters, management believes that the total liability from these matters will not have a material effect on the Company's financial position, results of operations or cash flows over the long-term. However, there can be no assurance that an increase in the scope of pending matters or that any future lawsuits, claims, proceedings or investigations will not be material to the Company's financial position, results of operations or cash flows in a particular future quarter or year.

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12. Leases

As a result of adoption of ASU 2016-02, Leases, the Company records right-of-use "ROU" assets and operating lease liabilities on the consolidated balance sheet for several types of operating leases, including land and buildings, equipment (e.g. trucks and forklifts), vehicles, and computer equipment. On the lease commencement date, the Company measures and records a ROU asset and lease liability equal to the present value of the remaining lease payments, discounted using the rate implicit in the lease (or if that rate cannot be readily determined, the Company's incremental borrowing rate). Operating leases are included in other assets, accrued liabilities (current) and other liabilities (long-term) on the consolidated balance sheets.

The Company elected the practical expedient to not separate lease components from nonlease components for all asset classes. The Company recognizes lease expense in the consolidated statements of operations on a straight-line basis over the lease term. The Company elected to not recognize ROU assets and lease liabilities for short-term leases with an initial term of 12 months or less for all asset classes. Leases with the option to extend their term or terminate early are reflected in the lease term when it is reasonably certain that the Company will exercise such options. Some leasing arrangements require variable payments that are dependent on usage, output, or may vary for other reasons, such as insurance and tax payments. The variable lease payments are not presented as part of the ROU asset or lease liability. The leases have remaining terms of one to seventeen years.

The following table sets forth the components of the Company's lease cost for the three months ended September 30, 2020 and September 30, 2019:

(\$ in millions)	Three Months Ended September 30, 2020	Three Months Ended September 30, 2019
Operating lease cost	\$ 3.6	\$ 3.4
Short-term lease cost	0.8	0.8
Variable lease cost	0.2	0.1
Total lease cost	<u>\$ 4.6</u>	<u>\$ 4.3</u>
Operating cash flow payments from operating leases	\$ 3.5	\$ 3.3
Non-cash ROU assets obtained in exchange for lease obligations	\$ 1.4	\$ 0.9

The following table sets forth the Company's weighted-average remaining lease term and weighted-average discount rate at September 30, 2020 and June 30, 2020:

	September 30, 2020	June 30, 2020
Weighted-average remaining lease term - operating leases	8.0 years	8.1 years
Weighted-average discount rate - operating leases	3.9 %	3.9 %

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The following table sets forth the Company's ROU assets and lease liabilities at September 30, 2020 and June 30, 2020:

(\$ in millions)	September 30, 2020	June 30, 2020
Operating lease assets:		
Other assets	\$ 46.6	\$ 52.0
Operating lease liabilities:		
Other accrued liabilities	\$ 11.1	\$ 11.5
Other liabilities	45.3	50.3
Total operating lease liabilities	\$ 56.4	\$ 61.8

Minimum lease payments for operating leases expiring subsequent to September 30, 2020 are as follows:

(\$ in millions)	September 30, 2020
2021 (remaining period of fiscal year)	\$ 10.9
2022	11.5
2023	9.9
2024	7.7
2025	4.8
Thereafter	23.6
Total future minimum lease payments	68.4
Less imputed interest	(12.0)
Total	\$ 56.4

13. Fair Value Measurements

The fair value hierarchy has three levels based on the inputs used to determine fair value. Level 1 refers to quoted prices in active markets for identical assets or liabilities. Level 2 refers to observable inputs other than quoted prices included in Level 1, such as quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar assets or liabilities in markets that are not active; or other inputs that are observable or can be corroborated by observable market data. Level 3 refers to unobservable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities. This includes certain pricing models, discounted cash flow methodologies and similar techniques that use significant unobservable inputs. Currently, the Company does not use Level 1 and 3 inputs.

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The following tables present the Company's assets and liabilities that are measured at fair value on a recurring basis and are categorized using the fair value hierarchy:

September 30, 2020 (\$ in millions)	Fair Value Measurements Using Input Type Level 2
Assets:	
Derivative financial instruments	\$ 11.3
Liabilities:	
Derivative financial instruments	\$ 12.3

June 30, 2020 (\$ in millions)	Fair Value Measurements Using Input Type Level 2
Assets:	
Derivative financial instruments	\$ 10.1
Liabilities:	
Derivative financial instruments	\$ 17.9

The Company's derivative financial instruments consist of commodity forward contracts, foreign currency forward contracts and interest rate swaps. These instruments are measured at fair value using the market method valuation technique. The inputs to this technique utilize information related to commodity prices, foreign exchange rates and interest rates published by third party leading financial news and data providers. This is observable data; however, the valuation of these instruments is not based on actual transactions for the same instruments and, as such, they are classified as Level 2. The Company's use of derivatives and hedging policies are more fully discussed in Note 14.

The Company has currently chosen not to elect the fair value option for any items that are not already required to be measured at fair value in accordance with accounting principles generally accepted in the United States of America.

The carrying amounts of other financial instruments not listed in the table below approximate fair value due to the short-term nature of these items. The carrying amounts and estimated fair values of the Company's financial instruments not recorded at fair value in the financial statements were as follows:

(\$ in millions)	September 30, 2020		June 30, 2020	
	Carrying Value	Fair Value	Carrying Value	Fair Value
Long-term debt	\$ 693.8	\$ 732.3	\$ 551.8	\$ 551.1
Company-owned life insurance	\$ 19.4	\$ 19.4	\$ 18.9	\$ 18.9

The fair values of long-term debt as of September 30, 2020 and June 30, 2020 were determined by using current interest rates for debt with terms and maturities similar to the Company's existing debt arrangements and accordingly would be classified as Level 2 inputs in the fair value hierarchy.

The carrying amount of Company-owned life insurance reflects cash surrender values based upon the market values of underlying securities, using Level 2 inputs, net of any outstanding policy loans. The carrying value associated with the cash surrender value of these policies is recorded in other assets in the accompanying consolidated balance sheets.

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14. Derivatives and Hedging Activities

The Company uses commodity forwards, interest rate swaps, forward interest rate swaps and foreign currency forwards to manage risks generally associated with commodity price, interest rate and foreign currency rate fluctuations. The following explains the various types of derivatives and includes a summary of the impact the derivative instruments had on the Company's financial position, results of operations and cash flows.

Cash Flow Hedging — Commodity forward contracts: The Company enters into commodity forward contracts to fix the price of a portion of anticipated future purchases of certain critical raw materials and energy to manage the risk of cash flow variability associated with volatile commodity prices. The commodity forward contracts have been designated as cash flow hedges. The qualifying hedge contracts are marked-to-market at each reporting date and any unrealized gains or losses are included in accumulated other comprehensive (loss) income ("AOCI") and reclassified to cost of sales in the period during which the hedged transaction affects earnings or it becomes probable that the forecasted transaction will not occur. As of September 30, 2020, the Company had forward contracts to purchase 10.2 million pounds of certain raw materials with settlement dates through December 2023.

Cash Flow Hedging — Forward interest rate swaps: Historically, the Company has entered into forward interest rate swap contracts to manage the risk of cash flow variability associated with fixed interest debt expected to be issued. The forward interest rate swaps were designated as cash flow hedges. The qualifying hedge contracts were marked-to-market at each reporting date and any unrealized gains or losses were included in AOCI and reclassified to interest expense in the period during which the hedged transaction affected earnings or it became probable that the forecasted transaction would not occur. Upon the issuance of the fixed rate debt, the forward interest rate swap contracts were terminated. The realized gains at the time the interest rate swap contracts were terminated are being amortized over the term of the underlying debt. For the three months ended September 30, 2020 and 2019, net gains of \$0.1 million and \$0.1 million, respectively, related to the previously terminated contracts, were recorded as a reduction to interest expense.

Cash Flow Hedging — Foreign currency forward contracts: The Company uses foreign currency forward contracts to hedge a portion of anticipated future sales denominated in foreign currencies, principally the Euro and Pound Sterling, in order to offset the effect of changes in exchange rates. The qualifying hedge contracts are marked-to-market at each reporting date and any unrealized gains or losses are included in AOCI and reclassified to net sales in the period during which the transaction affects earnings or it becomes probable that the forecasted transaction will not occur.

The Company also uses foreign currency forward contracts to protect certain short-term positions denominated in foreign currencies against the effect of changes in exchange rates. These positions do not qualify for hedge accounting and accordingly are marked-to-market at each reporting date through charges to other income and expense. As of September 30, 2020 and June 30, 2020, the fair value of the outstanding foreign currency forwards not designated as hedging instruments and the charges to income for changes in fair value for these contracts were not material.

Fair Value Hedging - Interest rate swaps: The Company uses interest rate swaps to achieve a level of floating rate debt relative to fixed rate debt where appropriate. The Company has designated fixed to floating interest rate swaps as fair value hedges. Accordingly, the changes in the fair value of these instruments are immediately recorded in earnings. The mark-to-market values of both the fair value hedging instruments and the underlying debt obligations are recorded as equal and offsetting gains and losses in interest expense in the consolidated statements of income. As of September 30, 2020 and June 30, 2020, the total notional amount of floating interest rate contracts was \$0.0 million and \$150.0 million, respectively. For the three months ended September 30, 2020 and 2019, net gains of \$2.7 million were recorded as a decrease to interest expense and net losses of \$0.0 million were recorded as an increase to interest expense, respectively.

