CARPENTER TECHNOLOGY CORP
Form 10-Q
October 24, 2018
UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM 10-Q

(Mark One)

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

For the quarterly period ended September 30, 2018

or

o 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	23-0458500
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
1735 Market Street, 15th Floor Philadelphia, Pennsylvania	19103
(Address of principal executive offices)	(Zip Code)
610-208-2000	
(Registrant’s telephone number, including area code)	

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 x No o

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files. Yes x No o

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: x		Accelerated filer:	o
Non-accelerated filer:	o (Do not check if a smaller reporting company)	Smaller reporting company:	o
		Emerging growth company	o

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. o

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

The number of shares outstanding of the issuer's common stock as of October 17, 2018 was 47,369,591.

Table of Contents

CARPENTER TECHNOLOGY CORPORATION
FORM 10-Q
INDEX

			Page
PART I	FINANCIAL INFORMATION		
	Item 1	Financial Statements	
		Consolidated Balance Sheets (unaudited) as of September 30, 2018 and June 30, 2018	3
		Consolidated Statements of Income (unaudited) for the Three Months Ended September 30, 2018 and 2017	4
		Consolidated Statements of Comprehensive Income (unaudited) for the Three Months Ended September 30, 2018 and 2017	5
		Consolidated Statements of Cash Flows (unaudited) for the Three Months Ended September 30, 2018 and 2017	6
		Consolidated Statements of Changes in Equity (unaudited) for the Three Months Ended September 30, 2018 and 2017	7
		Notes to the Consolidated Financial Statements (unaudited)	8
	Item 2	Management's Discussion and Analysis of Financial Condition and Results of Operations	26
	Item 3	Quantitative and Qualitative Disclosures About Market Risk	38
	Item 4	Controls and Procedures	39
PART II	OTHER INFORMATION		
	Item 1	Legal Proceedings	39
	Item 1A	Risk Factors	39
	Item 2	Unregistered Sales of Equity Securities and Use of Proceeds	39
	Item 6	Exhibits	40
		Signature	41

Table of Contents

PART I - FINANCIAL INFORMATION
Item 1. Financial Statements

CARPENTER TECHNOLOGY CORPORATION
CONSOLIDATED BALANCE SHEETS
(Unaudited)
($ in millions, except share data)

	September 30, 2018	June 30, 2018
ASSETS		
Current assets:		
Cash and cash equivalents	$ 17.0	$56.2
Accounts receivable, net	381.6	378.5
Inventories	740.5	689.2
Other current assets	49.0	54.9
Total current assets	1,188.1	1,178.8
Property, plant and equipment, net	1,316.8	1,313.4
Goodwill	268.7	268.7
Other intangibles, net	61.7	63.3
Deferred income taxes	4.5	4.3
Other assets	167.9	178.5
Total assets	$ 3,007.7	$3,007.0
LIABILITIES		
Current liabilities:		
Accounts payable	$ 255.9	$214.7
Accrued liabilities	107.5	148.6
Total current liabilities	363.4	363.3
Long-term debt	545.5	545.7
Accrued pension liabilities	285.1	288.8
Accrued postretirement benefits	108.7	108.2
Deferred income taxes	155.7	161.6
Other liabilities	58.6	53.5
Total liabilities	1,517.0	1,521.1
Contingencies and commitments (see Note 10)		
STOCKHOLDERS' EQUITY		
Common stock — authorized 100,000,000 shares; issued 55,788,737 shares at September 30, 2018 and 55,712,229 shares at June 30, 2018; outstanding 47,365,484 shares at September 30, 2018 and 47,191,744 shares at June 30, 2018	278.9	278.6
Capital in excess of par value	310.0	310.0
Reinvested earnings	1,498.8	1,475.9
Common stock in treasury (8,423,253 shares and 8,520,485 shares at September 30, 2018 and June 30, 2018, respectively), at cost	(335.9)	(338.8)
Accumulated other comprehensive loss	(261.1)	(239.8)
Total stockholders' equity	1,490.7	1,485.9
Total liabilities and stockholders' equity	$ 3,007.7	$3,007.0

See accompanying notes to consolidated financial statements.

Table of Contents

CARPENTER TECHNOLOGY CORPORATION
CONSOLIDATED STATEMENTS OF INCOME
(Unaudited)
(in millions, except per share data)

	Three Months Ended September 30,	
	2018	2017
Net sales	$572.4	$479.8
Cost of sales	480.7	394.1
Gross profit	91.7	85.7
Selling, general and administrative expenses	46.7	43.5
Operating income	45.0	42.2
Interest expense	(6.3)	(7.2)
Other income, net	1.6	0.2
Income before income taxes	40.3	35.2
Income tax expense	8.8	11.8
Net income	$31.5	$23.4
EARNINGS PER COMMON SHARE:		
Basic	$0.66	$0.49
Diluted	$0.65	$0.49
WEIGHTED AVERAGE COMMON SHARES OUTSTANDING:		
Basic	47.6	47.1
Diluted	48.2	47.3
Cash dividends per common share	$0.20	$0.18

See accompanying notes to consolidated financial statements.

Table of Contents

CARPENTER TECHNOLOGY CORPORATION
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(Unaudited)
($ in millions)

	Three Months Ended September 30,	
	2018	2017
Net income	$31.5	$23.4
Other comprehensive (loss) income, net of tax		
Cumulative adjustment upon adoption of ASU 2017-12 reclassified to reinvested earnings	(1.0)	—
Pension and postretirement benefits, net of tax of $(0.5) and $(1.3), respectively	1.7	2.1
Net (loss) gain on derivative instruments, net of tax of $8.7 and $(4.9), respectively	(23.0)	8.1
Marketable securities gain, net of tax of $0.0 and $0.0, respectively	0.3	—
Foreign currency translation	0.7	1.8
Other comprehensive (loss) income	(21.3)	12.0
Comprehensive income	$10.2	$35.4

See accompanying notes to consolidated financial statements.

Table of Contents

CARPENTER TECHNOLOGY CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)
($ in millions)

	Three Months Ended September 30,	
	2018	2017
OPERATING ACTIVITIES		
Net income	$31.5	$23.4
Adjustments to reconcile net income to net cash provided from (used for) operating activities:		
Depreciation and amortization	29.7	28.7
Deferred income taxes	1.2	0.6
Net pension expense	2.9	3.6
Share-based compensation expense	3.0	4.2
Net loss on disposals of property and equipment	0.1	0.1
Changes in working capital and other:		
Accounts receivable	(3.5)	(1.2)
Inventories	(50.5)	(46.3)
Other current assets	(6.5)	(9.0)
Accounts payable	47.5	15.9
Accrued liabilities	(40.8)	(21.7)
Pension plan contributions	(2.3)	(4.2)
Other postretirement plan contributions	(0.8)	(0.5)
Other, net	(2.1)	(1.0)
Net cash provided from (used for) operating activities	9.4	(7.4)
INVESTING ACTIVITIES		
Purchases of property, plant, equipment and software	(41.6)	(28.9)
Proceeds from disposals of property and equipment	0.1	—
Proceeds from sales of marketable securities	2.9	—
Net cash used for investing activities	(38.6)	(28.9)
FINANCING ACTIVITIES		
Net change in short-term credit agreement borrowings	—	3.3
Dividends paid	(9.6)	(8.6)
Proceeds from stock options exercised	3.2	1.4
Withholding tax payments on share-based compensation awards	(4.1)	(0.2)
Net cash used for financing activities	(10.5)	(4.1)
Effect of exchange rate changes on cash and cash equivalents	0.5	(1.0)
DECREASE IN CASH AND CASH EQUIVALENTS	(39.2)	(41.4)
Cash and cash equivalents at beginning of period	56.2	66.3
Cash and cash equivalents at end of period	$17.0	$24.9
SUPPLEMENTAL CASH FLOW INFORMATION:		
Non-cash investing activities:		
Acquisition of property, plant, equipment and software	$10.1	$9.0

See accompanying notes to consolidated financial statements.

