

CTS CORP  
Form 10-Q  
October 28, 2016  
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UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
WASHINGTON, D.C. 20549  
FORM 10-Q

(Mark One)

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

For The Quarterly Period Ended September 30, 2016

OR

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

For the Transition Period from \_\_\_\_\_ to \_\_\_\_\_

Commission File Number: 1-4639

CTS CORPORATION  
(Exact name of registrant as specified in its charter)

Indiana 35-0225010  
(State or other jurisdiction of (IRS Employer  
incorporation or organization) Identification Number)

2375 Cabot Drive, Lisle, IL 60532  
(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: 630-577-8800

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  Accelerated filer  Non-accelerated filer  Smaller reporting company

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(Do not check if 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

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of October 25, 2016:  
32,760,091.

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## PART I - FINANCIAL INFORMATION

## Item 1. Financial Statements

## CTS CORPORATION AND SUBSIDIARIES

## CONDENSED CONSOLIDATED STATEMENTS OF EARNINGS - UNAUDITED

(In thousands of dollars, except per share amounts)

	Three Months Ended		Nine Months Ended	
	September	September	September	September
	30,	27,	30,	27,
	2016	2015	2016	2015
Net sales	\$99,697	\$90,646	\$295,095	\$289,028
Cost of goods sold	63,056	59,200	190,528	192,073
Gross Margin	36,641	31,446	104,567	96,955
Selling, general and administrative expenses	16,048	12,689	46,459	43,623
Research and development expenses	6,284	5,692	18,414	16,378
Non-recurring environmental charge	—	14,541	—	14,541
Restructuring and impairment charges	1,969	2,373	2,175	5,229
(Gain) loss on sale of assets	(150 )	1	(11,501 )	2
Operating earnings (loss)	12,490	(3,850 )	49,020	17,182
Other (expense) income:				
Interest expense	(917 )	(714 )	(2,746 )	(1,955 )
Interest income	203	713	1,082	2,354
Other expense	(46 )	(3,072 )	(1,482 )	(4,641 )
Total other expense	(760 )	(3,073 )	(3,146 )	(4,242 )
Earnings (loss) before income taxes	11,730	(6,923 )	45,874	12,940
Income tax expense (benefit)	8,010	(2,163 )	19,804	(7,667 )
Net earnings (loss)	\$3,720	\$ (4,760 )	\$26,070	\$20,607
Earnings (loss) per share:				
Basic	\$0.11	\$ (0.15 )	\$0.80	\$0.62
Diluted	\$0.11	\$ (0.15 )	\$0.79	\$0.61
Basic weighted – average common shares outstanding:	32,759	32,770	32,716	33,083
Effect of dilutive securities	495	—	494	485
Diluted weighted – average common shares outstanding	33,254	32,770	33,210	33,568
Cash dividends declared per share	\$0.04	\$0.04	\$0.12	\$0.12

See notes to unaudited condensed consolidated financial statements.

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CTS CORPORATION AND SUBSIDIARIES  
 CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME UNAUDITED  
 (In thousands of dollars)

	Three Months Ended		Nine Months Ended	
	September 30, 2016	September 27, 2015	September 30, 2016	September 27, 2015
Net earnings (loss)	\$3,720	\$ (4,760 )	\$26,070	\$20,607
Other comprehensive income (loss):				
Changes in fair market value of derivatives, net of tax	(263 )	(17 )	(36 )	(34 )
Changes in unrealized pension cost, net of tax	898	1,336	2,753	3,299
Cumulative translation adjustment, net of tax	(164 )	(1,204 )	(890 )	(817 )
Other comprehensive income	\$471	\$ 115	\$1,827	\$2,448
Comprehensive earnings (loss)	\$4,191	\$ (4,645 )	\$27,897	\$23,055

See notes to unaudited condensed consolidated financial statements.

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CTS CORPORATION AND SUBSIDIARIES  
 CONDENSED CONSOLIDATED BALANCE SHEETS  
 (In thousands of dollars)

	(Unaudited)	
	September	December
	30,	31,
	2016	2015
<b>ASSETS</b>		
Current Assets		
Cash and cash equivalents	\$ 114,433	\$ 156,928
Accounts receivable, net	62,380	54,563
Inventories, net	29,178	24,600
Other current assets	10,852	9,863
Total current assets	216,843	245,954
Property, plant and equipment, net	79,329	69,872
Other Assets		
Prepaid pension asset	39,678	33,779
Goodwill	61,744	33,865
Other intangible assets, net	65,930	34,758
Deferred income taxes	48,963	63,809
Other	1,084	1,336
Total other assets	217,399	167,547
Total Assets	\$ 513,571	\$ 483,373
<b>LIABILITIES AND SHAREHOLDERS' EQUITY</b>		
Current Liabilities		
Accounts payable	\$ 43,290	\$ 40,299
Accrued payroll and benefits	11,876	7,147
Accrued liabilities	45,969	47,174
Total current liabilities	101,135	94,620
Long-term debt	96,000	90,700
Post retirement obligations	7,066	7,230
Other long-term obligations	3,102	9,169
Total Liabilities	207,303	201,719
Shareholders' Equity		
Common stock	302,156	300,909
Additional contributed capital	40,567	41,166
Retained earnings	403,979	381,840
Accumulated other comprehensive loss	(97,178 )	(99,005 )
Total shareholders' equity before treasury stock	649,524	624,910
Treasury stock	(343,256 )	(343,256 )
Total shareholders' equity	306,268	281,654
Total Liabilities and Shareholders' Equity	\$ 513,571	\$ 483,373

See notes to unaudited condensed consolidated financial statements.

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CTS CORPORATION AND SUBSIDIARIES  
 CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS UNAUDITED  
 (In thousands of dollars)

	Nine Months Ended	
	September 30, 2016	September 27, 2015
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>		
Net earnings	\$26,070	\$20,607
Adjustments to reconcile net earnings to net cash provided by operating activities:		
Depreciation and amortization	14,010	11,987
Pension and other post-retirement plan income	(1,188 )	(1,510 )
Equity-based compensation	1,759	2,655
Restructuring charges	2,175	5,229
Non-recurring environmental charge	—	14,541
Deferred income taxes	8,332	(15,241 )
Gain on sales of fixed assets	(11,501 )	(121 )
Gain on foreign currency hedges	(15 )	—
Changes in assets and liabilities:		
Accounts receivable	(5,971 )	(3,518 )
Inventories	(2,318 )	(34 )
Other assets	(489 )	(222 )
Accounts payable	2,717	(4,967 )
Accrued payroll and benefits	2,376	(1,573 )
Accrued expenses	(3,124 )	(4,596 )
Income taxes payable	690	1,715
Other liabilities	(1,543 )	(656 )
Pension and other post-retirement plans	(393 )	(178 )
Net cash provided by operating activities	31,587	24,118
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>		
Capital expenditures	(14,467 )	(6,559 )
Proceeds from sale of assets	12,248	1,878
Payment for acquisition, net of cash acquired	(73,063 )	—
Net cash used in investing activities	(75,282 )	(4,681 )
<b>CASH FLOWS FROM FINANCING ACTIVITIES:</b>		
Payments of long-term debt	(2,048,000 )	(943,300 )
Proceeds from borrowings of long-term debt	2,053,300	958,800
Payments of short-term notes payable	—	(164 )
Proceeds from borrowings of short-term notes payable	—	164
Purchase of treasury stock	—	(15,623 )
Dividends paid	(3,923 )	(3,984 )
Windfall tax benefits from equity awards	696	144
Proceeds from exercise of stock options	—	64
Net cash provided by (used in) financing activities	2,073	(3,899 )
Effect of exchange rate changes on cash and cash equivalents	(873 )	709
Net (decrease) increase in cash and cash equivalents	(42,495 )	16,247
Cash and cash equivalents at beginning of period	156,928	134,508
Cash and cash equivalents at end of period	\$114,433	\$150,755

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Supplemental cash flow information:

Cash paid for interest	\$2,292	\$1,046
Cash paid for income taxes, net	\$10,136	\$4,248

See notes to unaudited condensed consolidated financial statements.

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## NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - UNAUDITED

(in thousands except for share and per share data)

September 30, 2016

## NOTE 1—Basis of Presentation

The accompanying condensed consolidated financial statements have been prepared by CTS Corporation (“CTS” or “the Company”), without audit, pursuant to the rules and regulations of the Securities and Exchange Commission. Certain information and footnote disclosures normally included in financial statements prepared in accordance with generally accepted accounting principles have been omitted pursuant to such rules and regulations. The unaudited condensed consolidated financial statements should be read in conjunction with the financial statements, notes thereto, and other information included in the Company’s Annual Report on Form 10 K for the year ended December 31, 2015.

The accompanying unaudited condensed consolidated financial statements reflect, in the opinion of management, all adjustments (consisting of normal recurring items) necessary for a fair statement, in all material respects, of the financial position and results of operations for the periods presented. The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reported period. Actual results could differ materially from those estimates. The results of operations for the interim periods are not necessarily indicative of the results for the entire year.

## Subsequent Events

CTS has evaluated subsequent events and transactions for potential recognition or disclosure in the financial statements through the date the financial statements are issued.

## Reclassifications

Certain prior period reclassifications have been made in the Condensed Consolidated Balance Sheet as a result of including our other post-retirement benefit plan liabilities in Post-retirement obligations as well as the retrospective application of a new accounting pronouncement upon the adoption of ASU 2015-17 (see Note 18 - Recent Accounting Pronouncements for additional details). The chart below quantifies the effects of these reclassification adjustments on our December 31, 2015, financial statements:

Consolidated Balance Sheet Line Item	At December 31, 2015		
	As previously reported	Reclassification adjustment	As currently reported
Other current assets	\$15,888	\$ (6,025 )	\$9,863
Deferred income taxes	\$58,544	\$ 5,265	\$63,809
Accrued liabilities	\$(53,905)	\$ 6,731	\$(47,174)
Post-retirement obligations	\$(2,703 )	\$ (4,527 )	\$(7,230 )
Other long-term obligations	\$(7,725 )	\$ (1,444 )	\$(9,169 )

## NOTE 2 – Accounts Receivable

The components of accounts receivable are as follows:

As of

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	September	December
	30,	31,
	2016	2015
Accounts receivable, gross	\$62,556	\$54,696
Less: Allowance for doubtful accounts	(176 )	(133 )
Accounts receivable, net	\$62,380	\$54,563

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## NOTE 3 – Inventories

Inventories consist of the following:

	As of	
	September	December
	30,	31,
	2016	2015
Finished goods	\$6,084	\$6,972
Work-in-process	9,884	6,828
Raw materials	19,380	16,991
Less: Inventory reserves	(6,170 )	(6,191 )
Inventories, net	\$29,178	\$24,600

## NOTE 4 – Property, Plant and Equipment

Property, plant and equipment is comprised of the following:

	As of	
	September	December
	30,	31,
	2016	2015
Land	\$2,330	\$2,401
Buildings and improvements	63,192	65,731
Machinery and equipment	208,389	191,212
Less: Accumulated depreciation	(194,582)	(189,472)
Property, plant and equipment, net	\$79,329	\$69,872

## NOTE 5 – Retirement Plans

## Pension Plans

Net pension income for our domestic and foreign plans was as follows:

	Three Months Ended		Nine Months Ended	
	September	September	September	September
	30,	27,	30,	27,
	2016	2015	2016	2015
Net pension income	\$(440)	\$(532 )	\$(1,234)	\$(1,591 )

The components of net pension (income) expense for our domestic and foreign plans include the following:

	Domestic Pension Plans		Foreign Pension Plans	
	Three Months Ended		Three Months Ended	
	September	September	September	September
	30,	27,	30,	27,
	2016	2015	2016	2015
Service cost	\$ 21	\$ 42	\$ 13	\$ 16
Interest cost	2,756	2,815	12	124
Expected return on plan assets	(1) (4,744 )	(5,068 )	(33 )	(135 )

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Amortization of loss	1,499	1,585	36	89
(Income) expense, net	\$ (468 )	\$ (626 )	\$ 28	\$ 94

(1) Expected return on plan assets is net of expected investment expenses and certain administrative expenses.

