

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 October 1, 2016

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, or a smaller reporting company. See the definitions of "large accelerated filer", "accelerated filer", and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer
Non-accelerated filer

Accelerated filer
Smaller reporting company

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 24, 2016 was 57,378,695.

MUELLER INDUSTRIES, INC.

FORM 10-Q

For the Quarterly Period Ended October 1, 2016

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.

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Item 1. Financial Statements**MUELLER INDUSTRIES, INC.**
CONDENSED CONSOLIDATED STATEMENTS OF INCOME
(Unaudited)

	For the Quarter Ended		For the Nine Months Ended	
	October 1, 2016	September 26, 2015	October 1, 2016	September 26, 2015
<i>(In thousands, except per share data)</i>				
Net sales	\$ 506,584	\$ 535,184	\$ 1,583,464	\$ 1,628,019
Cost of goods sold	424,668	467,167	1,327,370	1,398,366
Depreciation and amortization	9,016	8,749	26,997	24,790
Selling, general, and administrative expense	32,413	32,241	102,707	97,922
Asset impairments	3,000	—	3,000	570
Gain on sale of assets	—	—	—	(15,376)
Severance	—	—	—	3,442
Operating income	37,487	27,027	123,390	118,305
Interest expense	(1,830)	(1,682)	(5,370)	(5,977)
Other income, net	120	164	880	534
Income before income taxes	35,777	25,509	118,900	112,862
Income tax expense	(10,837)	(5,223)	(38,963)	(36,374)
Income (loss) from unconsolidated affiliates, net of tax	1,122	(2,191)	3,049	(2,191)
Consolidated net income	26,062	18,095	82,986	74,297
Net income attributable to noncontrolling interests	(84)	(295)	(581)	(868)
Net income attributable to Mueller Industries, Inc.	\$ 25,978	\$ 17,800	\$ 82,405	\$ 73,429
Weighted average shares for basic earnings per share	56,631	56,375	56,536	56,272
Effect of dilutive stock-based awards	586	598	589	690
Adjusted weighted average shares for diluted earnings per share	57,217	56,973	57,125	56,962
Basic earnings per share	\$ 0.46	\$ 0.32	\$ 1.46	\$ 1.30
Diluted earnings per share	\$ 0.45	\$ 0.31	\$ 1.44	\$ 1.29
Dividends per share	\$ 0.100	\$ 0.075	\$ 0.275	\$ 0.225

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	
	October 1, 2016	September 26, 2015	October 1, 2016	September 26, 2015
Consolidated net income	\$ 26,062	\$ 18,095	\$ 82,986	\$ 74,297
Other comprehensive income (loss), net of tax:				
Foreign currency translation	(4,304)	(12,153)	(15,601)	(13,501)
Net change with respect to derivative instruments and hedging activities	(139) (1)	(915) (2)	1,155 (3)	(2,016) (4)
Net decrease in minimum pension and postretirement obligation adjustments	743 (5)	1,231 (6)	3,445 (7)	2,000 (8)
Attributable to unconsolidated affiliates	5,112 (9)	—	6,550 (10)	—
Other, net	54	(53)	77	(46)
Total other comprehensive income (loss)	1,466	(11,890)	(4,374)	(13,563)
Consolidated comprehensive income	27,528	6,205	78,612	60,734
Comprehensive (income) loss attributable to noncontrolling interests	(480)	709	382	534
Comprehensive income attributable to Mueller Industries, Inc.	\$ 27,048	\$ 6,914	\$ 78,994	\$ 61,268

See accompanying notes to condensed consolidated financial statements.

-
- (1) Net of tax of \$(119)
(2) Net of tax of \$575
(3) Net of tax of \$(606)
(4) Net of tax of \$1,014
(5) Net of tax of \$(255)
(6) Net of tax of \$(429)
(7) Net of tax of \$(1,175)
(8) Net of tax of \$(715)
(9) Net of tax of \$(2,888)
(10) Net of tax of \$(3,700)

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

<i>(In thousands, except share data)</i>	October 1, 2016	December 26, 2015
Assets		
Current assets:		
Cash and cash equivalents	\$ 297,793	\$ 274,844
Accounts receivable, less allowance for doubtful accounts of \$554 in 2016 and \$623 in 2015	295,672	251,571
Inventories	251,130	239,378
Other current assets	28,999	34,608
Total current assets	873,594	800,401
Property, plant, and equipment, net	289,074	280,224
Goodwill, net	128,004	120,252
Intangible assets, net	37,386	40,636
Investment in unconsolidated affiliates	79,199	65,900
Other assets	18,864	31,388
Total assets	\$ 1,426,121	\$ 1,338,801
Liabilities		
Current liabilities:		
Current portion of debt	\$ 16,907	\$ 11,760
Accounts payable	92,451	88,051
Accrued wages and other employee costs	34,447	35,636
Other current liabilities	58,395	73,982
Total current liabilities	202,200	209,429
Long-term debt, less current portion	213,847	204,250
Pension liabilities	14,517	17,449
Postretirement benefits other than pensions	17,021	17,427
Environmental reserves	20,708	20,943
Deferred income taxes	19,106	7,161
Other noncurrent liabilities	2,118	2,440
Total liabilities	489,517	479,099
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 57,378,695 in 2016 and 57,158,608 in 2015	802	802
Additional paid-in capital	271,476	271,158
Retained earnings	1,130,249	1,063,543
Accumulated other comprehensive loss	(58,401)	(54,990)
Treasury common stock, at cost	(450,354)	(453,228)
Total Mueller Industries, Inc. stockholders' equity	893,772	827,285
Noncontrolling interests	42,832	32,417
Total equity	936,604	859,702
Commitments and contingencies	—	—
Total liabilities and equity	\$ 1,426,121	\$ 1,338,801

See accompanying notes to condensed consolidated financial statements.

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

(In thousands)	For the Nine Months Ended	
	October 1, 2016	September 26, 2015
Cash flows from operating activities		
Consolidated net income	\$ 82,986	\$ 74,297
Reconciliation of consolidated net income to net cash provided by operating activities:		
Depreciation and amortization	27,267	25,132
Stock-based compensation expense	4,553	4,611
Equity in (earnings) losses of unconsolidated affiliates	(3,049)	2,191
Gain on disposal of assets	(747)	(14,875)
Impairment charges	3,000	570
Deferred income taxes	6,491	(8,262)
Income tax benefit from exercise of stock options	—	(953)
Changes in assets and liabilities, net of businesses acquired:		
Receivables	(45,780)	5,249
Inventories	(914)	29,901
Other assets	14,428	4,302
Current liabilities	(15,998)	(27,580)
Other liabilities	(2,101)	740
Other, net	450	145
Net cash provided by operating activities	70,586	95,468
Cash flows from investing activities		
Capital expenditures	(15,632)	(22,502)
Acquisition of businesses, net of cash acquired	(20,533)	(107,405)
Net withdrawals from restricted cash balances	1,177	1,822
Investment in unconsolidated affiliates	—	(65,900)
Proceeds from sales of assets	5,301	5,521
Net cash used in investing activities	(29,687)	(188,464)
Cash flows from financing activities		
Dividends paid to stockholders of Mueller Industries, Inc.	(15,555)	(12,669)
Dividends paid to noncontrolling interests	(3,765)	—
Issuance of long-term debt	2,000	—
Issuance (repayment) of debt by joint ventures, net	5,006	(21,597)
Net cash used to settle stock-based awards	(1,356)	(718)
Repayments of long-term debt	(769)	(750)
Income tax benefit from exercise of stock options	—	953
Net cash used in financing activities	(14,439)	(34,781)
Effect of exchange rate changes on cash	(3,511)	(3,612)
Increase (decrease) in cash and cash equivalents	22,949	(131,389)
Cash and cash equivalents at the beginning of the period	274,844	352,134
Cash and cash equivalents at the end of the period	\$ 297,793	\$ 220,745

See accompanying notes to condensed consolidated financial statements.

