CTS CORP Form 10-Q July 26, 2018 Table of Contents

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 $^{\rm X}$ 1934

For The Quarterly Period Ended June 30, 2018

OR

TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 01934

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)

4925 Indiana Avenue, 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 x

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 x 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 x Accelerated filer o Non-accelerated filer o Smaller reporting company o (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 x

Indicate the number of shares outstanding of each of the issuer's classes of common stock, as of July 23, 2018: 33,087,043.

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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		Six Months Ended	
	June 30,	June 30,	June 30,	June 30,
	2018	2017	2018	2017
Net sales	\$118,021	\$105,686	\$231,551	\$205,840
Cost of goods sold	76,208	69,892	151,305	135,822
Gross Margin	41,813	35,794	80,246	70,018
Selling, general and administrative expenses	19,621	15,808	36,993	31,056
Research and development expenses	6,476	6,049	12,983	12,052
Restructuring charges	1,172	729	2,367	1,507
Operating earnings	14,544	13,208	27,903	25,403
Other income (expense):				
Interest expense	(571)(752)	(1,112)	(1,436)
Interest income	472	298	954	551
Other (expense) income, net	(2,874)1,170	(870)	1,631
Total other (expense) income	(2,973)716	(1,028)	746
Earnings before income taxes	11,571	13,924	26,875	26,149
Income tax expense	4,362	3,958	8,118	7,699
Net earnings	\$7,209	\$9,966	\$18,757	\$18,450
Earnings per share:				
Basic	\$0.22	\$0.30	\$0.57	\$0.56
Diluted	\$0.21	\$0.30	\$0.56	\$0.55
Basic weighted – average common shares outstanding:	33,051	32,890	33,014	32,846
Effect of dilutive securities	513	461	513	493
Diluted weighted – average common shares outstanding	g 33,564	33,351	33,527	33,339
Cash dividends declared per share	\$0.04	\$0.04	\$0.08	\$0.08
See notes to unaudited condensed consolidated financia	ıl statemen	its.		

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

	Three Months Ended		Six Mont	hs Ended
	June 30,	June 30,	June 30,	June 30,
	2018	2017	2018	2017
Net earnings	\$7,209	\$9,966	\$18,757	\$18,450
Other comprehensive income:				
Changes in fair market value of derivatives, net of tax	67	(152)	874	608
Changes in unrealized pension cost, net of tax	1,249	942	2,356	1,758
Cumulative translation adjustment, net of tax	(375)	200	(132)	288
Other comprehensive income	\$941	\$990	\$3,098	\$2,654
Comprehensive income	\$8,150	\$10,956	\$21,855	\$21,104

See notes to unaudited condensed consolidated financial statements.

CTS CORPORATION AND SUBSIDIARIES CONDENSED CONSOLIDATED BALANCE SHEETS

(In thousands of dollars)

	(Unaudited)	
	(Unaudited) Dec	
	June 30,	31,
	2018	2017
ASSETS		
Current Assets		
Cash and cash equivalents	\$102,861	\$113,572
Accounts receivable, net	75,597	70,584
Inventories, net	41,671	36,596
Other current assets	11,931	12,857
Total current assets	232,060	233,609
Property, plant and equipment, net	93,630	88,247
Other Assets		
Prepaid pension asset	59,938	57,050
Goodwill	71,057	71,057
Other intangible assets, net	63,557	66,943
Deferred income taxes	20,188	20,694
Other	2,123	2,096
Total other assets	216,863	217,840
Total Assets	\$542,553	\$539,696
LIABILITIES AND SHAREHOLDERS' EQUITY	ď	
Current Liabilities		
Accounts payable	51,652	49,201
Accrued payroll and benefits	9,689	11,867
Accrued liabilities	43,805	41,344
Total current liabilities	105,146	102,412
Long-term debt	57,000	76,300
Long-term pension obligations	6,998	7,201
Deferred income taxes	3,572	3,802
Other long-term obligations	6,077	6,176
Total Liabilities	178,793	195,891
Commitments and Contingencies (Note 10)		
Shareholders' Equity		
Common stock	306,570	304,777
Additional contributed capital	40,034	41,084
Retained earnings	436,274	420,160
Accumulated other comprehensive loss	(75,862)(78,960)
Total shareholders' equity before treasury stock	707,016	687,061
Treasury stock	(343,256)(343,256)
Total shareholders' equity	363,760	343,805
Total Liabilities and Shareholders' Equity	\$542,553	\$539,696
See notes to unaudited condensed consolidated fin	ancial stater	nents.