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The fair value and location of outstanding derivative contracts recorded in the accompanying consolidated balance sheets were as follows as of September 30, 2020 and June 30, 2020:

September 30, 2020 (\$ in millions)	Interest Rate Swaps	Foreign Currency Contracts	Commodity Contracts	Total Derivatives
Asset Derivatives:				
<i>Derivatives designated as hedging instruments:</i>				
Other current assets	\$ —	\$ 0.1	\$ 5.9	\$ 6.0
Other assets	—	—	5.3	5.3
Total asset derivatives	\$ —	\$ 0.1	\$ 11.2	\$ 11.3
Liability Derivatives:				
<i>Derivatives designated as hedging instruments:</i>				
Accrued liabilities	\$ —	\$ 0.1	\$ 6.9	\$ 7.0
Other liabilities	—	0.3	5.0	5.3
Total liability derivatives	\$ —	\$ 0.4	\$ 11.9	\$ 12.3
June 30, 2020 (\$ in millions)	Interest Rate Swaps	Foreign Currency Contracts	Commodity Contracts	Total Derivatives
Asset Derivatives:				
<i>Derivatives designated as hedging instruments:</i>				
Other current assets	\$ 1.2	\$ 0.2	\$ 2.2	\$ 3.6
Other assets	2.8	0.6	3.1	6.5
Total asset derivatives	\$ 4.0	\$ 0.8	\$ 5.3	\$ 10.1
Liability Derivatives:				
<i>Derivatives designated as hedging instruments:</i>				
Accrued liabilities	\$ —	\$ —	\$ 11.1	\$ 11.1
Other liabilities	—	—	6.8	6.8
Total liability derivatives	\$ —	\$ —	\$ 17.9	\$ 17.9

Substantially all of the derivative contracts are subject to master netting arrangements, or similar agreements with each counterparty, which provide for the option to settle contracts on a net basis when they settle on the same day and in the same currency. In addition, these arrangements provide for a net settlement of all contracts with a given counterparty in the event that the arrangement is terminated due to the occurrence of default or a termination event. The Company presents the outstanding derivative contracts on a net basis by counterparty in the consolidated balance sheets. If the Company had chosen to present the derivative contracts on a gross basis, the total asset derivatives would have been \$12.3 million and total liability derivatives would have been \$13.3 million as of September 30, 2020.

According to the provisions of the Company's derivative arrangements, in the event that the fair value of outstanding derivative positions with certain counterparties exceeds certain thresholds, the Company may be required to issue cash collateral to the counterparties. As of September 30, 2020 and June 30, 2020, the Company had no cash collateral held by counterparties.

The Company is exposed to credit loss in the event of nonperformance by counterparties on its derivative instruments as well as credit or performance risk with respect to its customer commitments to perform. Although nonperformance is possible, the Company does not anticipate nonperformance by any of the parties. In addition, various master netting arrangements are in place with counterparties to facilitate settlements of gains and losses on these contracts.

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Cash Flow and Fair Value Hedges

For derivative instruments that are designated and qualify as cash flow hedges, the gain or loss on the derivative is reported as a component of AOCI and reclassified into earnings in the same period or periods during which the hedged transactions affect earnings or it becomes probable the forecasted transactions will not occur. The following is a summary of the gains related to cash flow hedges recognized during the three months ended September 30, 2020 and 2019:

(\$ in millions)	Amount of Gain Recognized in AOCI on Derivatives	
	Three Months Ended September 30,	
	2020	2019
Derivatives in Cash Flow Hedging Relationship:		
Commodity contracts	\$ 13.8	\$ 39.8
Foreign exchange contracts	—	0.7
Total	\$ 13.8	\$ 40.5

(\$ in millions)	Location of Gain Reclassified from AOCI into Income	Amount of Gain Reclassified from AOCI into Income	
		Three Months Ended September 30,	
		2020	2019
Derivatives in Cash Flow Hedging Relationship:			
Commodity contracts	Cost of sales	\$ 2.8	\$ 4.8
Foreign exchange contracts	Net sales	—	0.4
Forward interest rate swaps	Interest expense	0.1	0.1
Total		\$ 2.9	\$ 5.3

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The following is a summary of total amounts presented in the consolidated statements of income in which the effects of cash flow and fair value hedges are recorded during the three months ended September 30, 2020 and 2019:

(\$ in millions)	Three Months Ended September 30, 2020			Three Months Ended September 30, 2019		
	Net Sales	Cost of Sales	Interest Expense	Net Sales	Cost of Sales	Interest Expense
Total amounts presented in the consolidated statement of income in which the effects of cash flow and fair value hedges are recorded	\$ 353.3	\$ 349.8	\$ 14.9	\$ 585.4	\$ 472.8	\$ 5.4
Gain (loss) on Derivatives in Cash Flow Hedging Relationship:						
Commodity contracts						
Amount of gain reclassified from AOCI to income	\$ —	\$ 2.8	\$ —	\$ —	\$ 4.8	\$ —
Foreign currency forward contracts						
Amount of gain reclassified from AOCI to income	—	—	—	0.4	—	—
Interest rate swap agreements						
Amount of gain reclassified from AOCI to income	—	—	0.1	—	—	0.1
(Loss) gain on Derivatives in Fair Value Hedging Relationship:						
Interest rate swap agreements						
Hedged Item	—	—	(2.7)	—	—	—
Derivatives designated as hedging instruments	—	—	2.7	—	—	—
Total gain (loss)	\$ —	\$ 2.8	\$ 0.1	\$ 0.4	\$ 4.8	\$ 0.1

The Company estimates that \$0.3 million of net derivative gains included in AOCI as of September 30, 2020 will be reclassified into income within the next 12 months. No significant cash flow hedges were discontinued during the three months ended September 30, 2020.

As of September 30, 2020, and June 30, 2020, the following amounts were recorded on the consolidated balance sheets related to cumulative basis adjustments for fair value hedges of interest rate risk:

(\$ in millions)	Carrying amount of the hedged liabilities		Cumulative amount of fair value hedging adjustment included in the carrying amount of the hedged liabilities	
	September 30, 2020	June 30, 2020	September 30, 2020	June 30, 2020
Line item in the consolidated balance sheets in which the hedged item is included				
Long Term Debt	\$ —	\$ 152.8	\$ —	\$ 2.8

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15. Other Expense, Net

Other expense, net consisted of the following:

(\$ in millions)	Three Months Ended September 30,	
	2020	2019
Unrealized gains on company-owned life insurance contracts and investments held in rabbi trusts	\$ 1.4	\$ 0.1
Foreign exchange (loss) gain	(2.7)	0.2
Pension earnings, interest and deferrals	(1.0)	(0.7)
Other	—	0.1
Total other expense, net	\$ (2.3)	\$ (0.3)

16. Income Taxes

The effective tax rate used for interim periods is the estimated annual effective consolidated tax rate, based on the current estimate of full year results, except that taxes related to specific events, if any, are recorded in the interim period in which they occur. The annual effective tax rate is based upon a number of significant estimates and judgments, including the estimated annual pre-tax income of the Company in each tax jurisdiction in which it operates, and the development of tax planning strategies during the year. In addition, the Company's tax expense can be impacted by changes in tax rates or laws, the finalization of tax audits, and other factors that cannot be predicted with certainty. As such, there can be significant volatility in interim tax provisions.

Income tax benefit for the three months ended September 30, 2020 was \$18.9 million, or 28.6 percent of pre-tax loss as compared with income tax expense of \$12.9 million, or 23.8 percent of pre-tax income for the three months ended September 30, 2019.

Income tax benefit for the three months ended September 30, 2020 includes discrete tax benefits of \$2.0 million associated with the debt prepayment costs and \$2.4 million for the impact of restructuring and asset impairment charges. Additionally, the anticipated benefit for the carryback of the current year net operating loss to fiscal years with higher tax rates is included in this period. Also included are the unfavorable impact of losses in certain foreign jurisdictions for which no tax benefit can be recognized as well as a tax charge of \$1.2 million attributable to employee share-based compensation. Income tax expense in the three months ended September 30, 2019 included the impact of losses in certain foreign jurisdictions for which no tax benefit can be recognized as well as tax benefits of \$0.4 million attributable to employee share-based compensation.

The Coronavirus Aid, Relief and Economic Security Act (the "CARES Act") was enacted on March 27, 2020. The CARES Act established new provisions, including but not limited to, expanded deduction of certain qualified capital expenditures, delayed payment of certain employment taxes, expanded use of net operating losses, reduced limitations on deductions of interest expense and extension of funding for defined benefit plans. The net operating loss provision is expected to provide incremental tax benefits of approximately \$7.0 million due to the higher tax rates in the expanded carryback period. The other provisions in the CARES Act are not expected to have a significant impact on our financial position, results of operations or cash flows.

17. Business Segments

The Company has two reportable segments, SAO and PEP.

The SAO segment is comprised of the Company's major premium alloy and stainless steel manufacturing operations. This includes operations performed at mills primarily in Reading and Latrobe, Pennsylvania and surrounding areas as well as South Carolina and Alabama. The combined assets of the SAO operations are managed in an integrated manner to optimize efficiency and profitability across the total system.

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The PEP segment is comprised of the Company's differentiated operations. This segment includes the Dynamet titanium business, the Carpenter Additive "Additive" business and the Latrobe and Mexico distribution businesses. Effective July 1, 2020 the Company's Carpenter Powder Products business was merged into the Carpenter Additive business. The Amega West business was also part of the PEP segment however was sold during the quarter ended September 30, 2020. The businesses in the PEP segment are managed with an entrepreneurial structure to promote flexibility and agility to quickly respond to market dynamics.