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 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. The fiscal nine months and quarter ended October 1, 2016 contained 40 weeks and 13 weeks, respectively, while the fiscal nine months and quarter ended September 26, 2015 contained 39 weeks and 13 weeks, respectively.

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 218 thousand and 383 thousand stock-based awards were excluded from the computation of diluted earnings per share for the quarters ended October 1, 2016 and September 26, 2015, respectively, because they were antidilutive.

Note 2 – Acquisitions and Dispositions

Acquisitions

On April 26, 2016, the Company entered into an agreement providing for the purchase of a 60.0 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. It complements the Company's existing copper fittings businesses in the Piping Systems segment and is reported in the Company's Condensed Consolidated Financial Statements one month in arrears.

This acquisition was accounted for using the acquisition method of accounting whereby the total purchase price was allocated to tangible and intangible assets acquired and liabilities assumed based on respective fair values.

The fair value of the assets acquired totaled \$48.8 million, consisting primarily of property, plant, and equipment of \$25.9 million, inventories of \$15.8 million, accounts receivable of \$5.6 million, and other current assets of \$1.5 million. The fair value of the liabilities assumed totaled \$17.3 million, consisting primarily of long-term debt of \$8.7 million, accounts payable of \$7.3 million, pension liabilities of \$0.8 million, and other current liabilities of \$0.5 million. Of the remaining purchase price, \$3.6 million was allocated to non-deductible goodwill. The noncontrolling interest in Jungwoo-Mueller is \$14.6 million. The purchase price allocation is provisional as of October 1, 2016 and subject to change upon completion of the final valuation of the long-lived assets and noncontrolling interest during the measurement period.

The valuations of certain businesses acquired in 2015 were finalized during 2016. During the second quarter of 2016, a deferred tax liability of \$4.1 million was recorded that resulted from a basis difference in the long-lived assets acquired from Great Lakes Copper Ltd. This resulted in an increase in goodwill. There were no changes to the purchase price allocations for Turbotec Products, Inc. or Sherwood Valve LLC from the amounts presented in the Company's 2015 Annual Report on Form 10-K.

Dispositions

On June 1, 2015, the Company sold certain assets. Simultaneously, the Company entered into a lease agreement with the purchaser of the assets for their continued use for a period of approximately 22 months (Lease Period).

The total sales price was \$20.2 million, of which \$5.0 million was received on June 1, 2015; the Company will receive \$5.0 million on December 30, 2016 and the remaining \$10.2 million will be received at the end of the Lease Period, March 31, 2017. This transaction resulted in a pre-tax gain of \$15.4 million in the second quarter of 2015, or 17 cents per diluted share after tax. This gain was recognized in the Piping Systems segment.

Note 3 –Segment Information

During the first quarter of 2016, the Company made changes to its management reporting structure as a result of a change in the way the Chief Executive Officer, who serves as the Chief Operating Decision Maker, manages and evaluates the business, makes key operating decisions, and allocates resources. Previously, the Company had two reportable segments: Plumbing & Refrigeration and OEM. During the first quarter, the Company realigned its operating segments into three reportable segments: Piping Systems, Industrial Metals, and Climate. Management has recast certain prior period amounts to conform to the current period presentation. Each of the 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, Canadian Operations, European Operations, Trading Group, Mueller-Xingrong (the Company's Chinese joint venture), and Jungwoo-Mueller (the Company's 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. and sold in North America. Outside the U.S., the Canadian Operations manufacture copper tube and line sets and sell the products primarily in the U.S. and 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. Mueller-Xingrong manufactures engineered copper tube primarily for air-conditioning applications in China. 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).

During the third quarter of 2016, the segment recognized impairment charges of \$3.0 million on fixed assets used for product development. During the second quarter of 2015, the segment recognized approximately \$3.4 million of severance costs related to the reorganization of Yorkshire Copper Tube, acquired in 2014.

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 and assemblies primarily for the heating, ventilation, air-conditioning, and refrigeration markets in the U.S.

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Summarized segment information is as follows:

<i>(In thousands)</i>	For the Quarter Ended October 1, 2016				
	<u>Piping Systems</u>	<u>Industrial Metals</u>	<u>Climate</u>	<u>Corporate and Eliminations</u>	<u>Total</u>
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	<u>3,000</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>3,000</u>
Operating income	24,138	18,749	4,824	(10,224)	37,487
Interest expense					(1,830)
Other income, net					<u>120</u>
Income before income taxes					<u>\$ 35,777</u>

<i>(In thousands)</i>	For the Quarter Ended September 26, 2015				
	<u>Piping Systems</u>	<u>Industrial Metals</u>	<u>Climate</u>	<u>Corporate and Eliminations</u>	<u>Total</u>
Net sales	\$ 367,892	\$ 139,472	\$ 28,494	\$ (674)	\$ 535,184
Cost of goods sold	320,571	125,146	22,160	(710)	467,167
Depreciation and amortization	5,430	2,154	608	557	8,749
Selling, general, and administrative expense	16,469	3,044	2,283	10,445	32,241
Operating income	25,422	9,128	3,443	(10,966)	27,027
Interest expense					(1,682)
Other income, net					<u>164</u>
Income before income taxes					<u>\$ 25,509</u>

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Segment information (continued):

<i>(In thousands)</i>	For the Nine Months Ended October 1, 2016				
	<u>Piping Systems</u>	<u>Industrial Metals</u>	<u>Climate</u>	<u>Corporate and Eliminations</u>	<u>Total</u>
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					<u>\$ 118,900</u>

<i>(In thousands)</i>	For the Nine Months Ended September 26, 2015				
	<u>Piping Systems</u>	<u>Industrial Metals</u>	<u>Climate</u>	<u>Corporate and Eliminations</u>	<u>Total</u>
Net sales	\$ 1,109,124	\$ 435,736	\$ 85,803	\$ (2,644)	\$ 1,628,019
Cost of goods sold	959,599	373,678	67,561	(2,472)	1,398,366
Depreciation and amortization	15,952	5,452	1,647	1,739	24,790
Selling, general, and administrative expense	50,021	8,044	6,637	33,220	97,922
Asset impairments	570	—	—	—	570
Gain on sale of assets	(15,376)	—	—	—	(15,376)
Severance	3,442	—	—	—	3,442
Operating income	94,916	48,562	9,958	(35,131)	118,305
Interest expense					(5,977)
Other income, net					534
Income before income taxes					<u>\$ 112,862</u>

<i>(In thousands)</i>	<u>October 1, 2016</u>	<u>December 26, 2015</u>
Segment assets:		
Piping Systems	\$ 855,036	\$ 811,343
Industrial Metals	160,413	153,102
Climate	61,713	61,672
General Corporate	348,959	312,684
	<u>\$ 1,426,121</u>	<u>\$ 1,338,801</u>

Note 4 – Inventories*(In thousands)*

	<u>October 1, 2016</u>	<u>December 26, 2015</u>
Raw materials and supplies	\$ 63,915	\$ 58,987
Work-in-process	37,131	25,161
Finished goods	157,128	161,410
Valuation reserves	<u>(7,044)</u>	<u>(6,180)</u>
Inventories	<u>\$ 251,130</u>	<u>\$ 239,378</u>

Note 5 – 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 (i) a hedge of a forecasted transaction or the variability of cash flow to be paid (cash flow hedge) or (ii) a hedge of 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, as the Company does not enter into derivative contracts for trading purposes (economic hedge). Changes in the fair value of a derivative instrument that is qualified, designated and highly effective as a cash flow hedge are recorded in accumulated other comprehensive income (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 derivative instruments and the ineffective portion of designated derivative instruments 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 flow 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.

