

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C.

FORM 10-Q

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

For the quarterly period ended September 30, 2017

Commission file number 1-6770



MUELLER INDUSTRIES, INC.
(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation or organization)

25-0790410
(I.R.S. Employer
Identification No.)

8285 Tournament Drive, Suite 150
Memphis, Tennessee
(Address of principal executive offices)

38125
(Zip Code)

(901) 753-3200
(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 No

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 No

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

Large accelerated filer
Non-accelerated filer

Accelerated filer
Smaller reporting company
Emerging growth company

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

Indicate by check mark whether the Registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes No

The number of shares of the Registrant's common stock outstanding as of October 20, 2017 was 57,805,254.

MUELLER INDUSTRIES, INC.

FORM 10-Q

For the Quarterly Period Ended September 30, 2017

As used in this report, the terms "Company," "Mueller," and "Registrant" mean Mueller Industries, Inc. and its consolidated subsidiaries taken as a whole, unless the context indicates otherwise.

INDEX

	Page Number
Part I. Financial Information	
Item 1. — Financial Statements (Unaudited)	
a.) Condensed Consolidated Statements of Income	3
b.) Condensed Consolidated Statements of Comprehensive Income	4
c.) Condensed Consolidated Balance Sheets	5
d.) Condensed Consolidated Statements of Cash Flows	6
e.) Notes to Condensed Consolidated Financial Statements	7
Item 2. — Management's Discussion and Analysis of Financial Condition and Results of Operations	21
Item 3. — Quantitative and Qualitative Disclosures About Market Risk	30
Item 4. — Controls and Procedures	32
Part II. Other Information	
Item 1. — Legal Proceedings	32
Item 1A — Risk Factors	32
Item 2. — Unregistered Sales of Equity Securities and Use of Proceeds	33
Item 6. — Exhibits	34
Signatures	35

PART I. FINANCIAL INFORMATION

Item 1. Financial Statements

MUELLER INDUSTRIES, INC.
CONDENSED CONSOLIDATED STATEMENTS OF INCOME
(Unaudited)

	For the Quarter Ended		For the Nine Months Ended	
	September 30, 2017	October 1, 2016	September 30, 2017	October 1, 2016
<i>(In thousands, except per share data)</i>				
Net sales	\$ 550,363	\$ 506,584	\$ 1,742,549	\$ 1,583,464
Cost of goods sold	471,262	424,668	1,484,000	1,327,370
Depreciation and amortization	8,266	9,016	25,216	26,997
Selling, general, and administrative expense	33,276	32,413	102,953	102,707
Asset impairments	—	3,000	411	3,000
Operating income	37,559	37,487	129,969	123,390
Interest expense	(5,237)	(1,830)	(14,210)	(5,370)
Other (expense) income, net	(458)	120	324	880
Income before income taxes	31,864	35,777	116,083	118,900
Income tax expense	(8,716)	(10,837)	(33,295)	(38,963)
(Loss) income from unconsolidated affiliates, net of tax	(394)	1,122	(1,746)	3,049
Consolidated net income	22,754	26,062	81,042	82,986
Net income attributable to noncontrolling interests	(496)	(84)	(1,164)	(581)
Net income attributable to Mueller Industries, Inc.	\$ 22,258	\$ 25,978	\$ 79,878	\$ 82,405
Weighted average shares for basic earnings per share	56,987	56,631	56,891	56,536
Effect of dilutive stock-based awards	456	586	542	589
Adjusted weighted average shares for diluted earnings per share	57,443	57,217	57,433	57,125
Basic earnings per share	\$ 0.39	\$ 0.46	\$ 1.40	\$ 1.46
Diluted earnings per share	\$ 0.39	\$ 0.45	\$ 1.39	\$ 1.44
Dividends per share	\$ 0.100	\$ 0.100	\$ 8.300	\$ 0.275

See accompanying notes to condensed consolidated financial statements.

MUELLER INDUSTRIES, INC.
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(Unaudited)

<i>(In thousands)</i>	For the Quarter Ended		For the Nine Months Ended	
	September 30, 2017	October 1, 2016	September 30, 2017	October 1, 2016
Consolidated net income	\$ 22,754	\$ 26,062	\$ 81,042	\$ 82,986
Other comprehensive income (loss), net of tax:				
Foreign currency translation	7,154	(4,304)	15,270	(15,601)
Net change with respect to derivative instruments and hedging activities, net of tax of \$23, \$(119), \$(162), \$(606)	(132)	(139)	185	1,155
Net change in pension and postretirement obligation adjustments, net of tax of \$102, \$(255), \$285, \$(1,175)	(207)	743	(572)	3,445
Attributable to unconsolidated affiliates, net of tax of \$415, \$(2,888), \$614, \$(3,700)	(735)	5,112	(1,086)	6,550
Other, net	—	54	(380)	77
Total other comprehensive income (loss), net	6,080	1,466	13,417	(4,374)
Consolidated comprehensive income	28,834	27,528	94,459	78,612
Comprehensive (income) loss attributable to noncontrolling interests	(499)	(480)	(2,002)	382
Comprehensive income attributable to Mueller Industries, Inc.	\$ 28,335	\$ 27,048	\$ 92,457	\$ 78,994

See accompanying notes to condensed consolidated financial statements.

MUELLER INDUSTRIES, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(Unaudited)

<i>(In thousands, except share data)</i>	September 30, 2017	December 31, 2016
Assets		
Current assets:		
Cash and cash equivalents	\$ 106,344	\$ 351,317
Accounts receivable, less allowance for doubtful accounts of \$854 in 2017 and \$637 in 2016	276,678	256,291
Inventories	284,114	242,013
Other current assets	25,692	44,702
Total current assets	692,828	894,323
Property, plant, and equipment, net	283,845	295,231
Goodwill, net	139,445	123,993
Intangible assets, net	36,943	36,168
Investment in unconsolidated affiliates	73,664	77,110
Other assets	22,499	20,651
Total assets	\$ 1,249,224	\$ 1,447,476
Liabilities		
Current liabilities:		
Current portion of debt	\$ 14,450	\$ 13,655
Accounts payable	125,032	103,175
Accrued wages and other employee costs	34,096	35,121
Other current liabilities	71,581	67,041
Total current liabilities	245,159	218,992
Long-term debt, less current portion	388,818	213,709
Pension liabilities	14,947	14,890
Postretirement benefits other than pensions	16,930	16,383
Environmental reserves	21,365	21,208
Deferred income taxes	19,963	19,573
Other noncurrent liabilities	12,005	6,284
Total liabilities	719,187	511,039
Equity		
Mueller Industries, Inc. stockholders' equity:		
Preferred stock - \$1.00 par value; shares authorized 5,000,000; none outstanding	—	—
Common stock - \$.01 par value; shares authorized 100,000,000; issued 80,183,004; outstanding 57,804,707 in 2017 and 57,395,209 in 2016	802	802
Additional paid-in capital	272,667	273,345
Retained earnings	743,560	1,141,831
Accumulated other comprehensive loss	(54,377)	(66,956)
Treasury common stock, at cost	(445,749)	(450,338)
Total Mueller Industries, Inc. stockholders' equity	516,903	898,684
Noncontrolling interests	13,134	37,753
Total equity	530,037	936,437
Commitments and contingencies	—	—
Total liabilities and equity	\$ 1,249,224	\$ 1,447,476

See accompanying notes to condensed consolidated financial statements.

MUELLER INDUSTRIES, INC.
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)

	For the Nine Months Ended	
	September 30, 2017	October 1, 2016
<i>(In thousands)</i>		
Cash flows from operating activities		
Consolidated net income	\$ 81,042	\$ 82,986
Reconciliation of consolidated net income to net cash provided by operating activities:		
Depreciation and amortization	25,439	27,267
Stock-based compensation expense	5,555	4,553
Loss (income) from unconsolidated affiliates	1,746	(3,049)
Gain on sale of business	(1,491)	—
Gain on disposals of properties	(26)	(747)
Gain on sales of securities	(611)	—
Impairment charges	411	3,000
Deferred income taxes	624	6,491
Changes in assets and liabilities, net of businesses acquired and sold:		
Receivables	(33,359)	(45,780)
Inventories	(40,920)	(914)
Other assets	(3,372)	14,428
Current liabilities	20,967	(15,998)
Other liabilities	(1,498)	(2,101)
Other, net	(973)	450
Net cash provided by operating activities	<u>53,534</u>	<u>70,586</u>
Cash flows from investing activities		
Capital expenditures	(17,297)	(15,632)
Acquisition of businesses, net of cash acquired	(18,396)	(20,533)
Proceeds from sale of business, net of cash sold	17,483	—
Net withdrawals from restricted cash balances	5,197	1,177
Investment in unconsolidated affiliates	(3,317)	—
Proceeds from sales of assets	11,732	5,301
Proceeds from sales of securities	1,787	—
Net cash used in investing activities	<u>(2,811)</u>	<u>(29,687)</u>
Cash flows from financing activities		
Dividends paid to stockholders of Mueller Industries, Inc.	(191,241)	(15,555)
Dividends paid to noncontrolling interests	(2,909)	(3,765)
Issuance of long-term debt	—	2,000
(Repayment) issuance of debt by consolidated joint ventures, net	(3,451)	5,006
Net cash used to settle stock-based awards	(1,644)	(1,356)
Repayments of long-term debt	(100,917)	(769)
Net cash used in financing activities	<u>(300,162)</u>	<u>(14,439)</u>
Effect of exchange rate changes on cash	4,466	(3,511)
(Decrease) increase in cash and cash equivalents	(244,973)	22,949
Cash and cash equivalents at the beginning of the period	351,317	274,844
Cash and cash equivalents at the end of the period	<u>\$ 106,344</u>	<u>\$ 297,793</u>

See accompanying notes to condensed consolidated financial statements. Refer to Note 2 for discussion of significant noncash financing activities.

MUELLER INDUSTRIES, INC.
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

General

Certain information and footnote disclosures normally included in annual financial statements prepared in accordance with accounting principles generally accepted in the United States (U.S. GAAP) have been condensed or omitted. Results of operations for the interim periods presented are not necessarily indicative of results which may be expected for any other interim period or for the year as a whole. This Quarterly Report on Form 10-Q should be read in conjunction with the Company's Annual Report on Form 10-K, including the annual financial statements incorporated therein.

The accompanying unaudited interim financial statements include all normal recurring adjustments which are, in the opinion of management, necessary for a fair presentation of the results for the interim periods presented herein. Thfirst nine months of 2017 contained 39 weeks, while the first nine months of 2016 contained 40 weeks.

Note 1 – Earnings per Common Share

Basic per share amounts have been computed based on the average number of common shares outstanding. Diluted per share amounts reflect the increase in average common shares outstanding that would result from the assumed exercise of outstanding stock options and vesting of restricted stock awards, computed using the treasury stock method. Approximately 52 thousand and 218 thousand stock-based awards were excluded from the computation of diluted earnings per share for the quarters ended September 30, 2017 and October 1, 2016, respectively, because they were antidilutive.

Note 2 – Special Dividend

On March 9, 2017, the Company distributed a special dividend of \$3.00 in cash and \$5.00 in principal amount of the Company's 6% Subordinated Debentures (Debentures) due March 1, 2027 for each share of common stock outstanding. Interest on the Debentures is payable semiannually on September 1 and March 1, commencing September 1, 2017. At issuance, the Debentures were recorded at their estimated fair value. The fair value of the Debentures was estimated based on quoted market prices for the same or similar issues, the current rates offered to the Company for debt of the same remaining maturities, or the use of market standard models. The carrying value of the Debentures approximates fair value at September 30, 2017.