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	Domestic Pension Plans		Foreign Pension Plans	
	Nine Months Ended		Nine Months Ended	
	September	September	September	September
	30, 2016	27, 2015	30, 2016	27, 2015
Service cost	\$ 65	\$ 128	\$ 38	\$ 49
Interest cost	8,268	8,444	34	371
Expected return on plan assets (1)	(14,232 )	(15,204 )	(19 )	(402 )
Amortization of loss	4,495	4,754	105	269
Other cost due to retirement	12	—	—	—
(Income) expense, net	\$ (1,392 )	\$ (1,878 )	\$ 158	\$ 287

(1) Expected return on plan assets is net of expected investment expenses and certain administrative expenses.

## Other Post-retirement Benefit Plan

Net post-retirement expense for our other post-retirement plan includes the following components:

	Three Months		Nine Months	
	Ended		Ended	
	September	September	September	September
	30, 2016	27, 2015	30, 2016	27, 2015
Other post-retirement benefit plan				
Service cost	\$—	\$ 1	\$ 2	\$ 3
Interest cost	52	51	156	153
Amortization of gain	(37 )	(25 )	(112)	(75 )
Post-retirement expense	\$ 15	\$ 27	\$ 46	\$ 81

## NOTE 6 – Other Intangible Assets

Intangible assets consist of the following components:

	As of		
	September 30, 2016		
	Gross	Accumulated	Net Amount
	Carrying	Amortization	
	Amount		
Amortized intangible assets:			
Customer lists/relationships	\$ 63,386	\$ (29,490 )	\$ 33,896
Patents	10,319	(10,319 )	—
Technology and other intangibles	36,715	(6,881 )	29,834
In process research and development	2,200	—	2,200
Other intangible assets, net	\$ 112,620	\$ (46,690 )	\$ 65,930
Amortization expense for the three months ended September 30, 2016		\$ 1,638	
Amortization expense for the nine months ended September 30, 2016		\$ 4,254	



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	As of December 31, 2015		
	Gross Carrying Amount	Accumulated Amortization	Net Amount
Amortized intangible assets:			
Customer lists/relationships	\$51,804	\$ (27,101 )	\$ 24,703
Patents	10,319	(10,319 )	—
Technology and other intangibles	12,871	(5,016 )	7,855
In process research and development	2,200	—	2,200
Other intangible assets, net	\$77,194	\$ (42,436 )	\$ 34,758
Amortization expense for the three months ended September 27, 2015		\$ 985	
Amortization expense for the nine months ended September 27, 2015		\$ 2,942	

Amortization expense remaining for other intangible assets is as follows:

	Amortization expense
2016	\$ 1,557
2017	6,064
2018	5,956
2019	5,947
2020	5,947
Thereafter	40,459
Total amortization expense	\$ 65,930

## NOTE 7 – Costs Associated with Exit and Restructuring Activities

Costs associated with exit and restructuring activities are recorded in the Condensed Consolidated Statement of Earnings as follows: restructuring related charges are recorded as a component of Cost of Goods Sold, and restructuring and impairment charges are reported on a separate line and included in Operating Earnings.

Total restructuring, impairment and restructuring related charges were as follows:

	Three Months Ended September 30, 2016		September 27, 2015	
Restructuring-related charges	\$—	\$ 152		
Restructuring and impairment charges	1,969	2,373		
Total restructuring, impairment, and restructuring-related charges	\$1,969	\$ 2,525		

	Nine Months Ended September 30, 2016		September 27, 2015	
Restructuring-related charges	\$—	\$ 444		

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Restructuring and impairment charges	2,175	5,229
Total restructuring, impairment, and restructuring-related charges	\$2,175	\$ 5,673

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In June 2016, CTS announced plans to restructure operations by phasing out production at the Elkhart facility by mid-2018 and transitioning it into a research and development center supporting CTS' global operations ("June 2016 Plan"). Additional organizational changes will also occur in various other locations. The cost of the plan is expected to be approximately \$16,000 including severance and other one-time benefit arrangements. We have recorded \$2,175 of termination and other one-time benefit charges impacting approximately 230 employees as of September 30, 2016. Additional costs related to line movements, asset impairment and equipment charges, and other costs will be expensed as incurred. The total restructuring liability related to the June 2016 Plan was \$1,569 at September 30, 2016.

The following table displays the planned restructuring and impairment charges associated with the June 2016 Plan as well as a summary of the actual costs incurred through September 30, 2016:

June 2016 Plan	Actual costs incurred through	
	Planned Costs	September 30, 2016
Workforce reduction	3,075	2,175
Equipment relocation	7,925	—
Asset impairment charge	3,700	—
Other charges	1,300	—
Restructuring and impairment charges	16,000	2,175

Total restructuring and impairment charges for the June 2016 Plan were as follows:

	Three Months Ended	
	September 30, 2016	September 27, 2015
Restructuring and impairment charges	1,969	—

	Nine Months Ended	
	September 30, 2016	September 27, 2015
Restructuring and impairment charges	2,175	—

Not included in restructuring and impairment charges, but directly attributable to the June 2016 Plan, is an increase in tax expense of \$2,316 relating to increases in valuation allowances on deferred tax assets for state net operating losses and tax credits and the revaluation of U.S. deferred taxes as a result of a change in our expected future tax rate as discussed in Note 16.

In April 2014, CTS announced plans to restructure its operations and consolidate its Canadian operations into other existing CTS facilities as part of CTS' overall plan to simplify its business model and rationalize its global footprint ("April 2014 Plan").

During the second quarter of 2015, CTS management revised the April 2014 Plan. The revision added \$4,250 in planned costs. Additional administrative and legal costs were expected to account for \$1,300 of the additional restructuring and impairment charges. The remaining \$2,950 in restructuring related charges are for additional costs related to equipment relocation, training, travel and shipping.

These restructuring actions, which were completed during 2015, impacted approximately 120 positions.

The following table displays the planned restructuring and restructuring-related charges associated with the April 2014 Plan, as well as a summary of the actual costs incurred through September 30, 2016:

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	Planned Costs	Actual costs incurred through September 30, 2016
April 2014 Plan		
Inventory write-down	\$ 850	\$ —
Equipment relocation	1,800	444
Other charges	1,400	113
Restructuring-related charges, included in cost of goods sold	\$ 4,050	\$ 557
Workforce reduction	\$ 4,200	\$ 4,423
Other charges, including pension termination costs	1,700	3,413
Restructuring and impairment charges	\$ 5,900	\$ 7,836
Total restructuring, impairment and restructuring related charges	\$ 9,950	\$ 8,393

Total restructuring, impairment and restructuring related charges under the April 2014 Plan were as follows:

	Three Months Ended September 30, 2015
Restructuring-related charges	\$ — 152
Restructuring and impairment charges	— 2,025
Total restructuring, impairment, and restructuring related charges	\$ — 2,177

	Nine Months Ended September 30, 2015
Restructuring-related charges	\$ — 369
Restructuring and impairment charges	— 3,902
Total restructuring, impairment, and restructuring-related charges	\$ — 4,271

Total restructuring liability related to the April 2014 Plan was \$436 at September 30, 2016.

In June 2013, CTS announced a restructuring plan to simplify CTS' global footprint by consolidating manufacturing facilities into existing locations ("June 2013 Plan"). The June 2013 Plan included the consolidation of operations from the U.K. manufacturing facility into the Czech Republic facility, the Carol Stream, Illinois manufacturing facility into the Juarez, Mexico facility and discontinuing manufacturing at the Singapore facility. Certain corporate functions were consolidated or eliminated as a result of the June 2013 Plan. These restructuring actions were completed in 2015 and resulted in the reduction of approximately 350 positions.

During the fourth quarter of 2014, CTS management revised the June 2013 Plan. The revision added \$4,000 in planned costs. Settlement of the U.K. pension plan was expected to account for \$2,000 of the added cost. The remaining \$2,000 in restructuring and impairment charges were for severance costs and resulted in the reduction of approximately 130 additional positions throughout CTS businesses. The above actions were completed in 2015.

The following table displays the planned restructuring and restructuring-related charges associated with the June 2013 Plan and a summary of the actual costs incurred through September 30, 2016:



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	Planned Costs	Actual incurred through September 30, 2016
June 2013 Plan		
Inventory write-down	\$800	\$ 1,143
Equipment relocation	900	1,792
Other charges	100	702
Restructuring-related charges, included in cost of goods sold	\$1,800	\$ 3,637
Workforce reduction	\$10,150	\$ 9,615
Asset impairment charge	3,000	4,139
Other charges, including pension termination costs	7,650	10,205
Restructuring and impairment charges	\$20,800	\$ 23,959
Total restructuring and restructuring-related charges	\$22,600	\$ 27,596

Under the June 2013 Plan, total restructuring, impairment and restructuring related charges incurred were as follows:

	Three Months Ended September 27, 2015
Restructuring-related charges	\$ —
Restructuring and impairment charges	— 348
Total restructuring, impairment, and restructuring-related charges	\$ — 348

	Nine Months Ended September 27, 2015
Restructuring-related charges	\$ — 75
Restructuring and impairment charges	— 1,327
Total restructuring, impairment, and restructuring-related charges	\$ — 1,402

No remaining liability is recorded for the June 2013 Plan as of September 30, 2016.

The following table displays the restructuring liability activity for all plans for the period ended September 30, 2016:

Combined Plans	
Restructuring liability at January 1, 2016	\$826
Restructuring and restructuring-related charges, excluding asset impairments and write-offs	2,175
Cost paid	(1,026 )
Other activity (1)	\$30
Restructuring liability at September 30, 2016	\$2,005

(1) Other activity includes asset impairments, write-offs of property, plant and equipment, the effects of currency translation and other charges that do not flow through restructuring expense.