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At October 1, 2016, the Company held open futures contracts to purchase approximately \$33.1 million of copper over the next 10 months related to fixed price sales orders. The fair value of those futures contracts was a \$1.6 million net gain 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 October 1, 2016, this amount was approximately \$350 thousand of deferred net gains, net of tax.

The Company may also enter into futures contracts to protect the value of inventory against market fluctuations. At October 1, 2016, the Company held open futures contracts to sell approximately \$6.1 million of copper over the next six months related to copper inventory. The fair value of those futures contracts was a \$129 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 Term Loan Facility, the all-in fixed rate on the effective date is 2.7 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 Term Loan Facility Agreement. The swap was designated and accounted for as a cash flow hedge from inception.

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 \$1.6 million net loss position at October 1, 2016, and there was \$1.0 million of deferred losses, net of tax, included in AOCI that are expected to be reclassified into interest expense over the term of the hedged item.

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	
		October 1, 2016	December 26, 2015		October 1, 2016	December 26, 2015
Hedging instrument:						
Commodity contracts - gains	Other current assets	\$ 1,634	\$ 60	Other current liabilities	\$ —	\$ 238
Commodity contracts - losses	Other current assets	(23)	—	Other current liabilities	(129)	(1,864)
Interest rate swap	Other assets	—	—	Other liabilities	(1,601)	(1,692)
Total derivatives ⁽¹⁾		<u>\$ 1,611</u>	<u>\$ 60</u>		<u>\$ (1,730)</u>	<u>\$ (3,318)</u>

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

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

(In thousands)	Location	Quarter Ended		Nine Months Ended	
		October 1, 2016	September 26, 2015	October 1, 2016	September 26, 2015
Fair value hedges:					
(Loss) gain on commodity contracts (qualifying)	Cost of goods sold	\$ (37)	\$ 1,831	\$ (420)	\$ 3,300
Gain (loss) on hedged item - Inventory	Cost of goods sold	31	(1,943)	382	(3,593)

(In thousands)	Location	Quarter Ended		Nine Months Ended	
		October 1, 2016	September 26, 2015	October 1, 2016	September 26, 2015
Undesignated derivatives:					
Gain on commodity contracts (nonqualifying)	Cost of goods sold	\$ 855	\$ 1,143	\$ 2,676	\$ 2,422

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

(In thousands)	Quarter Ended October 1, 2016	
	(Loss) Gain Recognized in AOCI (Effective Portion), Net of Tax	(Gain) Loss Reclassified from AOCI (Effective Portion), Net of Tax
Cash flow hedges:		
Commodity contracts	\$ (1,434)	\$ 814
Interest rate swap	457	58
Other	(32)	(2)
Total	\$ (1,009)	\$ 870

(In thousands)	Quarter Ended September 26, 2015	
	(Loss) Gain Recognized in AOCI (Effective Portion), Net of Tax	(Gain) Loss Reclassified from AOCI (Effective Portion), Net of Tax
Cash flow hedges:		
Commodity contracts	\$ (2,046)	\$ 1,708
Interest rate swap	(632)	58
Other	(7)	4
Total	\$ (2,685)	\$ 1,770

(In thousands)	Nine Months Ended October 1, 2016	
	Gain (Loss) Recognized in AOCI (Effective Portion), Net of Tax	(Gain) Loss Reclassified from AOCI (Effective Portion), Net of Tax
Cash flow hedges:		
Commodity contracts	\$ 1,903	\$ (477)
Interest rate swap	(128)	186
Other	(329)	—
Total	\$ 1,446	\$ (291)

Derivative information (continued):

	Nine Months Ended September 26, 2015	
	(Loss) Gain Recognized in AOCI (Effective Portion), Net of Tax	(Gain) Loss Reclassified from AOCI (Effective Portion), Net of Tax
	Classification Gains (Losses)	
<i>(In thousands)</i>		
Cash flow hedges:		
Commodity contracts	\$ (2,931)	Cost of goods sold \$ 2,198
Interest rate swap	(1,397)	Interest expense 189
Other	(75)	Other —
Total	\$ (4,403)	Total \$ 2,387

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 October 1, 2016 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 October 1, 2016 and December 26, 2015, the Company had recorded restricted cash in other current assets of \$1.4 million and \$2.6 million, respectively, as collateral related to open derivative contracts under the master netting arrangements.

Note 6 – 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.

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.

<i>(In thousands)</i>	June 30, 2016	September 30, 2015
Current assets	\$ 254,910	\$ 251,389
Noncurrent assets	133,200	112,156
Current liabilities	155,406	178,784
Noncurrent liabilities	74,291	63,643

	June 30, 2016	
	For the Quarter Ended	For the Nine Months Ended
<i>(In thousands)</i>		
Net sales	\$ 146,700	\$ 437,200
Gross profit	22,200	59,700
Net income	2,244	6,097

Included in the equity method investees' net income for the nine months ended June 30, 2016 is a gain of \$17.1 million that resulted from the allocation of the purchase price, which was finalized during the quarter ended December 31, 2015. That gain was offset by restructuring and impairment charges of \$5.3 million and net losses of \$5.7 million.

Note 7 –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:

	For the Quarter Ended		For the Nine Months Ended	
	October 1, 2016	September 26, 2015	October 1, 2016	September 26, 2015
<i>(In thousands)</i>				
Pension benefits:				
Service cost	\$ 180	\$ 250	\$ 540	\$ 750
Interest cost	1,973	2,041	5,917	6,122
Expected return on plan assets	(2,466)	(2,654)	(7,398)	(7,963)
Amortization of net loss	760	685	2,280	2,055
Net periodic benefit cost	<u>\$ 447</u>	<u>\$ 322</u>	<u>\$ 1,339</u>	<u>\$ 964</u>
Other benefits:				
Service cost	\$ 61	\$ 90	\$ 183	\$ 270
Interest cost	153	193	458	579
Amortization of prior service (credit) cost	(224)	2	(672)	5
Amortization of net gain	(9)	(7)	(27)	(20)
Net periodic benefit (income) cost	<u>\$ (19)</u>	<u>\$ 278</u>	<u>\$ (58)</u>	<u>\$ 834</u>

Note 8 – 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.

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 October 1, 2016 were \$7.0 million.

Note 9 – Income Taxes

The Company's effective tax rate for the third quarter of 2016 was 30 percent compared with 20 percent for the same period last year. The items impacting the effective tax rate for the third quarter of 2016 were primarily attributable to reductions for the U.S. production activities deduction of \$0.6 million and the effect of foreign tax rates lower than statutory tax rates of \$1.0 million. These items were partially offset by the provision for state income taxes, net of the federal benefit, of \$0.6 million.