Table of Contents

CARPENTER TECHNOLOGY CORPORATION
CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY
FOR THE THREE MONTHS ENDED SEPTEMBER 30, 2018 AND 2017
(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, 2018	$278.6	$ 310.0	$ 1,475.9	$ (338.8)	$ (239.8)	$ 1,485.9
Cumulative adjustment upon adoption of ASU 2017-12			1.0		(1.0)	—
Net income			31.5			31.5
Pension and postretirement benefits gain, net of tax					1.7	1.7
Marketable securities gain, net of tax					0.3	0.3
Net loss on derivative instruments, net of tax					(23.0)	(23.0)
Foreign currency translation					0.7	0.7
Cash Dividends:						
Common @ $0.20 per share			(9.6)			(9.6)
Share-based compensation plans		(2.9)		2.9		—
Stock options exercised	0.3	2.9				3.2
Balances at September 30, 2018	$278.9	$ 310.0	$ 1,498.8	$ (335.9)	$ (261.1)	$ 1,490.7

	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, 2017	$276.7	$ 284.8	$ 1,321.8	$ (341.6)	$ (343.1)	$ 1,198.6
Net income			23.4			23.4
Pension and postretirement benefits gain, net of tax					2.1	2.1
Net gain on derivative instruments, net of tax					8.1	8.1
Foreign currency translation					1.8	1.8
Cash Dividends:						0
Common @ $0.18 per share			(8.6)			(8.6)
Share-based compensation plans		4.0		0.2		4.2
Stock options exercised	0.3	1.1				1.4
Balances at September 30, 2017	$277.0	$ 289.9	$ 1,336.6	$ (341.4)	$ (331.1)	$ 1,231.0

See accompanying notes to consolidated financial statements.

Table of Contents
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, 2018 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's Annual Report on Form 10-K for the fiscal year ended June 30, 2018 (the "2018 Form 10-K"). Operating results for the three months ended September 30, 2018 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", the "Company", "Registrant", "Issuer", "we" and "our" refer to Carpenter Technology Corporation.

During the three months ended September 30, 2018 the Company changed the presentation of net periodic pension cost and net periodic postretirement benefit cost in connection with the adoption of ASU 2017-07, Compensation - Retirement Benefits (Topic 715) - Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost. Prior year amounts have been reclassified to conform to the three months ended September 30, 2018 presentation.

2. Recent Accounting Pronouncements

Recently Issued Accounting Pronouncements - Adopted in current period

In May 2014, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2014-09, Revenue from Contracts with Customers (Topic 606) which outlines a single comprehensive framework for all entities in all industries to apply in the determination of when to recognize revenue, and, therefore, supersedes virtually all existing revenue recognition requirements and guidance. This framework is expected to result in less complex guidance in application while providing a consistent and comparable methodology for revenue recognition. The standard provides a five-step model to be applied to all contracts with customers, with an underlying principle that an entity will recognize revenue to depict the transfer of goods or services to customers at an amount that the entity expects to be entitled to in exchange for those goods or services.

The Company has completed its assessment of the impact of the new standard and adopted the new standard for all open contracts as of July 1, 2018 using the modified retrospective transition method. The adoption of the new standard did not have a material impact on the financial position of the Company, the results of its operations or its cash flows as of and for the three months ended September 30, 2018. There was no cumulative effect of adopting the standard at the date of initial application in reinvested earnings. The Company's revenue recognition accounting policy has been updated for the new standard. As required by the standard, the Company has expanded disclosure of revenues from contracts with customers.

In October 2016, the FASB issued ASU 2016-16, Income Taxes (Topic 740) - Intra-Entity Transfers of Assets Other Than Inventory, which outlines updates to improve the accounting for the income tax consequences of intra-entity transfers of assets other than inventory. ASU 2016-16 is effective for public business entities for annual periods, including interim periods within those annual periods, beginning after December 15, 2017, with early adoption permitted. The Company adopted the provisions of ASU 2016-16 in the first quarter of fiscal year 2019. The adoption of ASU 2016-16 did not materially impact the Company’s consolidated financial statements.

In March 2017, the FASB issued ASU 2017-07, Compensation - Retirement Benefits (Topic 715) - Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost. The guidance changes how employers that sponsor defined benefit pension and other post-retirement benefit plans disaggregate the service cost components from other components of net periodic benefit costs in the income statement. This amendment requires that the service cost component be reported in net income as “cost of sales” or “selling, general and administrative expenses” in a manner consistent with the classification of direct labor and personnel costs of the eligible employees. Other components of net periodic benefit costs including interest costs, expected return on plan assets, amortization of net loss, amortization of prior service cost (benefits) (“pension earnings, interest and deferrals”) are classified as non-operating expense in “other income, net” on the consolidated statements of income. The update specifies that only the service cost component is eligible for capitalization, which is consistent with the Company’s current practice. The Company adopted the provisions of ASU 2017-07 effective July 1, 2018 on a retrospective basis. For the three months ended September 30, 2017, $0.1 million has been reclassified from cost of goods sold and $0.4 million has been reclassified from selling, general and administrative expenses to other income, net on the consolidated statement of income.

In August 2017, the FASB issued ASU No. 2017-12, Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedge Activities, which amended and simplified the requirements of hedge accounting. ASU 2017-12 enables companies to more accurately present the economic effects of risk management activities in the financial statements. The guidance requires the presentation of all items that affect earnings to be recorded in the same income statement line as the hedged item and is effective for fiscal years beginning after December 15, 2018 and interim periods within those fiscal years with early adoption permitted. The Company adopted the provisions of ASU 2017-12 on July 1, 2018. Upon adoption, the Company reclassified $1.0 million of previously recorded hedge ineffectiveness from reinvested earnings to OCI within the equity section of the balance sheet and provided expanded disclosures of derivative activity.