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## NOTE 8 – Accrued Liabilities

The components of accrued liabilities are as follows:

	As of	
	September	December
	30,	31,
	2016	2015
Accrued product related costs	\$4,622	\$ 5,245
Accrued income taxes	9,564	8,845
Accrued property and other taxes	1,990	1,838
Accrued outside commissions	1,267	97
Accrued professional fees	907	704
Accrued building improvement costs	1,669	1,768
Dividends payable	1,310	1,302
Remediation reserves	18,895	20,603
Other accrued liabilities	5,745	6,772
Total accrued liabilities	\$45,969	\$ 47,174

## NOTE 9 – Contingencies

Certain processes in the manufacture of CTS' current and past products create hazardous waste by-products as currently defined by federal and state laws and regulations. CTS has been notified by the U.S. Environmental Protection Agency, state environmental agencies, and in some cases, generator groups, that it is or may be a potentially responsible party regarding hazardous substances at several sites either presently or historically owned, leased, or operated by CTS. Some sites are Superfund sites such as in Asheville, North Carolina and Mountain View, California. CTS reserves for probable remediation activities and for claims and proceedings against CTS with respect to other environmental matters. CTS records reserves on a undiscounted basis. In the opinion of management, based upon presently available information relating to all such matters, adequate provision for probable and estimable costs have been recorded. We do not have any known environmental obligations where a loss is probable or reasonably possible of occurring for which we do not have a reserve, nor do we have any amounts for which we have not reserved because the amount of the loss cannot be reasonably estimated. Due to the inherent nature of environmental obligations, CTS cannot provide assurance that its ultimate environmental investigation and clean-up costs and liabilities will not materially exceed the amount of its current reserve. Our reserve and disclosures will be adjusted accordingly if additional information becomes available in the future.

Unrelated to the environmental claims described above, certain other claims are pending against CTS with respect to matters arising out of the ordinary conduct of CTS' business. Although the ultimate outcome of any potential litigation resulting from these claims cannot be predicted with certainty, and some may be disposed of unfavorably to CTS, management believes that adequate provision for anticipated costs have been established based upon all presently available information. Except as noted herein, we do not believe we have any pending loss contingencies that are probable or reasonably possible of having a material impact on our consolidated financial position, results of operations, or cash flows.

## NOTE 10 - Debt

Long-term debt was comprised of the following:

	As of	
	September	December
	30,	31,
	2016	2015
Revolving credit facility due in 2020	\$96,000	\$90,700

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Weighted average interest rate	1.9	%	1.5	%
Amount available	\$201,835		\$106,985	
Total credit facility	\$300,000		\$200,000	
Standby letters of credit	\$2,165		\$2,315	
Commitment fee percentage per annum	0.25	%	0.25	%



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On August 10, 2015, CTS entered into a new five-year credit agreement (“Revolving Credit Facility”) with a group of banks in order to support CTS’ financing needs. The Revolving Credit Facility originally provided for a credit line of \$200,000. On May 23, 2016, CTS requested and received a \$100,000 increase in the aggregate revolving credit commitments under its existing credit agreement, which increased the credit line from \$200,000 to \$300,000.

The Revolving Credit Facility includes a swing line sublimit of \$15,000 and a letter of credit sublimit of \$10,000. Borrowings under the Revolving Credit Facility bear interest, at CTS’ option, at the base rate plus the applicable margin for base rate loans or LIBOR plus the applicable margin for LIBOR loans. CTS also pays a quarterly commitment fee on the unused portion of the Revolving Credit Facility. The commitment fee ranges from 0.20% to 0.40% based on the CTS’ total leverage ratio.

The Revolving Credit Facility requires, among other things, that CTS comply with a maximum total leverage ratio and a minimum fixed charge coverage ratio. Failure of CTS to comply with these covenants could reduce the borrowing availability under the Revolving Credit Facility. CTS was in compliance with all debt covenants at September 30, 2016. The Revolving Credit Facility requires that CTS deliver quarterly financial statements, annual financial statements, auditors certifications and compliance certificates within a specified number of days after the end of a quarter and year. Additionally, the Revolving Credit Facility contains restrictions limiting CTS’ ability to: dispose of assets; incur certain additional debt; repay other debt or amend subordinated debt instruments; create liens on assets; make investments, loans or advances; make acquisitions or engage in mergers or consolidations; engage in certain transactions with CTS’ subsidiaries and affiliates; and make stock repurchases and dividend payments. Interest rates on the Revolving Credit Facility fluctuate based upon the London Interbank Offered Rate and the Company’s quarterly total leverage ratio.

CTS has debt issuance costs related to its long-term debt that are being amortized using the straight-line method over the life of the debt. These costs are included in interest expense in our Statement of Earnings. Amortization expense was approximately \$46 and \$61 for the three months ended September 30, 2016 and September 27, 2015, respectively, and approximately \$116 and \$165 for the first nine months ended September 30, 2016 and September 27, 2015, respectively.

### Note 11 - Derivative Financial Instruments

Our earnings and cash flows are subject to fluctuations due to changes in foreign currency exchange rates and interest rates. We selectively use derivative financial instruments including foreign currency forward contracts and interest rate swaps to manage our exposure to these risks.

The use of derivative financial instruments exposes the Company to credit risk, which relates to the risk of nonperformance by a counterparty to the derivative contracts. We manage our credit risk by entering into derivative contracts with only highly rated financial institutions and by using netting agreements.

#### Foreign Currency Hedges

In January of 2016, we began using forward contracts to mitigate currency risk related to a portion of our forecasted foreign currency revenues and costs. The currency forward contracts are designed as cash flow hedges and are recorded in the Condensed Consolidated Balance Sheets at fair value. At least quarterly, we assess the effectiveness of these hedging relationships based on the total change in their fair value using regression analysis. The effective portion of derivative gains and losses are recorded in accumulated other comprehensive loss until the hedged transaction affects earnings upon settlement, at which time they are reclassified to cost of goods sold or net sales. Ineffectiveness is recorded in other income (expense) in our Condensed Consolidated Statement of Earnings. If it becomes probable that an anticipated transaction that is hedged will not occur by the end of the originally specified time period, we reclassify the gains or losses related to that hedge from accumulated other comprehensive income to other income (expenses).

We continue to monitor the Company’s overall currency exposure and may elect to add cash flow hedges in the future. At September 30, 2016, we had a net unrealized loss of \$219 in accumulated other comprehensive income, of which

\$201 is expected to be reclassified to income within the next 12 months. The notional amount of foreign currency forward contracts outstanding was \$13.8 million at September 30, 2016.

#### Interest Rate Swaps

CTS uses interest rate swaps to convert the revolving credit facility's variable rate of interest into a fixed rate. In the second quarter of 2012, CTS entered into four separate interest rate swap agreements to fix interest rates on \$50,000 of long-term debt for the periods January 2013 to January 2017. In the third quarter of 2012, CTS entered into four additional interest rate swap agreements to fix interest rates on \$25,000 of long-term debt for the periods January 2013 to January 2017. In the third quarter of 2016, CTS entered into three additional forward-starting interest rate swap agreements to fix interest rates on \$50,000 of long-term debt for the periods August 2017 to August 2020. The difference to be paid or received under the terms of the swap agreements will be recognized as an adjustment to interest expense when settled.

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These swaps are treated as cash flow hedges and consequently, the changes in fair value were recorded in other comprehensive income (loss). The estimated net amount of the existing gains or losses that are reported in accumulated other comprehensive income (loss) that is expected to be reclassified into earnings within the next twelve months is approximately \$246.

The location and fair values of derivative instruments designated as hedging instruments in the Condensed Consolidated Balance Sheets as of September 30, 2016, are shown in the following table:

	As of	
	September	December
	30,	31,
	2016	2015
Foreign currency hedges reported in Accrued liabilities	\$(234)	\$ —
Interest rate swaps reported in Accrued liabilities	\$(246)	\$(768 )
Interest rate swaps reported in Other long-term obligations	\$(360)	\$ —

The Company has elected to net its foreign currency derivative assets and liabilities in the balance sheet in accordance with ASC 210-20 (Balance Sheet, Offsetting). On a gross basis, there were foreign currency derivative assets of \$53 and foreign currency derivative liabilities of \$287.

The effect of derivative instruments on the Condensed Consolidated Statements of Earnings is as follows:

	Three Months		Nine Months	
	Ended		Ended	
	September	September	September	September
	30,	27,	30,	27,
	2016	2015	2016	2015
Foreign Exchange Contracts:				
Loss recognized in Net Sales	\$(35 )	\$ —	\$(125)	\$ —
Gain recognized in Cost of Goods Sold	51	—	139	—
Gain recognized in Selling, General and Administrative expense	—	—	10	—
Loss recognized in Other (expenses) income	(5 )	—	(9 )	—
Interest Rate Swaps:				
Interest Expense	\$158	\$ 192	\$471	\$ 574
Total	\$169	\$ 192	\$486	\$ 574

## NOTE 12 – Accumulated Other Comprehensive (Loss) Income

Shareholders' equity includes certain items classified as accumulated other comprehensive (loss) income ("AOCI") in the Condensed Consolidated Balance Sheets, including:

Unrealized gains (losses) on hedges relate to interest rate swaps to convert the line of credit's variable rate of interest into a fixed rate and foreign currency forward contracts used to hedge our exposure to changes in exchange rates affecting certain revenues and costs denominated in foreign currencies. These hedges are designated as cash flow hedges, and CTS has deferred income statement recognition of gains and losses until the hedged transaction occurs, at which time amounts are reclassified into earnings. Further information related to CTS' derivative financial instruments is included in Note 11 - Derivative Financial Instruments and Note 15 – Fair Value Measurements.

Unrealized gains (losses) on pension obligations are deferred from income statement recognition until the gains or losses are realized. Amounts reclassified to income from AOCI are included in net periodic pension income / (expense). Further information related to CTS' pension obligations is included in Note 5 – Retirement Plans.



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Cumulative translation adjustment relates to our non-U.S. subsidiary companies that have designated a functional currency other than the U.S. dollar. CTS is required to translate the subsidiary functional currency financial statements to dollars using a combination of historical, period-end, and average foreign exchange rates. This combination of rates creates the foreign currency translation adjustment component of other comprehensive (loss) income.

Changes in exchange rates between the functional currency and the currency in which a transaction is denominated are foreign exchange transaction gains or losses. Transaction (losses)/gains for the three and nine month periods ended September 30, 2016 were (\$165) and (\$1,656), respectively, and for the three and nine month periods ended September 27, 2015 were \$(3,076) and (\$4,640), respectively, which are included in other income/(expenses) in the Condensed Consolidated Statement of Earnings.

