MATERION Corp Form 10-Q July 27, 2017 UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

FORM 10-Q

(Mark One)

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

For the quarterly period ended June 30, 2017

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

For the transition period from to Commission file number 001-15885

MATERION CORPORATION

(Exact name of Registrant as specified in charter)

Ohio 34-1919973

(State or other jurisdiction of incorporation or organization) (I.R.S. Employer Identification No.)

6070 Parkland Blvd., Mayfield Heights, Ohio 44124 (Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code:

216-486-4200

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 b 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 b No "

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

Large accelerated filer b Accelerated filer "

Non-accelerated filer

(Do not check if a smaller Smaller reporting company "

reporting company)

Emerging growth company "

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

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

Number of Shares of Common Stock, without par value, outstanding at June 30, 2017: 20,038,672.

PART I FINANCIAL INFORMATION MATERION CORPORATION AND SUBSIDIARIES

The consolidated financial statements of Materion Corporation and its subsidiaries for the second quarter and six months ended June 30, 2017 are as follows:

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Second quarter and six months ended June 30, 2017 and July 1, 2016	

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Second quarter and six months ended June 30, 2017 and July 1, 2016	

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June 30, 2017 and December 31, 2016

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Materion Corporation and Subsidiaries Consolidated Statements of Income (Unaudited)

	Second Quarter Ended		Six Months Ended	
	June 30,	July 1,	June 30,	July 1,
(Thousands, except per share amounts)	2017	2016	2017	2016
Net sales	\$295,842	\$249,776	\$536,511	\$485,287
Cost of sales	241,285	204,470	438,958	396,624
Gross margin	54,557	45,306	97,553	88,663
Selling, general, and administrative expense	38,075	32,437	71,703	62,924
Research and development expense	3,544	3,171	6,674	6,623
Other—net	3,204	3,921	6,022	5,807
Operating profit	9,734	5,777	13,154	13,309
Interest expense—net	695	512	1,188	927
Income before income taxes	9,039	5,265	11,966	12,382
Income tax (benefit) expense	1,726	(284)	1,603	1,465
Net income	\$7,313	\$5,549	\$10,363	\$10,917
Basic earnings per share:				
Net income per share of common stock	\$0.37	\$0.28	\$0.52	\$0.55
Diluted earnings per share:				
Net income per share of common stock	\$0.36	\$0.27	\$0.51	\$0.54
Cash dividends per share	\$0.100	\$0.095	\$0.195	\$0.185
Weighted-average number of shares of common stock outstanding:				
Basic	20,012	20,015	19,991	20,016
Diluted	20,347	20,214	20,348	20,220

The accompanying notes are an integral part of the consolidated financial statements.

Materion Corporation and Subsidiaries Consolidated Statements of Comprehensive Income (Unaudited)

	Second Quarter Ended		Six Mont	hs Ended
	June 30,	July 1,	June 30,	July 1,
(Thousands)	2017	2016	2017	2016
Net income	\$7,313	\$5,549	\$10,363	\$10,917
Other comprehensive income (loss):				
Foreign currency translation adjustment	275	1,167	1,378	2,451
Derivative and hedging activity, net of tax	(174)	302	(635)	(621)
Pension and post-employment benefit adjustment, net of tax	759	675	1,516	2,250
Other comprehensive income	860	2,144	2,259	4,080
Comprehensive income	\$8,173	\$7,693	\$12,622	\$14,997

The accompanying notes are an integral part of the consolidated financial statements.