For the third quarter of 2015, the difference between the effective tax rate and the amount computed using the U.S. federal statutory tax rate was primarily attributable to a permanent reduction to the Company's deferred tax liabilities of \$4.2 million resulting from the acquisition of a foreign subsidiary and the U.S. production activities deduction of \$0.8 million.

The Company's effective tax rate for the first nine months of 2016 was 33 percent compared with 32 percent for the same period last year. The items impacting the effective tax rate for the first nine months of 2016 were primarily attributable to reductions for the U.S. production activities deduction of \$2.5 million and the effect of foreign tax rates lower than statutory tax rates of \$3.5 million. These items were partially offset by the provision for state income taxes, net of the federal benefit, of \$2.3 million.

For the first nine months of 2015, the difference between the effective tax rate and the amount computed using the U.S. federal statutory tax rate was primarily attributable to reductions to the Company's deferred tax liabilities of \$4.2 million and the U.S. production activities deduction of \$3.0 million. These items were partially offset by the provision for state income taxes, net of federal benefit, of \$2.1 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 2013 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 10 – 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 October 1, 2016				
	Cumulative Translation Adjustment	Unrealized (Losses) Gains on Derivatives	Minimum Pension/OPEB Liability Adjustment	Other	Total
Balance at December 26, 2015	\$ (24,773)	\$ (2,009)	\$ (28,429)	\$ 221	\$ (54,990)
Other comprehensive income (loss) before reclassifications	(14,638)	1,446	2,258	6,627	(4,307)
Amounts reclassified from AOCI	—	(291)	1,187	—	896
Net current-period other comprehensive income (loss)	(14,638)	1,155	3,445	6,627	(3,411)
Balance at October 1, 2016	<u>\$ (39,411)</u>	<u>\$ (854)</u>	<u>\$ (24,984)</u>	<u>\$ 6,848</u>	<u>\$ (58,401)</u>

<i>(In thousands)</i>	For the Nine Months Ended September 26, 2015				
	Cumulative Translation Adjustment	Unrealized (Losses) Gains on Derivatives	Minimum Pension/OPEB Liability Adjustment	Other	Total
Balance at December 27, 2014	\$ (7,076)	\$ (953)	\$ (35,164)	\$ 270	\$ (42,923)
Other comprehensive income (loss) before reclassifications	(12,099)	(4,403)	510	(46)	(16,038)
Amounts reclassified from AOCI	—	2,387	1,490	—	3,877
Net current-period other comprehensive income (loss)	(12,099)	(2,016)	2,000	(46)	(12,161)
Balance at September 26, 2015	<u>\$ (19,175)</u>	<u>\$ (2,969)</u>	<u>\$ (33,164)</u>	<u>\$ 224</u>	<u>\$ (55,084)</u>

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Reclassification adjustments out of AOCI were as follows:

<i>(In thousands)</i>	Amount reclassified from AOCI		Affected line item
	For the Quarter Ended		
	October 1, 2016	September 26, 2015	
Unrealized losses (gains) on derivatives:			
Commodity contracts	\$ 848	\$ 2,339	Cost of goods sold
Interest rate swap	91	91	Interest expense
	<u>(67)</u>	<u>(664)</u>	Income tax expense
	872	1,766	Net of tax
	<u>—</u>	<u>—</u>	Noncontrolling interests
	<u>\$ 872</u>	<u>\$ 1,766</u>	Net of tax and noncontrolling interests
Amortization of net loss and prior service cost on employee benefit plans			
	\$ 527	\$ 680	Selling, general, and administrative expense
	<u>(132)</u>	<u>(188)</u>	Income tax expense
	395	492	Net of tax
	<u>—</u>	<u>—</u>	Noncontrolling interests
	<u>\$ 395</u>	<u>\$ 492</u>	Net of tax and noncontrolling interests

<i>(In thousands)</i>	Amount reclassified from AOCI		Affected line item
	For the Nine Months Ended		
	October 1, 2016	September 26, 2015	
Unrealized losses (gains) on derivatives:			
Commodity contracts	\$ (1,023)	\$ 2,990	Cost of goods sold
Interest rate swap	291	295	Interest expense
	<u>441</u>	<u>(898)</u>	Income tax expense
	(291)	2,387	Net of tax
	<u>—</u>	<u>—</u>	Noncontrolling interests
	<u>\$ (291)</u>	<u>\$ 2,387</u>	Net of tax and noncontrolling interests
Amortization of net loss and prior service cost on employee benefit plans			
	\$ 1,581	\$ 2,040	Selling, general, and administrative expense
	<u>(394)</u>	<u>(550)</u>	Income tax expense
	1,187	1,490	Net of tax
	<u>—</u>	<u>—</u>	Noncontrolling interests
	<u>\$ 1,187</u>	<u>\$ 1,490</u>	Net of tax and noncontrolling interests

Note 11 – Noncontrolling Interests

<i>(In thousands)</i>	<u>Noncontrolling Interests</u>
Balance at December 26, 2015	\$ 32,417
Purchase of Jungwoo-Mueller	14,562
Dividends paid to noncontrolling interests	(3,765)
Net income attributable to noncontrolling interests	581
Other comprehensive loss attributable to noncontrolling interests, net of tax:	
Foreign currency translation	(963)
Balance at October 1, 2016	<u>\$ 42,832</u>

Note 12 – Recently Issued Accounting Standards

In March 2016, the Financial Accounting Standards Board (FASB) issued ASU (Accounting Standards Update) No. 2016-09, *Compensation – Stock Compensation (Topic 718): Improvement to Employee Share-Based Payment Accounting* (ASU 2016-09). The ASU requires all income tax effects of awards to be recognized in the income statement when the awards vest or are settled. It also allows a company to make a policy election to account for forfeitures as they occur. The guidance is effective for public business entities in interim and fiscal periods beginning after December 15, 2016. Early adoption is permitted, but all of the guidance must be adopted in the same period. The Company early adopted this standard effective December 27, 2015. The impact of the adoption of this standard was as follows:

- Approximately \$0.8 million of excess tax benefits was recorded through income tax expense as a discrete item for the three and nine months ended October 1, 2016, adopted on a prospective basis from December 27, 2015.
- Excess tax benefits were combined with other income tax cash flows within operating cash flows adopted on a prospective basis rather than as a financing activity.
- The Company has elected to change its current policy of estimating forfeitures to a policy of recognizing forfeitures when they occur on a prospective basis from December 27, 2015.

In February 2016, the FASB issued ASU No. 2016-02, *Leases (Topic 842) (ASU 2016-02)*. ASU 2016-02 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 fiscal 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 ASU 2016-02 will have on its Condensed Consolidated Financial Statements.

In April 2015, the FASB issued ASU No. 2015-03, *Interest – Imputation of Interest (Topic 835-30): Simplifying the Presentation of Debt Issue Costs* (ASU 2015-03). The ASU simplifies the presentation of debt issuance costs by requiring debt issuance costs related to a recognized debt liability to be presented on the balance sheet as a direct deduction from the debt liability rather than as a separate asset. In circumstances in which there is not an associated debt liability amount recorded in the financial statements when the debt issuance costs are incurred, they will be reported on the balance sheet as an asset until the debt liability is recorded. The guidance is effective for public business entities in interim and fiscal periods beginning after December 15, 2015. Retrospective application is required. The Company adopted ASU 2015-03 effective December 27, 2015. The adoption of the ASU did not have a material impact on the Company's Condensed Consolidated Financial Statements.