The components of accumulated other comprehensive (loss) income for the three months ended September 30, 2016, are as follows:

	As of June 30, 2016	Gain (Loss) Recognized in OCI	Gain (Loss) reclassified from AOCI to income	As of September 30, 2016
Changes in fair market value of hedges:				
Gross	\$ (403 )	\$ (643 )	\$ 221	\$ (825 )
Income tax expense (benefit)	151	242	(83 )	310
Net	(252 )	(401 )	138	(515 )
Changes in unrealized pension cost:				
Gross	(158,763 )	—	1,437	(157,326 )
Income tax expense (benefit)	63,260	—	(539 )	62,721
Net	(95,503 )	—	898	(94,605 )
Cumulative translation adjustment:				
Gross	(1,995 )	(161 )	—	(2,156 )
Income tax expense (benefit)	101	(3 )	—	98
Net	(1,894 )	(164 )	—	(2,058 )
Total accumulated other comprehensive (loss) income	\$ (97,649)	\$ (565 )	\$ 1,036	\$ (97,178)

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The components of accumulated other comprehensive (loss) income for the three months ended September 27, 2015, are as follows:

	As of	Gain (Loss)	Gain (Loss)	As of
	June 28,	Recognized	reclassified	September
	2015	in OCI	from AOCI	27,
			to income	2015
Changes in fair market value of hedges:				
Gross	\$ (1,047 )	\$ (219 )	\$ 192	\$ (1,074 )
Income tax expense (benefit)	394	82	(72 )	404
Net	(653 )	(137 )	120	(670 )
Changes in unrealized pension cost:				
Gross	(166,161 )	2,039	—	(164,122 )
Income tax expense (benefit)	63,957	(703 )	—	63,254
Net	(102,204 )	1,336	—	(100,868 )
Cumulative translation adjustment:				
Gross	572	(1,056 )	—	(484 )
Income tax expense (benefit)	385	(148 )	—	237
Net	957	(1,204 )	—	(247 )
Total accumulated other comprehensive (loss) income	\$ (101,900)	\$ (5 )	\$ 120	\$ (101,785)

The components of accumulated other comprehensive (loss) income for the nine months ended September 30, 2016, are as follows:

	As of	Gain (Loss)	Gain (Loss)	As of
	December 31,	Recognized	reclassified	September
	2015	in OCI	from AOCI	30,
			to income	2016
Changes in fair market value of hedges:				
Gross	\$ (768 )	\$ (742 )	\$ 685	\$ (825 )
Income tax expense (benefit)	289	278	(257 )	310
Net	(479 )	(464 )	428	(515 )
Changes in unrealized pension cost:				
Gross	(161,719 )	—	4,393	(157,326 )
Income tax expense (benefit)	64,361	—	(1,640 )	62,721
Net	(97,358 )	—	2,753	(94,605 )
Cumulative translation adjustment:				
Gross	(1,279 )	(877 )	—	(2,156 )
Income tax expense (benefit)	111	(13 )	—	98
Net	(1,168 )	(890 )	—	(2,058 )
Total accumulated other comprehensive (loss) income	\$ (99,005)	\$ (1,354)	\$ 3,181	\$ (97,178)



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The components of accumulated other comprehensive (loss) income for the nine months ended September 27, 2015, are as follows:

	As of December 31, 2014	Gain (Loss) Recognized in OCI	Gain (Loss) reclassified from AOCI to income	As of September 27, 2015
Changes in fair market value of hedges:				
Gross	\$ (1,020 )	\$ (628 )	\$ 574	\$ (1,074 )
Income tax expense (benefit)	384	236	(216 )	404
Net	(636 )	(392 )	358	(670 )
Changes in unrealized pension cost:				
Gross	(169,291 )	5,169	—	(164,122 )
Income tax expense (benefit)	65,124	(1,870 )	—	63,254
Net	(104,167 )	3,299	—	(100,868 )
Cumulative translation adjustment:				
Gross	245	(729 )	—	(484 )
Income tax expense (benefit)	325	(88 )	—	237
Net	\$ 570	\$ (817 )	\$ —	\$ (247 )
Total accumulated other comprehensive (loss) income	\$ (104,233 )	\$ 2,090	\$ 358	\$ (101,785)

## NOTE 13 – Shareholders' Equity

Share count and par value data related to shareholders' equity are as follows:

	As of September 30, 2016	December 31, 2015
Preferred Stock		
Par value per share	No par value	No par value
Shares authorized	25,000,000	25,000,000
Shares outstanding	—	—
Common Stock		
Par value per share	No par value	No par value
Shares authorized	75,000,000	75,000,000
Shares issued	56,453,531	56,242,499
Shares outstanding	32,759,509	32,548,477
Treasury stock		
Shares held	23,694,022	23,694,022

No common stock repurchases were made during the nine months ended September 30, 2016. Through September 30, 2016, CTS had purchased 395,763 shares of common stock for an aggregate of \$7,446 under a previously board-authorized share repurchase plan allowing for up to \$25,000 in stock repurchases. Approximately \$17,554 is available for future purchases.





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A roll-forward of common shares outstanding is as follows:

	Nine Months Ended	
	September 30, 2016	September 27, 2015
Balance at the beginning of the year	32,548,477	33,392,060
Repurchases	—	(851,882 )
Shares issued upon exercise of stock options	—	5,200
Restricted share issuances	211,032	134,919
Balance at the end of the period	32,759,509	32,680,297

Certain potentially dilutive restricted stock units are excluded from diluted earning per share because they are anti-dilutive. The number of awards that were anti-dilutive at September 30, 2016 and September 27, 2015 were 2,019 and 0, respectively.

## NOTE 14 - Equity-Based Compensation

At September 30, 2016, CTS had four equity-based compensation plans: the Nonemployee Directors' Stock Retirement Plan ("Directors' Plan"), the 2004 Omnibus Long-Term Incentive Plan ("2004 Plan"), the 2009 Omnibus Equity and Performance Incentive Plan ("2009 Plan"), and the 2014 Performance & Incentive Plan ("2014 Plan"). Future grants can only be made under the 2014 Plan.

The 2009 Plan, and previously the 2004 Plan, provides for grants of incentive stock options or nonqualified stock options to officers, key employees, and non-employee members of CTS' Board of Directors. In addition, the 2014 Plan, the 2009 Plan, and the 2004 Plan allow for grants of stock appreciation rights, restricted stock, restricted stock units ("RSUs"), performance shares, performance units, and other stock awards.

The following table summarizes the compensation expense included in selling, general and administrative expenses in the Condensed Consolidated Statements of Earnings related to equity-based compensation plans:

	Three Months Ended		Nine Months Ended	
	September 30, 2016	September 27, 2015	September 30, 2016	September 27, 2015
Service-Based RSUs	\$ 523	\$ 295	\$ 1,471	\$ 1,244
Performance-Based RSUs	132	(62 )	107	709
Market-Based RSUs	137	60	181	702
Total	\$ 792	\$ 293	\$ 1,759	\$ 2,655
Income tax benefit	\$ 298	\$ 110	\$ 661	\$ 998

The following table summarizes the unrecognized compensation expense related to non-vested RSUs by type and the weighted-average period in which the expense is to be recognized:

	Unrecognized compensation expense at September 30, 2016	Weighted-average period
Service-Based RSUs	\$ 1,532	1.3 years
Performance-Based RSUs	595	1.4 years

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Market-Based RSUs	535	1.3 years
Total	\$ 2,662	1.3 years

CTS recognizes expense on a straight-line basis over the requisite service period for each separately vesting portion of the award as if the award was, in substance, multiple awards.

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The following table summarizes the maximum number of awards available to be granted under these plans as of September 30, 2016:

	2014 Plan	2009 Plan	2004 Plan	Directors' Plan
Awards originally available	1,500,000	3,400,000	6,500,000	N/A
Stock options outstanding	—	—	—	—
Options exercisable	—	—	—	—
Performance-based options outstanding	320,000	—	—	—
Service-based RSUs outstanding	253,826	169,444	78,947	25,985
Performance and market-based RSUs outstanding at 200% of target	337,300	86,120	—	—
RSUs vested and released	49,173	—	—	—
Awards available for grant	539,701	255,564	78,947	25,985
Stock Options				

Stock options are exercisable in cumulative annual installments over a maximum 10-year period, commencing at least one year from the date of grant. Stock options are generally granted with an exercise price equal to the market price of CTS' stock on the date of grant, vest over four years, and have a 10-year contractual life. The awards generally contain provisions to either accelerate vesting or allow vesting to continue on schedule upon retirement if certain service and age requirements are met. The awards also provide for accelerated vesting if there is a change in control event. CTS has no stock options exercisable or outstanding as of September 30, 2016, other than the performance-based stock options described below.

#### Performance-Based Stock Options

During 2015 and 2016, the Compensation Committee of the Board of Directors of the Company (the "Committee") granted a total of 350,000 performance-based stock option awards ("Performance-Based Option Awards") for certain CTS employees under the 2014 Plan, of which 320,000 remain outstanding after considering forfeitures. The Performance-Based Option Awards have an exercise price of \$18.37, a term of five years, and generally will become exercisable (provided the optionee remains employed by CTS or an affiliate) upon CTS' attainment of at least \$600,000 in revenues during any of CTS' four-fiscal-quarter trailing periods (as determined by the Committee) during the term. CTS has not recognized any expense on these Performance-Based Option Awards for the nine months ended September 30, 2016, since the revenue target is not deemed likely to be attained based on our current forecast.

#### Service-Based Restricted Stock Units

Service-based RSUs entitle the holder to receive one share of common stock for each unit when the unit vests. RSUs are issued to officers, key employees and non-employee directors as compensation. Generally, the RSUs vest over a three-year period. RSUs granted to non-employee directors vest one month after the grant date. Upon grant, each non-employee director elects to either receive the stock associated with the RSU immediately upon vesting, or defer receipt of the stock until his or her retirement from the Board of Directors. The fair value of the RSUs is equivalent to the trading value of CTS' common stock on the grant date.



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A summary of the status of RSUs granted under the 2004, 2009, and 2014 plans is presented below:

	Nine Months Ended September 30, 2016	
	Units	Weighted Average Grant Date Fair Value
Outstanding at January 1, 2016	471,196	\$ 13.27
Granted	164,922	13.97
Vested and released	(98,633 )	14.45
Forfeited	(35,268 )	17.05
Outstanding at September 30, 2016	502,217	\$ 12.93
Releasable at September 30, 2016	278,082	\$ 11.34

A summary of the status of RSUs granted under the Director's Plan is presented below:

	Nine Months Ended September 30, 2016	
	Units	Weighted Average Grant Date Fair Value
Outstanding at January 1, 2016	33,974	\$ 11.75
Granted	—	—
Vested and released	(7,989 )	11.75
Forfeited	—	—
Outstanding at September 30, 2016	25,985	\$ 11.75
Releasable at September 30, 2016	25,985	\$ 11.75

#### Performance and Market-Based Restricted Stock Units

CTS grants performance-based restricted stock unit awards to certain executives. Vesting may occur in the amount of zero percent to 200% of the grant target. Vesting is subject to certification of the financial results for the last year in the performance period by CTS' independent auditors. The number of awards vesting is dependent upon CTS' achievement of either sales growth targets or cash flow targets as defined in the agreements.

CTS grants market-based restricted stock unit awards to certain executives and key employees. Vesting may occur in the amount of zero percent to 200% of the grant target. Vesting is subject to certification of the financial results for the last year of the target range by CTS' independent auditors. The number of awards vesting is determined using a matrix based on a percentile ranking of CTS' total stockholder return with a peer group total shareholder return over the three-year period comprising the performance period. Vesting is tied exclusively to CTS' total stockholder return relative to peer group companies' total stockholder return rates during the performance period.

The following table summarizes the performance and market-based RSU activity as of and for the nine months ended September 30, 2016:



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	Units	Weighted Average Grant Date Fair Value
Outstanding at January 1, 2016	249,560	14.59
Granted	108,650	13.56
Attained by performance	97,017	10.48
Released	(234,517)	10.52
Forfeited	(9,000 )	14.41
Outstanding at September 30, 2016	211,710	16.58
Maximum potential units outstanding at September 30, 2016	423,420	16.58

## NOTE 15 — Fair Value Measurements

CTS uses interest rate swaps to convert our line of credit's variable rate of interest into a fixed rate and foreign currency forward contracts to hedge the effect of foreign currency changes on certain revenues and costs denominated in foreign currencies. These derivative financial instruments are measured at fair value on a recurring basis.