The Company's executive management evaluates the performance of these operating segments based on sales, operating income and cash flow generation. Segment operating profit excludes general corporate costs, which is comprised of executive and director compensation and other corporate facilities and administrative expenses not allocated to the segments. Also excluded are items that management considers not representative of ongoing operations, such as restructuring charges and other specifically-identified income or expense items.

On a consolidated basis, no single customer accounted for 10 percent or more of net sales for the three months ended September 30, 2020. One customer, Howmet Aerospace Inc., accounted for approximately 10 percent of net sales for the three months ended September 30, 2019. On a consolidated basis, no single customer accounted for 10 percent or more of accounts receivable outstanding for the three months ended September 30, 2020. Approximately 12 percent of the accounts receivable outstanding at June 30, 2020 was due from one customer, Howmet Aerospace Inc.

(\$ in millions)	Three Months Ended September 30,	
	2020	2019
Net Sales:		
Specialty Alloys Operations	\$ 300.7	\$ 491.1
Performance Engineered Products	61.8	109.4
Intersegment	(9.2)	(15.1)
Consolidated net sales	<u>\$ 353.3</u>	<u>\$ 585.4</u>

(\$ in millions)	Three Months Ended September 30,	
	2020	2019
Operating (Loss) Income:		
Specialty Alloys Operations	\$ (18.6)	\$ 81.0
Performance Engineered Products	(3.6)	(2.0)
Corporate costs (including restructuring and asset impairment charges)	(26.6)	(19.1)
Intersegment	—	(0.1)
Consolidated operating (loss) income	<u>\$ (48.8)</u>	<u>\$ 59.8</u>

(\$ in millions)	Three Months Ended September 30,	
	2020	2019
Depreciation and Amortization:		
Specialty Alloys Operations	\$ 23.2	\$ 23.6
Performance Engineered Products	6.0	5.9
Corporate	1.7	1.3
Intersegment	—	(0.2)
Consolidated depreciation and amortization	<u>\$ 30.9</u>	<u>\$ 30.6</u>

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(\$ in millions)	Three Months Ended September 30,	
	2020	2019
Capital Expenditures:		
Specialty Alloys Operations	\$ 21.8	\$ 25.2
Performance Engineered Products	2.2	6.2
Corporate	9.4	16.2
Intersegment	(0.1)	(0.1)
Consolidated capital expenditures	<u>\$ 33.3</u>	<u>\$ 47.5</u>

(\$ in millions)	September 30, 2020	June 30, 2020
	Total Assets:	
Specialty Alloys Operations	\$ 2,170.7	\$ 2,259.0
Performance Engineered Products	502.6	548.5
Corporate	471.3	428.9
Intersegment	(15.9)	(9.2)
Consolidated total assets	<u>\$ 3,128.7</u>	<u>\$ 3,227.2</u>

18. Reclassifications from Accumulated Other Comprehensive (Loss) Income (AOCI)

The changes in AOCI by component, net of tax, for the three months ended September 30, 2020 and 2019 were as follows:

Three Months Ended September 30, 2020 (\$ in millions) (a)	Cash flow hedging items	Pension and other postretirement benefit plan items	Foreign currency items	Total
Balances at June 30, 2020	\$ (11.1)	\$ (334.3)	\$ (52.6)	\$ (398.0)
Other comprehensive gain before reclassifications	10.5	—	5.7	16.2
Amounts reclassified from AOCI (b)	(2.2)	3.6	—	1.4
Net other comprehensive income	8.3	3.6	5.7	17.6
Balances at September 30, 2020	<u>\$ (2.8)</u>	<u>\$ (330.7)</u>	<u>\$ (46.9)</u>	<u>\$ (380.4)</u>

Three Months Ended September 30, 2019 (\$ in millions) (a)	Cash flow hedging items	Pension and other postretirement benefit plan items	Foreign currency items	Total
Balances at June 30, 2019	\$ (14.8)	\$ (293.3)	\$ (43.7)	\$ (351.8)
Other comprehensive income before reclassifications	30.7	—	(5.5)	25.2
Amounts reclassified from AOCI (b)	(4.0)	3.0	—	(1.0)
Net other comprehensive income	26.7	3.0	(5.5)	24.2
Balances at September 30, 2019	<u>\$ 11.9</u>	<u>\$ (290.3)</u>	<u>\$ (49.2)</u>	<u>\$ (327.6)</u>

(a) All amounts are net of tax. Amounts in parentheses indicate debits.

(b) See separate table below for further details.

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The following is a summary of amounts reclassified from AOCI for the three months ended September 30, 2020 and 2019:

Details about AOCI Components (\$ in millions) (a)	Location of gain (loss)	Amount Reclassified from AOCI Three Months Ended September 30,	
		2020	2019
Cash flow hedging items:			
Commodity contracts	Cost of sales	\$ 2.8	\$ 4.8
Foreign exchange contracts	Net sales	—	0.4
Forward interest rate swaps	Interest expense	0.1	0.1
Total before tax		2.9	5.3
Tax expense		(0.7)	(1.3)
Net of tax		\$ 2.2	\$ 4.0

Details about AOCI Components (\$ in millions) (a)	Location of (loss) gain	Amount Reclassified from AOCI Three Months Ended September 30,	
		2020	2019
Amortization of pension and other postretirement benefit plan items:			
Net actuarial loss	(b)	\$ (5.2)	\$ (4.5)
Prior service benefit	(b)	0.5	0.5
Total before tax		(4.7)	(4.0)
Tax benefit		1.1	1.0
Net of tax		\$ (3.6)	\$ (3.0)

(a) Amounts in parentheses indicate debits to income/loss.

(b) These AOCI components are included in the computation of net periodic benefit cost (see Note 9. Pension and Other Postretirement Benefits for additional details).

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

Background and General

We are a producer and distributor of premium specialty alloys, including titanium alloys, powder metals, stainless steels, alloy steels, and tool steels as well as drilling tools. We are a recognized leader in high-performance specialty alloy-based materials and process solutions for critical applications in the aerospace, defense, medical, transportation, energy, industrial and consumer markets. We have evolved to become a pioneer in premium specialty alloys, including titanium, nickel, and cobalt, as well as alloys specifically engineered for additive manufacturing ("AM") processes and soft magnetics applications. We have expanded our AM capabilities to provide a complete "end-to-end" solution to accelerate materials innovation and streamline parts production. We primarily process basic raw materials such as nickel, cobalt, titanium, manganese, chromium, molybdenum, iron scrap and other metal alloying elements through various melting, hot forming and cold working facilities to produce finished products in the form of billet, bar, rod, wire and narrow strip in many sizes and finishes. We also produce certain metal powders and parts. Our sales are distributed directly from our production plants and distribution network as well as through independent distributors. Unlike many other specialty steel producers, we operate our own worldwide network of service and distribution centers. These service centers, located in the United States, Canada, Mexico, Europe and Asia allow us to work more closely with customers and to offer various just-in-time stocking programs.

As part of our overall business strategy, we have sought out and considered opportunities related to strategic acquisitions and joint collaborations as well as possible business unit dispositions aimed at broadening our offering to the marketplace. We have participated with other companies to explore potential terms and structures of such opportunities and expect that we will continue to evaluate these opportunities.

Our discussions below in this Item 2 are based upon the more detailed discussions about our business, operations and financial condition included in Item 7 of our 2020 Form 10-K. Our discussions here focus on our results during or as of the three-month period ended September 30, 2020 and the comparable period of fiscal year 2020, and to the extent applicable, on material changes from information discussed in the 2020 Form 10-K and other important intervening developments or information that we have reported on Form 8-K. These discussions should be read in conjunction with the 2020 Form 10-K for detailed background information and with any such intervening Form 8-K.

Impact of Raw Material Prices and Product Mix

We value most of our inventory utilizing the last-in, first-out (“LIFO”) inventory costing method. Under the LIFO inventory costing method, changes in the cost of raw materials and production activities are recognized in cost of sales in the current period even though these materials may potentially have been acquired at significantly different values due to the length of time from the acquisition of the raw materials to the sale of the processed finished goods to the customers. In a period of rising raw material costs, the LIFO inventory valuation normally results in higher cost of sales. Conversely, in a period of decreasing raw material costs, the LIFO inventory valuation normally results in lower cost of sales.

The volatility of the costs of raw materials has impacted our operations over the past several years. We, and others in our industry, generally have been able to pass cost increases on major raw materials through to our customers using surcharges that are structured to recover increases in raw material costs. Generally, the formula used to calculate a surcharge is based on published prices of the respective raw materials for the previous month which correlates to the prices we pay for our raw material purchases. However, a portion of our surcharges to customers may be calculated using a different surcharge formula or may be based on the raw material prices at the time of order, which creates a lag between surcharge revenue and corresponding raw material costs recognized in cost of sales. The surcharge mechanism protects our net income on such sales except for the lag effect discussed above. However, surcharges have had a dilutive effect on our gross margin and operating margin percentages as described later in this report.