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

	Six Mont June 30, 2018		Ended June 30, 2017	
CASH FLOWS FROM OPERATING ACTIVITIES:	2010		2017	
Net earnings	\$18,757		\$18,450	
Adjustments to reconcile net earnings to net cash provided by operating activities:	+ , ,		+ ,	
Depreciation and amortization	10,961		9,673	
Pension and other post-retirement plan expense (income)	213		(893)
Stock-based compensation	2,186		1,687	,
Deferred income taxes	(648)	4,497	
Loss on sales of fixed assets	$\hat{2}$	_	1	
(Gain) loss on foreign currency hedges, net of cash	(76)	73	
Changes in assets and liabilities:	`			
Accounts receivable	(5,452)	(1,950)
Inventories			(4,737)
Other assets	1,280		(76)
Accounts payable	4,779		1,616	_
Accrued payroll and benefits	(2,028		(4,735)
Accrued expenses	247	-	(1,944)
Income taxes payable	3,034		(347)
Other liabilities	(101)	2,115	ĺ
Pension and other post-retirement plans	(158	-	(159)
Net cash provided by operating activities	27,721		23,271	
CASH FLOWS FROM INVESTING ACTIVITIES:				
Capital expenditures	(14,910)	(9,110)
Proceeds from sale of assets	1		1	
Payments for acquisitions, net of cash acquired			(19,265)
Net cash used in investing activities	(14,909)	(28,374)
CASH FLOWS FROM FINANCING ACTIVITIES:				
Payments of long-term debt	(749,200)	(790,600)
Proceeds from borrowings of long-term debt	729,900		794,300	
Dividends paid	(2,638)	(2,624)
Taxes paid on behalf of equity award participants	(1,429)	(1,569)
Net cash used in financing activities	(23,367)	(493)
Effect of exchange rate changes on cash and cash equivalents	(156)	(395)
Net decrease in cash and cash equivalents	(10,711)	(5,991)
Cash and cash equivalents at beginning of period	113,572		113,805	
Cash and cash equivalents at end of period	\$102,861		\$107,814	4
Supplemental cash flow information:				
Cash paid for interest	\$995		\$1,053	
Cash paid for income taxes, net	\$3,724		\$3,515	
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)
June 30, 2018
NOTE 1—Basis of Presentation

The accompanying condensed consolidated financial statements have been prepared by CTS Corporation ("CTS" "we", "our", "us" 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, 2017.

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.

Changes in Accounting Principles

Beginning in January 2018, CTS adopted the provisions of Accounting Standards Update ("ASU") 2014-09, "Revenue from Contracts with Customers (Topic 606)" under the modified retrospective method, which requires a cumulative effect adjustment to the opening balance of retained earnings on the date of adoption. This approach was applied to contracts not completed as of December 31, 2017. At date of adoption, there was no significant change to our past revenue recognition practices and therefore no adjustment to the opening balance of retained earnings was required.

Beginning in April 2018, CTS elected to adopt the provisions of ASU No. 2017-12 "Derivatives and Hedging (Topic 815): Target Improvements to Accounting for Hedging Activities" under the modified retrospective method, which requires a cumulative effect adjustment to the opening balance of retained earnings. Prior to adoption, the company measured hedge effectiveness for all cash flow hedges quarterly and recognized any ineffectiveness in earnings in the current period. Upon adoption the company elected to review hedge effectiveness qualitatively as described further in Note 12 - Derivative Financial Instruments. At the date of adoption there was no significant hedge ineffectiveness recorded in earnings for hedged assets existing as of January 1, 2018, and therefore no adjustment to the opening balance of retained earnings was required.

Subsequent Events

We have evaluated subsequent events and transactions for potential recognition or disclosure in the financial statements through the date the consolidated financial statements are issued.