Materion Corporation and Subsidiaries Consolidated Balance Sheets

	(Unaudited)		
	June 30,	Dec. 31,	
(Thousands)	2017	2016	
Assets			
Current assets			
Cash and cash equivalents	\$ 18,497	\$31,464	
Accounts receivable	133,674	100,817	
Inventories	215,987	200,865	
Prepaid and other current assets	22,162	12,138	
Total current assets	390,320	345,284	
Long-term deferred income taxes	40,543	39,409	
Property, plant, and equipment	872,618	861,267	
Less allowances for depreciation, depletion, and amortization	(622,351)	(608,636)	
Property, plant, and equipment—net	250,267	252,631	
Intangible assets	12,074	11,074	
Other assets	6,183	5,950	
Goodwill	90,035	86,950	
Total Assets	\$ 789,422	\$741,298	
Liabilities and Shareholders' Equity			
Current liabilities			
Short-term debt	\$3,140	\$733	
Accounts payable	46,064	32,533	
Salaries and wages	28,541	29,885	
Other liabilities and accrued items	25,878	21,340	
Income taxes	3,195	4,781	
Unearned revenue	2,797	1,105	
Total current liabilities	109,615	90,377	
Other long-term liabilities	17,700	17,979	
Retirement and post-employment benefits	94,549	91,505	
Unearned income	39,076	41,369	
Long-term income taxes	1,994	2,100	
Deferred income taxes	277	274	
Long-term debt	23,254	3,605	
Shareholders' equity			
Serial preferred stock			
Common stock	218,902	212,702	
Retained earnings	524,367	517,903	
Common stock in treasury	(160,785)	(154,399)	
Accumulated other comprehensive loss	(83,922)	(86,181)	
Other equity transactions	4,395	4,064	
Total shareholders' equity	502,957	494,089	
Total Liabilities and Shareholders' Equity	\$ 789,422	\$741,298	
The accompanying notes are an integral part of the consolidate	d financial st	atements.	

Materion Corporation and Subsidiaries Consolidated Statements of Cash Flows (Unaudited)

(Thousands) 2017 201	6
Cash flows from operating activities:	
Net income \$10,363 \$10	,917
Adjustments to reconcile net income to net cash provided from (used in) operating activities:	
Depreciation, depletion, and amortization 20,725 23,4	197
Amortization of deferred financing costs in interest expense 440 281	
Stock-based compensation expense (non-cash) 3,507 1,91	9
(Gain) loss on sale of property, plant, and equipment 147 (69)	5)
Deferred income tax expense (benefit) 658 (1,4)	89)
Changes in assets and liabilities net of acquired assets and liabilities:	
Decrease (increase) in accounts receivable (30,882) (13,	013)
Decrease (increase) in inventory (6,498) 1,15	3
Decrease (increase) in prepaid and other current assets (9,267) (782)	2)
Increase (decrease) in accounts payable and accrued expenses 15,519 (7,8	71)
Increase (decrease) in unearned revenue 1,685 (743)	3)
Increase (decrease) in interest and taxes payable (1,115) 1,31	.0
Increase (decrease) in long-term liabilities (3,891) (6,2	21)
Other-net (1,088) 1,59	8
Net cash provided by operating activities 303 9,86	51
Cash flows from investing activities:	
Payments for purchase of property, plant, and equipment (11,252) (14,	326)
Payments for mine development (509) (7,8	06)
Payments for acquisition (16,504) —	
Proceeds from sale of property, plant, and equipment 27 827	
Net cash (used in) investing activities (28,238) (21,	305)
Cash flows from financing activities:	
Proceeds from issuance of short-term debt, net 2,387 5,80)5
Proceeds from issuance of long-term debt 45,000 10,0	000
Repayment of long-term debt (25,362) (399))
Principal payments under capital lease obligations (383) (423	5)
Cash dividends paid (3,899) (3,7	04)
Deferred financing costs (300) —	
Common shares withheld for taxes (2,302) (82)	7)
Repurchase of common stock (1,086) (2,6	63)
Net cash provided by financing activities 14,055 7,78	37
Effects of exchange rate changes 913 406	
Net change in cash and cash equivalents (12,967) (3,2	51)
Cash and cash equivalents at beginning of period 31,464 24,2	236
Cash and cash equivalents at end of period \$18,497 \$20	,985

The accompanying notes are an integral part of the consolidated financial statements.

Note A — Accounting Policies

(Dollars in thousands)

Basis of Presentation: In management's opinion, the accompanying consolidated financial statements of Materion Corporation and its subsidiaries (referred to herein as the Company, our, we, or us) contain all of the adjustments necessary to present fairly the financial position, results of operations, and cash flows for the interim periods reported. All adjustments were of a normal and recurring nature. Certain amounts in prior years have been reclassified to conform to the 2017 consolidated financial statement presentation.