Approximately 20 percent of our net sales are sales to customers under firm price sales arrangements. Firm price sales arrangements involve a risk of profit margin fluctuations, particularly when raw material prices are volatile. In order to reduce the risk of fluctuating profit margins on these sales, we enter into commodity forward contracts to purchase certain critical raw materials necessary to produce the related products sold. Firm price sales arrangements generally include certain annual purchasing commitments and consumption schedules agreed to by the customers at selling prices based on raw material prices at the time the arrangements are established. If a customer fails to meet the volume commitments (or the consumption schedule deviates from the agreed-upon terms of the firm price sales arrangements), the Company may need to absorb the gains or losses associated with the commodity forward contracts on a temporary basis. Gains or losses associated with commodity forward contracts are reclassified to earnings/loss when earnings are impacted by the hedged transaction. Because we value most of our inventory under the LIFO costing methodology, changes in the cost of raw materials and production activities are recognized in cost of sales in the current period attempting to match the most recently incurred costs with revenues. Gains or losses on the commodity forward contracts are reclassified from other comprehensive (loss) income together with the actual purchase price of the underlying commodities when the underlying commodities are purchased and recorded in inventory. To the extent that the total purchase price of the commodities, inclusive of the gains or losses on the commodity forward contracts, are higher or lower relative to the beginning of year costs, our cost of goods sold reflects such amounts. Accordingly, the gains and/or losses associated with commodity forward contracts may not impact the same period that the firm price sales arrangements revenue is recognized, and comparisons of gross profit from period to period may be impacted. These firm price sales arrangements are expected to continue as we look to strengthen our long-term customer relationships by expanding, renewing and in certain cases extending to a longer-term, our customer long-term arrangements.

We produce hundreds of grades of materials with a wide range of pricing and profit levels depending on the grade. In addition, our product mix within a period is subject to the fluctuating order patterns of our customers as well as decisions we may make on participation in certain products based on available capacity, including the impacts of capacity commitments we may have under existing customer agreements. While we expect to see positive contribution from a more favorable product mix in our margin performance over time, the impact by period may fluctuate and period-to-period comparisons may vary.

Net Pension Expense

Net pension expense, as we define it below, includes the net periodic benefit costs related to both our pension and other postretirement plans. The net periodic benefit costs are determined annually based on beginning of year balances and are recorded ratably throughout the fiscal year, unless a significant re-measurement event occurs. We currently expect that the total net periodic benefit costs for fiscal year 2021 will be \$16.3 million as compared with \$15.3 million in fiscal year 2020. The following is the net pension expense for the three months ended September 30, 2020 and 2019:

(\$ in millions)	Three Months Ended September 30,	
	2020	2019
Pension plans	\$ 3.2	\$ 3.0
Other postretirement plans	0.9	0.8
Net periodic benefit costs	\$ 4.1	\$ 3.8

Net pension expense is recorded in accounts that are included in cost of sales and selling, general and administrative expenses based on the function of the associated employees and in other expense, net. The following is a summary of the classification of net pension expense for the three months ended September 30, 2020 and 2019:

(\$ in millions)	Three Months Ended September 30,	
	2020	2019
Service cost included in Cost of sales	\$ 2.7	\$ 2.7
Service cost included in Selling, general and administrative expenses	0.4	0.4
Pension earnings, interest and deferrals included in Other expense, net	1.0	0.7
Net periodic benefit costs	\$ 4.1	\$ 3.8

As of September 30, 2020 and June 30, 2020, amounts related to the net pension expense capitalized in gross inventory were \$1.4 million and \$1.6 million, respectively.

Operating Performance Overview

The first quarter fiscal year 2021 results reflect a continued strengthening of our liquidity position through solid operating and free cash flow generation. We ended the first quarter with over \$600 million in total liquidity. While the inventory reduction generated cash flow it did negatively impact our profitability. Operating results in the quarter were also impacted by lower volume due to challenging conditions in Aerospace and Defense and Medical end-use markets as a result of COVID-19 and significant costs to help safeguard employees and their families from COVID-19.

Looking ahead, the headwinds from COVID-19 will continue to impact demand levels across our end-use markets and we will remain in constant contact with our customers to address their evolving material requirements. Despite the near-term challenges related to COVID-19, the long-term outlook for our markets is solid, and we will continue working closely with our customers to strengthen our established supply chain position and extend key strategic supply agreements. We remain a critical solutions provider to customers and are developing stronger relationships as we work together to navigate the current environment.

We believe our liquidity position is strong as a result of the actions we have taken since the onset of the pandemic and we will continue to maintain a disciplined approach to reducing costs and increasing cash generation. While we will continue actively managing our business given the current challenges, we are also maintaining a focus on the future and further advancing our position in critical emerging technologies. We see a number of attractive growth opportunities for our proprietary soft magnetics solutions across all of our key end-use markets. We believe our soft magnetics and additive manufacturing solutions are pivotal to addressing the future of our industry and best positioning Carpenter Technology for sustainable growth over the long-term.

Results of Operations — Three Months Ended September 30, 2020 vs. Three Months Ended September 30, 2019

For the three months ended September 30, 2020, we reported a net loss of \$47.1 million, or \$0.98 loss per diluted share. Excluding special items, adjusted loss per diluted share was \$0.58 in the current quarter. This compares with net income for the same period a year earlier of \$41.2 million, or \$0.85 earnings per diluted share. The current period results reflect the continued impact of both the COVID-19 pandemic and the 737 MAX production halt. The results in the current period also include cost savings realized from restructuring actions initiated in the fourth quarter of fiscal year 2020. During the current quarter, we also completed the divestiture of our Amega West business and initiated additional restructuring actions to reduce costs and streamline operations primarily in our Additive business unit.

COVID-19 related costs negatively impacted operating results by approximately \$7.9 million in the first quarter of fiscal 2021 compared to \$0.0 million in the prior year quarter. These costs principally include direct incremental operating costs including outside services to execute enhanced cleaning protocols, additional personal protective equipment, isolation pay for production employees potentially exposed to COVID-19 and various operating supplies necessary to maintain the operations while keeping employees safe against possible exposure to COVID-19 in the Company's facilities. The COVID-19 costs in the current quarter also include \$3.1 million related to costs associated with an aerospace customer bankruptcy as a result of COVID-19.

Net Sales

Net sales for the three months ended September 30, 2020 were \$353.3 million, which was a 40 percent decrease over the same period a year ago. Excluding surcharge revenue, sales decreased 37 percent on a 29 percent decrease in shipment volume from the same period a year ago. The results reflect ongoing demand impacts driven by COVID-19 headwinds in our Aerospace and Defense and Medical end-use markets during the three months ended September 30, 2020 compared to the three months ended September 30, 2019.

Geographically, sales outside the United States decreased 36 percent from the same period a year ago to \$128.6 million for the three months ended September 30, 2020. The decrease is primarily due to weaker demand in key end-use markets across all regions. A portion of our sales outside the United States are denominated in foreign currencies. The fluctuations in foreign currency exchange rates resulted in a \$0.2 million increase in sales during the three months ended September 30, 2020 compared to the three months ended September 30, 2019. Net sales outside the United States represented 36 percent and 34 percent of total net sales for the three months ended September 30, 2020 and 2019, respectively.

Sales by End-Use Markets

We sell to customers across diversified end-use markets. The following table includes comparative information for our net sales, which includes surcharge revenue by principal end-use markets. We believe this is helpful supplemental information in analyzing the performance of the business from period to period:

(\$ in millions)	Three Months Ended September 30,		\$ (Decrease) Increase	% (Decrease) Increase
	2020	2019		
Aerospace and Defense	\$ 172.0	\$ 353.3	\$ (181.3)	(51)%
Medical	32.8	48.9	(16.1)	(33)%
Transportation	29.1	40.0	(10.9)	(27)%
Energy	25.1	39.3	(14.2)	(36)%
Industrial and Consumer	73.4	73.3	0.1	—%
Distribution	20.9	30.6	(9.7)	(32)%
Total net sales	\$ 353.3	\$ 585.4	\$ (232.1)	(40)%

The following table includes comparative information for our net sales by the same principal end-use markets, but excluding surcharge revenue:

(\$ in millions)	Three Months Ended September 30,		\$ (Decrease) Increase	% (Decrease) Increase
	2020	2019		
Aerospace and Defense	\$ 147.5	\$ 286.1	\$ (138.6)	(48) %
Medical	30.0	44.0	(14.0)	(32) %
Transportation	24.5	33.0	(8.5)	(26) %
Energy	21.3	33.0	(11.7)	(35) %
Industrial and Consumer	63.1	60.2	2.9	5 %
Distribution	20.8	30.3	(9.5)	(31) %
Total net sales excluding surcharge revenue	\$ 307.2	\$ 486.6	\$ (179.4)	(37) %

Sales to the Aerospace and Defense end-use market decreased 51 percent from the first quarter a year ago to \$172.0 million. Excluding surcharge revenue, sales decreased 48 percent from the first quarter a year ago on a 45 percent decrease in shipment volume. The results reflect weaker year-over-year demand in all sub-markets due to the continued impact from COVID-19 travel restrictions and the 737 MAX production halt.

Medical end-use market sales decreased 33 percent from the first quarter a year ago to \$32.8 million. Excluding surcharge revenue, sales decreased 32 percent on 34 percent lower shipment volume from the first quarter a year ago. The results reflect supply chain disruptions from both continued destocking by the medical device companies and the ongoing delays of elective medical procedures from the COVID-19 pandemic.

Transportation end-use market sales decreased 27 percent from the first quarter a year ago to \$29.1 million. Excluding surcharge revenue, sales decreased 26 percent on 27 percent lower shipment volume from the first quarter a year ago. The results are impacted by production disruptions caused by COVID-19 compared to the prior year period.

Sales to the Energy end-use market of \$25.1 million in the current quarter reflect a 36 percent decrease from the first quarter a year ago. Excluding surcharge revenue, sales decreased 35 percent from a year ago. The results reflect severely depressed North American drilling activity and decreased demand globally as a result of the impact of COVID-19.