The Debentures are subordinated to all other funded debt of the Company and are callable, in whole or in part, at any time at the option of the Company, subject to declining call premiums during the first five years. The Debentures also grant each holder the right to require the Company to repurchase such holder's Debentures in the event of a change in control at declining repurchase premiums during the first five years. The Debentures may be redeemed, subject to the conditions set forth above, at the following redemption price (expressed as a percentage of principal amount) plus any accrued but unpaid interest to, but excluding, the redemption date:

If redeemed during the 12-month period beginning March 9:

Year	Redemption Price
2017	106%
2018	105
2019	104
2020	103
2021	102
2022 and thereafter	100

The effect of the special dividend was a decrease in stockholders' equity of approximately \$158.7 million, an increase in long-term debt of approximately \$284.5 million, and a decrease in cash of approximately \$174.2 million.

Note 3 – Acquisitions and Dispositions**Acquisitions**

On May 31, 2017, the Company entered into a share purchase agreement pursuant to which the Company acquired all of the outstanding shares of Pexcor Manufacturing Company Inc. (Pexcor) and Heatlink Group Inc. (Heatlink) for approximately \$18.5 million, net of working capital adjustments. The total purchase price consisted of \$16.3 million in cash at closing and a contingent consideration arrangement which requires the Company to pay the former owners up to \$2.2 million based on EBITDA growth of the acquired companies. Pexcor and Heatlink, based out of Calgary, Canada, produce and sell a complete line of products for PEX plumbing and radiant systems. These businesses complement the Company's existing businesses within the Piping Systems segment.

The fair value of the assets acquired totaled \$10.4 million, consisting primarily of inventories of \$4.5 million, accounts receivable of \$2.8 million, property, plant, and equipment of \$2.0 million, other current assets of \$0.5 million, and other assets of \$0.6 million. The fair value of the liabilities assumed totaled \$4.3 million, consisting primarily of accounts payable of \$3.6 million, other current liabilities of \$0.4 million, and other liabilities of \$0.3 million. Of the remaining purchase price, \$12.4 million was allocated to non-deductible goodwill and intangible assets. The purchase price allocation is provisional as of September 30, 2017 and subject to change upon completion of the final valuation of the long-lived assets, working capital, and contingent consideration during the measurement period.

On April 26, 2016, the Company entered into an agreement pursuant to which the Company acquired a 60 percent equity interest in Jungwoo Metal Ind. Co., LTD (Jungwoo-Mueller) for approximately \$20.5 million in cash. Jungwoo-Mueller, which manufactures copper-based pipe joining products, is headquartered in Seoul, South Korea and serves markets worldwide. This business complements the Company's existing copper fittings business in the Piping Systems segment and is reported in the Company's Condensed Consolidated Financial Statements one month in arrears.

The fair value of the assets acquired totaled \$49.0 million, consisting primarily of property, plant, and equipment of \$24.2 million, inventories of \$17.6 million, accounts receivable of \$5.6 million, other current assets of \$1.4 million, and deferred tax assets of \$0.2 million. The fair value of the liabilities assumed totaled \$17.9 million, consisting primarily of long-term debt of \$8.7 million, accounts payable of \$7.3 million, pension liabilities of \$0.8 million, other current liabilities of \$0.5 million, and other liabilities of \$0.6 million. Of the remaining purchase price, \$1.0 million was allocated to non-deductible goodwill and intangible assets. The noncontrolling interest in Jungwoo-Mueller is \$11.6 million. The valuation of the business has been finalized. Changes to the purchase price allocation from the amounts presented in the Company's 2016 Annual Report on Form 10-K were immaterial.

Dispositions

On June 21, 2017, the Company entered into a definitive equity transfer agreement with Jiangsu Xingrong Hi-Tech Co. Ltd. and Jiangsu Baiyang Industries Co. Ltd. (Baiyang), together, the minority partners in Mueller-Xingrong (the Company's Chinese joint venture), pursuant to which the Company sold its 50.5 percent equity interest in Mueller-Xingrong to Baiyang for approximately \$18.3 million. Mueller-Xingrong manufactures engineered copper tube primarily for air-conditioning applications in China and was included in the Piping Systems segment. Mueller-Xingrong reported net sales of \$67.3 million and net losses of \$9 thousand in the first nine months of 2017 compared to net sales of \$69.6 million and net income of \$426 thousand in the first nine months of 2016. The carrying value of the assets disposed totaled \$36.7 million, consisting primarily of accounts receivable, inventories, and long-lived assets. The carrying value of the liabilities disposed (consisting primarily of current debt and accounts payable), noncontrolling interest, and amounts recognized in accumulated other comprehensive income (AOCI) totaled \$36.2 million. Since the disposal constituted a complete liquidation of the Company's investment in a foreign entity, the Company removed from AOCI and recognized a cumulative translation gain of \$3.8 million. As a result of the disposal, the Company recognized a net gain on the sale of this business of \$1.5 million as a reduction of selling, general, and administrative expense in the Condensed Consolidated Financial Statements.

Note 4 – Segment Information

Each of the Company's reportable segments is composed of certain operating segments that are aggregated primarily by the nature of products offered as follows:

Piping Systems

Piping Systems is composed of the following operating segments: Domestic Piping Systems Group, Great Lakes Copper, Pexcor & Heatlink, European Operations, Trading Group, and Jungwoo-Mueller (the Company's South Korean joint venture). The

[INDEX](#)

Domestic Piping Systems Group manufactures copper tube and fittings, plastic fittings, and line sets. These products are manufactured in the U.S., sold in the U.S., and exported to markets worldwide. Outside the U.S., Great Lakes Copper manufactures copper tube and line sets and sells the products primarily in the U.S. and Canada, Pexcor & Heatlink produce a complete line of products for PEX plumbing and radiant systems in Canada, and the European Operations manufacture copper tube in the U.K. which is sold primarily in Europe. The Trading Group manufactures pipe nipples and imports and resells brass and plastic plumbing valves, malleable iron fittings, faucets, and plumbing specialty products in the U.S. and Mexico. Jungwoo-Mueller manufactures copper-based joining products that are sold worldwide. The Piping Systems segment's products are sold primarily to plumbing, refrigeration, and air-conditioning wholesalers, hardware wholesalers and co-ops, building product retailers, and air-conditioning original equipment manufacturers (OEMs).

The Company disposed of Mueller-Xingrong (the Company's Chinese joint venture) on June 21, 2017. This business manufactured engineered copper tube primarily for air-conditioning applications in China.

Industrial Metals

Industrial Metals is composed of the following operating segments: Brass Rod & Copper Bar Products, Impacts & Micro Gauge, and Brass Value-Added Products. These businesses manufacture brass rod, impact extrusions, and forgings, as well as a wide variety of end products including plumbing brass, automotive components, valves, fittings, and gas assemblies. These products are manufactured in the U.S. and sold primarily to OEMs in the U.S., many of which are in the industrial, construction, heating, ventilation, and air-conditioning, plumbing, and refrigeration markets.

Climate

Climate is composed of the following operating segments: Refrigeration Products, Fabricated Tube Products, Westermeyer, and Turbotec. These domestic businesses manufacture and fabricate valves, assemblies, high pressure components, and coaxial heat exchangers primarily for the heating, ventilation, air-conditioning, and refrigeration markets in the U.S.

Summarized segment information is as follows:

<i>(In thousands)</i>	For the Quarter Ended September 30, 2017				
	Piping Systems	Industrial Metals	Climate	Corporate and Eliminations	Total
Net sales	\$ 384,078	\$ 147,578	\$ 32,488	\$ (13,781)	\$ 550,363
Cost of goods sold	340,191	120,021	24,111	(13,061)	471,262
Depreciation and amortization	5,290	1,845	636	495	8,266
Selling, general, and administrative expense	17,873	2,667	2,312	10,424	33,276
Operating income	20,724	23,045	5,429	(11,639)	37,559
Interest expense					(5,237)
Other (expense) income, net					(458)
Income before income taxes					\$ 31,864

Segment Information (continued):

(In thousands)	For the Quarter Ended October 1, 2016				
	Piping Systems	Industrial Metals	Climate	Corporate and Eliminations	Total
Net sales	\$ 351,557	\$ 131,350	\$ 30,003	\$ (6,326)	\$ 506,584
Cost of goods sold	301,867	107,512	22,210	(6,921)	424,668
Depreciation and amortization	5,905	1,964	612	535	9,016
Selling, general, and administrative expense	16,647	3,125	2,357	10,284	32,413
Asset impairments	3,000	—	—	—	3,000
Operating income	24,138	18,749	4,824	(10,224)	37,487
Interest expense					(1,830)
Other income, net					120
Income before income taxes					\$ 35,777

(In thousands)	For the Nine Months Ended September 30, 2017				
	Piping Systems	Industrial Metals	Climate	Corporate and Eliminations	Total
Net sales	\$ 1,205,697	\$ 451,919	\$ 103,403	\$ (18,470)	\$ 1,742,549
Cost of goods sold	1,049,098	377,036	77,124	(19,258)	1,484,000
Depreciation and amortization	16,223	5,647	1,880	1,466	25,216
Selling, general, and administrative expense	54,293	8,761	7,244	32,655	102,953
Asset impairments	411	—	—	—	411
Operating income	85,672	60,475	17,155	(33,333)	129,969
Interest expense					(14,210)
Other income, net					324
Income before income taxes					\$ 116,083

Segment Information (continued):

(In thousands)	For the Nine Months Ended October 1, 2016				
	Piping Systems	Industrial Metals	Climate	Corporate and Eliminations	Total
Net sales	\$ 1,109,109	\$ 393,608	\$ 92,068	\$ (11,321)	\$ 1,583,464
Cost of goods sold	949,015	321,615	68,363	(11,623)	1,327,370
Depreciation and amortization	17,341	6,219	1,829	1,608	26,997
Selling, general, and administrative expense	51,497	9,989	7,336	33,885	102,707
Asset impairments	3,000	—	—	—	3,000
Operating income	88,256	55,785	14,540	(35,191)	123,390
Interest expense					(5,370)
Other income, net					880
Income before income taxes					\$ 118,900

Note 5 – Inventories

(In thousands)	September 30, 2017	December 31, 2016
Raw materials and supplies	\$ 77,743	\$ 57,387
Work-in-process	47,651	42,227
Finished goods	165,090	149,288
Valuation reserves	(6,370)	(6,889)
Inventories	\$ 284,114	\$ 242,013

Note 6 – Derivative Instruments and Hedging Activities

The Company's earnings and cash flows are subject to fluctuations due to changes in commodity prices, foreign currency exchange rates, and interest rates. The Company uses derivative instruments such as commodity futures contracts, foreign currency forward contracts, and interest rate swaps to manage these exposures.

All derivatives are recognized in the Condensed Consolidated Balance Sheets at their fair value. On the date the derivative contract is entered into, it is either a) designated as a hedge of (i) a forecasted transaction or the variability of cash flow to be paid (cash flow hedge) or (ii) the fair value of a recognized asset or liability (fair value hedge), or b) not designated in a hedge accounting relationship, even though the derivative contract was executed to mitigate an economic exposure (economic hedge), as the Company does not enter into derivative contracts for trading purposes. Changes in the fair value of a derivative that is qualified, designated and highly effective as a cash flow hedge are recorded in stockholders' equity within AOCI, to the extent effective, until they are reclassified to earnings in the same period or periods during which the hedged transaction affects earnings. Changes in the fair value of a derivative that is qualified, designated and highly effective as a fair value hedge, along with the gain or loss on the hedged recognized asset or liability that is attributable to the hedged risk, are recorded in current earnings. Changes in the fair value of undesignated derivatives executed as economic hedges and the ineffective portion of designated derivatives are reported in current earnings.