The table below summarizes CTS' financial assets (liabilities) that were measured at fair value at September 30, 2016:

	Carrying Value at September 30, 2016	Quoted Prices in Active Markets for Identical Instruments (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Interest rate swaps	\$ (606 )	\$	—\$ (606 )	\$ —
Foreign currency hedges	\$ (234 )	\$	—\$ (234 )	\$ —

The table below summarizes the financial liability that was measured at fair value on a recurring basis as of December 31, 2015:

	Carrying Value at December 31, 2015	Quoted Prices in Active Markets for Identical Instruments (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Interest rate swaps	\$ (768 )	\$	—\$ (768 )	\$ —

The fair value of our interest rate swaps and foreign currency hedges were measured using standard valuation models using market-based observable inputs over the contractual terms, including forward yield curves, among others. There is a readily determinable market for these derivative instruments, but that market is not active and therefore they are classified within level 2 of the fair value hierarchy.





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The table below provides a reconciliation of the recurring financial assets (liabilities) for our derivative instruments:

	Interest Rate Swaps	Foreign Currency Hedges
Balance at January 1, 2015	\$ (1,020 )	\$ —
Realized gains included in earnings	768	—
Unrealized (losses)	(516 )	—
Balance at December 31, 2015	\$ (768 )	\$ —
Realized gains included in earnings	709	—
Unrealized (losses)	(547 )	(234 )
Balance at September 30, 2016	\$ (606 )	\$ (234 )

CTS' long-term debt consists of the Revolving Credit Facility which is recorded at its carrying value. There is a readily determinable market for CTS' long-term debt and it is classified within Level 2 of the fair value hierarchy as the market is not deemed to be active. The fair value of long-term debt approximates carrying value and was determined by valuing a similar hypothetical coupon bond and attributing that value to our long-term debt under the Revolving Credit Facility.

## NOTE 16 — Income Taxes

The effective tax rates for the three and nine-month periods in 2016 and 2015 are as follows:

	Three Months Ended		Nine Months Ended	
	September 30, 2016	September 27, 2015	September 30, 2016	September 27, 2015
Effective tax rate	68.3 %	31.2 %	43.2 %	(59.2 )%

CTS' effective income tax rate was 68.3% and 31.2% in the third quarter of 2016 and 2015, respectively. The tax rate in the third quarter and first nine months of 2016 reflected an increase in valuation allowances recorded against certain state net operating losses and tax credits and the revaluation of U.S. deferred taxes as a result of the June 2016 restructuring activities discussed in Note 7. The rates also reflect an increase in a valuation allowance on certain non-U.S. losses as a result of changes in the expectation of CTS' ability to utilize those losses, changes in the mix of earnings by jurisdiction, various other discrete items, CTS' decision to no longer permanently reinvest the earnings of its Canadian and U.K. subsidiaries, and tax expense for withholding taxes on earnings in China that are not anticipated to be maintained in China. CTS began recording tax expense for withholding taxes in China in the fourth quarter of 2015 and expects to continue this practice going forward. During the first nine months of 2015, CTS reflected a benefit attributable to filing amended U.S. federal tax returns in order to take credits for foreign taxes paid which was partially offset by a reserve recorded on an uncertain tax position.

CTS' continuing practice is to recognize interest and/or penalties related to income tax matters as income tax expense. For the three months ended September 30, 2016, and September 27, 2015, CTS accrued \$181 and \$136 of interest or penalties in income tax expense. For the nine months ended September 30, 2016 and September 27, 2015, CTS accrued \$552 and \$957 of interest or penalties in income tax expense.

## Note 17 - Business Combinations

On March 11, 2016, CTS acquired all of the outstanding membership interests in CTG Advanced Materials, LLC ("CTG-AM"), a privately-held company, for \$73 million in cash plus a working capital adjustment. CTG-AM, formerly operated as H.C. Materials, is the market leading designer and manufacturer of single crystal piezoelectric materials, serving major original equipment manufacturers throughout the medical marketplace. These materials enable high

definition ultrasound imaging (3D and 4D), as well as intravascular ultrasound applications. Other applications for these materials include wireless pacemakers, implantable hearing aids, and defense technologies.

With the CTG-AM acquisition, CTS gains technology and proprietary manufacturing methods that expand its offering of piezoelectric materials. This allows CTS to become the leading large-scale commercial producer of both single crystal materials and traditional piezoelectric ceramics.

The purchase price of \$73,063, net of cash acquired of \$4, has been allocated to the fair values of assets and liabilities acquired as of March 11, 2016.

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The following table summarizes the fair values of the assets acquired and the liabilities assumed at the date of acquisition:

	Fair Values at March 11, 2016
Current assets	\$4,215
Property, plant and equipment	6,173
Other assets	37
Goodwill	27,879
Intangible assets	35,427
Fair value of assets acquired	73,731
Less fair value of liabilities acquired	(668 )
Net cash paid	\$73,063

Goodwill represents value the Company expects to be created by combining the operations of the acquired business with the Company's operations, including the expansion into markets within our existing business, access to new customers, and potential cost savings and synergies. Goodwill related to the acquisition is expected to be deductible for tax purposes.

The following table summarizes the carrying amounts and weighted average lives of the acquired intangible assets:

Intangible Asset Type	Fair Value	Weighted Average Amortization Period (in years)
Developed Technology	\$23,730	15.0
Customer Relationships and Contracts	11,502	14.6
Other	195	0.8
Total	\$35,427	14.8

CTS incurred \$804 in transaction related costs during the nine months ended September 30, 2016. These costs are included in selling, general, and administrative costs in our Condensed Consolidated Statement of Earnings.

Results of operations for CTG -AM are included in our consolidated condensed financial statements beginning on March 11, 2016. The amount of net sales and net loss from CTG-AM since the acquisition date that have been included in the Condensed Consolidated Statement of Earnings are as follows:

	For the period March 11, 2016 through September 30, 2016
Net sales	\$ 7,096
Net earnings	\$ 256



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## Supplemental Pro Forma Information

The unaudited pro forma amounts below include CTG-AM's revenues and earnings that would have been included in our Condensed Consolidated Statement of Earnings had the acquisition date been January 1, 2015.

	Three Months Ended		Nine Months Ended	
	September 30, 2016	September 27, 2015	September 30, 2016	September 27, 2015
Net sales	\$99,697	\$93,818	\$297,407	\$299,123
Net earnings	\$3,720	\$(4,014)	\$25,969	\$22,301

## Earnings per share:

Basic	\$0.11	\$(0.12)	\$0.79	\$0.67
Diluted	\$0.11	\$(0.12)	\$0.78	\$0.66

The pro forma results have been prepared for informational purposes only and include adjustments to amortize acquired intangible assets with finite life, reflect additional interest expense on debt used to fund the acquisition, and to record the tax consequences of the pro forma adjustments. Included in the pro forma results are nonrecurring expenses for transaction costs of \$0 and \$804 and additional cost of goods sold of \$0 and \$1,151 for the three and nine-month periods ended September 30, 2016 for inventory recognized at fair value as a result of acquisition-related adjustments.

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NOTE 18 — Recent Accounting Pronouncements

ASU 2016-15 "Statement of Cash Flows (Topic 230) Classification of Certain Cash Receipts and Cash Payments"

In August 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2016-15, "Classification of Certain Cash Receipts and Cash Payments". This ASU reduces the diversity in reporting of eight specific cash flow issues due to accounting guidance that is unclear or does not exist. The eight issues relate to certain debt activities, business combination activities, insurance settlements and other various activities. This guidance is effective for fiscal years beginning after December 15, 2017 and interim periods within those fiscal years. Early adoption is permitted and is to be applied retrospectively using a transition method for each period presented. An entity that elects early adoption of the amendment under this ASU must adopt all aspects of the amendment in the same period. This guidance will not have a material impact on our consolidated financial statements.

ASU 2016-9 "Compensation-Stock Compensation (Topic 718): Improvement to Employee Share Based Payment Accounting"

In March 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2016-09, "Improvements to Employee Share-Based Payment Accounting." This ASU simplifies several aspects of the accounting for share-based payment transactions, including the income tax consequences, forfeitures, classification of awards as either equity or liabilities, and classification on the statement of cash flows. The guidance is effective for annual reporting periods beginning after December 15, 2016, including interim periods. Early adoption is permitted. An entity that elects early adoption of the amendment under this ASU must adopt all aspects of the amendment in the same period. We are currently evaluating the impact this guidance will have on our consolidated financial statements.

ASU 2016-5 "Derivatives and Hedging (Topic 815): Effect of Derivative Contract Novations on Existing Hedge Accounting Relationships"

In March 2016, the FASB issued ASU No. 2016-5 "Derivatives and Hedging (Topic 815): Effect of Derivative Contract Novations on Existing Hedge Accounting Relationships". This amendment clarifies that a change in the counterparty to a derivative instrument does not on its own require dedesignation of the hedging instrument under Topic 815, provided that all other hedge accounting criteria (including those in paragraphs 815-20-35-14 through 35-18) continue to be met. This update can be applied prospectively or retrospectively and is effective for fiscal years beginning after December 15, 2016, and interim periods within those years. This update is not expected to have an impact to our financial statements.

ASU 2016-2 "Leases (Topic 842)"

In February 2016, the FASB issued ASU 2016-2, "Leases (Topic 842)". This amendment created a new Topic under the accounting standards codification to account for the provisions of the ASU. This amendment is meant to provide transparency and to improve comparability between entities. The ASU requires companies to record an asset and liability to the balance sheet for leases that were formerly designated as operating leases as well as leases designated as financing leases. The provisions of the ASU predominately change the recognition of leases for lessees, the provisions do not substantially change the accounting for lessors. This ASU will supersede the provisions of Topic 840 Leases.

The liability recorded for a lease is meant to recognize the lease payments and the asset as a right to use the underlying asset for the lease, including optional periods if it is reasonably certain the option will be exercised. Recording of the liability should be based on the present value of the lease payments. If a lease term is less than twelve month, a company is allowed to elect not to record the asset and liability. Expense related to these leases are to be amortized straight-line over the term of the lease.

Additionally, the provisions of this ASU provide additional guidance on separating lease terms from maintenance and other type of provisions that provide a good or service, accounting for sale-leaseback provisions, and leveraged leases. Reporting in the cash flow statement remains virtually unchanged. Additional qualitative and quantitative disclosures are required.

These updates are required to be applied under a modified retrospective approach from the beginning of the earlier period presented. The modified approach provides optional practical expedients that may be elected, which will allow companies to continue to account for leases under the previous guidance for leases that commenced prior to the effective date.

The provisions of this ASU are effective for fiscal years beginning after December 15, 2018, and interim periods within those periods. Early adoption is allowed. The provisions of this guidance are still being evaluated and the impact on CTS' financial statements has not yet been determined.