These financial statements should be read in conjunction with the consolidated financial statements and related notes included in the Company's 2016 Annual Report on Form 10-K. The interim period results are not necessarily indicative of the results to be expected for the full year.

Business Combinations: The Company records assets acquired and liabilities assumed at the date of acquisition at their respective fair values. Any intangible assets acquired in a business combination are recognized and reported apart from goodwill. Goodwill represents the excess purchase price over the fair value of the tangible net assets and intangible assets acquired in a business combination. Acquisition-related expenses are recognized separately from the business combination and are expensed as incurred.

The amounts reflected in Note B to the Consolidated Financial Statements are the results of the preliminary purchase price allocation and will be updated upon completion of the final valuation. The Company is required to complete the purchase price allocation within 12 months of the acquisition date. If such completion of the allocation results in a change in the preliminary values, the measurement period adjustment will be recognized in the period in which the adjustment amount is determined.

New Pronouncements Adopted: In March 2016, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2016-09, Improvements to Employee Share-Based Payment Accounting, which impacts several aspects of accounting for share-based payment transactions, including income tax consequences, classification of awards as either equity or liabilities, and classification on the statement of cash flows. Under the new standard, income tax benefits and deficiencies are to be recognized as income tax expense or benefit in the income statement, and the tax effects of exercised or vested awards will be treated as discrete items in the reporting period in which they occur. An entity will also recognize excess tax benefits regardless of whether the benefit reduces taxes payable in the reporting period. Excess tax benefits will be classified, along with other income tax cash flows, as an operating activity. In regard to forfeitures, the entity may make an entity-wide accounting policy election to either estimate the number of awards that are expected to vest or account for forfeitures as they occur. The ASU, which is required to be applied on a modified retrospective basis, will be effective for fiscal years, including interim periods within those fiscal years, beginning after December 15, 2016. The Company adopted the new guidance during the first quarter of 2017. An impact of adoption was the recognition of excess tax benefits in Income tax expense rather than Shareholders' equity in 2017. As a result, the Company recognized discrete tax benefits of \$82 and \$374 in Income tax (benefit) expense during the second quarter and first six months of 2017, respectively. The cash flow classification requirements of ASU 2016-09 were applied retrospectively. As a result, for the six months ended July 1, 2016, cash flows from operating activities increased by \$827 with a corresponding decrease to cash flows from financing activities. None of the other provisions in this ASU had a material effect on the Company's consolidated financial statements.

New Pronouncements Issued: In March 2017, the FASB issued ASU 2017-07, Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost, which requires an employer to report the service cost component of net benefit cost in the same line item as other compensation costs arising from services rendered by pertinent employees during the period. The other components of net benefit cost are required to be presented in the

income statement separately from the service cost component and outside a subtotal of income from operations. The amendments also allow only the service cost component to be eligible for capitalization. This ASU is effective for fiscal years beginning after December 15, 2017, including interim periods within those periods, with early adoption permitted. The amendments should be applied retrospectively for the presentation of service cost and other components of net benefit cost on the income statement and prospectively for the capitalization of service cost and net periodic postretirement benefits in assets. The Company is currently evaluating the impact of adopting this new guidance on its consolidated financial statements.

Materion Corporation and Subsidiaries Notes to Consolidated Financial Statements (Unaudited)

In February 2016, the FASB issued ASU 2016-02, Leases, which eliminates the off-balance-sheet accounting for leases. The new guidance will require lessees to report their operating leases as both an asset and liability on the balance sheet and disclose key information about leasing arrangements. The ASU, which is required to be applied on a modified retrospective basis, will be effective for fiscal years, including interim periods within those fiscal years, beginning after December 15, 2018. The Company is currently evaluating the impact of adopting this new guidance on its consolidated financial statements.