The Company documents all relationships between derivative instruments and hedged items, as well as the risk-management objective and strategy for undertaking various hedge transactions. This process includes linking all derivative instruments that

are designated as fair value hedges to specific assets and liabilities in the Condensed Consolidated Balance Sheets and linking cash flow hedges to specific forecasted transactions or variability of cash flow.

The Company also assesses, both at the hedge's inception and on an ongoing basis, whether the designated derivative instruments that are used in hedging transactions are highly effective in offsetting changes in cash flows or fair values of hedged items. When a derivative instrument is determined not to be highly effective as a hedge or the underlying hedged transaction is no longer probable of occurring, hedge accounting is discontinued prospectively in accordance with the derecognition criteria for hedge accounting.

Commodity Futures Contracts

Copper and brass represent the largest component of the Company's variable costs of production. The cost of these materials is subject to global market fluctuations caused by factors beyond the Company's control. The Company occasionally enters into forward fixed-price arrangements with certain customers; the risk of these arrangements is generally managed with commodity futures contracts. These futures contracts have been designated as cash flow hedges.

At September 30, 2017, the Company held open futures contracts to purchase approximately \$11.8 million of copper over the next 15 months related to fixed price sales orders. The fair value of those futures contracts was a \$165 thousand net loss position, which was determined by obtaining quoted market prices (level 1 within the fair value hierarchy). In the next 12 months, the Company will reclassify into earnings realized gains or losses relating to cash flow hedges. At September 30, 2017, this amount was approximately \$133 thousand of deferred net losses, net of tax.

The Company may also enter into futures contracts to protect the value of inventory against market fluctuations. At September 30, 2017, the Company held open futures contracts to sell approximately \$57.7 million of copper over the next six months related to copper inventory. The fair value of those futures contracts was a \$726 thousand net loss position, which was determined by obtaining quoted market prices (level 1 within the fair value hierarchy).

Interest Rate Swap

On February 20, 2013, the Company entered into a two-year forward-starting interest rate swap agreement with an effective date of January 12, 2015, and an underlying notional amount of \$200.0 million, pursuant to which the Company receives variable interest payments based on one-month LIBOR and pays fixed interest at a rate of 1.4 percent. Based on the Company's current variable premium pricing on its revolving credit facility, the all-in fixed rate is 2.98 percent. The interest rate swap will mature on December 11, 2017, and is structured to offset the interest rate risk associated with the Company's floating-rate, LIBOR-based Credit Agreement. The swap was designated and accounted for as a cash flow hedge at inception. During the fourth quarter of 2016, the Company discontinued hedge accounting prospectively.

The fair value of the interest rate swap is estimated based on the present value of the difference between expected cash flows calculated at the contracted interest rate and the expected cash flows at the current market interest rate using observable benchmarks for LIBOR forward rates at the end of the period (level 2 within the fair value hierarchy). Interest payable and receivable under the swap agreement is accrued and recorded as an adjustment to interest expense. The fair value of the interest rate swap was a \$49 thousand loss position at September 30, 2017, and there was \$107 thousand of deferred losses, net of tax, included in AOCI that are expected to be reclassified into interest expense over the remaining term of the interest rate swap.

The Company presents its derivative assets and liabilities in the Condensed Consolidated Balance Sheets on a net basis by counterparty. The following table summarizes the location and fair value of the derivative instruments and disaggregates the net derivative assets and liabilities into gross components on a contract-by-contract basis:

(In thousands)	Asset Derivatives				Liability Derivatives			
	Balance Sheet Location	Fair Value		Balance Sheet Location	Fair Value			
		September 30, 2017	December 31, 2016		September 30, 2017	December 31, 2016		
Commodity contracts - gains	Other current assets	\$ 203	\$ 1,013	Other current liabilities	\$ 796	\$ 564		
Commodity contracts - losses	Other current assets	(120)	(148)	Other current liabilities	(1,770)	(920)		
Interest rate swap	Other current assets	—	—	Other current liabilities	(49)	(787)		
Total derivatives ⁽¹⁾		\$ 83	\$ 865		\$ (1,023)	\$ (1,143)		

⁽¹⁾ Does not include the impact of cash collateral provided to counterparties.

The following tables summarize the effects of derivative instruments on the Company's Condensed Consolidated Statements of Income:

(In thousands)	Location	For the Quarter Ended		For the Nine Months Ended	
		September 30, 2017	October 1, 2016	September 30, 2017	October 1, 2016
Fair value hedges:					
Gain (loss) on commodity contracts (qualifying)	Cost of goods sold	\$ —	\$ (37)	\$ —	\$ (420)
Gain on hedged item - inventory	Cost of goods sold	—	32	—	382
Undesignated derivatives:					
(Loss) gain on commodity contracts (nonqualifying)	Cost of goods sold	(3,083)	855	(3,506)	2,676

The following tables summarize amounts recognized in and reclassified from AOCI during the period:

(In thousands)	For the Quarter Ended September 30, 2017			
	(Loss) Gain Recognized in AOCI (Effective Portion), Net of Tax	Classification Gains (Losses)		Loss Reclassified from AOCI (Effective Portion), Net of Tax
Cash flow hedges:				
Commodity contracts	\$ (541)	Cost of goods sold		\$ 237
Interest rate swap	—	Interest expense		149
Other	23	Other		—
Total	\$ (518)	Total		\$ 386

Derivative Instruments and Hedging Activities (continued):

		For the Quarter Ended October 1, 2016	
<i>(In thousands)</i>		(Loss) Gain Recognized in AOCI (Effective Portion), Net of Tax	Loss Reclassified from AOCI (Effective Portion), Net of Tax
Cash flow hedges:		Classification Gains (Losses)	
Commodity contracts	\$	(1,434)	Cost of goods sold \$ 814
Interest rate swap		457	Interest expense 58
Other		(32)	Other —
Total	\$	(1,009)	Total \$ 872

		For the Nine Months Ended September 30, 2017	
<i>(In thousands)</i>		(Loss) Gain Recognized in AOCI (Effective Portion), Net of Tax	Loss Reclassified from AOCI (Effective Portion), Net of Tax
Cash flow hedges:		Classification Gains (Losses)	
Commodity contracts	\$	(1,354)	Cost of goods sold \$ 913
Interest rate swap		—	Interest expense 447
Other		179	Other —
Total	\$	(1,175)	Total \$ 1,360

		For the Nine Months Ended October 1, 2016	
<i>(In thousands)</i>		Gain (Loss) Recognized in AOCI (Effective Portion), Net of Tax	(Gain) Loss Reclassified from AOCI (Effective Portion), Net of Tax
Cash flow hedges:		Classification Gains (Losses)	
Commodity contracts	\$	1,903	Cost of goods sold \$ (477)
Interest rate swap		(128)	Interest expense 186
Other		(329)	Other —
Total	\$	1,446	Total \$ (291)

The Company enters into futures and forward contracts that closely match the terms of the underlying transactions. As a result, the ineffective portion of the open hedge contracts through September 30, 2017 was not material to the Condensed Consolidated Statements of Income.

The Company primarily enters into International Swaps and Derivatives Association master netting agreements with major financial institutions that permit the net settlement of amounts owed under their respective derivative contracts. Under these master netting agreements, net settlement generally permits the Company or the counterparty to determine the net amount payable for contracts due on the same date and in the same currency for similar types of derivative transactions. The master netting agreements generally also provide for net settlement of all outstanding contracts with a counterparty in the case of an event of default or a termination event. The Company does not offset fair value amounts for derivative instruments and fair value amounts recognized for the right to reclaim cash collateral. At September 30, 2017 and December 31, 2016, the Company had recorded restricted cash in other

current assets of \$3.0 million and \$1.4 million, respectively, as collateral related to open derivative contracts under the master netting arrangements.

Note 7 – Investment in Unconsolidated Affiliates

The Company owns a 50 percent interest in Tecumseh Products Holdings LLC (Joint Venture), an unconsolidated affiliate that acquired Tecumseh Products Company (Tecumseh) during the third quarter of 2015. The Company also owns a 50 percent interest in a second unconsolidated affiliate that provided financing to Tecumseh in conjunction with the acquisition. These investments are recorded using the equity method of accounting, as the Company can exercise significant influence but does not own a majority equity interest or otherwise control the respective entities. Under the equity method of accounting, these investments are stated at initial cost and are adjusted for subsequent additional investments and the Company's proportionate share of earnings or losses and distributions.

The Company records its proportionate share of the investees' net income or loss one quarter in arrears as income (loss) from unconsolidated affiliates, net of tax, in the Condensed Consolidated Statements of Income and its proportionate share of the investees' other comprehensive income (loss), net of income taxes, in the Condensed Consolidated Statements of Comprehensive Income. In general, the equity investment in unconsolidated affiliates is equal to the current equity investment plus the entities' undistributed earnings.

The following tables present summarized financial information derived from the Company's equity method investees' combined consolidated financial statements, which are prepared in accordance with U.S. GAAP.

Current assets
Noncurrent assets
Current liabilities
Noncurrent liabilities

<i>(In thousands)</i>	For the Quarter Ended		For the Nine Months Ended	
	September 30, 2017	October 1, 2016	September 30, 2017	October 1, 2016
Net sales	\$ 148,400	\$ 146,700	\$ 407,300	\$ 437,200
Gross profit	21,500	22,200	56,700	59,700
Net (loss) income	(788)	2,244	(3,492)	6,097

The Company's income from unconsolidated affiliates, net of tax, for the nine months ended October 1, 2016 included a gain of \$17.1 million that resulted from the allocation of the purchase price, which was partially offset by restructuring and impairment charges of \$5.3 million and net losses of \$5.7 million.

On December 30, 2015, the Company entered into a joint venture agreement with Cayan Ventures and Bahrain Mumtalakat Holding Company to build a copper tube mill in Bahrain. The business will operate and brand its products under the Mueller Industries family of brands. The Company has invested approximately \$3.9 million of cash to date and will be the technical and marketing lead in return for 40 percent ownership in the joint venture.

Note 8 – Benefit Plans

The Company sponsors several qualified and nonqualified pension plans and other postretirement benefit plans for certain of its employees. The components of net periodic benefit cost (income) are as follows:

<i>(In thousands)</i>	For the Quarter Ended		For the Nine Months Ended	
	September 30, 2017	October 1, 2016	September 30, 2017	October 1, 2016
Pension benefits:				
Service cost	\$ 35	\$ 180	\$ 106	\$ 540
Interest cost	1,659	1,973	4,977	5,917
Expected return on plan assets	(2,184)	(2,466)	(6,552)	(7,398)
Amortization of net loss	536	760	1,608	2,280
Net periodic benefit cost	\$ 46	\$ 447	\$ 139	\$ 1,339
Other benefits:				
Service cost	\$ 54	\$ 61	\$ 163	\$ 183
Interest cost	147	153	442	458
Amortization of prior service credit	(225)	(224)	(676)	(672)
Amortization of net gain	(10)	(9)	(30)	(27)
Net periodic benefit income	\$ (34)	\$ (19)	\$ (101)	\$ (58)

Note 9 – Commitments and Contingencies

The Company is involved in certain litigation as a result of claims that arose in the ordinary course of business, which management believes will not have a material adverse effect on the Company's financial position, results of operations, or cash flows. The Company may also realize the benefit of certain legal claims and litigation in the future; these gain contingencies are not recognized in the Condensed Consolidated Financial Statements.