Industrial and Consumer end-use market sales of \$73.4 million are flat compared to the first quarter a year ago. Excluding surcharge revenue, sales increased 5 percent on 11 percent higher shipment volume. The results reflect stronger demand in the semi-conductor sub-market.

Gross Profit

Our gross profit in the first quarter decreased 97 percent to \$3.5 million, or 1.0 percent of net sales as compared with \$112.6 million, or 19.2 percent of net sales in the same quarter a year ago. Excluding the impact of surcharge revenue, our adjusted gross margin in the first quarter was 1.1 percent as compared to 23.1 percent in the same period a year ago. The current period results were impacted by significantly lower volume resulting from the COVID-19 pandemic, continued inventory reduction and the 737 MAX production halt.

While the surcharge generally protects the absolute gross profit dollars, it does have a dilutive effect on gross margin as a percent of sales. The following represents a summary of the dilutive impact of the surcharge on gross margin for the comparative three-month periods. See the section “Non-GAAP Financial Measures” below for further discussion of these financial measures.

(\$ in millions)	Three Months Ended September 30,	
	2020	2019
Net sales	\$ 353.3	\$ 585.4
Less: surcharge revenue	46.1	98.8
Net sales excluding surcharge revenue	\$ 307.2	\$ 486.6
Gross profit	\$ 3.5	\$ 112.6
Gross margin	1.0%	19.2%
Adjusted gross margin excluding surcharge revenue	1.1%	23.1%

Selling, General and Administrative Expenses

Selling, general and administrative expenses of \$42.3 million were 12.0 percent of net sales (13.8 percent of net sales excluding surcharge) as compared with \$52.8 million and 9.0 percent of net sales (10.9 percent of net sales excluding surcharge) in the same quarter a year ago. The lower selling, general and administrative expenses in the current quarter reflect the impacts of the cost saving actions initiated in the fourth quarter of fiscal year 2020 including a reduction of \$6.7 million in salaries and benefits in the three months ended September 30, 2020 compared to the same period a year ago.

Restructuring and Asset Impairment Charges

Restructuring and asset impairment charges for the three months ended September 30, 2020 were \$10.0 million as compared with no restructuring or asset impairment charges for the three months ended September 30, 2019.

During the first quarter ended September 30, 2020, we initiated a restructuring plan to consolidate certain operations within the Additive business in the PEP segment. This included \$8.7 million of non-cash impairment charges primarily related to certain long-lived assets and certain definite lived intangible assets. We also recognized \$1.3 million of charges primarily related to various personnel-related costs for severance payments, medical coverage and related items. Activities undertaken in connection with this fiscal year 2021 restructuring plan are expected to be substantially complete in the second quarter of fiscal year 2021.

Operating (Loss) Income

Our operating loss in the recent first quarter was \$48.8 million or 13.8 percent of net sales as compared with income of \$59.8 million or 10.2 percent of net sales in the same quarter a year ago. Excluding surcharge revenue and special items, adjusted operating margin was 10.1 percent for the most recent quarter as compared with 12.3 percent a year ago. The results for the first quarter of fiscal year 2021 compared to the same period a year ago were negatively impacted by the significantly lower volume due to the COVID-19 pandemic, targeted inventory reductions, and the impacts of the Boeing 737 MAX production halt, partially offset by the various cost savings actions taken by the Company.

The following presents our operating (loss) income and operating margin, in each case excluding the impact of surcharge revenue on net sales and special items. We present and discuss these financial measures because management believes removing these items provides a more consistent and meaningful basis for comparing ongoing results of operations from period to period. See the section “Non-GAAP Financial Measures” below for further discussion of these financial measures.

(\$ in millions)	Three Months Ended September 30,	
	2020	2019
Net sales	\$ 353.3	\$ 585.4
Less: surcharge revenue	46.1	98.8
Net sales excluding surcharge revenue	\$ 307.2	\$ 486.6
Operating (loss) income	\$ (48.8)	\$ 59.8
Special items:		
Restructuring and asset impairment charges	10.0	—
COVID-19 costs	7.9	—
Operating (loss) income	\$ (30.9)	\$ 59.8
Operating margin	(13.8)%	10.2 %
Adjusted operating margin excluding surcharge revenue and special items	(10.1)%	12.3 %

Interest Expense, Net

Interest expense, net for the three months ended September 30, 2020 was \$14.9 million compared with \$5.4 million in the same period a year ago. We have used interest rate swaps to achieve a level of floating rate debt to fixed rate debt where appropriate. Interest expense, net includes net gains from interest rate swaps of \$2.7 million compared with net losses of \$0.0 million for the three months ended September 30, 2020 and 2019, respectively. The interest rate swaps were terminated in the current quarter in connection with the prepayment of related Notes. Interest expense, net for the three months ended September 30, 2020 also includes \$10.5 million of debt prepayment costs on the Notes due July 2021 offset by gains of \$2.3 million on related interest rate swaps that were terminated in connection with prepayment. Capitalized interest reduced interest expense, net by \$2.8 million for the three months ended September 30, 2020 and \$2.0 million for the three months ended September 30, 2019.

Other Expense, Net

Other expense, net for the three months ended September 30, 2020 was \$2.3 million as compared with \$0.3 million of other expense, net in the same period a year ago. The current year results include foreign exchanges losses partially offset by favorable market returns on investments used to fund Company-owned life insurance contracts and investments held in rabbi trusts. The other expense, net for the three months ended September 30, 2019 reflected expense from pension earnings, interest and deferrals.

Income Taxes

Income tax benefit in the recent first quarter was \$18.9 million, or 28.6 percent of pre-tax loss compared with expense of \$12.9 million, or 23.8 percent of pre-tax income in the same quarter a year ago. Income tax benefit in the three months ended September 30, 2020 includes discrete tax benefits of \$2.0 million associated with the debt prepayment costs and \$2.4 million for the impact of restructuring and asset impairment charges. Additionally, the anticipated benefit for the carryback of the current year net operating loss to fiscal years with higher tax rates is included in this period. Also included are the unfavorable impact of losses in certain foreign jurisdictions for which no tax benefit can be recognized as well as a tax charge of \$1.2 million attributable to employee share-based compensation. Income tax expense in the three months ended September 30, 2019 included the impact of losses in certain foreign jurisdictions for which no tax benefit can be recognized as well as tax benefits of \$0.4 million attributable to employee share-based compensation.

The Coronavirus Aid, Relief and Economic Security Act (the "CARES Act") was enacted on March 27, 2020. The CARES Act established new provisions, including but not limited to, expanded deduction of certain qualified capital expenditures, delayed payment of certain employment taxes, expanded use of net operating losses, reduced limitations on deductions of interest expense and extension of funding for defined benefit plans. The net operating loss provision is expected to provide incremental tax benefits of approximately \$7.0 million due to the higher tax rates in the expanded carryback period. The other provisions in the CARES Act are not expected to have a significant impact on our financial position, results of operations or cash flows.

Business Segment Results

We have two reportable business segments: SAO and PEP.

The following table includes comparative information for volumes by business segment:

(Pounds sold, in thousands)	Three Months Ended September 30,		(Decrease) Increase	% (Decrease) Increase
	2020	2019		
Specialty Alloys Operations	43,368	60,044	(16,676)	(28)%
Performance Engineered Products *	1,466	3,250	(1,784)	(55)%
Intersegment	(486)	(996)	510	51%
Consolidated pounds sold	44,348	62,298	(17,950)	(29)%

* Pounds sold data for PEP segment includes Dynamet and Additive businesses only.

The following table includes comparative information for net sales by business segment:

(\$ in millions)	Three Months Ended September 30,		\$ (Decrease) Increase	% (Decrease) Increase
	2020	2019		
Specialty Alloys Operations	\$ 300.7	\$ 491.1	\$ (190.4)	(39)%
Performance Engineered Products	61.8	109.4	(47.6)	(44)%
Intersegment	(9.2)	(15.1)	5.9	39%
Total net sales	\$ 353.3	\$ 585.4	\$ (232.1)	(40)%

The following table includes comparative information for our net sales by business segment, but excluding surcharge revenue:

(\$ in millions)	Three Months Ended September 30,		\$ (Decrease) Increase	% (Decrease) Increase
	2020	2019		
Specialty Alloys Operations	\$ 254.8	\$ 393.2	\$ (138.4)	(35) %
Performance Engineered Products	61.2	107.9	(46.7)	(43) %
Intersegment	(8.8)	(14.5)	5.7	39 %
Total net sales excluding surcharge revenue	\$ 307.2	\$ 486.6	\$ (179.4)	(37) %

Specialty Alloys Operations Segment

Net sales for the quarter ended September 30, 2020 for the SAO segment decreased 39 percent to \$300.7 million, as compared with \$491.1 million in the same quarter a year ago. Excluding surcharge revenue, net sales decreased 35 percent on 28 percent lower shipment volume from a year ago. The SAO Segment results reflect lower sales in most end-use markets compared to the prior year same quarter caused by the COVID-19 pandemic as well as the 737 MAX production halt.

Operating loss for the SAO segment was \$18.6 million or negative 6.2 percent of net sales (7.3 percent of net sales excluding surcharge revenue) in the recent first quarter, as compared with operating income of \$81.0 million or 16.5 percent of net sales (20.6 percent of net sales excluding surcharge revenue) in the same quarter a year ago. The decrease in operating income reflects lower demand across all key end-use markets and the impacts from targeted inventory reduction in the current fiscal year as compared to the prior year period. The results for the quarter ended September 30, 2020 also include \$7.3 million of expenses due to COVID-19 which were not required during the prior year period.