Recently Issued Accounting Pronouncements - Pending Adoption

In February 2016, the FASB issued ASU 2016-02 Leases (Topic 842) with further clarifications and improvements included in ASU No. 2018-10, Codification Improvements to Topic 842, Leases and ASU 2018-11 Leases (Topic 842) Targeted Improvements, each issued in July 2018, all of which improves transparency and comparability among companies by recognizing lease assets and lease liabilities on the balance sheet and by disclosing key information about leasing arrangements. ASU 2016-02 is effective for public business entities for annual periods, including interim periods within those annual periods, beginning after December 15, 2018, with early adoption permitted. The Company is evaluating the impact of the adoption of Topic 842 on the consolidated financial statements.

In February 2018, the FASB issued ASU 2018-02, Income Statement - Reporting Comprehensive Income (Topic 220) - Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income, which allows a reclassification from accumulated other comprehensive income to reinvested earnings for standard tax effects resulting from the Act to Provide for Reconciliation Pursuant to Titles II and V of the Concurrent Resolution on the Budget for Fiscal Year 2018. ASU 2018-02 is effective for public business entities for annual periods, including interim periods within those annual periods, beginning after December 15, 2018, with early adoption permitted. The Company is evaluating the impact of the adoption of ASU 2018-02 on the consolidated financial statements.

3. 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 have been 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.

The 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 normal 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 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 $12.5 million and $10.4 million at September 30, 2018 and June 30, 2018, 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 within one year or less.

Disaggregation of Revenue

The Company operates in two business segments, Specialty Alloys Operations ("SAO") and Performance Engineered Products ("PEP"). Revenue is disaggregated within these two business segments by diversified end-use markets and

also by geographical location. Comparative information of the Company's overall revenues by end-use markets and geography for the three months ended September 30, 2018 and 2017 were as follows:

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

End-Use Market Data	Three Months Ended September 30,	
($ in millions)	2018	2017
Aerospace and defense	$310.7	$258.6
Energy	44.3	32.0
Transportation	40.3	36.7
Medical	47.0	38.3
Industrial and consumer	96.1	84.4
Distribution	34.0	29.8
Consolidated net sales	$572.4	$479.8

Geographic Data	Three Months Ended September 30,	
($ in millions)	2018	2017
United States	$384.0	$319.9
Europe	90.0	84.9
Asia Pacific	48.6	37.8
Canada	17.7	16.1
Mexico	22.2	11.9
Other	9.9	9.2
Consolidated net sales	$572.4	$479.8

4. Acquisitions

On February 21, 2018, the Company acquired all of the outstanding membership interests of MB CalRAM LLC ("CalRAM"), for a cash purchase price of $13.3 million. The acquisition provides the Company with immediate entry into the rapidly expanding part production segment of the additive manufacturing value chain. The purchase price allocation was completed in the fourth quarter of fiscal year 2018 and resulted in the purchase price being allocated to $0.2 million of working capital, $2.6 million of property and equipment, $5.2 million of identifiable intangible assets and $5.3 million of goodwill.

5. Earnings per Common Share

The Company calculates basic and diluted earnings per share using the two class method. Under the two class method, 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 earnings available to each class of stock are divided by the weighted average number of outstanding shares for the period in each class. Diluted earnings per share assumes the issuance of common stock for all potentially dilutive share equivalents outstanding.

Table of Contents

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

The calculations of basic and diluted earnings per common share for the three months ended September 30, 2018 and 2017 were as follows:

	Three Months Ended September 30,	
(in millions, except per share data)	2018	2017
Net income	$31.5	$23.4
Less: earnings and dividends allocated to participating securities	(0.3)	(0.2)
Earnings available for common stockholders used in calculation of basic earnings per common share	$31.2	$23.2
Weighted average number of common shares outstanding, basic	47.6	47.1
Basic earnings per common share	$0.66	$0.49
Net income	$31.5	$23.4
Less: earnings and dividends allocated to participating securities	(0.3)	(0.2)
Earnings available for common stockholders used in calculation of diluted earnings per common share	$31.2	$23.2
Weighted average number of common shares outstanding, basic	47.6	47.1
Effect of shares issuable under share-based compensation plans	0.6	0.2
Weighted average number of common shares outstanding, diluted	48.2	47.3
Diluted earnings per common share	$0.65	$0.49

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:

	Three Months Ended September 30,	
(in millions)	2018	2017
Stock options	0.1	1.8

6. Inventories

Inventories consisted of the following components as of September 30, 2018 and June 30, 2018:

($ in millions)	September 30, 2018	June 30, 2018
Raw materials and supplies	$ 170.2	$ 157.5
Work in process	414.4	372.5
Finished and purchased products	155.9	159.2
Total inventory	$ 740.5	$ 689.2

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, 2018 and June 30, 2018, $158.9 million and $138.6 million of inventory, respectively, was accounted for using a method other than the LIFO inventory costing method.

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

7. Accrued Liabilities

Accrued liabilities consisted of the following as of September 30, 2018 and June 30, 2018:

($ in millions)	September 30, 2018	June 30, 2018
Accrued compensation and benefits	$ 42.5	$ 83.3
Accrued postretirement benefits	15.4	15.4
Deferred revenue	12.5	10.4
Derivative financial instruments	4.0	—
Accrued interest expense	3.8	10.4
Accrued pension liabilities	3.3	3.3
Accrued income taxes	2.7	1.4
Other	23.3	24.4
Total accrued liabilities	$ 107.5	$ 148.6

8. 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, 2018 and 2017 were as follows:

Three months ended September 30,	Pension Plans		Other Postretirement Plans	
($ in millions)	2018	2017	2018	2017
Service cost	$ 2.3	$ 2.4	$ 0.6	$ 0.7
Interest cost	13.2	13.0	2.5	2.4
Expected return on plan assets	(16.2)	(16.5)	(1.7)	(1.7)
Amortization of net loss	2.6	3.4	0.4	0.7
Amortization of prior service cost (benefit)	0.5	0.5	(1.3)	(1.3)
Net periodic benefit costs	$ 2.4	$ 2.8	$ 0.5	$ 0.8

During the three months ended September 30, 2018 and 2017, the Company made $2.3 million and $4.2 million, respectively, of contributions to its qualified defined benefit pension plans. The Company currently expects to contribute $3.2 million to its qualified defined benefit pension plans during the remainder of fiscal year 2019.

9. Debt

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 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% (1.50% as of September 30, 2018), and for Base Rate-determined loans, from 0.00% to 0.75% (0.50% as of September 30, 2018). The Company also pays a quarterly commitment fee ranging from 0.125% to 0.400% (0.275% as of September 30, 2018), 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, 2018), 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, 2018, the Company had $6.0 million of issued letters of credit with the balance of $394.0 million available to the Company.

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, 2018 and June 30, 2018, the Company was in compliance with all of the covenants of the Credit Agreement.