Lead Refinery Site

U.S.S. Lead Refinery, Inc. (Lead Refinery), a non-operating wholly owned subsidiary of MRRC, has conducted corrective action and interim remedial activities (collectively, Site Activities) at Lead Refinery's East Chicago, Indiana site pursuant to the Resource Conservation and Recovery Act since December 1996. Although the Site Activities have been substantially concluded, Lead Refinery is required to perform monitoring and maintenance-related activities pursuant to a post-closure permit issued by the Indiana Department of Environmental Management effective as of March 2, 2013. Approximate costs to comply with the post-closure permit, including associated general and administrative costs, are estimated at between \$2.1 million and \$4.7 million over the next 20 years.

On April 9, 2009, pursuant to the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the U.S. Environmental Protection Agency (EPA) added the Lead Refinery site and surrounding properties to the National Priorities List (NPL). On July 17, 2009, Lead Refinery received a written notice from the EPA indicating that it may be a PRP under CERCLA due to the release or threat of release of hazardous substances including lead into properties surrounding the Lead Refinery site. The EPA identified two other PRPs in connection with that matter. In November 2012, the EPA adopted a remedy for the surrounding properties and in September 2014, the EPA announced that it had entered into a settlement with the two other PRPs whereby they will pay approximately \$26.0 million to fund the cleanup of approximately 300 properties surrounding the Lead Refinery site and perform certain remedial action tasks.

On November 8, 2016, the Company, its subsidiary Arava Natural Resources Company, Inc. (Arava), and Arava's subsidiary MRRC each received general notice letters from the EPA asserting that they may be PRPs in connection with the Lead Refinery NPL site. The Company, Arava, and MRRC have denied liability for any remedial action and response costs associated with the Lead Refinery NPL site. In June 2017, the EPA requested that Lead Refinery conduct, and the Company fund, a remedial

investigation and feasibility study of the Lead Refinery NPL site pursuant to a proposed administrative settlement agreement and order on consent. The Company and Lead Refinery entered into that agreement in September 2017. The Company will make a capital contribution to Lead Refinery to conduct the remedial investigation and feasibility study and provide a financial guarantee in the amount of \$1.0 million. The EPA has also informed the Company that the EPA's position is that Mueller is a responsible party for the Lead Refinery NPL site, and accordingly is responsible for a share of remedial action and response costs at the site and in the adjacent residential area. At this juncture, the Company is unable to determine the likelihood of a material adverse outcome or the amount or range of a potential loss with respect to any remedial action related to the Lead Refinery NPL site.

Equal Employment Opportunity Commission Matter

On October 5, 2016, the Company received a demand letter from the Los Angeles District Office of the United States Equal Employment Opportunity Commission (EEOC). The EEOC alleges that between May 2011 and April 2015, various Company employees were terminated in violation of the Americans with Disabilities Act, and that certain of the Company's employee leave and attendance policies were discriminatory in nature. On that basis, the EEOC's letter includes a demand for monetary relief on behalf of an identified class of 20 individuals, and an unidentified class of 150 individuals, in addition to injunctive relief.

The Company believes the EEOC's allegations are without merit. Notwithstanding the Company's position, in consultation with its liability insurers, the Company entered into a conciliation process with the EEOC for purposes of resolving the claims. On April 12, 2017, the Company received a letter from the EEOC stating that the conciliation process had concluded without a resolution of the claims, and that the matter would be referred to its Legal Department for potential litigation. Due to the procedural stage of this matter, the Company is unable to determine the likelihood of a material adverse outcome in this matter, or the amount or range of a potential loss in excess of any available insurance coverage.

Guarantees

Guarantees, in the form of letters of credit, are issued by the Company generally to assure the payment of insurance deductibles and certain retiree health benefits. The terms of the guarantees are generally one year but are renewable annually as required. These letters are primarily backed by the Company's revolving credit facility. The maximum payments that the Company could be required to make under its guarantees at September 30, 2017 were \$8.4 million.

Note 10 – Income Taxes

The Company's effective tax rate for the third quarter of 2017 was 27 percent compared with 30 percent for the same period last year. The items impacting the effective tax rate for the third quarter of 2017 were primarily attributable to reductions for the U.S. production activities deduction of \$0.6 million, the effect of foreign tax rates lower than statutory tax rates of \$1.6 million, and the tax benefit of equity compensation deductions of \$0.5 million.

For the third quarter of 2016, the difference between the effective tax rate and the amount computed using the U.S. federal statutory rate was primarily attributable to reductions for the U.S. production activities deduction of \$0.6 million, the effect of foreign tax rates lower than statutory rates of \$1.0 million, and the tax benefit of equity compensation deductions of \$0.8 million. These items were partially offset by the provision for state income taxes, net of the federal benefit, of \$0.6 million.

The Company's effective tax rate for the first nine months of 2017 was 29 percent compared with 33 percent for the same period last year. The items impacting the effective tax rate for the first nine months of 2017 were primarily attributable to reductions for the U.S. production activities deduction of \$2.4 million, the effect of foreign tax rates lower than statutory tax rates of \$4.6 million, the tax benefit of equity compensation deductions of \$2.2 million, and the impact of investments in unconsolidated affiliates of \$0.9 million. These items were partially offset by the provision for state income taxes, net of the federal benefit, of \$1.7 million.

For the first nine months of 2016, the difference between the effective tax rate and the amount computed using the U.S. federal statutory tax rate was primarily attributable to reductions for the U.S. production activities deduction of \$2.5 million, the effect of foreign tax rates lower than statutory rates of \$3.5 million, and the tax benefit of equity compensation deductions of \$0.8 million. These items were partially offset by the provision for state income taxes, net of the federal benefit, of \$2.3 million and the impact of investments in unconsolidated affiliates of \$1.2 million.

The Company files a consolidated U.S. federal income tax return and numerous consolidated and separate-company income tax returns in many state, local, and foreign jurisdictions. The statute of limitations is open for the Company's federal tax return and most state income tax returns for 2014 and all subsequent years and is open for certain state and foreign returns for earlier tax years due to ongoing audits and differing statute periods. While the Company believes that it is adequately reserved for possible

future audit adjustments, the final resolution of these examinations cannot be determined with certainty and could result in final settlements that differ from current estimates.

Note 11 – Accumulated Other Comprehensive Income

AOCI includes certain foreign currency translation adjustments from those subsidiaries not using the U.S. dollar as their functional currency, net deferred gains and losses on certain derivative instruments accounted for as cash flow hedges, adjustments to pension and OPEB liabilities, unrealized gains and losses on marketable securities classified as available-for-sale, and other comprehensive income attributable to unconsolidated affiliates.

The following table provides changes in AOCI by component, net of taxes and noncontrolling interests (amounts in parentheses indicate debits to AOCI):

<i>(In thousands)</i>	For the Nine Months Ended September 30, 2017					
	Cumulative Translation Adjustment	Unrealized (Loss) Gain on Derivatives	Pension/OPEB Liability Adjustment	Unrealized Gain (Loss) on Equity Securities	Attributable to Unconsol. Affiliates	Total
Balance as of December 31, 2016	\$ (49,965)	\$ (300)	\$ (23,046)	380	\$ 5,975	\$ (66,956)
Other comprehensive income (loss) before reclassifications	18,209	(1,175)	(1,309)	(1)	(1,086)	14,638
Amounts reclassified from AOCI	(3,777)	1,360	737	(379)	—	(2,059)
Net current-period other comprehensive income (loss)	14,432	185	(572)	(380)	(1,086)	12,579
Balance as of September 30, 2017	\$ (35,533)	\$ (115)	\$ (23,618)	—	\$ 4,889	\$ (54,377)

<i>(In thousands)</i>	For the Nine Months Ended October 1, 2016					
	Cumulative Translation Adjustment	Unrealized (Loss) Gain on Derivatives	Pension/OPEB Liability Adjustment	Unrealized Gain on Equity Securities	Attributable to Unconsol. Affiliates	Total
Balance as of December 26, 2015	\$ (24,773)	\$ (2,009)	\$ (28,429)	221	\$ —	\$ (54,990)
Other comprehensive (loss) income before reclassifications	(14,638)	1,446	2,258	77	6,550	(4,307)
Amounts reclassified from AOCI	—	(291)	1,187	—	—	896
Net current-period other comprehensive (loss) income	(14,638)	1,155	3,445	77	6,550	(3,411)
Balance as of October 1, 2016	\$ (39,411)	\$ (854)	\$ (24,984)	298	\$ 6,550	\$ (58,401)

Reclassification adjustments out of AOCI were as follows:

(In thousands)	Amount reclassified from AOCI				Affected line item
	For the Quarter Ended		For the Nine Months Ended		
	September 30, 2017	October 1, 2016	September 30, 2017	October 1, 2016	
Unrealized losses (gains) on derivatives:					
Commodity contracts	\$ 223	\$ 848	\$ 1,247	\$ (1,023)	Cost of goods sold
Interest rate swap	232	91	696	291	Interest expense
	(69)	(67)	(583)	441	Income tax (benefit) expense
	<u>\$ 386</u>	<u>\$ 872</u>	<u>\$ 1,360</u>	<u>\$ (291)</u>	Net of tax and noncontrolling interests
Amortization of net loss and prior service cost on employee benefit plans					
	\$ 301	\$ 527	\$ 902	\$ 1,581	Selling, general, and administrative expense
	(55)	(132)	(165)	(394)	Income tax benefit
	<u>\$ 246</u>	<u>\$ 395</u>	<u>\$ 737</u>	<u>\$ 1,187</u>	Net of tax and noncontrolling interests
Sale of available-for-sale securities					
	\$ —	\$ —	\$ (611)	\$ —	Other income
	<u>\$ —</u>	<u>\$ —</u>	<u>\$ 232</u>	<u>\$ —</u>	Income tax expense
	<u>\$ —</u>	<u>\$ —</u>	<u>\$ (379)</u>	<u>\$ —</u>	Net of tax and noncontrolling interests
Gain recognized upon sale of business					
	\$ —	\$ —	\$ (3,777)	\$ —	Selling, general, and administrative expense
	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>	Income tax expense
	<u>\$ —</u>	<u>\$ —</u>	<u>\$ (3,777)</u>	<u>\$ —</u>	Net of tax and noncontrolling interests

Note 12 – Noncontrolling Interests

(In thousands)	Noncontrolling Interests
Balance as of December 31, 2016	\$ 37,753
Sale of Mueller-Xingrong	(23,712)
Dividends paid to noncontrolling interests	(2,909)
Net income attributable to noncontrolling interests	1,164
Other comprehensive income attributable to noncontrolling interests, net of tax:	
Foreign currency translation	838
Balance as of September 30, 2017	<u>\$ 13,134</u>

Note 13 – Recently Issued Accounting Standards

In March 2017, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2017-07, *Compensation - Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost*. The ASU requires employers that sponsor defined benefit pension and/or other postretirement benefit plans to present the service cost component of net periodic benefit cost in the same income statement line item(s) as other employee compensation costs arising from services rendered during the period and other components of net periodic benefits cost separately from the line item(s) that includes the service cost and outside of any subtotal of operating income. The guidance is effective for the Company in interim and annual periods beginning in 2018. Early adoption is permitted as of the beginning of an annual period for which financial statements have not been issued or made available for issuance. The Company does not expect the adoption of the standard to have a material impact on its Condensed Consolidated Financial Statements.