In May 2014, the FASB issued ASU 2014-09, Revenue from Contracts with Customers, which supersedes previous revenue recognition guidance. The new standard requires that a company recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration the Company expects to receive in exchange for those goods or services. Companies will need to use more judgment and estimates than under the guidance currently in effect, including estimating the amount of variable revenue to recognize over each identified performance obligation. Additional disclosures will be required to help users of financial statements understand the nature, amount, and timing of revenue and cash flows arising from contracts. This ASU is effective beginning in fiscal year 2018 and can be adopted either retrospectively or as a cumulative-effect adjustment as of the date of adoption. To evaluate the impact of adopting this new guidance on the consolidated financial statements, we established a cross-functional implementation team to assess our revenue streams against the requirements of this ASU. In addition, we are in the process of identifying and implementing changes to our processes and controls to meet the standard's updated reporting and disclosure requirements. The Company plans to adopt the standard as of the first quarter of 2018 using the modified retrospective approach and will record a cumulative adjustment to equity for open contracts as of January 1, 2018. The Company continues to update our assessment of the impact of the standard and related updates to its consolidated financial statements, and will disclose material impacts, if any. No other recently issued or effective ASUs had, or are expected to have, a material effect on the Company's results of operations, financial condition, or liquidity.

Note B — Acquisitions

On February 28, 2017, the Company acquired the target materials business of the Heraeus Group (HTB), of Hanau, Germany, for \$16.5 million. This business manufactures precious and non-precious metal target materials for the architectural and automotive glass, electronic display, photovoltaic and semiconductor markets at facilities in Germany, Taiwan, and the United States. This business will operate within the Advanced Materials segment, and the results of operations are included as of the date of acquisition.

The Company will make adjustments to the purchase price allocation prior to completion of the measurement period, as necessary. Only items identified as of the acquisition date will be considered for subsequent adjustment. The purchase price allocation for the acquisition is as follows:

(Thousands)	Amount
Assets:	
Inventories	\$7,140
Prepaid and other current assets	902
Long-term deferred income taxes	1,450
Property, plant, and equipment	7,637
Intangible assets	3,236
Goodwill	2,891
Total assets acquired	\$23,256
Liabilities:	
Other liabilities and accrued items	\$1,030
Other long-term liabilities	430
Retirement and post-employment benefits	5,292
Total liabilities assumed	\$6,752
Total purchase price	\$16,504

As part of the acquisition, the Company recorded approximately \$2.9 million of goodwill. Goodwill was calculated as the excess of the purchase price over the estimated fair values of the tangible net assets and intangible assets acquired. Also, the Company acquired approximately \$3.2 million of other intangible assets, which will be amortized using the straight-line method over an average life of about ten years. The following table reports the intangible assets by asset category and accumulated amortization from the closing date through June 30, 2017:

(Thousands)	Value at	Accumulated	Useful
(Thousands)	Acquisition	Amortization	Life
Customer relationships	\$ 1,861	\$ (41)	15 years
Technology	1,375	(154)	3 years
Total	\$ 3,236	\$ (195)	

Note C — Segment Reporting

The Company has the following operating segments: Performance Alloys and Composites, Advanced Materials, Precision Coatings, and Other. The Company's operating segments represent components of the Company for which separate financial information is available that is utilized on a regular basis by the Chief Executive Officer, the Company's Chief Operating Decision Maker, in determining how to allocate the Company's resources and evaluate performance.

Performance Alloys and Composites produces strip and bulk form alloy products, strip metal products with clad inlay and overlay metals, beryllium-based metals, beryllium, and aluminum metal matrix composites, in rod, sheet, foil, and a variety of customized forms, beryllia ceramics, and bulk metallic glass materials.

Advanced Materials produces advanced chemicals, microelectric packaging, precious metal, non-precious metal, and specialty metal products, including vapor deposition targets, frame lid assemblies, clad and precious metal preforms, high temperature braze materials, and ultra-fine wire.

Precision Coatings produces thin film coatings, optical filter materials, sputter-coated, and precision-converted thin film materials.

The Other reportable segment includes unallocated corporate costs and assets.