ASU 2015-17, "Income Taxes (Topic 740): Balance Sheet Classification of Deferred Taxes"

In November 2015, FASB issued ASU 2015-17, "Income Taxes (Topic 740): Balance Sheet Classification of Deferred Taxes". The amendment requires Company's to begin classifying all deferred income taxes as non-current. The provisions are expected



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to simplify the presentation of deferred income taxes and align the presentation of deferred income taxes with the International Financial Reporting Standards ("IFRS"). The amendments in this update are effective for annual periods beginning after December 16, 2016, and interim periods within those annual periods. The update can be applied prospectively or retrospectively.

The Company early adopted the above guidance on January 1, 2016 and elected to retrospectively apply its provisions. This resulted in reclassification of the amounts in our December 31, 2015 Consolidated Balance Sheet as shown in Note 1 - Basis of Presentation.

ASU 2015-16, "Business Combinations (Topic 805): Simplifying the Accounting for Measurement-Period Adjustments"

In September 2015, the FASB issued Accounting Standards Update ("ASU") 2015-16, "Business Combinations (Topic 805) Simplifying the Accounting for Measurement-Period Adjustments of Inventory". The amendments clarify that an acquirer recognize adjustments to provisional amounts that are identified during the measurement period in the reporting period in which the adjustment amounts are determined. The acquirer needs to record, in the same period's financial statements, the effect of changes in depreciation, amortization, or other income as a result of the change to the provisional amounts as if the accounting had been completed at the acquisition date. This amendment requires an entity to present separately on the face of the income statement or disclose in the notes the portion of the amount recorded in current period earnings by line item, as if the provisional adjustments had been recognized as of the acquisition date. This ASU became effective for CTS on January 1, 2016 and its provisions did not have an impact on our financial statements.

ASU 2015-14, "Revenue from Contracts with Customers (Topic 606)"

In August 2015, the FASB issued ASU 2015-14, "Accounting for Revenue from Contracts with Customers (Topic 606)". The amended guidance deferred the effective date of ASU 2014-09 "Revenue from Contracts with Customers (Topic 606)" to annual periods beginning after December 15, 2017, and interim periods within that reporting period. Early adoption is permitted for annual periods beginning after December 15, 2016, and interim periods within that annual period. In addition, in April 2016 the FASB issued ASU 2016-10 "Revenue from Contracts with Customers: Identifying Performance Obligations and Licensing (Topic 606)", which amends the revenue guidance on identifying performance obligations and accounting for intellectual property licenses. In May 2016, the FASB issued ASU 2016-12 "Revenue from Contracts with Customers: Narrow-Scope Improvements and Practical Expedients (Topic 606)", which provides additional guidance in assessing whether a transaction meets the definition of revenue, in narrowed circumstances during the transition to ASU 2014-09 and subsequent to implementation. This update can either be applied under either a cumulative effect or retrospective method. ASU 2016-10 and ASU 2016-12 must be adopted concurrently with ASU 2014-09. The impact of ASU 2014-9 on our financial statements has not yet been determined.

Table of ContentsItem 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations (“MD&A”)  
(in thousands, except percentages and per share amounts)

The following discussion should be read in conjunction with our unaudited Condensed Consolidated Financial Statements and notes included under Item 1, as well as our Consolidated Financial Statements and notes and related Management’s Discussion and Analysis of Financial Condition and Results of Operations included in our Annual Report on Form 10-K for the year ended December 31, 2015.

## Overview

CTS Corporation (“CTS”, “we”, “our” or “us”) is a leading designer and manufacturer of products that Sense, Connect and Move. CTS manufactures sensors, actuators and electronic components in North America, Europe, and Asia, and supplies these products to OEMs in the aerospace, communications, defense, industrial, information technology, medical and transportation markets.

## Results of Operations: Third Quarter 2016 versus Third Quarter 2015

The following table highlights changes in significant components of the Unaudited Condensed Consolidated Statements of Earnings for the quarters ended September 30, 2016, and September 27, 2015:

	Three Months Ended		Percent	Percent of	Percent of
	September	September	Change	Net Sales –	Net Sales –
	30,	27,		2016	2015
	2016	2015			
Net sales	\$99,697	\$ 90,646	10.0	100.0	100.0
Cost of goods sold(1)	63,056	59,200	6.5	63.2	65.3
Gross margin	36,641	31,446	16.5	36.8	34.7
Selling, general and administrative expenses	16,048	12,689	26.5	16.1	14.0
Research and development expenses	6,284	5,692	10.4	6.3	6.3
Non-recurring environmental charge	—	14,541	—	—	16.0
Restructuring and impairment charges	1,969	2,373	(17.0 )	2.0	2.6
(Gain) loss on sale of assets	(150 )	1	—	(0.1 )	—
Total operating expenses	24,151	35,296	(31.6 )	24.3	38.9
Operating earnings	12,490	(3,850 )	(424.4 )	12.5	(4.2 )
Total other expense	(760 )	(3,073 )	(75.3 )	(0.8 )	(3.4 )
Earnings (loss) before income taxes	11,730	(6,923 )	(269.4 )	11.7	(7.6 )
Income tax expense (benefit)	8,010	(2,163 )	(470.3 )	8.0	(2.4 )
Net earnings (loss)	\$3,720	\$ (4,760 )	(178.2 )	3.7	(5.2 )
Earnings per share:					
Diluted net earnings per share	\$0.11	\$ (0.15 )			

(1) Cost of goods sold includes restructuring related charges of \$0 in 2016 and \$152 in 2015.

Sales of \$99,697 in the third quarter of 2016 increased \$9,051 or 10.0% from the third quarter of 2015. Sales to automotive markets increased \$3,173 driven by higher volumes which were partially offset by unfavorable foreign exchange impact. Other sales increased \$5,878 due to the addition of sales from the single crystal acquisition and higher demand for electronic components in certain end markets. Changes in foreign exchange rates reduced sales by \$600 year-over-year due to the U.S. Dollar appreciating compared to the Chinese Renminbi and relating mostly to sales of automotive products.

Gross margin as a percent of sales was 36.8% in the third quarter of 2016 compared to 34.7% in the third quarter of 2015. The increase in gross margin resulted from cost savings from continued efficiency gains, material and labor productivity projects, savings from restructuring projects, favorable mix, and the addition of sales from the single crystal acquisition. In addition, foreign exchange rates had a favorable impact on manufacturing costs primarily due to

the strengthening of the U.S. Dollar compared to the Mexican Peso.

Selling, general and administrative expenses were \$16,048 or 16.1% of sales in the third quarter of 2016 versus \$12,689 or 14.0% of sales in the comparable quarter of 2015. The increase is primarily attributable to added costs as a result of the single crystal

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acquisition, including amortization of intangibles, and the timing of certain expenses. In addition, CTS paid an early termination fee related to its leased facility in Lisle, Illinois in anticipation of a move in the 2017/2018 time frame to another leased facility in the same area, which will consolidate the Bolingbrook and Lisle, Illinois sites into one facility and reduce ongoing expenses.

Research and development expenses were \$6,284 or 6.3% of sales in the third quarter of 2016 compared to \$5,692 or 6.3% of sales in the comparable quarter of 2015. The increase was related to continued investment in new products to drive organic growth. Research and development expenses are focused on expanded applications of existing products and new product development as well as current product and process enhancements.

A non-recurring environmental charge of \$14,541 was recorded in the third quarter of 2015 related to a site in Asheville, North Carolina. The charge recorded included both the interim remediation proposed by CTS and accepted by the Environmental Protection Agency ("EPA") and anticipated future remediation and monitoring.

Restructuring and impairment charges were \$1,969 or 2.0% of sales in the third quarter 2016 compared to \$2,373 or 2.6% of sales in the second quarter of 2015. The 2016 charges are for severance costs related to the restructuring of certain operations as part of the 2016 Restructuring Plan announced in June 2016. The 2015 charges consist primarily of severance, transition and shutdown costs related to the consolidation of CTS' Canadian operation in Streetsville, Ontario into other CTS facilities.

Operating earnings were \$12,490 or 12.5% of sales in the third quarter of 2016 compared to an operating loss of \$3,850 or (4.2)% of sales in the comparable quarter of 2015 as a result of the items discussed above.

Other income and expense items are summarized in the following table:

	Three Months Ended	
	September 30, 2016	September 27, 2015
Interest expense	\$(917)	\$(714)
Interest income	203	713
Other expense, net	(46)	(3,072)
Total other expense	\$(760)	\$(3,073)

Interest expense increased in the third quarter of 2016 versus the third quarter of 2015 as a result of higher borrowings related to the single crystal acquisition. Interest income decreased due to lower cash balances. Other expense in the third quarter of 2015 was driven by foreign currency translation losses, primarily due to the appreciation of the U.S. Dollar compared to the Chinese Renminbi.

	Three Months Ended	
	September 30, 2016	September 27, 2015
Effective tax rate	68.3%	31.2%

CTS' effective income tax rate was 68.3% and 31.2% in the third quarter of 2016 and 2015, respectively. The tax rate in the third quarter of 2016 reflected an increase in valuation allowances recorded against certain state net operating losses and tax credits and the revaluation of U.S. deferred taxes as a result of the June 2016 restructuring activities discussed in Note 7. The rate also reflects an increase in a valuation allowance on certain non-U.S. losses as a result of changes in the expectation of CTS' ability to utilize those losses, changes in the mix of earnings by jurisdiction, various other discrete items, CTS' decision to no longer permanently reinvest the earnings of its Canadian and U.K. subsidiaries, and tax expense for withholding taxes on earnings in China that are not anticipated to be maintained in China. CTS began recording tax expense for withholding taxes in China in the fourth quarter of 2015 and expects to continue this practice going forward.



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Results of Operations: Nine months ended September 30, 2016 versus Nine months ended September 27, 2015

The following table highlights changes in significant components of the unaudited Condensed Consolidated Statements of Earnings for the nine months ended September 30, 2016, and September 27, 2015:

	Nine Months Ended			Percent of	Percent of
	September 30,	September 27,	Percent Change	Net Sales – 2016	Net Sales – 2015
Net sales	\$295,095	\$289,028	2.1	100.0	100.0
Cost of goods sold(1)	190,528	192,073	(0.8 )	64.6	66.5
Gross margin	104,567	96,955	7.9	35.4	33.5
Selling, general and administrative expenses	46,459	43,623	6.5	15.8	15.1
Research and development expenses	18,414	16,378	12.4	6.2	5.7
Non-recurring environmental charge	—	14,541	—	—	5.0
Restructuring and impairment charges	2,175	5,229	(58.4 )	0.7	1.8
(Gain) loss on sale of assets	(11,501 )	2	—	(3.9 )	—
Total operating expenses	55,547	79,773	(30.4 )	18.8	27.6
Operating earnings	49,020	17,182	185.3	16.6	5.9
Total other expense	(3,146 )	(4,242 )	(25.8 )	(1.1 )	(1.4 )
Earnings (loss) before income taxes	45,874	12,940	254.5	15.5	4.5
Income tax expense (benefit)	19,804	(7,667 )	(358.3)	6.7	(2.6 )
Net earnings	\$26,070	\$20,607	26.5	8.8	7.1
Earnings per share:					
Diluted net earnings per share	\$0.79	\$0.61			

(1) Cost of goods sold includes restructuring related charges of \$0 in 2016 and \$444 in 2015.