In May 2014, the FASB issued ASU No. 2014-09, *Revenue from Contracts with Customers (Topic 606)* (ASU 2014-09). The ASU will supersede virtually all existing revenue recognition guidance under U.S. GAAP and will be effective for annual reporting periods beginning after December 15, 2017. The fundamental principles of the new guidance are that companies should recognize revenue in a manner that reflects the timing of the transfer of services to customers and the amount of revenue recognized reflects the consideration that a company expects to receive for the goods and services provided. The new guidance establishes a five-step approach for the recognition of revenue. The Company is in the process of evaluating the impact of ASU 2014-09 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.

During the first quarter of 2016, we made changes to our management reporting structure as a result of a change in the way the Chief Executive Officer, who serves as the Chief Operating Decision Maker, manages and evaluates the business, makes key operating decisions, and allocates resources. Previously, we had two reportable segments: Plumbing & Refrigeration and OEM. During the first quarter, we realigned our operating segments into three reportable segments: Piping Systems, Industrial Metals, and Climate. The changes to the reporting structure resulted from management's decision to operationally separate certain businesses in order to enhance the level of focus on those businesses. This included the appointment of separate management teams. In addition, as a result of several acquisitions, we separated certain businesses with similar characteristics to create the Climate and Industrial Metals segments. These businesses were previously aggregated within the OEM segment. Management has recast certain prior period amounts to conform to the current period presentation. Each of the 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, Canadian Operations, European Operations, Trading Group, Mueller-Xingrong (our Chinese joint venture), and Jungwoo-Mueller (our South Korean joint venture). The Domestic Piping Systems Group manufactures and sells copper tube, copper and plastic fittings, line sets, and valves in North America. The Canadian Operations manufacture copper tube and line sets in Canada and sell the products primarily in the U.S. and 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. Mueller-Xingrong manufactures engineered copper tube primarily for air-conditioning applications; these products are sold primarily to OEMs located in China. 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.
- **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 and fabricated tubular products. 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 the Company's 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.

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Residential construction activity has shown improvement in recent years, but remains at levels below long-term historical averages. Continued improvement is expected, but may be tempered by continuing low labor participation rates, the pace of household formations, and tighter lending standards. Per the U.S. Census Bureau, the September 2016 seasonally adjusted annual rate of new housing starts was 1.0 million compared with the September 2015 rate of 1.2 million. Mortgage rates remain at historically low levels, as the average 30-year fixed mortgage rate was 3.59 percent for the first nine months of 2016 and 3.85 percent for the twelve months ended December 2015.

The private non-residential construction sector, which includes offices, industrial, health care, and retail projects, has shown improvement in recent years. The seasonally adjusted annual value of private nonresidential construction put in place was \$422.4 billion in August 2016 compared to August 2015 rate of \$405.5 billion. We expect that most of these conditions will continue to improve.

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 Operations

Consolidated Results

The following table compares summary operating results for 2016 and 2015:

	Quarter Ended		Percent Change 2016 vs. 2015	Nine Months Ended		Percent Change 2016 vs. 2015
	Oct. 1, 2016	Sept. 26, 2015		Oct. 1, 2016	Sept. 26, 2015	
<i>(In thousands)</i>						
Net sales	\$ 506,584	\$ 535,184	(5.3)%	\$ 1,583,464	\$ 1,628,019	(2.7) %
Operating income	37,487	27,027	38.7	123,390	118,305	4.3
Net income	25,978	17,800	45.9	82,405	73,429	12.2

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

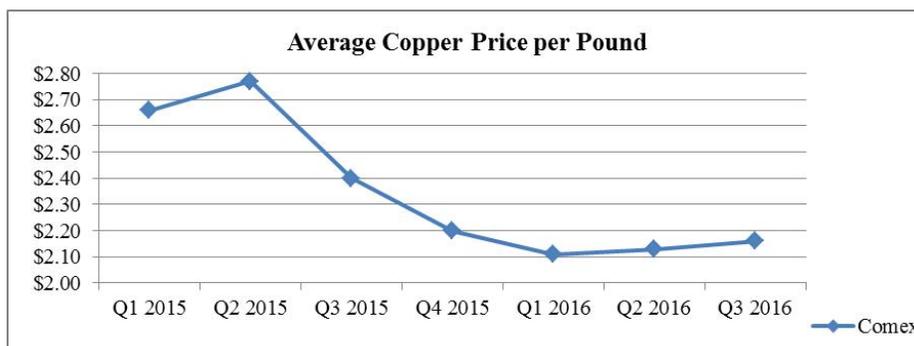
	Quarter-to-Date 2016 vs. 2015	Year-to-Date 2016 vs. 2015
Net selling price in core product lines	(8.1) %	(11.4) %
Unit sales volume in core product lines	1.9	(1.8)
Acquisitions	1.5	10.8
Other	(0.6)	(0.3)
	<u>(5.3) %</u>	<u>(2.7) %</u>

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The decrease in net sales during the third quarter of 2016 was primarily due to lower net selling prices of \$43.4 million in our core product lines, primarily copper tube and brass rod. This decrease was offset by (i) higher unit sales volume of \$10.4 million, primarily in our North American copper tube businesses, and (ii) \$7.8 million of sales recorded by Jungwoo Metal Ind. Co., LTD (Jungwoo-Mueller), acquired in April 2016.

The decrease in net sales during the first nine months of 2016 was primarily due to (i) lower net selling prices of \$185.6 million in our core product lines and (ii) lower unit sales volume of \$30.0 million in our core product lines, primarily in the Industrial Metals segment and at Mueller-Xingrong. These decreases were offset by (i) \$139.9 million of incremental sales recorded by Great Lakes Copper Ltd. (Great Lakes), acquired in July 2015, (ii) \$21.9 million of incremental sales recorded by Sherwood Valve LLC (Sherwood), acquired in June 2015, (iii) \$11.0 million of sales recorded by Jungwoo-Mueller, and (iv) \$3.7 million of incremental sales recorded by Turbotec Products, Inc. (Turbotec), acquired in March 2015.

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 2016 and 2015:

<i>(In thousands)</i>	Quarter Ended		Nine Months Ended	
	Oct. 1, 2016	Sept. 26, 2015	Oct. 1, 2016	Sept. 26, 2015
Cost of goods sold	\$ 424,668	\$ 467,167	\$ 1,327,370	\$ 1,398,366
Depreciation and amortization	9,016	8,749	26,997	24,790
Selling, general and administrative expense	32,413	32,241	102,707	97,922
Asset impairments	3,000	—	3,000	570
Gain on sale of assets	—	—	—	(15,376)
Severance	—	—	—	3,442
Operating expenses	<u>\$ 469,097</u>	<u>\$ 508,157</u>	<u>\$ 1,460,074</u>	<u>\$ 1,509,714</u>

	Quarter Ended		Nine Months Ended	
	Oct. 1, 2016	Sept. 26, 2015	Oct. 1, 2016	Sept. 26, 2015
Cost of goods sold	83.8%	87.3%	83.8%	85.9%
Depreciation and amortization	1.8	1.6	1.7	1.5
Selling, general and administrative expense	6.4	6.0	6.5	6.0
Asset impairments	0.6	—	0.2	—
Gain on sale of assets	—	—	—	(0.9)
Severance	—	—	—	0.2
Operating expenses	<u>92.6%</u>	<u>94.9%</u>	<u>92.2%</u>	<u>92.7%</u>

Q3 2016 compared to Q3 2015

The decrease in cost of goods sold was primarily due to the decrease in the average cost of copper, our principal raw material, partially offset by the increase in sales volume in certain businesses. Depreciation and amortization increased in the third quarter of 2016 primarily as a result of depreciation and amortization of long-lived assets of businesses acquired in 2015 and 2016. Selling, general, and administrative expense for the third quarter of 2016 was consistent with the third quarter of 2015. 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 and other income, net, for the third quarter of 2016 were consistent with the third quarter of 2015.