Long-term debt outstanding as of September 30, 2018 and June 30, 2018 consisted of the following:

($ in millions)	September 30, 2018	June 30, 2018
Senior unsecured notes, 5.20% due July 2021 (face value of $250.0 million at September 30, 2018 and June 30, 2018)	$ 246.3	$ 246.6
Senior unsecured notes, 4.45% due March 2023 (face value of $300.0 million at September 30, 2018 and June 30, 2018)	299.2	299.1
Total	545.5	545.7
Less: amounts due within one year	—	—
Long-term debt	$ 545.5	$ 545.7

For the three months ended September 30, 2018 and 2017, interest costs totaled $7.2 million and $7.7 million, respectively, of which $0.9 million and $0.5 million, respectively, were capitalized as part of the cost of property, equipment and software.

10. 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, 2018, the Company decreased the liability for a Company-owned former operating site by $0.2 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, 2018 and June 30, 2018 were $15.9 million and $16.1 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.

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

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.

11. 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.

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, 2018	Fair Value Measurements Using Input Type
($ in millions)	Level 2
Assets:	
Derivative financial instruments	$ 11.2
Liabilities:	
Derivative financial instruments	$ 12.0

June 30, 2018	Fair Value Measurements Using Input Type
($ in millions)	Level 2

Assets:		
Marketable securities:		
Municipal auction rate securities	$	2.9
Derivative financial instruments	35.2	
Total assets	$	38.1
Liabilities:		
Derivative financial instruments	$	3.4

15

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 12.

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, 2018		June 30, 2018	
	Carrying Value	Fair Value	Carrying Value	Fair Value
Long-term debt	$545.5	$550.8	$545.7	$558.3
Company-owned life insurance	$17.0	$17.0	$16.4	$16.4

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.

The fair values of long-term debt as of September 30, 2018 and June 30, 2018 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.

12. 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, 2018, the Company had forward contracts to purchase 22.0 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, 2018 and 2017, 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 asset 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, 2018 and June 30, 2018, 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, 2018 and June 30, 2018, the total notional amount of floating interest rate contracts was $150.0 million for both periods. For the three months ended September 30, 2018 and 2017, net losses of $0.3 million were recorded as an increase to interest expense and net gains of $0.2 million were recorded as a reduction to interest expense, respectively.

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

The fair value and location of outstanding derivative contracts recorded in the accompanying consolidated balance sheets were as follows as of September 30, 2018 and June 30, 2018:

September 30, 2018 ($ in millions)	Interest Rate Swaps	Foreign Currency Contracts	Commodity Contracts	Total Derivatives
Asset Derivatives:				
Derivatives designated as hedging instruments:				
Other current assets	$ —	$ 0.7	$ 2.6	$ 3.3
Other assets	—	—	7.9	7.9
Total asset derivatives	$ —	$ 0.7	$ 10.5	$ 11.2
Liability Derivatives:				
Derivatives designated as hedging instruments:				
Accrued liabilities	$ 0.2	$ 0.1	$ 3.8	$ 4.1
Other liabilities	3.2	—	4.7	7.9
Total liability derivatives	$ 3.4	$ 0.1	$ 8.5	$ 12.0

June 30, 2018 ($ in millions)	Interest Rate Swaps	Foreign Currency Contracts	Commodity Contracts	Total Derivatives
Asset Derivatives:				
Derivatives designated as hedging instruments:				
Other current assets	$ 0.1	$ 0.4	$ 15.3	$ 15.8
Other assets	—	—	19.4	19.4
Total asset derivatives	$ 0.1	$ 0.4	$ 34.7	$ 35.2
Liability Derivatives:				
Derivatives designated as hedging instruments:				
Accrued liabilities	$ —	$ 0.1	$ —	$ 0.1
Other liabilities	2.9	—	0.4	3.3
Total liability derivatives	$ 2.9	$ 0.1	$ 0.4	$ 3.4

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 $19.6 million and total liability derivatives would have been $20.4 million as of September 30, 2018.

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, 2018 and June 30, 2018, 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.

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

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 (losses) gains related to cash flow hedges recognized during the three months ended September 30, 2018 and 2017:

($ in millions)	Amount of (Loss) Gain Recognized in AOCI on Derivatives Three Months Ended September 30, 2018	2017
Derivatives in Cash Flow Hedging Relationship:		
Commodity contracts	$ (33.6)	$ 9.6
Foreign exchange contracts	0.2	(0.4)
Total	$ (33.4)	$ 9.2

($ in millions)	Location of (Loss) Gain Reclassified from AOCI into Income	Amount of (Loss) Gain Reclassified from AOCI into Income Three Months Ended September 30, 2018	2017
Derivatives in Cash Flow Hedging Relationship:			
Commodity contracts	Cost of sales	$ (2.0)	$ (2.6)
Foreign exchange contracts	Net sales	0.2	(0.4)
Forward interest rate swaps	Interest expense	0.1	0.1
Total		$ (1.7)	$ (2.9)

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

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, 2018 and 2017:

($ in millions)	Three Months Ended September 30, 2018			Three Months Ended September 30, 2017		
	Net Sales	Cost of Sales	Interest Expense	Net Sales	Cost of Sales	Interest Expense
Total amounts presented in the consolidated statements of income in which the effects of cash flow and fair value hedges are recorded	$572.4	$480.7	$ 6.3	$479.8	$394.1	$ 7.2
Gain (loss) on Derivatives in Cash Flow Hedging Relationship:						
Commodity contracts						
Amount of loss reclassified from AOCI to income	$—	$(2.0)	$ —	$—	$(2.6)	$ —
Foreign currency forward contracts						
Amount of gain (loss) reclassified from AOCI to income	0.2	—	—	(0.4)	—	—
Interest rate swap agreements						
Amount of gain reclassified from AOCI to income	—	—	0.1	—	—	0.1
Gain (loss) on Derivatives in Fair Value Hedging Relationship:						
Interest rate swap agreements						
Hedged Item	—	—	0.3	—	—	(0.2)
Derivatives designated as hedging instruments	—	—	(0.3)	—	—	0.2
Total gain (loss)	$0.2	$(2.0)	$ 0.1	$(0.4)	$(2.6)	$ 0.1

The Company estimates that $0.6 million of net derivative gains included in AOCI as of September 30, 2018 will be reclassified into income within the next 12 months. No significant cash flow hedges were discontinued during the three months ended September 30, 2018.

As of September 30, 2018, and June 30, 2018, 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 (gain) loss in the carrying amount of the hedged liabilities	
	September 30, 2018	June 30, 2018	September 30, 2018	June 30, 2018
Line item in the consolidated balance sheets in which the hedged item is included:				
Long-Term Debt	$146.8	$147.1	$(3.2)	$(2.9)

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

13. Other Income, Net

Other income, net consisted of the following:

	Three Months Ended September 30,	
($ in millions)	2018	2017
Unrealized gains on company-owned life insurance contracts and investments held in rabbi trusts	$1.0	$0.6
Foreign exchange gain	0.5	0.1
Interest income	0.1	—
Pension earnings, interest and deferrals	—	(0.5)
Total other income, net	$1.6	$0.2

14. 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 expense for the three months ended September 30, 2018 was $8.8 million, or 21.8 percent of pre-tax income as compared with $11.8 million, or 33.5 percent of pre-tax income for the three months ended September 30, 2017.