Sales of \$295,095 in the nine months ended September 30, 2016 increased \$6,067 or 2.1% from the nine months ended September 27, 2015. Sales to automotive markets increased \$1,712 driven by higher volumes which were partially offset by unfavorable foreign exchange impact. Other sales increased \$4,355 due to the addition of sales from the single crystal acquisition which were partially offset by lower demand for electronic components in certain end markets. Changes in foreign exchange rates reduced sales by \$1,697 year-over-year due to the U.S. Dollar appreciating compared to the Chinese Renminbi and relating mostly to sales of automotive products.

Gross margin as a percent of sales was 35.4% in the first nine months of 2016 compared to 33.5% in the first nine months of 2015. The increase in gross margin resulted from cost savings from continued efficiency gains, material and labor productivity projects, savings from restructuring projects, favorable mix, and the addition of sales from the single crystal acquisition. In addition, foreign exchange rates had a favorable impact on manufacturing costs primarily due to the strengthening of the U.S. Dollar compared to the Mexican Peso.

Selling, general and administrative expenses were \$46,459 or 15.8% of sales in the nine-month period ended September 30, 2016 versus \$43,623 or 15.1% of sales in the comparable year-to-date period in 2015. Expenses in 2016 include added costs as a result of the single crystal acquisition, including amortization of intangibles. In addition, CTS paid an early termination fee related to its leased facility in Lisle, Illinois in anticipation of a move in the 2017/2018 time frame to another leased facility in the same area, which will consolidate the Bolingbrook and Lisle, Illinois sites into one facility and reduce ongoing expenses.

Research and development expenses were \$18,414 or 6.2% of sales in the nine months ended September 30, 2016 compared to \$16,378 or 5.7% of sales in the comparable prior year period. The increase was related to continued investment in new products to drive organic growth. Research and development expenses are focused on expanded applications of existing products and new product development as well as current product and process enhancements.

A non-recurring environmental charge of \$14,541 was recorded in the third quarter of 2015 related to a site in Asheville, North Carolina. The charge recorded included both the interim remediation proposed by CTS and accepted by the Environmental Protection Agency ("EPA") and anticipated future remediation and monitoring.

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Restructuring and impairment charges were \$2,175 or 0.7% of sales in the first nine months of 2016 compared to \$5,229 or 1.8% of sales in the first half of 2015. The 2016 charges are for severance costs related to the restructuring of certain operations as part of the 2016 Restructuring Plan announced in June 2016. The 2015 charges consist primarily of severance, transition and shutdown costs related to the consolidation of CTS' Canadian operation in Streetsville, Ontario into other CTS facilities. The information as set forth under Note 7, Costs Associated with Exit and Restructuring Activities, in the condensed consolidated financial statements included in Part I, Item 1 of this report is incorporated herein by reference.

The gain on sale of assets is driven primarily by the gain on sale of the building in Canada in June 2016.

Operating earnings were \$49,020 or 16.6% of sales in the nine months ended September 30, 2016 compared to operating earnings of \$17,182 or 5.9% of sales in the nine months ended September 27, 2015 as a result of the items discussed above.

Other income and expense items are summarized in the following table:

	Nine Months Ended	
	September 30, 2016	September 27, 2015
Interest expense	\$(2,746)	\$(1,955)
Interest income	1,082	2,354
Other expense, net	(1,482)	(4,641)
Total other expense	\$(3,146)	\$(4,242)

Interest expense increased in the first nine months of 2016 versus the nine months of 2015 as a result of higher borrowings related to the single crystal acquisition. Interest income decreased due to lower cash balances. Other expense in the first nine months of 2016 is largely the result of foreign currency translation losses, primarily due to the appreciation of the U.S. Dollar compared to the Chinese Renminbi. Other expense in the first nine months of 2015 was also driven by foreign currency translation losses, primarily due to the appreciation of the U.S. Dollar compared to the Chinese Renminbi, Euro and Canadian Dollar.

	Nine Months Ended	
	September 30, 2016	September 27, 2015
Effective tax rate	43.2%	(59.2)%

CTS' effective income tax rate was 43.2% and (59.2)% in the first nine months of 2016 and 2015, respectively. The tax rate in the first nine months of 2016 reflected an increase in valuation allowances recorded against certain state net operating losses and tax credits and the revaluation of U.S. deferred taxes as a result of the June 2016 restructuring activities discussed in Note 7. The rate also reflects an increase in a valuation allowance on certain non-U.S. losses as a result of changes in the expectation of CTS' ability to utilize those losses, changes in the mix of earnings by jurisdiction, various other discrete items, CTS' decision to no longer permanently reinvest the earnings of its Canadian and U.K. subsidiaries, and tax expense for withholding taxes on earnings in China that are not anticipated to be maintained in China. CTS began recording tax expense for withholding taxes in China in the fourth quarter of 2015 and expects to continue this practice going forward. During the first nine months of 2015, CTS reflected a benefit attributable to filing amended U.S. federal tax returns in order to take credits for foreign taxes paid which was partially offset by a reserve recorded on an uncertain tax position.

## Liquidity and Capital Resources



Cash and cash equivalents were \$114,433 at September 30, 2016 and \$156,928 at December 31, 2015, of which \$113,359 and \$156,310, respectively, were held outside the United States. The decrease in cash and cash equivalents of \$42,495 was primarily driven by cash used in investing activities of \$75,282, which included a payment for a business acquisition in the amount of \$73,063, capital expenditures of \$14,467 and offset by net borrowings on our credit facility of \$5,300 proceeds from the sale of assets of \$12,248, and cash generated from operations of \$31,587. Total debt was \$96,000 as of September 30, 2016 and \$90,700 as of December 31, 2015. Total debt as a percentage of total capitalization, defined as the sum of long-term debt as a percentage of total debt and shareholders' equity, was 23.9% at September 30, 2016, compared to 24.4% at December 31, 2015.

Working capital decreased by \$35,626 during the nine months ended September 30, 2016, primarily due to the aforementioned decrease in cash and cash equivalents.

Table of Contents**Cash Flows from Operating Activities**

Net cash provided by operating activities was \$31,587 during the first nine months of 2016. Components of net cash provided by operating activities included net earnings of \$26,070, depreciation and amortization expense of \$14,010, and equity-based compensation of \$1,759 offset by amortization of retirement benefit adjustments of \$1,188, net changes in assets and liabilities of \$8,055, and other non-cash items such as gains on sales of fixed assets, deferred income taxes, and restructuring charges of \$1,009.

**Cash Flows from Investing Activities**

Net cash used in investing activities for the first nine months of 2016 was \$75,282, which includes a payment for a business acquisition of \$73,063, net of cash acquired, \$14,467 for capital expenditures and offset by proceeds from the sale of assets of \$12,248.

**Cash Flows from Financing Activities**

Net cash provided by financing activities for the first nine months of 2016 was \$2,073. These cash inflows were the result of net borrowings under our credit facility totaling \$5,300 and windfall tax benefits from equity awards of \$696 which were partially offset by dividend payments of \$3,923.

**Capital Resources**

Long term debt was comprised of the following:

	As of			
	September	December		
	30,	31,		
	2016	2015		
Revolving credit facility due in 2020	\$96,000	\$90,700		
Weighted average interest rate	1.9	% 1.5	%	%
Amount available	\$201,835	\$106,985		
Total credit facility	\$300,000	\$200,000		
Standby letters of credit	\$2,165	\$2,315		
Commitment fee percentage per annum	0.25	% 0.25	%	%

On August 10, 2015, CTS entered into a new five-year credit agreement (“Revolving Credit Facility”) with a group of banks in order to support CTS’ financing needs. The Revolving Credit Facility originally provided for a credit line of \$200,000. On May 23, 2016, CTS requested and received a \$100,000 increase in the aggregate revolving credit commitments under its existing credit agreement, which increased the credit line from \$200,000 to \$300,000.

The Revolving Credit Facility requires, among other things, that CTS comply with a maximum total leverage ratio and a minimum fixed charge coverage ratio. Failure of CTS to comply with these covenants could reduce the borrowing availability under the Revolving Credit Facility. CTS was in compliance with all debt covenants at September 30, 2016.

CTS uses interest rate swaps to convert the revolving credit facility’s variable rate of interest into a fixed rate. In the second quarter of 2012, CTS entered into four separate interest rate swap agreements to fix interest rates on \$50,000 of long-term debt for the periods January 2013 to January 2017. In the third quarter of 2012, CTS entered into four additional interest rate swap agreements to fix interest rates on \$25,000 of long-term debt for the periods January 2013 to January 2017. In the third quarter of 2016, CTS entered into three additional forward-starting interest rate swap agreements to fix interest rates on \$50,000 of long-term debt for the periods August 2017 to August 2020. The difference to be paid or received under the terms of the swap agreements will be recognized as an adjustment to interest expense when settled.

Generally, CTS’ practice and intention is to reinvest the earnings of its non-U.S. subsidiaries outside the U.S. However, CTS determined during 2015 that as a result of changes in the business, the foreign earnings of its subsidiaries in Canada and the U.K. were no longer permanently reinvested. Therefore, a provision for the expected taxes on repatriation of those earnings was recorded at that time. Any repatriation may not result in significant cash income tax payments as the taxable event would likely be offset by the utilization of the then available tax credits, resulting in no significant net cash taxes being incurred. CTS does not provide for U.S. income taxes on undistributed

earnings of its foreign subsidiaries that are intended to be permanently reinvested.

We have historically funded our capital and operating needs primarily through cash flows from operating activities, supported by available credit under our Revolving Credit Facility. We believe that cash flows from operating activities and available borrowings

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under our Revolving Credit Facility will be adequate to fund our working capital, capital expenditures and debt service requirements for at least the next twelve months. However, we may choose to pursue additional equity and debt financing to provide additional liquidity or to fund acquisitions.

### Critical Accounting Policies and Estimates

Management prepared the consolidated financial statements of CTS under accounting principles generally accepted in the United States of America. These principles require the use of estimates, judgments, and assumptions. We believe that the estimates, judgments, and assumptions we used are reasonable, based upon the information available.

Our estimates and assumptions affect the reported amounts in our financial statements. The following accounting policies comprise those that we believe are the most critical in understanding and evaluating CTS' reported financial results.

### Revenue Recognition

Product revenue is recognized once four criteria are met: (1) we have persuasive evidence that an arrangement exists; (2) delivery has occurred and title has passed to the customer, which generally happens at the point of shipment, provided that no significant obligations remain; (3) the price is fixed and determinable; and (4) collectability is reasonably assured.

### Accounts Receivable

We have standardized credit granting and review policies and procedures for all customer accounts, including:

- Credit reviews of all new customer accounts,
- Ongoing credit evaluations of current customers,
- Credit limits and payment terms based on available credit information,
- Adjustments to credit limits based upon payment history and the customer's current credit worthiness,
- An active collection effort by regional credit functions, reporting directly to the corporate financial officers, and

We reserve for estimated credit losses based on historical experience and specific customer collection issues. Over the last three years, accounts receivable reserves have been approximately 0.2% to 0.3% of total accounts receivable. We believe our reserve level is appropriate considering the quality of the portfolio. While credit losses have historically been within expectations and the reserves established, we cannot guarantee that our credit loss experience will continue to be consistent with historical experience.