(Thousands)	Performance Alloys and Composites	Advanced Materials		Other	Total
Second Quarter 2017					
Net sales	\$ 108,541	\$157,044	\$30,257	\$ —	\$295,842
Intersegment sales	4	13,247			13,251
Value-added sales	92,686	62,041	22,613	(1,24)1	176,099
Operating profit (loss)	5,548	8,670	2,314	(6,79)8	9,734
Second Quarter 2016					
Net sales	\$ 97,696	\$113,557	\$38,523	\$ —	\$249,776
Intersegment sales	117	17,429			17,546
Value-added sales	83,350	46,993	25,111	(1,52)0	153,934
Operating profit (loss)	234	7,320	2,272	(4,04)9	5,777
First Six Months 2017					
Net sales	\$ 201,094	\$271,780	\$63,637	\$ —	\$536,511
Intersegment sales	59	29,694			29,753
Value-added sales	171,897	109,329	45,914	(2,06)0	325,080
Operating profit (loss)	5,737	15,117	4,532	(12,2)32	13,154
First Six Months 2016					
Net sales	\$ 188,325	\$221,677	\$75,285	\$ —	\$485,287
Intersegment sales	179	32,605	_	_	32,784
Value-added sales	161,552	89,059	49,745	(2,56)4	297,792
Operating profit (loss)	1,746	12,503	6,371	(7,31)1	13,309

Intersegment sales are eliminated in consolidation.

Note D — Other-net

Other-net expense for the second quarter and first six months of 2017 and 2016 is summarized as follows:

	Second Quarter		S1x Mon	iths
	Ended		Ended	
	June 30,	July 1,	June 30,	July 1,
(Thousands)	2017	2016	2017	2016
Foreign currency exchange/translation loss (gain)	\$(336)	\$650	\$(593)	\$641
Amortization of intangible assets	1,232	1,148	2,277	2,296
Metal consignment fees	2,062	1,653	3,747	3,186
Net loss (gain) on disposal of fixed assets	119	25	147	(695)
Other items	127	445	444	379
Total	\$3,204	\$3,921	\$6,022	\$5,807

Note E — Restructuring

In the first six months of 2017, the Company took cost reduction measures in order to align corporate costs with lower business levels. These actions were accomplished through elimination of vacant positions, consolidation of roles, and staff reduction. Costs associated with the plan included severance associated with approximately five employees and other related costs.

In 2016, the Company initiated a plan to close the Fukuya, Japan service center, which is a part of the Performance Alloys and Composites segment. Costs associated with the plan included severance associated with approximately twelve employees and related facility exit costs.

These costs are presented in the Consolidated Statements of Income as follows:

	Second Quarter Ended	Six Mor Ended	nths
(Thousands)	June 30 uly 1,		July 1, 2016
Cost of sales	2017 2016 \$117 \$ -		\$ —
Selling, general, and administrative (SG&A) expense	578 —	1,132	_
Total	\$695 \$ -	\$1,249	\$ —

Remaining severance payments related to this initiative of \$0.3 million are reflected within Other liabilities and accrued items in the Consolidated Balance Sheets. The Company does not expect to incur additional costs related to these initiatives.

Note F — Income Taxes

The Company recorded income tax expense of \$1.7 million in the second quarter of 2017, an effective tax rate of 19.1% against income before income taxes and an income tax benefit of \$0.3 million in the second quarter of 2016, with a negative effective tax rate of 5.4% against income before income taxes.

In the first six months of 2017, income tax expense of \$1.6 million was calculated using an effective tax rate of 13.4%, while income tax expense of \$1.5 million in the first six months of 2016 was calculated using an effective tax rate of 11.8%.

The Company recorded discrete benefits of \$0.1 million and \$0.8 million, respectively, in the second quarter and first six months of 2017. Of these amounts, \$0.4 million in the first six months of 2017 related to officer compensation which was previously considered non-deductible and \$0.1 million in the second quarter and \$0.4 million in the first six months of 2017 related to the adoption of ASU 2016-09, Improvements to Employee Share-based Payment Accounting.

In the second quarter of 2016, the Company recorded a discrete tax benefit of \$0.9 million, resulting from international tax planning initiatives. For the first six months of 2016, discrete items amounted to a net benefit of \$0.8 million.

In addition to the discrete benefits listed above, the difference between the statutory and effective rates in the second quarter and first six months of both years was primarily due to the impact of percentage depletion, the foreign rate differential, the research and development credit, and other items.