In January 2017, the FASB issued ASU No. 2017-04, *Intangibles – Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment*. The ASU eliminates step two from the goodwill impairment test and instead requires an entity to perform its annual, or interim, goodwill impairment test by comparing the fair value of a reporting unit with its carrying amount. The entity should recognize an impairment charge for the amount by which the carrying amount exceeds the reporting unit's fair value, not to exceed the total amount of goodwill allocated to the reporting unit. The updated guidance requires a prospective adoption. Early adoption is permitted. The guidance is effective for the Company beginning in 2020. The Company is in the process of evaluating the effects of the provisions of the ASU on its Condensed Consolidated Financial Statements.

In January 2017, the FASB issued ASU No. 2017-01, *Business Combinations (Topic 805): Clarifying the Definition of a Business*. The ASU provides guidance to assist entities in evaluating whether transactions should be accounted for as acquisitions (or disposals) of assets or businesses. The updated guidance requires a prospective adoption. Early adoption is permitted. This update will be effective for the Company beginning in 2018. The Company does not expect the provisions of the ASU to have a material impact on its Condensed Consolidated Financial Statements.

In December 2016, the FASB issued ASU No. 2016-20, *Technical Corrections and Improvements to Topic 606, Revenue from Contracts with Customers*. The ASU provides correction or improvement to the guidance previously issued in ASU 2014-09, *Revenue from Contracts with Customers (Topic 606)*. Under the ASU, an entity will recognize revenue to depict the transfer of promised goods or services to customers at an amount that reflects the consideration that it expects to receive in exchange for the goods or services. It also requires more detailed disclosures to enable users of financial statements to understand the nature, amount, timing and uncertainty of revenue and cash flows arising from contracts with customers. This guidance is effective for the Company at the beginning of 2018. The standard permits the use of either the full retrospective or cumulative transition effect (modified retrospective) method. The Company currently expects to adopt the standard using the modified retrospective approach. The ASU requires revenue to be recognized over time (i.e., throughout the production process) rather than at a point in time (generally upon shipment to the customer) if performance does not create an asset with an alternative use to the entity and the entity has an enforceable right to payment for performance completed to date. The Company is evaluating specific contract terms, primarily within the Industrial Metals and Climate segments, related to the production of customized products and payment rights to evaluate whether revenue from certain contracts will be recognized over time under the ASU. As part of the overall evaluation of the standard, the Company is assessing potential changes to its accounting policies, practices, and internal controls over financial reporting to support the standard.

In November 2016, the FASB issued ASU No. 2016-18, *Statement of Cash Flows (Topic 230): Restricted Cash*. The ASU requires entities to show the changes in the total of cash, cash equivalents, restricted cash, and restricted cash equivalents in the statement of cash flows. As a result, entities will no longer present transfers between cash and cash equivalents and restricted cash and restricted cash equivalents in the statement of cash flows. The guidance will be applied retrospectively and is effective for public business entities in interim and annual periods beginning after December 15, 2017. Early adoption is permitted. The Company does not expect the adoption of the standard to have a material impact on its Condensed Consolidated Financial Statements.

In October 2016, the FASB issued ASU No. 2016-16, *Income Taxes (Topic 740): Intra-Entity Transfers of Assets Other Than Inventory*. The ASU requires companies to account for the income tax effects of intercompany transfers of assets other than inventory when the transfer occurs. Companies will still be required to defer the income tax effects of intercompany inventory transactions in an exception to the income tax accounting guidance. The guidance is effective for public business entities in annual periods beginning after December 15, 2017. Early adoption is permitted as of the beginning of an annual period. The Company is still evaluating the effects that the provisions of the ASU will have on its Condensed Consolidated Financial Statements.

In February 2016, the FASB issued ASU No. 2016-02, *Leases (Topic 842)*. The ASU requires an entity to recognize a right-of-use asset and lease liability for all leases with terms of more than 12 months. Recognition, measurement and presentation of

expenses will depend on classification as a financing or operating lease. The amendments also require certain quantitative and qualitative disclosures about leasing arrangements. The ASU will be effective for interim and annual periods beginning after December 15, 2018. Early adoption is permitted. The updated guidance requires a modified retrospective adoption. The Company is still evaluating the effects that the provision of the ASU will have on its Condensed Consolidated Financial Statements.

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

General Overview

We are a leading manufacturer of copper, brass, aluminum, and plastic products. The range of these products is broad: copper tube and fittings; line sets; brass and copper alloy rod, bar, and shapes; aluminum and brass forgings; aluminum impact extrusions; plastic fittings and valves; refrigeration valves and fittings; fabricated tubular products; and steel nipples. We also resell imported brass and plastic plumbing valves, malleable iron fittings, faucets, and plumbing specialty products. Mueller's operations are located throughout the United States and in Canada, Mexico, Great Britain, South Korea, and China.

Each of our reportable segments is composed of certain operating segments that are aggregated primarily by the nature of products offered as follows:

- **Piping Systems:** The Piping Systems segment is composed of Domestic Piping Systems Group, Great Lakes Copper, Pexcor & Heatlink, European Operations, Trading Group, and Jungwoo-Mueller (our South Korean joint venture). The Domestic Piping Systems Group manufactures copper tube and fittings, plastic fittings, and line sets. These products are manufactured in the U.S., sold in the U.S., and exported to markets worldwide. Great Lakes Copper manufactures copper tube and line sets in Canada and sells the products primarily in the U.S. and Canada. Pexcor & Heatlink produce a complete line of products for PEX plumbing and radiant systems in Canada. European Operations manufacture copper tube in the United Kingdom, which is sold throughout Europe. The Trading Group manufactures pipe nipples and sources products for import distribution in North America. Jungwoo-Mueller manufactures copper-based joining products that are sold worldwide. The Piping Systems segment sells products to wholesalers in the plumbing and refrigeration markets, distributors to the manufactured housing and recreational vehicle industries, building material retailers, and air-conditioning OEMs.

The Company disposed of Mueller-Xingrong (the Company's Chinese joint venture) on June 21, 2017. This business manufactures engineered copper tube primarily for air-conditioning applications in China.

- **Industrial Metals:** The Industrial Metals segment is composed of Brass Rod & Copper Bar Products, Impacts & Micro Gauge, and Brass Value-Added Products. The segment manufactures and sells brass and copper alloy rod, bar, and shapes; aluminum and brass forgings; aluminum impact extrusions; and gas valves and assemblies. The segment manufactures and sells its products primarily to domestic OEMs in the industrial, construction, heating, ventilation, and air-conditioning, plumbing, and refrigeration markets.
- **Climate:** The Climate segment is composed of Refrigeration Products, Fabricated Tube Products, Westermeyer, and Turbotec. The segment manufactures and sells refrigeration valves and fittings, fabricated tubular products, high pressure components, and coaxial heat exchangers. The segment sells its products primarily to the heating, ventilation, air-conditioning, and refrigeration markets in the U.S.

New housing starts and commercial construction are important determinants of our sales to the heating, ventilation, and air-conditioning, refrigeration, and plumbing markets because the principal end use of a significant portion of our products is in the construction of single and multi-family housing and commercial buildings. Repairs and remodeling projects are also important drivers of underlying demand for these products.

Residential construction activity has shown improvement in recent years, but remains at levels below long-term historical averages. Per the U.S. Census Bureau, the September 2017 seasonally adjusted annual rate of new housing starts was 1.1 million, consistent with the September 2016 rate. Mortgage rates remain at historically low levels, as the average 30-year fixed mortgage rate was 4.02 percent for the first nine months of 2017 and 3.65 percent for the twelve months ended December 2016. The private non-residential construction sector, which includes offices, industrial, health care, and retail projects, has shown improvement in recent years. Per the U.S. Census Bureau, the seasonally adjusted annual value of private nonresidential construction put in place was \$433.9 billion in August 2017 compared to the August 2016 rate of \$445.0 billion. We expect that most of these conditions will continue to improve.

[INDEX](#)

Profitability of certain of our product lines depends upon the "spreads" between the costs of raw materials and the selling prices of our products. The open market prices for copper cathode and scrap, for example, influence the selling price of copper tube, a principal product manufactured by the Company. We attempt to minimize the effects on profitability from fluctuations in material costs by passing through these costs to our customers. Our earnings and cash flow are dependent upon these spreads that fluctuate based upon market conditions.

Earnings and profitability are also impacted by unit volumes that are subject to market trends, such as substitute products, imports, technologies, and market share. In core product lines, we intensively manage our pricing structure while attempting to maximize our profitability. From time-to-time, this practice results in lost sales opportunities and lower volume. For plumbing systems, plastics are the primary substitute product; these products represent an increasing share of consumption. U.S. consumption of copper tube is still predominantly supplied by U.S. manufacturers. For certain air-conditioning and refrigeration applications, aluminum-based systems are the primary substitution threat. We cannot predict the acceptance or the rate of switching that may occur. In recent years, brass rod consumption in the U.S. has declined due to the outsourcing of many manufactured products from offshore regions.

Results of OperationsConsolidated Results

The following table compares summary operating results for 2017 and 2016:

<i>(In thousands)</i>	Quarter Ended		Percent Change 2017 vs. 2016	Nine Months Ended		Percent Change 2017 vs. 2016
	September 30, 2017	October 1, 2016		September 30, 2017	October 1, 2016	
Net sales	\$ 550,363	\$ 506,584	8.6 %	\$ 1,742,549	\$ 1,583,464	10.0 %
Operating income	37,559	37,487	0.2	129,969	123,390	5.3
Net income	22,258	25,978	(14.3)	79,878	82,405	(3.1)

The following are components of changes in net sales compared to the prior year:

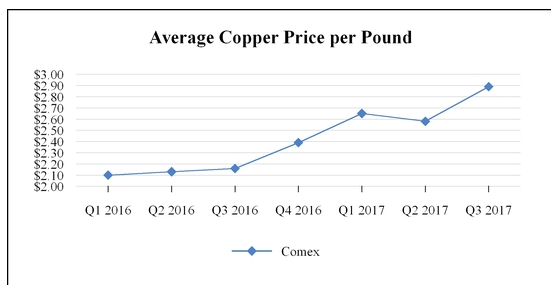
	Quarter-to-Date 2017 vs. 2016	Year-to-Date 2017 vs. 2016
Net selling price in core product lines	14.7 %	12.0 %
Unit sales volume in core product lines	(1.7)	(1.1)
Acquisitions	1.2	1.6
Dispositions	(5.6)	(1.9)
Other	—	(0.6)
	<u>8.6 %</u>	<u>10.0 %</u>

The increase in net sales during the third quarter of 2017 was primarily due to (i) higher net selling prices of \$74.5 million in our core product lines, primarily copper tube and brass rod, and (ii) \$6.9 million of sales recorded by Pexcor Manufacturing Company Inc. (Pexcor) and Heatlink Group Inc. (Heatlink), acquired in June 2017. These increases were offset by (i) the absence of sales of \$28.3 million recorded by Mueller-Xingrong, a business we sold during June 2017, and (ii) lower unit sales volume of \$8.5 million in our core product lines.