### Inventories

We value our inventories at the lower of the actual cost to purchase or manufacture using the first-in, first-out ("FIFO") method, or the current estimated market value. We review inventory quantities on hand and record a provision for excess and obsolete inventory based on forecasts of product demand and production requirements. Over the last three years, our reserves for excess and obsolete inventories have ranged from 17.5% to 20.4% of gross inventory. We believe our reserve level is appropriate considering the quantities and quality of the inventories.

### Retirement Plans

Actuarial assumptions are used in determining pension income and expense and our pension benefit obligation. We utilize actuaries from consulting companies in each applicable country to develop our discount rates that match high-quality bonds currently available and expected to be available during the period to maturity of the pension benefit in order to provide the necessary future cash flows to pay the accumulated benefits when due. After considering the recommendations of our actuaries, we have assumed a discount rate, expected rate of return on plan assets and a rate of compensation increase in determining our annual pension income and expense and the projected benefit obligation. During the fourth quarter of each year, we review our actuarial assumptions in light of current economic factors to determine if the assumptions need to be adjusted. Changes in the actuarial assumptions could have a material effect on our results of operations.

### Valuation of Goodwill

Goodwill of a reporting unit is tested for impairment annually, or more frequently if an event occurs or circumstances change that would more-likely-than-not reduce the fair value of a reporting unit below its carrying amount. Examples of such events or circumstances include:

- Significant decline in market capitalization relative to net book value,

Significant adverse change in legal factors or in the business climate,

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- Adverse action or assessment by a regulator,
- Unanticipated competition,
- More-likely-than-not expectation that a reporting unit or a significant portion of a reporting unit will be sold or otherwise disposed of,
- Testing for recoverability of a significant asset group within a reporting unit, and
- Allocation of a portion of goodwill to a business to be disposed.

If CTS believes that one or more of the above indicators of impairment have occurred, we perform an impairment test. The performance of the test involves a two-step process. The first step of the impairment test involves comparing the fair values of the applicable reporting units with their aggregate carrying values, including goodwill. We generally determine the fair value of our reporting units using two valuation methods: "Income Approach — Discounted Cash Flow Method" and "Market Approach — Guideline Public Company Method". The approach defined below is based upon our last impairment test conducted as of October 1, 2015.

Under the "Income Approach — Discounted Cash Flow Method", the key assumptions consider sales, cost of sales and operating expenses projected through the year 2020. These assumptions were determined by management utilizing our internal operating plan and assuming growth rates for revenues, operating expenses, and gross margin assumptions. The fourth key assumption under this approach is the discount rate which is determined by looking at current risk-free rates, current market interest rates and the evaluation of risk premium relevant to the business segment. If our assumptions relative to growth rates were to change or were incorrect, our fair value calculation may change which could result in impairment.

Under the "Market Approach — Guideline Public Company Method", we identified eight publicly traded companies, including CTS, which we believe have significant relevant similarities. For these eight companies, we calculated the mean ratio of invested capital to revenues and invested capital to EBITDA. Similar to the Income approach discussed above, sales, cost of sales, operating expenses and their respective growth rates were the key assumptions utilized. The market prices of CTS and other guideline company shares are also key assumptions. If these market prices increase, the estimated market value would increase. If the market prices decrease, the estimated market value would decrease. The results of these two methods are weighted based upon management's determination. The Market approach is based upon historical and current economic conditions, which might not reflect the long-term prospects or opportunities for CTS' business being evaluated.

If the carrying amount of a reporting unit exceeds the reporting unit's fair value, we perform the second step of the goodwill impairment test to determine the amount of impairment loss, which involves comparing the implied fair value of the affected reporting unit's goodwill with the carrying value of that goodwill.

There have not been any significant changes to our impairment testing methodology other than updates to the assumptions to reflect the current market environment. As discussed above, key assumptions used in the first step of the goodwill impairment test were determined by management utilizing CTS' internal operating plan. The key assumptions utilized include forecasted growth rates for revenues and operating expenses as well as a discount rate which is determined by looking at current risk-free rates of capital, current market interest rates and the evaluation of a risk premium relevant to the business segment. CTS will monitor future results and will perform a test if indicators trigger an impairment review.

We test the impairment of goodwill whenever events or changes in circumstances indicate that the carrying value may not be recoverable. Based upon our latest assessment, we determined that our goodwill was not impaired as of December 31, 2015, and there have been no further indicators of goodwill impairment since that time.

**Valuation of Long-Lived and Other Intangible Assets**

We evaluate the impairment of identifiable intangibles and other long-lived assets whenever events or changes in circumstances indicate that the carrying value may not be recoverable. Factors considered that may trigger an impairment review consist of:

- Significant underperformance relative to expected historical or projected future operating results,
- Significant changes in the manner of use of the acquired assets or the strategy for the overall business,
- Significant negative industry or economic trends,
- Significant decline in CTS' stock price for a sustained period, and

Significant decline in market capitalization relative to net book value.

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If CTS believes that one or more of the above indicators of impairment have occurred and the undiscounted cash flow test failed in the case of amortizable assets, it measures impairment based on projected discounted cash flows using a discount rate that incorporates the risk inherent in the cash flows.

**Income Taxes**

CTS identified, evaluated, and measured the amount of income tax benefits to be recognized for all of our income tax positions. Included in deferred tax assets are amounts related to federal, state and foreign net operating losses. CTS intends to utilize these net operating loss carryforwards to offset future income taxes.

CTS' practice is to recognize interest and penalties related to income tax matters as part of income tax expense.

CTS earns a significant amount of its operating income outside of the U.S., which is generally deemed to be permanently reinvested in foreign jurisdictions. However, CTS determined during 2015 that as a result of changes in the business, the foreign earnings of its subsidiaries in Canada and the U.K. were no longer permanently reinvested. Therefore, a provision for the expected taxes on repatriation of those earnings was recorded. CTS does not intend to repatriate funds beyond the amount from its Canadian and U.K. subsidiaries; however, should CTS require more capital in the U.S. than is generated by our domestic operations, CTS could elect to repatriate funds held in foreign jurisdictions or raise capital in the U.S. through debt or equity issuances. Repatriation would result in a higher effective tax rate. Borrowing in the U.S. would result in increased interest expense.

**Significant Customers**

Our net sales to customers representing at least 10% of total net sales were as follows:

	Three Months		Nine Months			
	Ended		Ended			
	September	September	September	September		
	30,	27,	30,	27,		
	2016	2015	2016	2015		
Honda Motor Co.	10.5 %	11.7 %	10.8 %	10.5 %		
Toyota Motor Corporation	9.9 %	10.3 %	10.5 %	9.5 %		
Cummins Inc.	9.5 %	10.0 %	9.8 %	9.0 %		

**Forward Looking Statements**

This document contains statements that are, or may be deemed to be, forward looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These forward looking statements include, but are not limited to, any financial or other guidance, statements that reflect our current expectations concerning future results and events, and any other statements that are not based solely on historical fact. Forward looking statements are based on management's expectations, certain assumptions and currently available information. Readers are cautioned not to place undue reliance on these forward looking statements, which speak only as of the date hereof and are based on various assumptions as to future events, the occurrence of which necessarily are subject to uncertainties. These forward looking statements are made subject to certain risks, uncertainties and other factors, which could cause our actual results, performance or achievements to differ materially from those presented in the forward looking statements. Examples of factors that may affect future operating results and financial condition include, but are not limited to: changes in the economy generally and in respect to the business in which CTS operates; unanticipated issues in integrating acquisitions; the results of actions to reposition our business; rapid technological change; general market conditions in the automotive, communications, and computer industries, as well as conditions in the industrial, defense and aerospace, and medical markets; reliance on key customers; unanticipated natural disasters or other events; the ability to protect our intellectual property; pricing pressures and demand for our products; unanticipated developments that could occur with respect to contingencies such as litigation and environmental matters as well as any product liability claims; and risks associated with our international operations, including trade and tariff barriers, exchange rates and political and geopolitical risks. Many of these and other risks and uncertainties are discussed in further detail in Item 1A. of CTS' Annual Report on Form 10 K for the fiscal year ended December 31, 2015. We undertake no obligation to publicly update our forward looking statements to reflect new information or events or circumstances that arise after the date hereof, including market or industry changes.





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## Item 3. Quantitative and Qualitative Disclosures About Market Risk

There have been no material changes in our market risk since December 31, 2015.

## Item 4. Controls and Procedures

Pursuant to Rule 13a-15(e) of the Securities and Exchange Act of 1934, management, under the direction of our Chief Executive Officer and Chief Financial Officer, evaluated our disclosure controls and procedures. Based on such evaluation, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective as of September 30, 2016.

## Changes in Internal Control Over Financial Reporting

There were no changes in our internal control over financial reporting for the quarter ended September 30, 2016, that have materially affected or are reasonably likely to materially affect our internal control over financial reporting.

## PART II - OTHER INFORMATION

Not applicable

## Item 1. Legal Proceedings

From time to time we are involved in litigation with respect to matters arising from the ordinary conduct of our business, and currently certain claims are pending against us. In the opinion of management, based upon presently available information, either adequate provision for anticipated costs have been accrued or the ultimate anticipated costs will not materially affect our consolidated financial position, results of operations, or cash flows.

## Item 1A. Risk Factors

There have been no significant changes to our risk factors since December 31, 2015.

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

On April 27, 2015, CTS announced that its Board of Directors authorized an expansion to its repurchase program by authorizing the purchase of an additional \$25 million dollars of its common stock in the open market. This authorization has no expiration. As shown in the following table, there were no stock repurchases during the quarter ended September 30, 2016.

	(a)	(b)	(c)	(d)
	Total Number of	Average Price	Total Number	Maximum Dollar Value
	Shares	Paid per Share	of Shares	of
	Purchased		Purchased as	Shares That May Yet Be
			Part of Plans or	Purchased Under the
			Program	Plans or Programs(2)
Balance at June 30, 2016				\$ 17,554
July 1, 2016 - September 30, 2016	—	—	—	\$ —
Total	—	—	—	\$ 17,554

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Item 6. Exhibits

- (31)(a) Certification pursuant to Section 302 of the Sarbanes Oxley Act of 2002.
- (31)(b) Certification pursuant to Section 302 of the Sarbanes Oxley Act of 2002.
- (32)(a) Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes Oxley Act of 2002.
- (32)(b) Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes Oxley Act of 2002.

101.INS XBRL Instance Document

101.SCH XBRL Taxonomy Extension Schema Document

101.CALXBRL Taxonomy Extension Calculation Linkbase Document

101.DEF XBRL Taxonomy Extension Definition Linkbase Document

101.LABXBRL Taxonomy Extension Label Linkbase Document

101.PRE XBRL Taxonomy Extension Presentation Linkbase Document

SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) 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.

CTS Corporation

CTS Corporation

/s/ Luis F. Machado

/s/ Ashish Agrawal

Luis F. Machado

Ashish Agrawal

Vice President, General Counsel and Secretary

Vice President and Chief Financial Officer

Dated: October 28, 2016

Dated: October 28, 2016