An Act to Provide for Reconciliation Pursuant to Titles II and V of the Concurrent Resolution on the Budget for Fiscal Year 2018 (the “Act”) was enacted on December 22, 2017. The Act included provisions that reduced the federal corporate income tax rate, created a territorial tax system with a one-time mandatory tax on previously deferred foreign earnings (i.e. transition tax), and changed certain business deductions including allowing for immediate expensing of certain qualified capital expenditures and limitations on deductions of interest expense. The permanent reduction to the U.S. federal corporate income tax rate from 35 percent to 21 percent was effective January 1, 2018. Based on the Company's interpretation of the Act, during fiscal year 2018, the Company recorded a provisional tax charge of $5.0 million for the transition tax and a provisional tax benefit of $74.6 million for the re-measurement of deferred tax assets and liabilities.

The Company determined that the amounts recorded during fiscal year 2018 for the transition tax are provisional because various components of the computation are not yet finalized as of September 30, 2018, including the following significant items: the actual aggregate foreign cash position and the earnings and profits of the foreign entities as of June 30, 2018, the interpretation and identification of cash positions as of June 30, 2018, and computations of accumulated earnings and profits balances as of November 2, 2017 and December 31, 2017. Under

the Act, the transition tax will be paid over an eight-year period beginning in fiscal year 2019.

The Company also determined that the re-measurement of deferred tax assets and liabilities at the lower federal corporate income tax rate is provisional until such time that the underlying temporary differences are known rather than estimated.

Future adjustments to the provisional amounts related to the Act will be recorded as discrete adjustments to income tax expense in the period in which those adjustments are determined.

Prior to the Act, undistributed earnings of foreign subsidiaries, totaling $93.8 million, were considered permanently reinvested. The Company is in the process of evaluating its assertion for indefinite reinvestment.

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

The Act also established new tax provisions that become effective in fiscal year 2019, including but not limited to eliminating the corporate alternative minimum tax, creating the base erosion anti-abuse tax ("BEAT"), establishing new limitations on deductible interest expense and certain executive compensation, creating a new provision designed to tax global intangible low-tax income ("GILTI") and generally eliminating U.S. Federal income taxes on dividends from foreign subsidiaries. The Company does not anticipate being subject to the BEAT provision due to the revenue thresholds. An accounting policy election must be made to either treat taxes due on future GILTI inclusions in U.S. taxable income as a current period expense when incurred or reflect such portion of the future GILTI inclusions in U.S. taxable income that relate to existing basis differences in the Company's current measurement of deferred taxes. The Company has treated the GILTI inclusion in U.S. taxable income as a current period expense in its annual effective tax rate for fiscal year 2019 but continues to analyze the new GILTI rules and its impacts before finalizing its policy election.

15. 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 being managed in an integrated manner to optimize efficiency and profitability across the total system.

The PEP segment is comprised of the Company's differentiated operations. This segment includes the Dynamet titanium business, the Carpenter Powder Products business, the Amega West business, the CalRAM business, and the Latrobe and Mexico distribution businesses. 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 includes executive and director compensation and other corporate facilities and administrative expenses not allocated to the segments.

On a consolidated basis, one customer, Arconic, Inc., accounted for approximately 10 percent and 11 percent of net sales for the three months ended September 30, 2018 and 2017, respectively. No single customer accounted for 10 percent or more of the accounts receivable outstanding at September 30, 2018 or June 30, 2018.

	Three Months Ended September 30,	
($ in millions)	2018	2017
Net Sales:		
Specialty Alloys Operations	$475.5	$396.8
Performance Engineered Products	111.7	100.7
Intersegment	(14.8)	(17.7)
Consolidated net sales	$572.4	$479.8

Three Months
Ended

	September 30,	
($ in millions)	2018	2017
Operating Income:		
Specialty Alloys Operations	$52.8	$50.5
Performance Engineered Products	7.3	5.3
Corporate	(15.8)	(12.9)
Intersegment	0.7	(0.7)
Consolidated operating income	$45.0	$42.2

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

($ in millions)	Three Months Ended September 30, 2018	Three Months Ended September 30, 2017
Depreciation and Amortization:		
Specialty Alloys Operations	$23.7	$23.1
Performance Engineered Products	5.0	5.0
Corporate	1.2	0.9
Intersegment	(0.2)	(0.3)
Consolidated depreciation and amortization	$29.7	$28.7

($ in millions)	Three Months Ended September 30, 2018	Three Months Ended September 30, 2017
Capital Expenditures:		
Specialty Alloys Operations	$20.6	$17.2
Performance Engineered Products	13.6	4.9
Corporate	7.7	7.1
Intersegment	(0.3)	(0.3)
Consolidated capital expenditures	$41.6	$28.9

($ in millions)	September 30, 2018	June 30, 2018
Total Assets:		
Specialty Alloys Operations	$ 2,319.0	$2,312.1
Performance Engineered Products	540.4	513.6
Corporate	158.5	193.2
Intersegment	(10.2)	(11.9)
Consolidated total assets	$ 3,007.7	$3,007.0

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

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

The changes in AOCI by component, net of tax, for the three months ended September 30, 2018 and 2017 were as follows:

Three Months Ended September 30, 2018 ($ in millions) (a)	Cash flow hedging items	Pension and other postretirement benefit plan items	Unrealized (losses) gains on available-for-sale securities	Foreign currency items	Total
Balance at June 30, 2018	$ 23.8	$ (220.4)	$ (0.3)	$ (42.9)	$ (239.8)
Cumulative adjustment upon adoption of ASU 2017-12 reclassified to reinvested earnings	(1.0)	—	—	—	(1.0)
Other comprehensive (loss) income before reclassifications	(24.3)	—	0.3	0.7	(23.3)
Amounts reclassified from AOCI (b)	1.3	1.7	—	—	3.0
Net other comprehensive (loss) income	(24.0)	1.7	0.3	0.7	(21.3)
Balance at September 30, 2018	$ (0.2)	$ (218.7)	$ —	$ (42.2)	$ (261.1)

Three Months Ended September 30, 2017 ($ in millions) (a)	Cash flow hedging items	Pension and other postretirement benefit plan items	Unrealized losses on available-for-sale securities	Foreign currency items	Total
Balance at June 30, 2017	$ (2.3)	$ (299.0)	$ (0.3)	$ (41.5)	$ (343.1)
Other comprehensive income before reclassifications	6.3	—	—	1.8	8.1
Amounts reclassified from AOCI (b)	1.8	2.1	—	—	3.9
Net other comprehensive income	8.1	2.1	—	1.8	12.0
Balance at September 30, 2017	$ 5.8	$ (296.9)	$ (0.3)	$ (39.7)	$ (331.1)

(a) All amounts are net of tax. Amounts in parentheses indicate debits.
(b) See separate table below for further details.