Performance Engineered Products Segment

Net sales for the quarter ended September 30, 2020 for the PEP segment decreased 44 percent to \$61.8 million, as compared with \$109.4 million in the same quarter a year ago. Excluding surcharge revenue, net sales of \$61.2 million decreased from \$107.9 million a year ago. The results reflect decreases in sales in all end-use markets. This included lower demand in the Medical end-use market from delays in elective procedures caused by COVID-19 as well as prolonged weakness in the oil and gas sub-market and depressed drilling levels in the Energy end-use market.

Operating loss for the PEP segment was \$3.6 million or negative 5.8 percent of net sales in the recent first quarter, compared with operating loss of \$2.0 million or negative 1.8 percent of net sales in the same quarter a year ago. The results were impacted by weaker demand in the Medical end-use market and decreased activity in the North American oil and gas sub-market. The results for the quarter ended September 30, 2020 also include expenses due to COVID-19 which were not required during the prior year period.

Liquidity and Financial Resources

During the three months ended September 30, 2020, we generated cash from operations of \$88.0 million compared to \$0.7 million in the same period a year ago. Our free cash flow, which we define under “Non-GAAP Financial Measures” below, was positive \$62.6 million as compared to negative \$56.4 million for the same period a year ago. The increase in cash provided from operating activities for the three months ended September 30, 2020 compared to the same period a year ago was driven by working capital improvements. Cash generated from reductions in inventory was \$84.9 million in the current quarter compared to cash used for inventory of \$51.1 million in the prior year. The current year reflects impacts from targeted inventory reductions to strengthen liquidity. During the three months ended September 30, 2020, we generated cash from accounts receivable of \$42.0 million compared to a use of cash of \$2.1 million in the same period a year ago. The free cash flow results reflect lower capital spending levels in the current period as compared to the prior year period. Current quarter results also include \$17.6 million of proceeds related to the sale of our Amega West business.

Capital expenditures for property, plant, equipment and software were \$33.3 million for the three months ended September 30, 2020 as compared to \$47.5 million for the same period a year ago. In fiscal year 2021, we expect capital expenditures to be approximately \$120 million.

Dividends during the three months ended September 30, 2020 and 2019 were \$9.7 million and \$9.7 million, respectively, and were paid at the same quarterly rate of \$0.20 per share of common stock in both periods.

We have demonstrated the ability to generate cash to meet our needs through cash flows from operations, management of working capital and the ability to access capital markets to supplement internally generated funds. We generally target minimum liquidity of \$150 million, consisting of cash and cash equivalents added to available borrowing capacity under our Credit Agreement. Our Credit Agreement contains a revolving credit commitment of \$400 million, which expires in March 2022. As of September 30, 2020, we had \$6.0 million of issued letters of credit and no short-term borrowings under the Credit Agreement. The balance of the Credit Agreement, \$394.0 million, remains available to us. As of September 30, 2020, we had total liquidity of \$612.9 million, including \$218.9 million of cash and cash equivalents. From time to time during the three months ended September 30, 2020, we have borrowed under our Credit Agreement. The weighted average daily borrowing under the Credit Agreement during the three months ended September 30, 2020 was approximately \$51.2 million with daily outstanding borrowings ranging from \$0.0 million to \$170.0 million during the period. As of September 30, 2020, the borrowing rate for the Credit Agreement was 1.65%.

We believe that our cash and cash equivalents of \$218.9 million as of September 30, 2020 and available borrowing capacity of \$394.0 million under our credit facility will be sufficient to fund our cash needs over the foreseeable future.

During the three months ended September 30, 2020, we made pension contributions of \$2.9 million to our qualified defined benefit pension plans. We currently expect to make \$16.4 million of additional contributions to our qualified defined benefit pension plans during the remainder of fiscal year 2021.

As of September 30, 2020, we had cash and cash equivalents of approximately \$26.1 million held at various foreign subsidiaries. Our global deployment considers, among other things, geographic location of our subsidiaries' cash balances, the locations of our anticipated liquidity needs, and the cost to access international cash balances, as necessary. During the three months ended September 30, 2020, we repatriated cash of approximately \$4.9 million from a foreign jurisdiction that resulted in minimal tax cost. From time to time, we may make short-term intercompany borrowings against our cash held outside the United States in order to reduce or eliminate any required borrowing under our Credit Agreement.

We are subject to certain financial and restrictive covenants under the Credit Agreement, which, among other things, require the maintenance of a minimum interest coverage ratio (3.50 to 1.00 as of September 30, 2020). The interest coverage ratio is defined in the Credit Agreement as, for any period, the ratio of consolidated earnings before interest, taxes, depreciation and amortization and non-cash net pension expense ("EBITDA") to consolidated interest expense for such period. The Credit Agreement also requires the Company to maintain a debt to capital ratio of less than 55%. The debt to capital ratio is defined in the Credit Agreement as the ratio of consolidated indebtedness, as defined therein, to consolidated capitalization, as defined therein. As of September 30, 2020, the Company was in compliance with all of the covenants of the Credit Agreement.

The following table shows our actual ratio performance with respect to the financial covenants as of September 30, 2020:

Covenant	Covenant Requirement	Actual Ratio
Consolidated interest coverage	3.50 to 1.00 (minimum)	6.68 to 1.00
Consolidated debt to capital	55% (maximum)	33.0%

We continue to believe that we will maintain compliance with the financial and restrictive covenants in future periods. To the extent that we do not comply with the covenants under the Credit Agreement, this could reduce our liquidity and flexibility due to potential restrictions on borrowings available to us unless we are able to obtain waivers or modifications of the covenants.

Non-GAAP Financial Measures

The following provides additional information regarding certain non-GAAP financial measures that we use in this report. Our definitions and calculations of these items may not necessarily be the same as those used by other companies.

Net Sales and Gross Margin Excluding Surcharge Revenue

This report includes discussions of net sales as adjusted to exclude the impact of raw material surcharge and the resulting impact on gross margins, which represent financial measures that have not been determined in accordance with accounting principles generally accepted in the United States of America (“U.S. GAAP”). We present and discuss these financial measures because management believes removing the impact of raw material surcharge from net sales and cost of sales provides a more consistent basis for comparing results of operations from period to period for the reasons discussed earlier in this report. Management uses its results excluding these amounts to evaluate its operating performance and to discuss its business with investment institutions, our board of directors and others. See our earlier discussion of “Gross Profit” for a reconciliation of net sales and gross margin, excluding surcharge revenue, to net sales as determined in accordance with U.S. GAAP. Net sales and gross margin excluding surcharge revenue is not a U.S. GAAP financial measure and should not be considered in isolation of, or as a substitute for, net sales and gross margin calculated in accordance with U.S. GAAP.

Adjusted Operating Margin Excluding Surcharge Revenue and Special Items

This report includes discussions of operating margin as adjusted to exclude the impact of raw material surcharge revenue and special items which represent financial measures that have not been determined in accordance with U.S. GAAP. We present and discuss this financial measure because management believes removing the impact of raw material surcharge from net sales and cost of sales provides a more consistent and meaningful basis for comparing results of operations from period to period for the reasons discussed earlier in this report. In addition, management believes that excluding special items from operating margin is helpful in analyzing our operating performance, as these items are not indicative of ongoing operating performance. Management uses its results excluding these amounts to evaluate its operating performance and to discuss its business with investment institutions, our board of directors and others. See our earlier discussion of operating income for a reconciliation of operating income and operating margin excluding surcharge revenue and special items to operating income and operating margin determined in accordance with U.S. GAAP. Operating margin excluding surcharge revenue and special items is not a U.S. GAAP financial measure and should not be considered in isolation of, or as a substitute for, operating margin calculated in accordance with U.S. GAAP.

Adjusted (Loss) Earnings Per Share

The following provides a reconciliation of adjusted (loss) earnings per share, to its most directly comparable U.S. GAAP financial measures:

(\$ in millions, except per share amounts)	Loss Before Income Taxes	Income Tax Benefit (Expense)	Net (Loss) Income	(Loss) Per Diluted Share*
Three months ended September 30, 2020, as reported	\$ (66.0)	\$ 18.9	\$ (47.1)	\$ (0.98)
Special items:				
Debt prepayment costs, net	8.2	(2.0)	6.2	0.13
Restructuring and asset impairment charges	10.0	(2.4)	7.6	0.16
COVID-19 costs	7.9	(2.6)	5.3	0.11
Three months ended September 30, 2020, as adjusted	<u>\$ (39.9)</u>	<u>\$ 11.9</u>	<u>\$ (28.0)</u>	<u>\$ (0.58)</u>

* Impact per diluted share calculated using weighted average common shares outstanding of 48.3 million for the three months ended September 30, 2020.

(\$ in millions, except per share amounts)	Income Before Income Taxes	Income Tax Expense	Net Income	Earnings Per Diluted Share*
Three months ended September 30, 2019, as reported	\$ 54.1	\$ (12.9)	\$ 41.2	\$ 0.85
Special item:				
None reported	—	—	—	—
Three months ended September 30, 2019, as adjusted	\$ 54.1	\$ (12.9)	\$ 41.2	\$ 0.85

* Impact per diluted share calculated using weighted average common shares outstanding of 48.3 million for the three months ended September 30, 2019.