Note G — Earnings Per Share

The following table sets forth the computation of basic and diluted EPS:

	Second		Six Months		
	Quarter	Ended	Ended		
	June 30,	July 1,	June 30, July 1,		
(Thousands, except per share amounts)	2017	2016	2017	2016	
Numerator for basic and diluted EPS:					
Net income	\$7,313	\$5,549	\$10,363	\$10,917	
Denominator:					
Denominator for basic EPS:					
Weighted-average shares outstanding	20,012	20,015	19,991	20,016	
Effect of dilutive securities:					
Stock appreciation rights	125	63	152	63	
Restricted stock units	102	75	102	90	
Performance-based restricted stock units	108	61	103	51	
Diluted potential common shares	335	199	357	204	
Denominator for diluted EPS:					
Adjusted weighted-average shares outstanding	20,347	20,214	20,348	20,220	
Basic EPS	\$0.37	\$0.28	\$0.52	\$0.55	
Diluted EPS	\$0.36	\$0.27	\$0.51	\$0.54	

Stock appreciation rights (SARs) totaling 31,835 and 1,018,778 for the quarters ended June 30, 2017 and July 1, 2016, respectively, and 67,761 and 1,018,778 for the six months ended June 30, 2017 and July 1, 2016, respectively, were excluded from the dilution calculation as their effect would have been anti-dilutive.

Note H — Inventories

Inventories on the Consolidated Balance Sheets are summarized as follows:

	June 30,	Dec. 31,
(Thousands)	2017	2016
Raw materials and supplies	\$41,222	\$36,233
Work in process	178,063	169,327
Finished goods	39,858	38,147
Subtotal	\$259,143	\$243,707
Less: LIFO reserve balance	43,156	42,842
Inventories	\$215,987	\$200,865

The liquidation of last in, first out (LIFO) inventory layers increased cost of sales in both the second quarter and first six months of 2017 by \$0.2 million. In the second quarter and first six months of 2016, cost of sales was reduced by \$0.5 million and \$3.2 million, respectively.

Note I — Pensions and Other Post-employment Benefits

The following is a summary of the net periodic benefit cost for the second quarter and first six months of 2017 and 2016 for the domestic pension plans (which include the defined benefit pension plan and the supplemental retirement plans) and the domestic retiree medical plan.

	Pension Second Ended		Other Benefits Second Quarter Ended		
	June 30,	July 1,	June 30,	July 1,	
(Thousands)	2017	2016	2017	2016	
Components of net periodic benefit cost					
Service cost	\$2,070	\$1,946	\$23	\$25	
Interest cost	2,370	2,595	99	141	
Expected return on plan assets		(3,488)			
Amortization of prior service benefit	(73)	(115)	(374)	(374)	
Amortization of net loss	1,611	1,430	_	_	
Net periodic benefit cost (benefit)	\$2,307	\$2,368	\$(252)	\$(208)	
	Pension Six Mor Ended	Benefits oths	Other B Six Mo Ended		
	Six Mor	iths	Six Mo		
(Thousands)	Six Mor Ended	iths	Six Mo Ended June	nths	
(Thousands) Components of net periodic benefit cost	Six Mor Ended June 30,	July 1,	Six Mo Ended June 30,	nths July 1,	
	Six Mor Ended June 30,	July 1,	Six Mo Ended June 30,	nths July 1,	
Components of net periodic benefit cost	Six More Ended June 30, 2017	July 1, 2016	Six Mo Ended June 30, 2017	July 1, 2016	
Components of net periodic benefit cost Service cost	Six More Ended June 30, 2017 \$4,082 4,726	July 1, 2016 \$3,891	Six Mo Ended June 30, 2017 \$46 198	nths July 1, 2016 \$51	
Components of net periodic benefit cost Service cost Interest cost	Six More Ended June 30, 2017 \$4,082 4,726 (7,329)	July 1, 2016 \$3,891 5,190 (6,976)	Six Mo Ended June 30, 2017 \$46 198	nths July 1, 2016 \$51 282	
Components of net periodic benefit cost Service cost Interest cost Expected return on plan assets	Six More Ended June 30, 2017 \$4,082 4,726 (7,329)	July 1, 2016 \$3,891 5,190 (6,976)	Six Mo Ended June 30, 2017 \$46 198	nths July 1, 2016 \$51 282	

The Company made contributions to the domestic defined benefit pension plan of \$4.0 million and \$8.0 million in the first six months of 2017 and 2016, respectively.