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

The following is a summary of amounts reclassified from AOCI for the three months ended September 30, 2018 and 2017:

Details about AOCI Components	Location of (loss) gain	Amount Reclassified from AOCI Three Months Ended September 30,	
($ in millions) (a)		2018	2017
Cash flow hedging items:			
Commodity contracts	Cost of sales	$(2.0)	$(2.6)
Foreign exchange contracts	Net sales	0.2	(0.4)
Forward interest rate swaps	Interest expense	0.1	0.1
Total before tax		(1.7)	(2.9)
Tax benefit		0.4	1.1
Net of tax		$(1.3)	$(1.8)

Details about AOCI Components	Location of (loss) gain	Amount Reclassified from AOCI Three Months Ended September 30,	
($ in millions) (a)		2018	2017
Amortization of pension and other postretirement benefit plan items:			
Net actuarial loss	(b)	$(3.0)	$(4.1)
Prior service benefit	(b)	0.8	0.8
Total before tax		(2.2)	(3.3)
Tax benefit		0.5	1.2
Net of tax		$(1.7)	$(2.1)

(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 8. Pension and Other Postretirement Benefits for additional details).

17. Subsequent Event

On October 22, 2018, the Company acquired LPW Technology Ltd. ("LPW") for a cash purchase price of approximately $81.0 million. LPW is a leader in the development and supply of advanced metal powders and powder lifecycle management solutions to the additive manufacturing industry. LPW is based in Widnes, Cheshire, United Kingdom with additional processing operations near Pittsburgh, Pennsylvania.

Table of Contents

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

Background and General

We are engaged in the manufacturing, fabrication and distribution of specialty metals. 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. We also manufacture and rent down-hole drilling tools and components used in the oil and gas industry.

As part of our overall business strategy, we have sought out and considered opportunities related to strategic acquisitions, divestitures and joint collaborations aimed at broadening our offerings 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 2018 Form 10-K. Our discussions here focus on our results during or as of the three-month period ended September 30, 2018 and the comparable period of fiscal year 2018, and to the extent applicable, on material changes from information discussed in the 2018 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 2018 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.

Table of Contents

Approximately 30 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 income (loss) 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 2019 will be $11.4 million as compared with $14.0 million in fiscal year 2018. The following is the pension expense for the three months ended September 30, 2018 and 2017:

	Three Months Ended September 30,	
($ in millions)	2018	2017
Pension plans	$2.4	$2.8
Other postretirement plans	0.5	0.8
Net periodic benefit costs	$2.9	$3.6

27

Table of Contents

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 income, net. The following is a summary of the classification of net pension expense for the three months ended September 30, 2018 and 2017:

	Three Months Ended September 30,	
($ in millions)	2018	2017
Cost of sales:		
Service cost	$2.5	$2.7
Selling, general and administrative expenses:		
Service cost	0.4	0.4
Other Income, net:		
Pension earnings, interest and deferrals	—	0.5
Net pension expense	$2.9	$3.6

As of September 30, 2018 and June 30, 2018, amounts related to the net pension expense capitalized in gross inventory were $1.6 million and $1.7 million, respectively.

Operating Performance Overview

Our first quarter results reflect further execution of our commercial strategy and success in capitalizing on strong market conditions partially offset by our annual preventative maintenance shutdowns. While this created a near-term headwind, our solutions-focused approach continues to generate significant customer response as our backlog increased 38% compared to the first quarter a year ago.

Demand patterns are strong and all five of our end-use markets delivered year-over-year revenue growth. In the Aerospace and Defense end-use market, engine activity remains near record levels and we are also generating healthy customer demand in other sub-markets. We also continue to experience strong demand for our titanium solutions in the Medical end-use market as we further implement our solutions-focused strategy and broaden our relationships with key customers.

Results of Operations — Three Months Ended September 30, 2018 vs. Three Months Ended September 30, 2017

For the three months ended September 30, 2018, we reported net income of $31.5 million, or $0.65 per diluted share. This compares with net income for the same period a year earlier of $23.4 million, or $0.49 per diluted share. The current period results primarily reflect stronger end-use market conditions compared to the prior year period as well as the further execution of our solutions-focused commercial approach and the positive impact of the reduced corporate tax rate.

Net Sales

Net sales for the three months ended September 30, 2018 were $572.4 million, which was a 19 percent increase over the same period a year ago. Excluding surcharge revenue, sales increased 11 percent on a 4 percent increase in shipment volume from the same period a year ago. The results primarily reflect the impact of stronger product demand and improved product mix across most end-use markets.

Geographically, sales outside the United States increased 18 percent from the same period a year ago to $188.4 million for the three months ended September 30, 2018. The increase is primarily due to stronger product demand in the Aerospace and Defense end-use market in Asia Pacific and Mexico. A portion of our sales outside the United States are denominated in foreign currencies. The impact of fluctuations in foreign currency exchange rates resulted in a $0.7 million decrease in sales during the three months ended September 30, 2018 compared to the three months ended September 30, 2017. Net sales outside the United States represented 33 percent of total net sales for both the three months ended September 30, 2018 and 2017.

Table of Contents

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, 2018	2017	$ Increase	% Increase
Aerospace and Defense	$310.7	$258.6	$ 52.1	20 %
Energy	44.3	32.0	12.3	38 %
Transportation	40.3	36.7	3.6	10 %
Medical	47.0	38.3	8.7	23 %
Industrial and Consumer	96.1	84.4	11.7	14 %
Distribution	34.0	29.8	4.2	14 %
Total net sales	$572.4	$479.8	$ 92.6	19 %

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, 2018	2017	$ Increase	% Increase
Aerospace and Defense	$239.6	$215.6	$ 24.0	11 %
Energy	37.5	28.8	8.7	30 %
Transportation	31.4	30.6	0.8	3 %
Medical	39.5	33.4	6.1	18 %
Industrial and Consumer	74.6	71.7	2.9	4 %
Distribution	33.7	29.7	4.0	13 %
Total net sales excluding surcharge	$456.3	$409.8	$ 46.5	11 %

Sales to the Aerospace and Defense end-use market increased 20 percent from the first quarter a year ago to $310.7 million. Excluding surcharge revenue, sales increased 11 percent from the first quarter a year ago on a 5 percent increase in shipment volume. The results primarily reflect stronger demand for material used in aerospace engine and defense related applications driven by specific programs.

Sales to the Energy end-use market of $44.3 million reflect a 38 percent increase from the first quarter a year ago. Excluding surcharge revenue, sales increased 30 percent from a year ago. The results were driven by an increase in oil and gas directional drilling through our Amega West business.

Transportation end-use market sales increased 10 percent from the first quarter a year ago to $40.3 million. Excluding surcharge revenue, sales increased 3 percent on 3 percent lower shipment volume from the first quarter a year ago. The results reflect a stronger mix of heavy-duty truck applications partially offset by softer demand for light duty vehicle applications.

Medical end-use market sales increased 23 percent from the first quarter a year ago to $47.0 million. Excluding surcharge revenue, sales increased 18 percent on 21 percent higher shipment volume from the first quarter a year ago. The results reflect strong demand for titanium solutions across all sub-markets.