Management believes that the presentation of (loss) earnings per share adjusted to exclude special items is helpful in analyzing the operating performance of the Company, as these items are not indicative of ongoing operating performance. Our definitions and calculations of these items may not necessarily be the same as those used by other companies. Management uses its results excluding these amounts to evaluate its operating performance and to discuss its business with investment institutions, our Board of Directors and others. Adjusted (loss) earnings per share is not a U.S. GAAP financial measure and should not be considered in isolation of, or as a substitute for, (loss) earnings per share calculated in accordance with U.S. GAAP.

Free Cash Flow

The following provides a reconciliation of free cash flow, as used in this report, to its most directly comparable U.S. GAAP financial measures:

(\$ in millions)	Three Months Ended September 30,	
	2020	2019
Net cash provided from operating activities	\$ 88.0	\$ 0.7
Purchases of property, plant, equipment and software	(33.3)	(47.5)
Proceeds from disposals of property, plant and equipment	—	0.1
Proceeds from divestiture of business	17.6	—
Dividends paid	(9.7)	(9.7)
Free cash flow	\$ 62.6	\$ (56.4)

Management believes that the presentation of free cash flow provides useful information to investors regarding our financial condition because it is a measure of cash generated which management evaluates for alternative uses. It is management's current intention to use excess cash to fund investments in capital equipment, acquisition opportunities and consistent dividend payments. Free cash flow is not a U.S. GAAP financial measure and should not be considered in isolation of, or as a substitute for, cash flows calculated in accordance with U.S. GAAP.

Contingencies

Environmental

We are subject to various federal, state, local and international environmental laws and regulations relating to pollution, protection of public health and the environment, natural resource damages and occupational safety and health. Although compliance with these laws and regulations may affect the costs of our operations, compliance costs to date have not been material. We have environmental remediation liabilities at some of our owned operating facilities and have been designated as a PRP with respect to certain third party Superfund waste-disposal sites and other third party-owned sites. We accrue amounts for environmental remediation costs that represent our best estimate of the probable and reasonably estimable future costs related to environmental remediation. During the three months ended September 30, 2020, the Company increased the liability for a Company-owned former operating site by \$0.1 million. The liabilities recorded for environmental remediation costs at Superfund sites, other third party-owned sites and Carpenter-owned current or former operating facilities remaining at September 30, 2020 and June 30, 2020 were \$16.1 million and \$16.0 million, respectively. Additionally, we have been notified that we may be a PRP with respect to other Superfund sites as to which no proceedings have been instituted against us. Neither the exact amount of remediation costs nor the final method of their allocation among all designated PRPs at these Superfund sites have been determined. Accordingly, at this time, we cannot reasonably estimate expected costs for such matters. The liability for future environmental remediation costs that can be reasonably estimated is evaluated on a quarterly basis.

Estimates of the amount and timing of future costs of environmental remediation requirements are inherently imprecise because of the continuing evolution of environmental laws and regulatory requirements, the availability and application of technology, the identification of currently unknown remediation sites and the allocation of costs among the PRPs. Based upon information currently available, such future costs are not expected to have a material effect on our financial position, results of operations or cash flows over the long-term. However, such costs could be material to our financial position, results of operations or cash flows in a particular future quarter or year.

Other

We are defending various routine claims and legal actions that are incidental to our business, and that are common to our operations, including those pertaining to product claims, commercial disputes, patent infringement, employment actions, employee benefits, compliance with domestic and foreign laws, personal injury claims and tax issues. Like many other manufacturing companies in recent years we, from time to time, have been named as a defendant in lawsuits alleging personal injury as a result of exposure to chemicals and substances in the workplace such as asbestos. We provide for costs relating to these matters when a loss is probable and the amount of the loss is reasonably estimable. The effect of the outcome of these matters on our future results of operations and liquidity cannot be predicted because any such effect depends on future results of operations and the amount and timing (both as to recording future charges to operations and cash expenditures) of the resolution of such matters. While it is not feasible to determine the outcome of these matters, we believe that the total liability from these matters will not have a material effect on our financial position, results of operations or cash flows over the long-term. However, there can be no assurance that an increase in the scope of pending matters or that any future lawsuits, claims, proceedings or investigations will not be material to our financial position, results of operations or cash flows in a particular future quarter or year.

Critical Accounting Policies and Estimates

A summary of other significant accounting policies is discussed in our 2020 Form 10-K Item 7. "Management's Discussion and Analysis of Financial Condition and Results of Operations", and in Note 1, Summary of Significant Accounting Policies, of the Notes to our consolidated financial statements included in Part II, Item 8 thereto.

Long-Lived Assets

Long-lived assets are reviewed for impairment and written down to fair value whenever events or changes in circumstances indicate that the carrying value may not be recoverable through estimated future undiscounted cash flows. The amount of the impairment loss is the excess of the carrying amount of the impaired assets over the fair value of the assets based upon estimated future discounted cash flows. We evaluate long-lived assets for impairment by individual business unit. Changes in estimated cash flows could have a significant impact on whether or not an asset is impaired and the amount of the impairment.

Goodwill

Goodwill is not amortized but instead is at least annually tested for impairment as of June 30, or more frequently if events or circumstances indicate that the carrying amount of goodwill may be impaired. Potential impairment is identified by comparing the fair value of a reporting unit to its carrying value. The fair value is estimated using discounted cash flows and the use of market multiples valuation techniques. If the carrying value of the reporting unit exceeds its fair value, any impairment loss is measured by comparing the carrying value of the reporting unit's goodwill to its implied fair value. The discounted cash flow analysis for each reporting unit tested requires significant estimates and assumptions related to cash flow forecasts, discount rates, terminal values and income tax rates. The cash flow forecasts include significant judgments and assumptions relating to revenue growth rates. The cash flow forecasts are developed based on assumptions about each reporting unit's markets, product offerings, pricing, capital expenditure and working capital requirements as well as cost performance.

The discount rates used in the discounted cash flow are estimated based on a market participant's perspective of each reporting unit's weighted average cost of capital. The terminal value, which represents the value attributed to the reporting unit beyond the forecast period, is estimated using a perpetuity growth rate assumption. The income tax rates used in the discounted cash flow analysis represent estimates of the long-term statutory income tax rates for each reporting unit based on the jurisdictions in which the reporting units operate.

As of September 30, 2020, we had four reporting units with goodwill recorded. Goodwill associated with our SAO reporting unit is tested at the SAO segment level and represents approximately 67 percent of our total goodwill. All other goodwill is associated with our PEP segment, which includes three reporting units with goodwill recorded.

As of June 30, 2020, the carrying value of the Additive reporting unit was greater than the fair value by approximately 24.1 percent. The goodwill recorded as of June 30, 2020, after the impairment charge, related to the Additive reporting unit was \$45.6 million. For purposes of the discounted cash flow technique for Additive's fair value, we used a weighted average cost of capital of 17.0 percent and a terminal growth rate assumption of 3 percent. If the fair value of this reporting unit had been hypothetically reduced by 5 percent at June 30, 2020, the Additive reporting unit would have a carrying value in excess of fair value of approximately \$5.4 million.

As of June 30, 2020, the fair value of the SAO reporting unit exceeded the carrying value by approximately 4.5 percent. The goodwill recorded related to the SAO reporting unit as of June 30, 2020 was \$195.5 million. The discounted cash flows analysis for the SAO reporting unit includes assumptions related to our ability to increase volume, improve mix, expand product offerings and continue to implement opportunities to reduce costs over the next several years. For purposes of the discounted cash flow analysis for SAO's fair value, we used a weighted average cost capital of 10.5 percent and a terminal growth rate assumption of 3 percent. If the fair value of this reporting unit had been hypothetically reduced by 5 percent at June 30, 2020, the SAO reporting unit would have a fair value that would approximate net book value.

The estimate of fair value requires significant judgment. We based our fair value estimates on assumptions that we believe to be reasonable but that are unpredictable and inherently uncertain, including estimates of future growth rates and operating margins and assumptions about the overall economic climate and the competitive environment for our business units. There can be no assurance that our estimates and assumptions made for purposes of our goodwill and identifiable intangible asset testing as of the time of testing will prove to be accurate predictions of the future. If our assumptions regarding business projections, competitive environments or anticipated growth rates are not correct, we may be required to record goodwill and/or intangible asset impairment charges in future periods, whether in connection with our next annual impairment testing or earlier, if an indicator of an impairment is present before our next annual evaluation. We continuously monitor for events and circumstances that could negatively impact the key assumptions in determining fair value of the reporting units. Given the evolving nature of and uncertainty driven by the COVID-19 pandemic, we will continue to evaluate the impact on the reporting units as adverse changes to these assumptions could result in future impairments.