Our effective tax rate for the third quarter of 2016 was 30 percent compared with 20 percent for the same period last year. The items impacting the effective tax rate for the third quarter of 2016 were primarily attributable to reductions for the U.S. production activities deduction of \$0.6 million and the effect of foreign tax rates lower than statutory tax rates of \$1.0 million. These items were partially offset by the provision for state income taxes, net of the federal benefit, of \$0.6 million.

For the third quarter of 2015, the difference between the effective tax rate and the amount computed using the U.S. federal statutory tax rate was primarily related to reductions to our deferred tax liabilities of \$4.2 million resulting from the acquisition of a foreign subsidiary and the U.S. production activities deduction of \$0.8 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 2016, we recognized income of \$1.1 million on these investments. For the third quarter of 2015, we recognized \$2.2 million of losses on these investments related to transaction costs.

2016 YTD compared to 2015 YTD

The decrease in cost of goods sold was primarily due to the decrease in the average cost of copper, partially offset by the increase in sales volume related to businesses acquired during 2015 and 2016. Depreciation and amortization increased slightly in the first nine months of 2016 primarily as a result of depreciation and amortization of long-lived assets of businesses acquired. Selling, general, and administrative expense increased for the first nine months of 2016 primarily as a result of incremental expenses of \$7.3 million associated with businesses acquired. This was partially offset by a reduction in (i) foreign currency exchange losses of \$0.8 million and (ii) employee compensation expenses, including incentive compensation, of \$0.6 million. In addition, there were equipment relocation costs of \$0.9 million related to the rationalization of Yorkshire Copper Tube (Yorkshire) recognized in the first nine months of 2015.

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During the first nine months of 2016, there were fixed asset impairment charges for certain manufacturing equipment of \$3.0 million recognized. During the first nine months of 2015, our operating results were positively impacted by a net gain of \$15.4 million recorded on the sale of certain assets. This was offset by \$3.4 million of severance charges and \$0.6 million of fixed asset impairment charges related to the rationalization of Yorkshire.

Interest expense decreased in the first nine months of 2016 primarily as a result of decreased borrowing costs at Mueller-Xingrong. Other income, net, for the first nine months of 2016 was consistent with the first nine months of 2015.

Our effective tax rate for the first nine months of 2016 was 33 percent compared with 32 percent for the same period last year. The items impacting the effective tax rate for the first nine months of 2016 were primarily attributable to reductions for the U.S. production activities deduction of \$2.5 million and the effect of foreign tax rates lower than statutory tax rates of \$3.5 million. These items were partially offset by the provision for state income taxes, net of the federal benefit, of \$2.3 million.

For the first nine months of 2015, the difference between the effective tax rate and the amount computed using the U.S. federal statutory tax rate was attributable to a reduction to our deferred tax liabilities of \$4.2 million resulting from the acquisition of a foreign subsidiary and the U.S. production activities deduction of \$3.0 million. These items were partially offset by state income taxes of \$2.1 million.

During the first nine months of 2016, we recognized \$3.0 million of income on our investment in unconsolidated affiliates. This included the gain that resulted from the allocation of the purchase price recorded by our equity method investees, which was offset by restructuring and impairment charges and net losses. For the first nine months of 2015, we recognized \$2.2 million of losses on our investments related to transaction costs.

Piping Systems Segment

The following table compares summary operating results for 2016 and 2015 for the businesses comprising our Piping Systems segment:

<i>(In thousands)</i>	Quarter Ended		Percent Change 2016 vs. 2015	Nine Months Ended		Percent Change 2016 vs. 2015
	Oct. 1, 2016	Sept. 26, 2015		Oct. 1, 2016	Sept. 26, 2015	
	Net sales	\$ 351,557	\$ 367,892	(4.4) %	\$ 1,109,109	\$ 1,109,124
Operating income	24,138	25,422	(5.1)	88,256	94,916	(7.0)

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

	Quarter-to-Date 2016 vs. 2015	Year-to-Date 2016 vs. 2015
Net selling price in core product lines	(9.8) %	(12.2)%
Unit sales volume in core product lines	3.3	(0.9)
Acquisitions	2.1	13.6
Other	—	(0.5)
	<u>(4.4) %</u>	<u>—%</u>

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The decrease in net sales during the third quarter of 2016 was primarily attributable to lower net selling prices in the segment's core product lines, primarily copper tube, of \$35.8 million. These decreases were offset by (i) higher unit sales volume of \$12.2 million in the segment's core product lines, primarily in our North American copper tube businesses, and (ii) \$7.8 million of sales recorded by Jungwoo-Mueller.

Sales during the first nine months of 2016 were consistent with sales for the first nine months of 2015. This was primarily due to (i) \$139.9 million of incremental sales recorded by Great Lakes and (ii) \$11.0 million of sales recorded by Jungwoo-Mueller. These increases were offset by (i) lower net selling prices of \$135.2 million in the segment's core product lines, (ii) a reduction in unit sales volume of \$10.4 million in the segment's core product lines, and (iii) a decrease in net sales of \$6.5 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 2016 and 2015:

<i>(In thousands)</i>	Quarter Ended		Nine Months Ended	
	Oct. 1, 2016	Sept. 26, 2015	Oct. 1, 2016	Sept. 26, 2015
Cost of goods sold	\$ 301,867	\$ 320,571	\$ 949,015	\$ 959,599
Depreciation and amortization	5,905	5,430	17,341	15,952
Selling, general and administrative expense	16,647	16,469	51,497	50,021
Asset impairments	3,000	—	3,000	570
Gain on sale of assets	—	—	—	(15,376)
Severance	—	—	—	3,442
Operating expenses	<u>\$ 327,419</u>	<u>\$ 342,470</u>	<u>\$ 1,020,853</u>	<u>\$ 1,014,208</u>

	Quarter Ended		Nine Months Ended	
	Oct. 1, 2016	Sept. 26, 2015	Oct. 1, 2016	Sept. 26, 2015
Cost of goods sold	85.9%	87.1%	85.6%	86.5%
Depreciation and amortization	1.7	1.5	1.6	1.4
Selling, general and administrative expense	4.6	4.5	4.5	4.5
Asset impairments	0.9	—	0.3	0.1
Gain on sale of assets	—	—	—	(1.4)
Severance	—	—	—	0.3
Operating expenses	<u>93.1%</u>	<u>93.1%</u>	<u>92.0%</u>	<u>91.4%</u>

The decrease in cost of goods sold during the third quarter of 2016 was primarily due to the decrease in the average cost of copper, partially offset by the increase in sales volume in certain businesses. Depreciation and amortization increased slightly as a result of depreciation and amortization of the long-lived assets acquired at Great Lakes and Jungwoo-Mueller. Selling, general, and administrative expense for the third quarter of 2016 was consistent with the third quarter of 2015. In addition, there were fixed asset impairment charges for certain manufacturing equipment of \$3.0 million recognized during the third quarter of 2016.