The increase in net sales during the first nine months of 2017 was primarily due to (i) higher net selling prices of \$190.1 million in our core product lines, (ii) \$16.5 million of incremental sales recorded by Jungwoo Metal Ind. Co., LTD (Jungwoo-Mueller), acquired in April 2016, and (iii) \$8.6 million of sales recorded in Pexcor and Heatlink. These increases were offset by (i) the absence of sales of \$28.3 million recorded by Mueller-Xingrong and (ii) lower unit sales volume of \$17.0 million in our core product lines, primarily copper tube.

[INDEX](#)

Net selling prices generally fluctuate with changes in raw material costs. Changes in raw material costs are generally passed through to customers by adjustments to selling prices. The following graph shows the Comex average copper price per pound by quarter for the current and prior fiscal years:



The following tables compare cost of goods sold and operating expenses as dollar amounts and as a percent of net sales for 2017 and 2016:

(In thousands)	For the Quarter Ended		For the Nine Months Ended	
	September 30, 2017	October 1, 2016	September 30, 2017	October 1, 2016
Cost of goods sold	\$ 471,262	\$ 424,668	\$ 1,484,000	\$ 1,327,370
Depreciation and amortization	8,266	9,016	25,216	26,997
Selling, general and administrative expense	33,276	32,413	102,953	102,707
Asset impairments	—	3,000	411	3,000
Operating expenses	\$ 512,804	\$ 469,097	\$ 1,612,580	\$ 1,460,074

	For the Quarter Ended		For the Nine Months Ended	
	September 30, 2017	October 1, 2016	September 30, 2017	October 1, 2016
Cost of goods sold	85.6 %	83.8 %	85.2 %	83.8 %
Depreciation and amortization	1.5	1.8	1.4	1.7
Selling, general and administrative expense	6.1	6.4	5.9	6.5
Asset impairments	—	0.6	—	0.2
Operating expenses	93.2 %	92.6 %	92.5 %	92.2 %

Q3 2017 compared to Q3 2016

The increase in cost of goods sold was primarily due to the increase in the average cost of copper, our principal raw material, partially offset by the decrease in sales volume resulting from the sale of Mueller-Xingrong. Depreciation and amortization decreased slightly in the third quarter of 2017 primarily as a result of the sale of long-lived assets at Mueller-Xingrong as well as several long-lived assets becoming fully depreciated and amortized. Selling, general, and administrative expense increased slightly in the third quarter of 2017 primarily as a result of incremental expenses associated with Jungwoo-Mueller, Pexcor, and Heatlink

[INDEX](#)

of \$1.5 million, partially offset by the absence of expenses at Mueller-Xingrong. In addition, there were fixed asset impairment charges for certain manufacturing equipment of \$3.0 million recognized during the third quarter of 2016.

Interest expense increased for the third quarter of 2017 primarily as a result of interest associated with our 6% Subordinated Debentures that were issued during the first quarter as part of our special dividend. Other expense, net, for the third quarter of 2017 was \$0.5 million compared to other income, net, of \$0.1 million for the third quarter of 2016. The change was primarily attributable to higher environmental costs of \$0.5 million.

Our effective tax rate for the third quarter of 2017 was 27 percent compared with 30 percent for the same period last year. The items impacting the effective tax rate for the third quarter of 2017 were primarily attributable to reductions for the U.S. production activities deduction of \$0.6 million, the effect of foreign tax rates lower than statutory tax rates of \$1.6 million, and the tax benefit of equity compensation deductions of \$0.5 million.

For the third quarter of 2016, the difference between the effective tax rate and the amount computed using the U.S. federal statutory rate was primarily attributable to reductions for the U.S. production activities deduction of \$0.6 million, the effect of foreign tax rates lower than statutory rates of \$1.0 million, and the tax benefit of equity compensation deductions of \$0.8 million. These items were partially offset by the provision for state income taxes, net of the federal benefit, of \$0.6 million.

We own a 50 percent interest in Tecumseh Products Holdings LLC, an unconsolidated affiliate that acquired Tecumseh Products Company (Tecumseh) during the third quarter of 2015. We also own a 50 percent interest in a second unconsolidated affiliate that provided financing to Tecumseh in conjunction with the acquisition. We account for these investments using the equity method of accounting. For the third quarter of 2017, we recognized losses of \$0.4 million on these investments, compared to income of \$1.1 million in the third quarter of 2016.

2017 YTD compared to 2016 YTD

The increase in cost of goods sold was primarily due to the increase in the average cost of copper and the increase in sales volume related to the acquisition of Jungwoo-Mueller, partially offset by the decrease in sales volume resulting from the sale of Mueller-Xingrong. Depreciation and amortization decreased in the first nine months of 2017 primarily as a result of several long-lived assets becoming fully depreciated and amortized as well as the sale of long-lived assets at Mueller-Xingrong. Selling, general, and administrative expense increased slightly for the first nine months of 2017 primarily as a result of incremental expenses associated with Jungwoo-Mueller, Pexcor, and Heatlink of \$3.7 million. This was partially offset by a decrease in employee compensation expenses, including incentive compensation and net periodic pension costs, of \$1.8 million. In addition, we recognized a gain on the sale of Mueller-Xingrong of \$1.5 million and fixed asset impairment charges for certain manufacturing equipment of \$0.4 million during first nine months of 2017. This compares to fixed asset impairment charges of \$3.0 million recognized during the first nine months of 2016.

Interest expense increased in the first nine months of 2017 primarily as a result of interest associated with our 6% Subordinated Debentures that were issued during the first quarter as part of our special dividend. Other income, net, for the first nine months of 2017 decreased primarily as a result of higher environmental costs of \$0.5 million.

Our effective tax rate for the first nine months of 2017 was 29 percent compared with 33 percent for the same period last year. The items impacting the effective tax rate for the first nine months of 2017 were primarily attributable to reductions for the U.S. production activities deduction of \$2.4 million, the effect of foreign tax rates lower than statutory tax rates of \$4.6 million, the tax benefit of equity compensation deductions of \$2.2 million, and the impact of investments in unconsolidated affiliates of \$0.9 million. These items were partially offset by the provision for state income taxes, net of the federal benefit, of \$1.7 million.

For the first nine months of 2016, the difference between the effective tax rate and the amount computed using the U.S. federal statutory tax rate was primarily attributable to reductions for the U.S. production activities deduction of \$2.5 million, the effect of foreign tax rates lower than statutory rates of \$3.5 million, and the tax benefit of equity compensation deductions of \$0.8 million. These items were partially offset by the provision for state income taxes, net of the federal benefit, of \$2.3 million and the impact of investments in unconsolidated affiliates of \$1.2 million.

During the first nine months of 2017, we recognized losses of \$1.7 million on our investment in unconsolidated affiliates. During the first nine months of 2016, we recognized \$3.0 million of income on these investments. This included the gain that resulted from the allocation of the purchase price recorded by our equity method investees, which was partially offset by restructuring and impairment charges and net losses.

[INDEX](#)Piping Systems Segment

The following table compares summary operating results for 2017 and 2016 for the businesses comprising our Piping Systems segment:

<i>(In thousands)</i>	For the Quarter Ended		Percent Change 2017 vs. 2016	For the Nine Months Ended		Percent Change 2017 vs. 2016
	September 30, 2017	October 1, 2016		September 30, 2017	October 1, 2016	
Net sales	\$ 384,078	\$ 351,557	9.3 %	\$ 1,205,697	\$ 1,109,109	8.7 %
Operating income	20,724	24,138	(14.1)	85,672	88,256	(2.9)

The following are components of changes in net sales compared to the prior year:

	Quarter-to-Date 2017 vs. 2016	Year-to-Date 2017 vs. 2016
Net selling price in core product lines	15.5 %	12.3 %
Unit sales volume in core product lines	(2.2)	(2.7)
Acquisitions	1.7	2.3
Dispositions	(8.1)	(2.8)
Other	2.4	(0.4)
	<u>9.3 %</u>	<u>8.7 %</u>

The increase in net sales during the third quarter of 2017 was primarily attributable to (i) higher net selling prices in the segment's core product lines, primarily copper tube, of \$54.4 million, and (ii) \$6.9 million of sales recorded by Pexcor and Heatlink. These increases were offset by (i) the absence of sales of \$28.3 million recorded by Mueller-Xingrong and (ii) lower unit sales volume of \$7.8 million in the segment's core product lines.

Net sales during the first nine months of 2017 increased primarily as a result of (i) higher net selling prices in the segment's core product lines of \$135.6 million, (ii) \$16.5 million of incremental sales recorded by Jungwoo-Mueller, and (iii) \$8.6 million of sales recorded in Pexcor and Heatlink. These increases were offset by (i) the absence of sales of \$28.3 million recorded by Mueller-Xingrong, (ii) lower unit sales volume of \$30.1 million in the segment's core product lines and (iii) a decrease in net sales of \$3.8 million in the segment's non-core product lines.

The following tables compare cost of goods sold and operating expenses as dollar amounts and as a percent of net sales for 2017 and 2016:

<i>(In thousands)</i>	For the Quarter Ended		For the Nine Months Ended	
	September 30, 2017	October 1, 2016	September 30, 2017	October 1, 2016
Cost of goods sold	\$ 340,191	\$ 301,867	\$ 1,049,098	\$ 949,015
Depreciation and amortization	5,290	5,905	16,223	17,341
Selling, general and administrative expense	17,873	16,647	54,293	51,497
Asset impairments	—	3,000	411	3,000
Operating expenses	<u>\$ 363,354</u>	<u>\$ 327,419</u>	<u>\$ 1,120,025</u>	<u>\$ 1,020,853</u>

	For the Quarter Ended		For the Nine Months Ended	
	September 30, 2017	October 1, 2016	September 30, 2017	October 1, 2016
Cost of goods sold	88.6 %	85.9 %	87.0 %	85.6 %
Depreciation and amortization	1.4	1.7	1.3	1.6
Selling, general and administrative expense	4.6	4.6	4.6	4.6
Asset impairments	—	0.9	—	0.2
Operating expenses	94.6 %	93.1 %	92.9 %	92.0 %

The increase in cost of goods sold during the third quarter of 2017 was primarily due to the increase in the average cost of copper, partially offset by the decrease in sales volume resulting from the sale of Mueller-Xingrong. Depreciation and amortization decreased slightly primarily as a result of the sale of long-lived assets at Mueller-Xingrong as well as several long-lived assets becoming fully depreciated and amortized. Selling, general, and administrative expense increased for the third quarter of 2017 primarily as a result of incremental expenses associated with Jungwoo-Mueller, Pexcor, and Heatlink of \$1.5 million, partially offset by a decrease in expenses at Mueller-Xingrong. In addition, there were fixed asset impairment charges for certain manufacturing equipment of \$3.0 million recognized during the third quarter of 2016.

The increase in cost of goods sold during the first nine months of 2017 was primarily due to the increase in the average cost of copper and the increase in sales volume related to the acquisition of Jungwoo-Mueller, partially offset by the decrease in sales volume resulting from the sale of Mueller-Xingrong and in certain other businesses. Depreciation and amortization decreased slightly as a result of the sale of long-lived assets at Mueller-Xingrong as well as several long-lived assets becoming fully depreciated and amortized. Selling, general, and administrative expenses increased for the first nine months of 2017, primarily due to incremental expenses associated with Jungwoo-Mueller, Pexcor, and Heatlink of \$3.7 million. This was partially offset by a gain on the sale of Mueller-Xingrong of \$1.5 million. We recognized fixed asset impairment charges for certain manufacturing equipment of \$0.4 million during first nine months of 2017. This compares to fixed asset impairment charges of \$3.0 million recognized during the first nine months of 2016.