Beginning in 2017, the Company has elected to use a spot-rate approach to estimate the service and interest cost components of net periodic benefit cost for its defined benefit pension plans. The spot-rate approach applies separate discount rates for each projected benefit payment in the calculation. Historically, the Company used a weighted-average approach to determine the service and interest cost components. The change is being accounted for as a change in estimate and, accordingly, is being applied prospectively. The reduction in service and interest costs for 2017 associated with this change approximated \$0.2 million and \$0.5 million during the second quarter and first six months of 2017, respectively, and is expected to total approximately \$1.0 million.

Note J — Accumulated Other Comprehensive Income (Loss)

Changes in the components of accumulated other comprehensive income, including the amounts reclassified, for the second quarter and first six months of 2017 and 2016 are as follows:

Gains and Losses on Cash Flow Hedges

(Thousands)
Foreign Precious Total
CurrencyMetals

Pension and Foreign
Post-EmploymentCurrency Total
Benefits Translation

Balance at March 31, 2017	\$1,476	\$(100) \$1,37	(6 \$ (81,601)	\$ (4,557	\$(84,782)
Other comprehensive income (loss) before reclassifications	(629) 393 (236) —	275	39
Amounts reclassified from accumulated other comprehensive income	47	(88) (41) 1,156	_	1,115

	Gains and Losses on Cash Flow Hedges							
(Thousands)	Foreign Precio CurrencyMetals	us Total	Pension and Post-Employme Benefits	Foreign entCurrency Translation	ncy Total			
Net current period other comprehensive income (loss) before tax	(582) 305	(277)	1,156	275	1,154			
Deferred taxes on current period activity	(215) 112	(103)	397	_	294			
Net current period other comprehensive income (loss) after tax	(367) 193	(174)	759	275	860			
Balance at June 30, 2017	\$1,109 \$ 93	\$1,202	\$ (80,842	\$ (4,282)	\$(83,922)			
Balance at April 1, 2016	\$656 \$ —	\$656	\$ (75,221	\$ (4,204)	\$(78,769)			
Other comprehensive income (loss) before reclassifications	98 —	98	_	1,167	1,265			
Amounts reclassified from accumulated other comprehensive income	382 —	382	1,016		1,398			
Net current period other comprehensive income (loss) before tax	480 —	480	1,016	1,167	2,663			
Deferred taxes on current period activity	178 —	178	341		519			
Net current period other comprehensive income (loss) after tax Balance at July 1, 2016	302 —	302	675	1,167	2,144			
	\$958 \$ —	\$958	\$ (74,546	\$ (3,037)	\$(76,625)			
Balance at December 31, 2016	\$1,837 \$ —	\$1,837	\$ (82,358	\$ (5,660)	\$(86,181)			
Other comprehensive income (loss) before reclassifications	(881) 235	(646)	_	1,378	732			
Amounts reclassified from accumulated other comprehensive income	(214) (88	(302)	2,309	_	2,007			
Net current period other comprehensive income (loss) before tax	(1,095) 147	(948)	2,309	1,378	2,739			
Deferred taxes on current period activity	(367) 54	(313)	793	_	480			
Net current period other comprehensive income (loss) after tax	(728) 93	(635)	1,516	1,378	2,259			
Balance at June 30, 2017	\$1,109 \$ 93	\$1,202	\$ (80,842	\$ (4,282)	\$(83,922)			
Balance at December 31, 2015	\$1,579 \$ —	\$1,579	\$ (76,796	\$ (5,488)	\$(80,705)			
Other comprehensive income (loss) before reclassifications	(1,445) —	(1,445)	_	2,451	1,006			
Amounts reclassified from accumulated other comprehensive income	457 —	457	2,030	_	2,487			
Net current period other comprehensive income (loss) before tax	(988) —	(988)	2,030	2,451	3,493			
Deferred taxes on current period activity	(367) — (621) —		(220 2,250		(587) 4,080			

Net current period other comprehensive income

(loss) after tax

Balance at July 1, 2016 \$958 \$ — \$958 \$ (74,546) \$ (3,037) \$ (76,625)