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The decrease in cost of goods sold during the first nine months of 2016 was primarily due to the decrease in the average cost of copper, partially offset by the increase in sales volume related to businesses acquired during 2015 and 2016. Depreciation and amortization increased as a result of depreciation and amortization of the long-lived assets acquired at Great Lakes and Jungwoo-Mueller. Selling, general, and administrative expenses increased for the first nine months of 2016, primarily due to (i) incremental expenses associated with Great Lakes and Jungwoo-Mueller of \$5.5 million. This was offset by a reduction in (i) sales commissions of \$1.9 million, (ii) foreign currency exchange losses of \$0.8 million, and (iii) employee compensation expenses, including incentive compensation, \$0.6 million. In addition, there were equipment relocation costs of \$0.9 million related to the rationalization of Yorkshire recognized in the first nine months of 2015.

During the first nine months of 2016, there were fixed asset impairment charges for certain manufacturing equipment of \$3.0 million recognized. During the first nine months of 2015, the segment's operating results were positively impacted by a net gain of \$15.4 million recorded on the sale of certain assets. This was offset by \$3.4 million of severance charges and \$0.6 million of fixed asset impairment charges related to the rationalization of Yorkshire.

Industrial Metals Segment

The following table compares summary operating results for 2016 and 2015 for the businesses comprising our Industrial Metals segment:

<i>(In thousands)</i>	Quarter Ended		Percent Change	Nine Months Ended		Percent Change
	Oct. 1, 2016	Sept. 26, 2015	2016 vs. 2015	Oct. 1, 2016	Sept. 26, 2015	2016 vs. 2015
Net sales	\$ 131,350	\$ 139,472	(5.8) %	\$ 393,608	\$ 435,736	(9.7) %
Operating income	18,749	9,128	105.4	55,785	48,562	14.9

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

	Quarter-to-Date 2016 vs. 2015	Year-to-Date 2016 vs. 2015
Net selling price in core product lines	(5.4) %	(11.5) %
Unit sales volume in core product lines	(1.3)	(4.5)
Acquisitions	—	5.0
Other	0.9	1.3
	<u>(5.8) %</u>	<u>(9.7) %</u>

The decrease in net sales during the third quarter of 2016 was primarily due to (i) lower net selling prices of \$7.6 million in the segment's core product lines, primarily brass rod, and (ii) lower unit sales volume of \$1.8 million in the segment's core product lines.

The decrease in net sales during the first nine months of 2016 was primarily due to (i) lower net selling prices of \$50.3 million in the segment's core product lines, primarily brass rod, and (ii) lower unit sales volume of \$19.6 million in the segment's core product lines. These decreases were offset by \$21.9 million of incremental sales recorded by Sherwood.

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The following tables compare cost of goods sold and operating expenses as dollar amounts and as a percent of net sales for 2016 and 2015:

<i>(In thousands)</i>	Quarter Ended		Nine Months Ended	
	Oct. 1, 2016	Sept. 26, 2015	Oct. 1, 2016	Sept. 26, 2015
Cost of goods sold	\$ 107,512	\$ 125,146	\$ 321,615	\$ 373,678
Depreciation and amortization	1,964	2,154	6,219	5,452
Selling, general and administrative expense	3,125	3,044	9,989	8,044
Operating expenses	\$ 112,601	\$ 130,344	\$ 337,823	\$ 387,174

	Quarter Ended		Nine Months Ended	
	Oct. 1, 2016	Sept. 26, 2015	Oct. 1, 2016	Sept. 26, 2015
Cost of goods sold	81.9%	89.7%	81.7%	85.8%
Depreciation and amortization	1.5	1.6	1.6	1.3
Selling, general and administrative expense	2.3	2.2	2.5	1.8
Operating expenses	85.7%	93.5%	85.8%	88.9%

The decrease in cost of goods sold during the third quarter of 2016 was primarily due to the decrease in the average cost of copper. A sharp decline in copper prices during the third quarter of 2015 put pressure on margins of our FIFO accounting businesses. Depreciation and amortization and selling, general, and administrative expenses for the third quarter of 2016 were consistent with the third quarter of 2015.

The decrease in cost of goods sold during the first nine months of 2016 was primarily due to the decrease in the average cost of copper and the decrease in sales volume in the segment's core product lines, partially offset by the increase in sales volume related to the acquisition of Sherwood. Depreciation and amortization increased as a result of the long-lived assets acquired at Sherwood and recent capital expenditures. Selling, general, and administrative expenses increased primarily due to incremental expenses associated with Sherwood of \$2.1 million, offset by a decrease in net periodic pension costs of \$0.5 million.

Climate Segment

The following table compares summary operating results for 2016 and 2015 for the businesses comprising our Climate segment:

<i>(In thousands)</i>	Quarter Ended		Percent Change 2016 vs. 2015	Nine Months Ended		Percent Change 2016 vs. 2015
	Oct. 1, 2016	Sept. 26, 2015		Oct. 1, 2016	Sept. 26, 2015	
Net sales	\$ 30,003	\$ 28,494	5.3%	\$ 92,068	\$ 85,803	7.3%
Operating income	4,824	3,443	40.1	14,540	9,958	46.0

Sales for the third quarter of 2016 increased primarily as a result of an increase in volume. The increase in sales for the first nine months of 2016 was primarily due to incremental sales recorded by Turbotec of \$3.7 million and an increase in volume in the segment's other businesses.

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The following tables compare cost of goods sold and operating expenses as dollar amounts and as a percent of net sales for 2016 and 2015:

<i>(In thousands)</i>	Quarter Ended		Nine Months Ended	
	Oct. 1, 2016	Sept. 26, 2015	Oct. 1, 2016	Sept. 26, 2015
Cost of goods sold	\$ 22,210	\$ 22,160	\$ 68,363	\$ 67,561
Depreciation and amortization	612	608	1,829	1,647
Selling, general and administrative expense	2,357	2,283	7,336	6,637
Operating expenses	\$ 25,179	\$ 25,051	\$ 77,528	\$ 75,845

	Quarter Ended		Nine Months Ended	
	Oct. 1, 2016	Sept. 26, 2015	Oct. 1, 2016	Sept. 26, 2015
Cost of goods sold	74.0%	77.8%	74.3%	78.8%
Depreciation and amortization	2.0	2.1	2.0	1.9
Selling, general and administrative expense	7.9	8.0	7.9	7.7
Operating expenses	83.9%	87.9%	84.2%	88.4%

Cost of goods sold during the third quarter of 2016 were consistent with the third quarter of 2015. This was primarily due the increase in volume, offset by improved margins and product mix within the segment. Depreciation and amortization and selling, general, and administrative expenses for the third quarter of 2016 were consistent with the expense recorded for the third quarter of 2015.

The increase in cost of goods sold during the first nine months of 2016 was related to the increase in volume with the acquisition of Turbotec and in the other businesses within the segment, partially offset by improved margins and product mix within the segment. Depreciation and amortization increased as a result of the depreciation and amortization of the long-lived assets acquired at Turbotec. Selling, general, and administrative expenses increased slightly primarily due to incremental expenses associated with Turbotec of \$0.6 million.