Industrial Metals Segment

The following table compares summary operating results for 2017 and 2016 for the businesses comprising our Industrial Metals segment:

(In thousands)	For the Quarter Ended		Percent Change 2017 vs. 2016	For the Nine Months Ended		Percent Change 2017 vs. 2016
	September 30, 2017	October 1, 2016		September 30, 2017	October 1, 2016	
Net sales	\$ 147,578	\$ 131,350	12.4 %	\$ 451,919	\$ 393,608	14.8 %
Operating income	23,045	18,749	22.9	60,475	55,785	8.4

The following are components of changes in net sales compared to the prior year:

	Quarter-to-Date 2017 vs. 2016	Year-to-Date 2017 vs. 2016
Net selling price in core product lines	15.8 %	14.1 %
Unit sales volume in core product lines	(0.6)	3.4
Other	(2.8)	(2.7)
	12.4 %	14.8 %

[INDEX](#)

The increase in net sales during the third quarter of 2017 was primarily due to higher net selling prices of \$20.1 million in the segment's core product lines, primarily brass rod. This increase was offset by lower sales of \$3.8 million in the segment's non-core product lines.

The increase in net sales during the first nine months of 2017 was primarily due to (i) higher net selling prices of \$54.5 million and (ii) higher unit sales volume of \$13.1 million in the segment's core product lines. These increases were offset by lower sales of \$16.7 million in the segment's non-core product lines.

The following tables compare cost of goods sold and operating expenses as dollar amounts and as a percent of net sales for 2017 and 2016:

<i>(In thousands)</i>	For the Quarter Ended		For the Nine Months Ended	
	September 30, 2017	October 1, 2016	September 30, 2017	October 1, 2016
Cost of goods sold	\$ 120,021	\$ 107,512	\$ 377,036	\$ 321,615
Depreciation and amortization	1,845	1,964	5,647	6,219
Selling, general and administrative expense	2,667	3,125	8,761	9,989
Operating expenses	\$ 124,533	\$ 112,601	\$ 391,444	\$ 337,823

	For the Quarter Ended		For the Nine Months Ended	
	September 30, 2017	October 1, 2016	September 30, 2017	October 1, 2016
Cost of goods sold	81.3 %	81.9 %	83.4 %	81.7 %
Depreciation and amortization	1.3	1.5	1.2	1.6
Selling, general and administrative expense	1.8	2.3	2.0	2.5
Operating expenses	84.4 %	85.7 %	86.6 %	85.8 %

The increase in cost of goods sold during the third quarter of 2017 was primarily due to the increase in the average cost of copper. Depreciation and amortization and selling, general, and administrative expenses for the third quarter of 2017 were consistent with what was recorded in the third quarter of 2016.

The increase in cost of goods sold during the first nine months of 2017 was primarily due to the increase in the average cost of copper and the increase in sales volume in the segment's core product lines, partially offset by the decrease in sales volume in the segment's non-core product lines. Depreciation and amortization decreased slightly as a result of several fixed assets becoming fully depreciated. Selling, general, and administrative expenses decreased primarily as a result of a decrease in employee compensation expenses, including incentive compensation and net periodic pension costs, of \$0.7 million.

Climate Segment

The following table compares summary operating results for 2017 and 2016 for the businesses comprising our Climate segment:

<i>(In thousands)</i>	For the Quarter Ended		Percent Change 2017 vs. 2016	For the Nine Months Ended		Percent Change 2017 vs. 2016
	September 30, 2017	October 1, 2016		September 30, 2017	October 1, 2016	
Net sales	\$ 32,488	\$ 30,003	8.3 %	\$ 103,403	\$ 92,068	12.3 %
Operating income	5,429	4,824	12.5	17,155	14,540	18.0

Sales for the third quarter and the first nine months of 2017 increased primarily as a result of an increase in volume and product mix.

The following tables compare cost of goods sold and operating expenses as dollar amounts and as a percent of net sales for 2017 and 2016:

<i>(In thousands)</i>	For the Quarter Ended		For the Nine Months Ended	
	September 30, 2017	October 1, 2016	September 30, 2017	October 1, 2016
Cost of goods sold	\$ 24,111	\$ 22,210	\$ 77,124	\$ 68,363
Depreciation and amortization	636	612	1,880	1,829
Selling, general and administrative expense	2,312	2,357	7,244	7,336
Operating expenses	\$ 27,059	\$ 25,179	\$ 86,248	\$ 77,528

	For the Quarter Ended		For the Nine Months Ended	
	September 30, 2017	October 1, 2016	September 30, 2017	October 1, 2016
Cost of goods sold	74.2 %	74.0 %	74.6 %	74.3 %
Depreciation and amortization	2.0	2.0	1.8	2.0
Selling, general and administrative expense	7.1	7.9	7.0	7.9
Operating expenses	83.3 %	83.9 %	83.4 %	84.2 %

Cost of goods sold increased during the third quarter of 2017 primarily due to the increase in volume and improved product mix within the segment. Depreciation and amortization and selling, general, and administrative expenses for the third quarter of 2017 were consistent with the expense recorded for the third quarter of 2016.

The increase in cost of goods sold during the first nine months of 2017 was related to the increase in volume and improved product mix within the segment. Depreciation and amortization and selling, general, and administrative expenses were consistent with the first nine months of 2016.

Liquidity and Capital Resources

The following table presents selected financial information for the first nine months of 2017 and 2016:

<i>(In thousands)</i>	2017	2016
Increase (decrease) in:		
Cash and cash equivalents	\$ (244,973)	\$ 22,949
Property, plant, and equipment, net	(11,386)	8,850
Total debt	175,904	14,744
Working capital, net of cash and current debt	18,106	62,620
Net cash provided by operating activities	53,534	70,586
Net cash used in investing activities	(2,811)	(29,687)
Net cash used in financing activities	(300,162)	(14,439)

[INDEX](#)

Cash Provided by Operating Activities

During the nine months ended September 30, 2017, net cash provided by operating activities was primarily attributable to (i) consolidated net income of \$81.0 million, (ii) depreciation and amortization of \$25.4 million, and (iii) an increase in current liabilities of \$21.0 million. This cash increase was offset by (i) an increase in receivables of \$33.4 million and (ii) an increase in inventories of \$40.9 million. The fluctuations were primarily due to increased sales volume in certain businesses and additional working capital needs in the first nine months of 2017.

During the nine months ended October 1, 2016, net cash provided by operating activities was primarily attributable to (i) consolidated net income of \$83.0 million, (ii) depreciation and amortization of \$27.3 million, (iii) a decrease in other assets of \$14.4 million, and (iv) deferred income taxes of \$6.5 million. These cash increases were partially offset by (i) an increase in receivables of \$45.8 million and (ii) a decrease in current liabilities of \$16.0 million. The fluctuations were primarily due to additional working capital needs in the first nine months of 2016.

Cash Used in Investing Activities

The major components of net cash used in investing activities during the nine months ended September 30, 2017 included (i) \$18.4 million for the purchase of Pexcor and Heatlink, net of cash acquired, (ii) capital expenditures of \$17.3 million, and (iii) investments in our joint venture in Bahrain of \$3.3 million. These uses of cash were offset by (i) \$17.5 million of proceeds from the sale of our 50.5 percent equity interest in Mueller-Xingrong, net of cash sold, (ii) proceeds from the sale of properties of \$11.7 million, (iii) net withdrawals from restricted cash balances of \$5.2 million, and (iv) proceeds from the sale of securities of \$1.8 million.

The major components of net cash used in investing activities during the nine months ended October 1, 2016 included (i) \$20.5 million for the purchase of a 60.0 percent equity interest in Jungwoo-Mueller, net of cash acquired, and (ii) capital expenditures of \$15.6 million. This was offset by (i) \$5.3 million in proceeds from the sale of properties and (ii) net withdrawals from restricted cash balances of \$1.2 million.

Cash Used in Financing Activities

For the nine months ended September 30, 2017, net cash used in financing activities consisted primarily of (i) \$191.2 million used for the payment of the special dividend and the regular quarterly dividends to stockholders of the Company, (ii) \$100.0 million used to reduce the debt outstanding under our Credit Agreement, (iii) \$3.5 million used for repayment of debt by Mueller-Xingrong and Jungwoo-Mueller, and (iv) \$2.9 million used for the payment of dividends to noncontrolling interests.

For the nine months ended October 1, 2016, net cash used in financing activities consisted primarily of (i) \$15.6 million used for payment of regular quarterly dividends to stockholders of the Company and (ii) \$3.8 million used for the payment of dividends to noncontrolling interests. This was partially offset by issuance of debt of \$7.0 million.

Liquidity and Outlook

We believe that cash provided by operations, funds available under the Credit Agreement, and cash on hand will be adequate to meet our liquidity needs, including working capital, capital expenditures, and debt payment obligations. As of September 30, 2017 our current ratio was 2.8 to 1.

We have significant environmental remediation obligations which we expect to pay over future years. Cash used for environmental remediation activities was approximately \$0.7 million during the first nine months of 2017. We expect to spend approximately \$0.1 million for the remainder of 2017 for ongoing environmental remediation activities.

The Company declared and paid a quarterly cash dividend of 10.0 cents per common share during the first, second, and third quarters of 2017, 7.5 cents per common share in the first quarter of 2016, and 10.0 cents per common share in the second and third quarters of 2016. Additionally, during the first quarter of 2017 the Company distributed a special dividend composed of \$3.00 in cash and \$5.00 in principal amount of the Company's 6% Subordinated Debentures (Debentures) due 2027 for each share of common stock outstanding. Payment of dividends in the future is dependent upon our financial condition, cash flows, capital requirements, earnings, and other factors.

Long-Term Debt

The Company's Credit Agreement provides for an unsecured \$350.0 million revolving credit facility which matures on December 6, 2021. Total borrowings under the Credit Agreement were \$100.0 million at September 30, 2017. The Credit Agreement backed approximately \$8.4 million in letters of credit at the end of the third quarter of 2017.

The Debentures distributed as part of our special dividend are subordinated to all other funded debt of the Company and are callable, in whole or in part, at any time at the option of the Company, subject to declining call premiums during the first five years. The Debentures also grant each holder the right to require the Company to repurchase such holder's Debentures in the event of a change in control at declining repurchase premiums during the first five years. Interest is payable semiannually on September 1 and March 1, commencing September 1, 2017. Total Debentures outstanding as of September 30, 2017 were \$284.5 million.

As of September 30, 2017, the Company's total debt was \$403.3 million or 43.2 percent of its total capitalization.

During the third quarter of 2017, the Company made payments of \$100.0 million to reduce the debt outstanding under its Credit Agreement.

Covenants contained in the Company's financing obligations require, among other things, the maintenance of minimum levels of tangible net worth and the satisfaction of certain minimum financial ratios. As of September 30, 2017, the Company was in compliance with all of its debt covenants.

Share Repurchase Program

The Board of Directors has extended, until October 2018, its authorization to repurchase up to 20 million shares of the Company's common stock through open market transactions or through privately negotiated transactions. We may cancel, suspend, or extend the time period for the repurchase of shares at any time. Any repurchases will be funded primarily through existing cash and cash from operations. We may hold any shares repurchased in treasury or use a portion of the repurchased shares for employee benefit plans, as well as for other corporate purposes. From its initial authorization in 1999 through September 30, 2017, the Company has repurchased approximately 4.7 million shares under this authorization.