Forward-Looking Statements

This Quarterly Report on Form 10-Q contains forward-looking statements within the meaning of the Private Securities Litigation Act of 1995. These forward-looking statements are subject to risks and uncertainties that could cause actual results to differ from those projected, anticipated or implied. The most significant of these uncertainties are described in Carpenter Technology's filings with the Securities and Exchange Commission, including its report on Form 10-K for the year ended June 30, 2020, and the exhibits attached to that filing. They include but are not limited to: (1) the cyclical nature of the specialty materials business and certain end-use markets, including aerospace, defense, medical, transportation, energy, industrial and consumer, or other influences on Carpenter Technology's business such as new competitors, the consolidation of competitors, customers, and suppliers or the transfer of manufacturing capacity from the United States to foreign countries; (2) the ability of Carpenter Technology to achieve cash generation, growth, earnings, profitability, operating income, cost savings and reductions, qualifications, productivity improvements or process changes; (3) the ability to recoup increases in the cost of energy, raw materials, freight or other factors; (4) domestic and foreign excess manufacturing capacity for certain metals; (5) fluctuations in currency exchange rates; (6) the effect of government trade actions; (7) the valuation of the assets and liabilities in Carpenter Technology's pension trusts and the accounting for pension plans; (8) possible labor disputes or work stoppages; (9) the potential that our customers may substitute alternate materials or adopt different manufacturing practices that replace or limit the suitability of our products; (10) the ability to successfully acquire and integrate acquisitions; (11) the availability of credit facilities to Carpenter Technology, its customers or other members of the supply chain; (12) the ability to obtain energy or raw materials, especially from suppliers located in countries that may be subject to unstable political or economic conditions; (13) Carpenter Technology's manufacturing processes are dependent upon highly specialized equipment located primarily in facilities in Reading and Latrobe, Pennsylvania and Athens, Alabama for which there may be limited alternatives if there are significant equipment failures or a catastrophic event; (14) the ability to hire and retain key personnel, including members of the executive management team, management, metallurgists and other skilled personnel; (15) fluctuations in oil and gas prices and production; (16) uncertainty regarding the return to service of the Boeing 737 MAX aircraft and the related supply chain disruption; (17) potential impacts of the COVID-19 pandemic on our operations, financial results and financial position; (18) our efforts and efforts by governmental authorities to mitigate the COVID-19 pandemic, such as travel bans, shelter in place orders and business closures, and the related impact on resource allocations and manufacturing and supply chains; (19) our status as a "critical", "essential" or "life-sustaining" business in light of COVID-19 business closure laws, orders and guidance being challenged by a governmental body or other applicable authority; (20) our ability to execute our business continuity, operational, budget and fiscal plans in light of the COVID-19 pandemic; and (21) our ability to successfully carry out restructuring and business exit activities on the expected terms and timelines. Any of these factors could have an adverse and/or fluctuating effect on Carpenter Technology's results of operations. The forward-looking statements in this document are intended to be subject to the safe harbor protection provided by Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended. Carpenter Technology undertakes no obligation to update or revise any forward-looking statements.

Item 3. Quantitative and Qualitative Disclosures about Market Risk

We use derivative financial instruments to reduce certain types of financial risk. Firm price sales arrangements involve a risk of profit margin fluctuations particularly as raw material prices have been volatile. As discussed in Note 14 to the consolidated financial statements included in Part I, Item 1 of this Quarterly Report on Form 10-Q, "Financial Statements", in order to reduce the risk of fluctuating profit margins on these sales, we enter into commodity forward contracts to purchase certain critical raw materials necessary to produce the products sold under the firm price sales arrangements. If a customer fails to perform its obligations under the firm price sales arrangements, we may realize losses as a result of the related commodity forward contracts. As of September 30, 2020, we had approximately \$0.8 million of net deferred losses related to commodity forward contracts to purchase certain raw materials. A large portion of this balance is related to commodity forward contracts to support firm price sales arrangements associated with many customers. However, approximately 47 percent of these contracts relate to commodity forward contracts entered into to support sales under firm price sales arrangements with one customer in addition to the credit already extended to this customer in connection with outstanding trade receivables. Our customers have historically performed under these arrangements, and we believe that they will honor such obligations in the future.

We are actively involved in managing risks associated with energy resources. Risk containment strategies include interaction with primary and secondary energy suppliers as well as obtaining adequate insurance coverage to compensate us for potential business interruption related to lack of availability of energy resources. In addition, we have used forwards and options to fix the price of a portion of our anticipated future purchases of certain energy requirements to protect against the impact of significant increases in energy costs. We also use surcharge mechanisms to offset a portion of these charges where appropriate.

Fluctuations in foreign currency exchange rates could subject us to risk of losses on anticipated future cash flows from our international operations or customers. Foreign currency forward contracts are used to hedge certain foreign exchange risks.

We use interest rate swaps to achieve a level of floating rate debt relative to fixed rate debt where appropriate. Historically, we have entered into forward interest rate swap contracts to manage the risk of cash flow variability associated with fixed interest debt expected to be issued.

All hedging strategies are reviewed and approved by senior financial management before being implemented. Senior financial management has established policies regarding the use of derivative instruments that prohibit the use of speculative or leveraged derivatives. Market valuations are performed at least quarterly to monitor the effectiveness of our risk management programs.

Based on the current funding level, the allocation policy for pension plan assets is to have approximately 60 percent in return seeking assets and 40 percent in liability matching assets. Return seeking assets include domestic and international equities and diversified loan funds. Liability matching assets include long duration bond funds.

The status of our financial instruments as of September 30, 2020 is provided in Note 14 to the consolidated financial statements included in Part I, Item 1, "Financial Statements" of this Quarterly Report on Form 10-Q. Assuming either of the following occurred on September 30, 2020, (a) an instantaneous 10 percent decrease in the price of raw materials and energy for which we have commodity forward contracts, or (b) a 10 percent strengthening of the U.S. dollar versus foreign currencies for which foreign exchange forward contracts existed, our results of operations would not have been materially affected in either scenario.

Item 4. Controls and Procedures

(a) Evaluation of Effectiveness of Disclosure Controls and Procedures

The Company's management, with the participation of the Company's President and Chief Executive Officer and Senior Vice President and Chief Financial Officer, evaluated the effectiveness of the Company's disclosure controls and procedures as defined in Rules 13a—15(e) and 15d—15(e) of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), as of September 30, 2020. Based on that evaluation, the President and Chief Executive Officer and Senior Vice President and Chief Financial Officer, concluded that the Company's disclosure controls and procedures as of September 30, 2020 were effective in providing a reasonable level of assurance that information we are required to disclose in reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods required under the Securities and Exchange Commission's rules and forms, including a reasonable level of assurance that information required to be disclosed by us in such reports is accumulated and communicated to the Company's management, including the Company's President and Chief Executive Officer and Senior Vice President and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

(b) Changes in Internal Control over Financial Reporting

There have been no changes in the Company's internal control over financial reporting that occurred during the quarter ended September 30, 2020 that have materially affected, or are likely to materially affect, the Company's internal control over financial reporting.

PART II — OTHER INFORMATION

Item 1. Legal Proceedings

Pending legal proceedings involve ordinary routine litigation incidental to our business, which we do not believe would have a material adverse effect on our business regardless of their outcome. See "Management's Discussion and Analysis of Financial Condition and Results of Operations — Contingencies."

Item 1A. Risk Factors

We have evaluated the risks associated with our business and operations and determined that those risk factors included in Part 1, Item 1A of our 2020 Annual Report on Form 10-K adequately disclose the material risks that we face.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds

There were no reportable purchases during the quarter ended September 30, 2020, however employees surrendered 74,749 shares to the Company, at an average purchase price of \$22.51, during such quarter for the payment of the minimum tax liability withholding obligations upon the vesting of shares of restricted stock and the exercise of options. We do not consider this a share buyback program.

Item 6. Exhibits

Exhibit No.	Description
31(A)	Certification of President and Chief Executive Officer pursuant to Rule 13a—14(a) and Rule 15d—14(a) of the Securities Exchange Act, as amended. (filed herewith)
31(B)	Certification of Senior Vice President and Chief Financial Officer pursuant to Rule 13a—14(a) and Rule 15d—14(a) of the Securities Exchange Act, as amended. (filed herewith)
32	Certification of President and Chief Executive Officer and Senior Vice President and Chief Financial Officer pursuant to 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002. (filed herewith)
101	The following financial information from this Quarterly Report on Form 10-Q for the fiscal quarter ended September 30, 2020, formatted in Inline XBRL (Extensible Business Reporting Language) and filed electronically herewith: (i) the Consolidated Balance Sheets; (ii) the Consolidated Statements of Operations; (iii) the Consolidated Statements of Comprehensive (Loss) Income; (iv) the Consolidated Statements of Cash Flows; (v) the Consolidated Statements of Changes in Equity; and (vi) the Notes to the Consolidated Financial Statements.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized officer.

Carpenter Technology Corporation

(Registrant)

Date: October 22, 2020

/s/ Timothy Lain

Timothy Lain

Senior Vice President and Chief Financial Officer

(Principal Financial Officer)

**CERTIFICATIONS OF PERIODIC REPORTS PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Tony R. Thene, certify that:

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

Date: October 22, 2020

/s/ Tony R. Thene

Tony R. Thene

President and Chief Executive Officer

**CERTIFICATIONS OF PERIODIC REPORTS PURSUANT TO
SECTION 302 OF THE SARBANES-OXLEY ACT OF 2002**

I, Timothy Lain, certify that:

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

Date: October 22, 2020

/s/ Timothy Lain

Timothy Lain

Senior Vice President and Chief Financial Officer

**CERTIFICATION OF PERIODIC FINANCIAL REPORTS PURSUANT TO
18 U.S.C. SECTION 1350
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002**

In connection with the Quarterly Report of Carpenter Technology Corporation (the "Issuer") on Form 10-Q for the quarter ended September 30, 2020, as filed with the Securities and Exchange Commission on the date hereof (the "Periodic Report"), I, Tony R. Thene, and I, Timothy Lain, each hereby certify, pursuant to 18 U.S.C. §1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Periodic Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934; and that information contained in the Periodic Report fairly presents, in all material respects, the financial condition and results of operations of the Issuer.

Date: October 22, 2020

/s/ Tony R. Thene

Tony R. Thene

President and Chief Executive Officer

/s/ Timothy Lain

Timothy Lain

Senior Vice President and Chief Financial Officer