Materion Corporation and Subsidiaries Notes to Consolidated Financial Statements (Unaudited)

Reclassifications from accumulated other comprehensive income of gains and losses on foreign currency cash flow hedges are recorded in Other-net in the Consolidated Statements of Income. Reclassifications from accumulated other comprehensive income of gains and losses on precious metal cash flow hedges are recorded in Cost of sales in the Consolidated Statements of Income. Refer to Note M for additional details on cash flow hedges. Reclassifications from accumulated other comprehensive income for pension and post-employment benefits are included in the computation of the net periodic pension and post-employment benefit expense. Refer to Note I for additional details on pension and post-employment expenses.

Materion Corporation and Subsidiaries Notes to Consolidated Financial Statements (Unaudited)

Note K — Stock-based Compensation Expense

Stock-based compensation expense, which includes awards settled in shares and in cash, was \$2.4 million and \$4.7 million in the second quarter and first six months of 2017, respectively, compared to \$1.1 million and \$2.3 million in the same periods of 2016.

The Company granted 97,015 SARs to certain employees during the first six months of 2017. The weighted-average exercise price per share and weighted-average fair value per share of the SARs granted during the six months ended June 30, 2017 were \$35.26 and \$10.89, respectively. The Company estimated the fair value of the SARs using the following weighted-average assumptions in the Black-Scholes model:

Risk-free interest rate 1.92% Dividend yield 1.1 % Volatility 34.0% Expected term (in years) 5.6

The Company granted 62,185 stock-settled restricted stock units (RSUs) and 32,466 cash-settled RSUs to certain employees and non-employee directors during the first six months of 2017. The Company measures the fair value of stock-settled RSUs based on the closing market price of a share of Materion common stock on the date of the grant. The weighted-average fair value per share was \$34.95 for stock-settled RSUs granted during the six months ended June 30, 2017. Cash-settled RSUs are accounted for as liability-based compensation awards and adjusted based on the closing price of Materion's common stock over the vesting period of three years.

The Company granted stock-settled and cash-settled performance-based restricted stock units (PRSUs) to certain employees in the first six months of 2017. The weighted-average fair value of the stock-settled PRSUs was \$30.28 per share and will be expensed over the vesting period of three years. The liability for cash-settled PRSUs is re-measured at fair value each reporting period, and the expense is recorded accordingly. The final payout to the employees for all PRSUs will be based upon the Company's return on invested capital and the total return to shareholders over the vesting period relative to a peer group's performance over the same period.

At June 30, 2017, unearned compensation cost related to the unvested portion of all stock-based awards was approximately \$6.3 million, and is expected to be recognized over the remaining vesting period of the respective grants.

Note L — Fair Value of Financial Instruments

The Company measures and records financial instruments at fair value. A fair value hierarchy is used for those instruments measured at fair value that distinguishes between assumptions based on market data (observable inputs) and the Company's assumptions (unobservable inputs). The hierarchy consists of three levels:

- Level 1 Quoted market prices in active markets for identical assets and liabilities;
- Level 2 Inputs other than Level 1 inputs that are either directly or indirectly observable; and
- Level 3 Unobservable inputs developed using estimates and assumptions developed by the Company, which reflect those that a market participant would use.

Materion Corporation and Subsidiaries Notes to Consolidated Financial Statements (Unaudited)

The following table summarizes the financial instruments measured at fair value in the Consolidated Balance Sheets as of June 30, 2017 and December 31, 2016:

(Thousands)	Total Carrying Value in the Consolidated Balance Sheets		Markets for Identical		Significant Other Observable Inputs (Level 2)		Significant Unobservable Inputs (Level 3)			
	2017	2016	2017	2016	2017	2016	201	7	201	6
Financial Assets										
Deferred compensation investments	\$2,075	\$1,734	\$2,075	\$1,734	\$—	\$—	\$	_	\$	—
Foreign currency forward contracts	72	691		_	72	691			_	
Precious metal swaps	191	_	_	_	191	_	—			
Total	\$2,338	\$2,425	\$2,075	\$1,734	\$263	\$691	\$	_	\$	—
Financial Liabilities										