Contractual Cash Obligations

There have been no significant changes in our contractual cash obligations reported at December 31, 2016 other than the debt and interest payments on the Debentures due in 2027 and the payments on the Credit Agreement due in 2021.

Item 3. Quantitative and Qualitative Disclosures About Market Risk

The Company is exposed to market risk from changes in raw material and energy costs, interest rates, and foreign currency exchange rates. To reduce such risks, we may periodically use financial instruments. Hedging transactions are authorized and executed pursuant to policies and procedures. Further, we do not buy or sell financial instruments for trading purposes.

Cost and Availability of Raw Materials and Energy

Raw materials, primarily copper and brass, represent the largest component of the Company's variable costs of production. The cost of these materials is subject to global market fluctuations caused by factors beyond our control. Significant increases in the cost of metal, to the extent not reflected in prices for the Company's finished products, or the lack of availability could materially and adversely affect our business, results of operations, and financial condition.

The Company occasionally enters into future fixed-price arrangements with certain customers. We may utilize futures contracts to hedge risks associated with these fixed-price arrangements. We may also utilize futures contracts to manage price risk associated with inventory. Depending on the nature of the hedge, changes in the fair value of the futures contracts will either be offset against the change in fair value of the inventory through earnings or recognized as a component of accumulated other comprehensive income (AOCI) and reflected in earnings upon the sale of inventory. Periodic value fluctuations of the contracts generally offset the value fluctuations of the underlying fixed-price transactions or inventory. At September 30, 2017, we held open futures contracts to purchase approximately \$1.8 million of copper over the next 15 months related to fixed-price sales orders and to sell approximately \$7.7 million of copper over the next six months related to copper inventory.

[INDEX](#)

We may enter into futures contracts or forward fixed-price arrangements with certain vendors to manage price risk associated with natural gas purchases. The effective portion of gains and losses with respect to these positions are deferred in equity as a component of AOCI and reflected in earnings upon consumption of natural gas. Periodic value fluctuations of the contracts generally offset the value fluctuations of the underlying natural gas prices. As of September 30, 2017, we held no open futures contracts to purchase natural gas.

Interest Rates

At September 30, 2017, we had variable-rate debt outstanding of \$103.5 million. At this borrowing level, a hypothetical 10 percent increase in interest rates would have had an insignificant unfavorable impact on our pretax earnings and cash flows. The primary interest rate exposure on variable-rate debt is based on LIBOR.

Included in the variable-rate debt outstanding is the Company's \$100.0 million Credit Agreement which bears interest based on LIBOR. We have reduced our exposure to increases in LIBOR by entering into interest rate swap contracts. These contracts were designated as cash flow hedges through December 2016, at which time the Company discontinued hedge accounting prospectively. The fair value of these contracts have been recorded in the Condensed Consolidated Balance Sheets, and the related gains and losses on the contracts were deferred in stockholders' equity as a component of AOCI through December 2016, but are reported in current earnings subsequent to that date. Deferred gains or losses on the contracts are recognized in interest expense in the period in which the related interest payment previously being hedged is expensed.

Foreign Currency Exchange Rates

Foreign currency exposures arising from transactions include firm commitments and anticipated transactions denominated in a currency other than an entity's functional currency. The Company and its subsidiaries generally enter into transactions denominated in their respective functional currencies. We may utilize certain futures or forward contracts with financial institutions to hedge foreign currency transactional exposures. Gains and losses with respect to these positions are deferred in equity as a component of AOCI and reflected in earnings upon collection of receivables or payment of commitments. At September 30, 2017, we had open forward contracts with a financial institution to sell approximately 4.5 million euros, 21.3 million Swedish kronor, and 8.3 million Norwegian kroner through January 2018.

The Company's primary foreign currency exposure arises from foreign-denominated revenues and profits and their translation into U.S. dollars. The primary currencies to which we are exposed include the Canadian dollar, the British pound sterling, the euro, the Mexican peso, the South Korean won, and the Chinese renminbi. The Company generally views as long-term its investments in foreign subsidiaries with a functional currency other than the U.S. dollar. As a result, we generally do not hedge these net investments.

Cautionary Statement Regarding Forward Looking Information

This Quarterly Report contains various forward-looking statements and includes assumptions concerning the Company's operations, future results, and prospects. These forward-looking statements are based on current expectations and are subject to risk and uncertainties, and may be influenced by factors that could cause actual outcomes and results to be materially different from those predicted. The forward-looking statements reflect knowledge and information available as of the date of preparation of the Quarterly Report, and the Company undertakes no obligation to update these forward-looking statements. We identify the forward-looking statements by using the words "anticipates," "believes," "expects," "intends" or similar expressions in such statements.

In connection with the "safe harbor" provisions of the Private Securities Litigation Reform Act of 1995, the Company provides the following cautionary statement identifying important economic, political, and technological factors, among others, which could cause actual results or events to differ materially from those set forth in or implied by the forward-looking statements and related assumptions. In addition to those factors discussed under "Risk Factors" in the Annual Report on Form 10-K for the year ended December 31, 2016, such factors include: (i) the current and projected future business environment, including interest rates and capital and consumer spending; (ii) the domestic housing and commercial construction industry environment; (iii) availability and price fluctuations in commodities (including copper, natural gas, and other raw materials, including crude oil that indirectly affects plastic resins); (iv) competitive factors and competitor responses to the Company's initiatives; (v) stability of government laws and regulations, including taxes; (vi) availability of financing; and (vii) continuation of the environment to make acquisitions, domestic and foreign, including regulatory requirements and market values of candidates.

Item 4. Controls and Procedures

Evaluation of Disclosure Controls and Procedures

The Company maintains disclosure controls and procedures designed to ensure information required to be disclosed in Company reports filed under the Securities Exchange Act of 1934, as amended (the Exchange Act), is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures are designed to provide reasonable assurance that information required to be disclosed in Company reports filed under the Exchange Act is accumulated and communicated to management, including the Company's Chief Executive Officer and Chief Financial Officer, as appropriate, to allow timely decisions regarding required disclosure.

The Company's management, with the participation of the Company's Chief Executive Officer and Chief Financial Officer, has evaluated the effectiveness of the Company's disclosure controls and procedures pursuant to Rule 13a-15(e) of the Exchange Act as of September 30, 2017. Based on that evaluation, the Company's Chief Executive Officer and Chief Financial Officer have concluded that the Company's disclosure controls and procedures are effective as of September 30, 2017 to ensure that information required to be disclosed in Company reports filed under the Exchange Act is (i) recorded, processed, summarized and reported within the time periods specified in the SEC rules and forms and (ii) accumulated and communicated to management, including the Company's principal executive officer and principal financial officer, as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Control over Financial Reporting

There were no changes in the Company's internal control over financial reporting during the Company's fiscal quarter ending September 30, 2017, that have materially affected, or are reasonably likely to materially affect, the Company's internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1. Legal Proceedings

General

The Company is involved in certain litigation as a result of claims that arose in the ordinary course of business. Additionally, the Company may realize the benefit of certain legal claims and litigation in the future; these gain contingencies are not recognized in the Condensed Consolidated Financial Statements.

Item 1A. Risk Factors

The Company is exposed to risk as it operates its businesses. To provide a framework to understand the operating environment of the Company, we have provided a brief explanation of the more significant risks associated with our businesses in our 2016 Annual Report on Form 10-K. There have been no material changes in risk factors that were previously disclosed in our 2016 Annual Report on Form 10-K.

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

Issuer Purchases of Equity Securities

The Company's Board of Directors has extended, until October 2018, its authorization to repurchase up to 20 million shares of the Company's common stock through open market transactions or through privately negotiated transactions. The Company may cancel, suspend, or extend the time period for the repurchase of shares at any time. Any repurchases will be funded primarily through existing cash and cash from operations. The Company may hold any shares repurchased in treasury or use a portion of the repurchased shares for employee benefit plans, as well as for other corporate purposes. From its initial authorization in 1999 through September 30, 2017, the Company had repurchased approximately 4.7 million shares under this authorization. Below is a summary of the Company's stock repurchases for the period ended September 30, 2017.

	(a) Total Number of Shares Purchased		(b) Average Price Paid per Share	(c) Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	(d) Maximum Number of Shares That May Yet Be Purchased Under the Plans or Programs	
					15,287,060	(1)
July 2 - July 29, 2017	36,720	(2)	\$ 30.97	—		
July 30 - August 27, 2017	3,014	(2)	\$ 29.11	—		
August 28 - September 30, 2017	4,391	(2)	\$ 32.42	—		

(1) Shares available to be purchased under the Company's 20 million share repurchase authorization until October 2018. The extension of the authorization was announced on October 25, 2017.

(2) Shares tendered to the Company by holders of stock-based awards in payment of the purchase price and/or withholding taxes upon exercise and/or vesting. Also includes shares resulting from restricted stock forfeitures.

Item 6. Exhibits

31.1	Certification of Chief Executive Officer pursuant to Rule 13a-14(a) and Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended.
31.2	Certification of Chief Financial Officer pursuant to Rule 13a-14(a) and Rule 15d-14(a) of the Securities Exchange Act of 1934, as amended.
32.1	Certification of Chief Executive Officer pursuant to 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of Chief Financial Officer pursuant to 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.CAL	XBRL Taxonomy Extension Calculation Linkbase
101.DEF	XBRL Taxonomy Extension Definition Linkbase
101.INS	XBRL Instance Document
101.LAB	XBRL Taxonomy Extension Label Linkbase
101.PRE	XBRL Presentation Linkbase Document
101.SCH	XBRL Taxonomy Extension Schema

Items 3, 4, and 5 are not applicable and have been omitted.

SIGNATURES

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.

MUELLER INDUSTRIES, INC.

October 25, 2017
Date

/s/ Jeffrey A. Martin
Jeffrey A. Martin
Chief Financial Officer and Treasurer
(Principal Financial and Accounting Officer)

October 25, 2017
Date

/s/ Anthony J. Steinriede
Anthony J. Steinriede
Vice President – Corporate Controller

EXHIBIT INDEX

<u>Exhibits</u>	<u>Description</u>
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CERTIFICATION

I, Gregory L. Christopher, certify that:

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

Date: October 25, 2017

/s/ Gregory L. Christopher
Gregory L. Christopher
Chief Executive Officer

CERTIFICATION

I, Jeffrey A. Martin, certify that:

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

Date: October 25, 2017

/s/ Jeffrey A. Martin
Jeffrey A. Martin
Chief Financial Officer

CERTIFICATION PURSUANT TO

18 U.S.C. SECTION 1350,

AS ADOPTED PURSUANT TO SECTION 906

OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Mueller Industries, Inc. (the "Company") on Form 10-Q for the period ending September 30, 2017 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Gregory L. Christopher, Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

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

/s/ GREGORY L. CHRISTOPHER
Gregory L. Christopher
Chief Executive Officer
October 25, 2017

CERTIFICATION PURSUANT TO

18 U.S.C. SECTION 1350,

AS ADOPTED PURSUANT TO SECTION 906

OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of Mueller Industries, Inc. (the "Company") on Form 10-Q for the period ending September 30, 2017 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Jeffrey A. Martin, Chief Financial Officer of the Company, certify, pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that:

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

/s/ JEFFREY A. MARTIN

Jeffrey A. Martin
Chief Financial Officer
October 25, 2017