Industrial and Consumer end-use market sales increased 14 percent from the first quarter a year ago to $96.1 million. Excluding surcharge revenue, sales increased 4 percent on flat shipment volume. The results reflect the impact of stronger product mix for materials used in industrial applications and improving demand for sporting good applications.

Table of Contents

Gross Profit

Our gross profit in the first quarter increased 7 percent to $91.7 million, or 16.0 percent of net sales as compared with $85.7 million, or 17.9 percent of net sales in the same quarter a year ago. Excluding the impact of surcharge revenue, our gross margin in the first quarter was 20.1 percent as compared to 20.9 percent in the same period a year ago. The current period results were driven by higher net sales.

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.

	Three Months Ended September 30,	
($ in millions)	2018	2017
Net sales	$572.4	$479.8
Less: surcharge revenue	116.1	70.0
Net sales excluding surcharge revenue	$456.3	$409.8
Gross profit	$91.7	$85.7
Gross margin	16.0 %	17.9 %
Gross margin excluding surcharge revenue	20.1 %	20.9 %

Selling, General and Administrative Expenses

Selling, general and administrative expenses of $46.7 million were 8.2 percent of net sales (10.2 percent of net sales excluding surcharge) as compared with $43.5 million and 9.1 percent of net sales (10.6 percent of net sales excluding surcharge) in the same quarter a year ago. The increase in selling, general and administrative expenses was due to higher spending in key growth areas.

Operating Income

Our operating income in the recent first quarter was $45.0 million or 7.9 percent of net sales as compared with $42.2 million or 8.8 percent of net sales in the same quarter a year ago. Excluding surcharge revenue, operating margin was 9.9 percent for the most recent quarter as compared with 10.3 percent a year ago. The results for the first quarter of fiscal year 2019 primarily reflect stronger end-use market conditions compared to the prior year period as well as the further execution of our solutions-focused commercial approach.

The following presents our operating income and operating margin, in each case excluding the impact of surcharge revenue on net sales. 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.

Table of Contents

($ in millions)	Three Months Ended September 30, 2018	2017
Net sales	$572.4	$479.8
Less: surcharge revenue	116.1	70.0
Net sales excluding surcharge revenue	$456.3	$409.8
Operating income	$45.0	$42.2
Operating margin	7.9 %	8.8 %
Operating margin excluding surcharge revenue	9.9 %	10.3 %

Interest Expense

Interest expense for the three months ended September 30, 2018 was $6.3 million compared with $7.2 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 for the three months ended September 30, 2018 includes net losses from interest rate swaps of $0.3 million compared with $0.2 million of net gains from interest rate swaps for the three months ended September 30, 2017. Capitalized interest reduced interest expense by $0.9 million for the three months ended September 30, 2018 and $0.5 million for the three months ended September 30, 2017.

Other Income, Net

Other income, net for the three months ended September 30, 2018 was $1.6 million as compared with $0.2 million for the three months ended September 30, 2017.

Income Taxes

Income tax expense in the recent first quarter was $8.8 million, or 21.8 percent of pre-tax income compared with $11.8 million, or 33.5 percent of pre-tax income in the same quarter a year ago. The effective tax rate for the three months ended September 30, 2018 is lower than the prior year period due to the reduction in the federal statutory rate as a result of the Act as well as a discrete tax benefit for employee share-based compensation.

An Act to Provide for Reconciliation Pursuant to Titles II and V of the Concurrent Resolution on the Budget for Fiscal Year 2018 (the “Act”) was enacted on December 22, 2017. The Act included provisions that reduced the federal corporate income tax rate, created a territorial tax system with a one-time mandatory tax on previously deferred foreign earnings (i.e. transition tax), and changed certain business deductions including allowing for immediate expensing of certain qualified capital expenditures and limitations on deductions of interest expense. The permanent reduction to the U.S. federal corporate income tax rate from 35 percent to 21 percent was effective January 1, 2018. Based on our interpretation of the Act, reasonable estimates were made to record provisional adjustments during fiscal year 2018 for the transition tax and the re-measurement of deferred tax assets and liabilities. These estimates may change and the Company will continue to refine such amounts within the measurement period allowed.

The Act also established new tax provisions that become effective in fiscal year 2019, including but not limited to eliminating the corporate alternative minimum tax, creating the base erosion anti-abuse tax (“BEAT”), establishing new limitations on deductible interest expense and certain executive compensation, creating a new provision designed to tax global intangible low-tax income (“GILTI”) and generally eliminating U.S. Federal income taxes on dividends from

foreign subsidiaries. We do not anticipate being subject to the BEAT provision due to the revenue thresholds. An accounting policy election must be made to either treat taxes due on future GILTI inclusions in U.S. taxable income as a current period expense when incurred or reflect such portion of the future GILTI inclusions in U.S. taxable income that relate to existing basis differences in the Company's current measurement of deferred taxes. We have treated the GILTI inclusion in U.S. taxable income as a current period expense in our annual effective tax rate for fiscal year 2019 but continue to analyze the new GILTI rules and the related impacts before finalizing our policy election.

Table of Contents

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, 2018	2017	Increase (Decrease)	% Increase (Decrease)
Specialty Alloys Operations	62,714	61,190	1,524	2 %
Performance Engineered Products *	2,732	3,526	(794)	(23)%
Intersegment	170	(1,370)	1,540	112 %
Consolidated pounds sold	65,616	63,346	2,270	4 %

* Pounds sold data for PEP segment includes Dynamet and Carpenter Powder Products businesses only.

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

($ in millions)	Three Months Ended September 30, 2018	2017	$ Increase	% Increase
Specialty Alloys Operations	$475.5	$396.8	$ 78.7	20 %
Performance Engineered Products	111.7	100.7	11.0	11 %
Intersegment	(14.8)	(17.7)	2.9	16 %
Total net sales	$572.4	$479.8	$ 92.6	19 %

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

($ in millions)	Three Months Ended September 30, 2018	2017	$ Increase	% Increase
Specialty Alloys Operations	$361.5	$325.6	$ 35.9	11 %
Performance Engineered Products	108.0	100.5	7.5	7 %
Intersegment	(13.2)	(16.3)	3.1	19 %
Total net sales excluding surcharge revenue	$456.3	$409.8	$ 46.5	11 %

Specialty Alloys Operations Segment

Net sales for the quarter ended September 30, 2018 for the SAO segment increased 20 percent to $475.5 million, as compared with $396.8 million in the same quarter a year ago. Excluding surcharge revenue, net sales increased 11 percent on 2 percent higher shipment volume from a year ago. The results reflect the impact of stronger product demand primarily in the Aerospace and Defense and Medical end-use markets compared to the prior year same quarter.

Operating income for the SAO segment was $52.8 million or 11.1 percent of net sales (14.6 percent of net sales excluding surcharge revenue) in the recent first quarter, as compared with $50.5 million or 12.7 percent of net sales (15.5 percent of net sales excluding surcharge revenue) in the same quarter a year ago. The increase in operating income reflects the impact of higher volume and stronger product mix partially offset by the impact of our annual preventative maintenance and higher operating costs compared to the prior year same quarter.