Liquidity and Capital Resources

The following table presents selected financial information for the first nine months of 2016 and 2015:

<i>(In thousands)</i>	2016	2015
Increase (decrease) in:		
Cash and cash equivalents	\$ 22,949	\$ (131,389)
Property, plant, and equipment, net	8,850	24,745
Total debt	14,744	(23,188)
Working capital, net of cash and current debt	62,620	1,765
Cash provided by operating activities	70,586	95,468
Cash used in investing activities	(29,687)	(188,464)
Cash used in financing activities	(14,439)	(34,781)

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Cash Provided by Operating Activities

During the nine months ended October 1, 2016, cash provided by operating activities was primarily attributable to consolidated net income of \$83.0 million, depreciation and amortization of \$27.3 million, decreased other assets of \$14.4 million, and deferred income taxes of \$6.5 million. These increases were offset by increased receivables of \$45.8 million and decreased current liabilities of \$16.0 million. The fluctuations are primarily due to additional working capital needs in the first nine months of 2016.

During the nine months ended September 26, 2015, cash provided by operating activities was primarily attributable to consolidated net income of \$74.3 million, a decrease in inventories of \$29.9 million, and depreciation and amortization of \$25.1 million. These cash increases were partially offset by decreased current liabilities of \$27.6 million and the \$14.9 million gain on the sale of certain assets. These fluctuations are primarily due to a net decrease in working capital needs.

Cash Used in Investing Activities

The major components of net cash used in investing activities in the first nine months of 2016 included \$20.5 million for the purchase of a 60.0 percent equity interest in Jungwoo-Mueller, net of cash acquired, and capital expenditures of \$15.6 million, offset by \$5.3 million in proceeds from the sale of assets and net withdrawals from restricted cash balances of \$1.1 million.

The major components of net cash used in investing activities in the first nine months of 2015 included \$107.4 million for the acquisition of Turbotec, Sherwood, and Great Lakes, \$65.9 million for our investment in the Joint Venture, and capital expenditures of \$22.5 million. These cash decreases were offset by \$5.5 million in proceeds from the sale of certain assets and net withdrawals from restricted cash balances of \$1.8 million.

Cash Used in Financing Activities

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

For the first nine months of 2015, net cash used in financing activities consisted primarily of \$21.6 million used for the repayment of debt by Mueller-Xingrong and \$12.7 million used for payment of regular quarterly dividends to stockholders of the Company.

Liquidity and Outlook

Management believes 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 October 1, 2016 our current ratio was 4.3 to 1.

We have significant environmental remediation obligations which we expect to pay over future years. Cash used for environmental remediation activities was approximately \$0.5 million during the first nine months of 2016. We expect to spend approximately \$0.2 million for the remainder of 2016 for ongoing environmental remediation activities.

The Company declared and paid a quarterly cash dividend of 7.5 cents per common share in the first quarter of 2016, 10.0 cents per common share in the second and third quarters of 2016, and 7.5 cents per common share in the first, second, and third quarters of 2015. 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 \$200.0 million revolving credit facility (the Revolving Credit Facility) and a \$200.0 million Term Loan Facility, both of which mature on December 11, 2017. The Revolving Credit Facility backed approximately \$7.0 million in letters of credit at the end of the third quarter of 2016.

On March 23, 2016, Mueller-Xingrong entered into a new secured revolving credit arrangement with a total borrowing capacity of RMB 150 million (or approximately \$24.1 million). In addition, Mueller-Xingrong occasionally finances working capital through various accounts receivable and bank draft discount arrangements. Borrowings are secured by the real property and equipment and bank draft receivables of Mueller-Xingrong and bear interest at the latest base-lending rate published by the People's Bank of China, which was 4.35 percent as of October 1, 2016. Total borrowings at Mueller-Xingrong were \$11.0 million as of October 1, 2016.

Jungwoo-Mueller has several secured revolving credit arrangements with a total borrowing capacity of KRW 35.7 billion (or approximately \$30.0 million). Borrowings are secured by the real property and equipment of Jungwoo-Mueller and were bearing interest at 3.28 percent as of October 1, 2016. Total borrowings at Jungwoo-Mueller were \$13.3 million as of October 1, 2016.

As of October 1, 2016, the Company's total debt was \$230.8 million or 19.8 percent of its total capitalization.

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 October 1, 2016, the Company was in compliance with all of its debt covenants.

Share Repurchase Program

The Company's Board of Directors has extended, until October 2017, 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 have no obligation to repurchase any shares and 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 October 1, 2016, 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 26, 2015.

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

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 October 1, 2016, we held open futures contracts to purchase approximately \$33.1 million of copper over the next 10 months related to fixed-price sales orders and to sell approximately \$6.1 million of copper over the next six months related to copper inventory.

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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 October 1, 2016, we held no open futures contracts to purchase natural gas.

Interest Rates

At October 1, 2016, we had variable-rate debt outstanding of \$215.5 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 exposures on variable-rate debt are based on LIBOR and the base-lending rate published by the People's Bank of China.

Included in the variable-rate debt outstanding is the Company's \$200.0 million Term Loan Facility which bears interest based on LIBOR. We have reduced our exposure to increases in LIBOR by entering into interest rate swap contracts. These contracts have been designated as cash flow hedges. The fair value of these contracts have been recorded in the Condensed Consolidated Balance Sheets, and the related gains and losses on the contracts are deferred in equity as a component of AOCI. Deferred gains or losses on the contracts will be recognized in interest expense in the period in which the related interest payment 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 October 1, 2016, we had open forward contracts with a financial institution to sell approximately 3.0 million euros, 9.7 million Swedish kronor, 6.9 million Norwegian kroner, and 4.2 million U.S. dollars through February 2017. We also held open forward contracts to buy approximately 0.5 million euros through November 2016.

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 26, 2015, 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 October 1, 2016. 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 October 1, 2016 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 October 1, 2016, 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 2015 Annual Report on Form 10-K. There have been no material changes in risk factors that were previously disclosed in our 2015 Annual Report on Form 10-K, except as set forth below.

The vote by the United Kingdom (U.K.) to leave the European Union (EU) could adversely affect us.

The recent U.K. referendum on its membership in the EU resulted in a majority of U.K. voters voting to exit the EU ("Brexit"). As a result, we face risks associated with the potential uncertainty and consequences that may follow Brexit, including with respect to volatility in exchange rates and interest rates and disruptions affecting our relationships with our existing and future customers, suppliers and employees. Brexit could adversely affect European or worldwide political, regulatory, economic or market conditions and could contribute to instability in global political institutions, regulatory agencies and financial markets. Any of these effects of Brexit, and others we cannot anticipate, could adversely affect our business, results of operations and financial condition.

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 2017, 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 has no obligation to repurchase any shares and 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 October 1, 2016, 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 October 1, 2016.

	(a)	(b)	(c)	(d)
	<u>Total Number of Shares Purchased</u>	<u>Average Price Paid per Share</u>	<u>Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs</u>	<u>Maximum Number of Shares That May Yet Be Purchased Under the Plans or Programs</u>
				15,287,060(1)
July 3 – July 30, 2016	59,739 (2)	\$ 33.99	—	
July 31 – August 27, 2016	2,108 (2)	34.04	—	
August 28 – October 1, 2016	1,644 (2)	34.10	—	

) (1) Shares available to be purchased under the Company's 20 million share repurchase authorization until October 2017. The extension of the authorization was announced on October 27, 2016.

) (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.

/s/ Jeffrey A. Martin

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

October 27, 2016
Date

/s/ Anthony J. Steinriede

Anthony J. Steinriede
Vice President – Corporate Controller

October 27, 2016
Date

EXHIBIT INDEX

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

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 27, 2016

/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 27, 2016

/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 October 1, 2016 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 27, 2016

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 October 1, 2016 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 27, 2016