Table of Contents

Performance Engineered Products Segment

Net sales for the quarter ended September 30, 2018 for the PEP segment increased 11 percent to $111.7 million, as compared with $100.7 million in the same quarter a year ago. Excluding surcharge revenue, net sales of $108.0 million increased 7 percent from a year ago. The results reflect an increase in sales primarily in the Energy and Medical end-use markets.

Operating income for the PEP segment was $7.3 million or 6.5 percent of net sales in the recent first quarter, compared with operating income of $5.3 million or 5.3 percent of net sales in the same quarter a year ago. The results reflect the ongoing improvements in our Amega West business partially offset by increased operating cost associated with the recovery from a fire at one of our Dynamet facilities in January 2018.

Liquidity and Financial Resources

During the three months ended September 30, 2018, we generated cash from operations of $9.4 million compared to cash used for operating activities of $7.4 million in the same period a year ago. Our free cash flow, which we define under “Non-GAAP Financial Measures” below, was negative $41.7 million as compared to negative $44.9 million for the same period a year ago. The improvement in cash provided from operating activities for the three months ended September 30, 2018 compared to the same period a year ago was primarily driven by higher income levels and improving working capital. The free cash flow results reflect higher capital spending levels in the current period as we increased our investment in target growth areas including additive manufacturing and soft magnetics compared to the prior year same period.

Capital expenditures for property, plant, equipment and software were $41.6 million for the three months ended September 30, 2018 as compared to $28.9 million for the same period a year ago. In fiscal year 2019, we expect capital expenditures to be approximately $190 million.

Dividends during the three months ended September 30, 2018 and 2017 were $9.6 million and $8.6 million, respectively, and were paid a quarterly rate of $0.20 and $0.18 per share of common stock in fiscal year 2019 and 2018, respectively.

We have demonstrated the ability to generate cash to meet our needs through cash flows from operations, management of working capital and the availability of outside sources of financing 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, 2018, we had $6 million of issued letters of credit. The balance of the Credit Agreement ($394 million) remains available to us. As of September 30, 2018, we had total liquidity of $411 million, including $17 million of cash and cash equivalents. From time to time during the three months ended September 30, 2018, we have borrowed under our Credit Agreement. The weighted average daily borrowing under the Credit Agreement during the three months ended September 30, 2018 was approximately $1.6 million with daily outstanding borrowings ranging from $0.0 million to $18.7 million during the period.

We believe that our cash and cash equivalents of $17 million as of September 30, 2018 and available borrowing capacity of $394 million under our credit facility will be sufficient to fund our cash needs over the foreseeable future.

During the three months ended September 30, 2018, we made pension contributions of $2.3 million to our qualified defined benefit pension plans. We currently expect to make approximately $3.2 million of additional contributions to our qualified defined benefit pension plans during the remainder of fiscal year 2019.

As of September 30, 2018, we had cash and cash equivalents of approximately $16 million held at various foreign subsidiaries. Our global cash deployment considers, among other things, the geographic location of our subsidiaries' cash balances, the locations of our anticipated liquidity needs, and the cost to access international cash balances, as necessary. The Act required a one-time tax on previously deferred foreign earnings and generally provides for tax-free repatriations of these earnings beginning January 1, 2018. During the three months ended September 30, 2018, we repatriated cash of approximately $5 million from foreign jurisdictions. 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.

Table of Contents

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, 2018). 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, 2018, 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, 2018:

Covenant	Covenant Requirement	Actual Ratio
Consolidated interest coverage	3.50 to 1.00 (minimum)	12.35 to 1.00
Consolidated debt to capital	55% (maximum)	26.8%

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.

Operating Margin Excluding Surcharge Revenue

This report includes discussions of operating margin as adjusted to exclude the impact of raw material surcharge revenue which represents a financial measure that has 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. 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 margin excluding surcharge to operating margin determined in accordance with U.S. GAAP. Operating 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, operating margin calculated in accordance with U.S. GAAP.

Table of Contents

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:

	Three Months Ended September 30,	
($ in millions)	2018	2017
Net cash provided from (used for) operating activities	$9.4	$(7.4)
Purchases of property, plant, equipment and software	(41.6)	(28.9)
Proceeds from disposals of property and equipment	0.1	—
Dividends paid	(9.6)	(8.6)
Free cash flow	$(41.7)	$(44.9)

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, 2018, the Company decreased the liability for a Company-owned former operating site by $0.2 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, 2018 and June 30, 2018 were $15.9 million and $16.1 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.

Table of Contents

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 2018 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.

Goodwill

Goodwill is not amortized but instead is tested at least annually 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 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, 2018, we had five reporting units with goodwill recorded. Goodwill associated with our SAO reporting unit is tested at the SAO segment level and represents approximately 73 percent of our total goodwill. All other goodwill is associated with our PEP segment, which includes four reporting units with goodwill recorded.

As of June 30, 2018, the fair value of the SAO reporting unit exceeded the carrying value by over 40 percent. The goodwill recorded related to the SAO reporting unit as of June 30, 2018 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 9.5

percent and a terminal growth rate assumption of 3 percent.

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.

Table of Contents

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's filings with the Securities and Exchange Commission, including its report on Form 10-K for the year ended June 30, 2018, and the exhibits attached to that filings. They include but are not limited to: (1) the cyclical nature of the specialty materials business and certain end-use markets, including aerospace, defense, industrial, transportation, consumer, medical, and energy, or other influences on Carpenter'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 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'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, including LPW Technology Ltd.; (11) the availability of credit facilities to Carpenter, 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'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; and (15) fluctuations in oil and gas prices and production. Any of these factors could have an adverse and/or fluctuating effect on Carpenter'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 undertakes no obligation to update or revise any forward-looking statements.

Table of Contents

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 12 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.

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, 2018 is provided in Note 12 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, 2018, (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.

Table of Contents

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 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, 2018. Based on that evaluation, our management, including the President and Chief Executive Officer and Vice President and Chief Financial Officer, concluded that the Company's disclosure controls and procedures as of September 30, 2018 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 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, 2018 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 2018 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, 2018, however employees surrendered 57,213 shares to the Company, at an average purchase price of $57.85, 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.

Table of Contents

Item 6. Exhibits

Exhibit No.	Description
10 (A)	Offer Letter, dated August 6, 2018, by and between Carpenter Technology Corporation and Timothy Lain (Exhibit 10.1 to our Current Report on Form 8-K filed on August 8, 2018 and incorporated herein by reference).
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 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 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, 2018, formatted in XBRL (Extensible Business Reporting Language) and filed electronically herewith: (i) the Consolidated Balance Sheets; (ii) the Consolidated Statements of Income; (iii) the Consolidated Statements of Comprehensive 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.

Table of Contents

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 24, 2018	/s/ Timothy Lain Timothy Lain Vice President and Chief Financial Officer (Principal Financial Officer)

41