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NOTE 2 – Revenue Recognition

The core principle of Topic 606 is that an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. The guidance provides a five-step process to achieve that core principle:

Identify the contract(s) with a customer

Identify the performance obligations

Determine the transaction price

Allocate the transaction price

Recognize revenue when the performance obligations are met

We recognize revenue when the performance obligations specified in our contracts have been satisfied, after considering the impact of variable consideration and other factors that may affect the transaction price. Our contracts normally contain a single performance obligation that is fulfilled on the date of delivery based on shipping terms stipulated in the contract. We usually expect payment within 30 to 90 days from the shipping date, depending on our terms with the customer. None of our contracts as of June 30, 2018, contained a significant financing component. Differences between the amount of revenue recognized and the amount invoiced, collected from, or paid to our customers are recognized as contract assets or liabilities. Contract assets will be reviewed for impairment when events or circumstances indicate that they may not be recoverable.

To the extent the transaction price includes variable consideration, we estimate the amount of variable consideration that should be included in the transaction price utilizing the most likely amount method based on an analysis of historical experience and current facts and circumstances, which requires significant judgment. Variable consideration is included in the transaction price if, in our judgment, it is probable that a significant future reversal of cumulative revenue under the contract will not occur.

Contract Assets and Liabilities

Contract assets and liabilities included in our Condensed Consolidated Balance Sheets are as follows:

	As of	
	June 30,	December 31,
	2018	2017
Contract Assets		
Prepaid rebates included in Other current assets	\$64	\$ 52
Prepaid rebates included in Other assets	482	465
Total Contract Assets	\$546	\$517
Contract Liabilities		
Customer discounts and price concessions included in Accrued liabilities	\$(2,323)	\$(1,133)
Customer rights of return included in Accrued liabilities	(341)	(462)
Total Contract Liabilities	\$(2,664)	\$(1,595)

During the three and six months ended June 30, 2018, we recognized a decrease of revenues of \$46 and an increase in revenues of \$86, respectively, that were included in contract liabilities at the beginning of the period.

The increase in contract liabilities as of June 30, 2018 is primarily due to net increases in estimated future discounts and price concessions, offset by net settlements of products sold with rights of return.

Disaggregated Revenue

The following table presents revenues disaggregated by the major markets we serve:

	Three Months Ended		Six Months Ende		
	June 30,	June 30,	June 30,	June 30,	
	2018	2017	2018	2017	
Aero & Defense	\$6,024	\$4,675	\$11,127	\$9,332	
Industrial	22,773	19,214	43,129	36,326	
Medical	9,793	7,474	19,034	14,288	
Telecom & IT	5,525	5,602	10,050	10,780	
Transportation	73,906	68,721	148,211	135,114	
Total	\$118,021	\$105,686	\$231,551	\$205,840	

NOTE 3 – Accounts Receivable

The components of accounts receivable are as follows:

As of	
Juna 20	December 31,
June 30,	31,
2018	2017
\$76,032	\$70,941
(435)	(357)
\$75,597	\$70,584
	June 30, 2018 \$76,032

NOTE 4 – Inventories

Inventories consist of the following:

	As of	
	June 30,	December
	June 30,	31,
	2018	2017
Finished goods	\$11,778	\$9,203
Work-in-process	12,008	12,065
Raw materials	23,529	21,150
Less: Inventory reserves	(5,644)	(5,822)
Inventories, net	\$41,671	\$36,596

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NOTE 5 – Property, Plant and Equipment

Property, plant and equipment is comprised of the following:

	As of	
	June 30,	December
	June 30,	31,
	2018	2017
Land	\$1,137	\$1,130
Buildings and improvements	68,778	64,201
Machinery and equipment	225,843	223,650
Less: Accumulated depreciation	(202, 128)	(200,734)
Property, plant and equipment, net	\$93,630	\$88,247
Depreciation expense for the three months ended June 30, 2018		\$3,774
Depreciation expense for the six months ended June 30, 2018		\$7,537

NOTE 6 – Retirement Plans

Pension Plans

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

Three Months Ended	Six Months Ended			
June June	June	June		
30, 30,	30,	30,		
20182017	2018	2017		

Net pension expense (income) \$78 \$(491) \$157 \$(924)

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

Domestic	Pension Plans	Foreign Pension Pla			
Three Mon	nths Ended	Three Months Ende			
June 30,	June 30,	June 30,	June 30,		
2018	2017	2018	2017		
\$ —	\$ —	\$ 11	\$ 12		
1,781	2,068	11	9		
(3,225)	(4,060)	(6)	(5)		
1,466	1,446	40	39		
\$ 22	\$ (546)	\$ 56	\$ 55		
	Three Mon June 30, 2018 \$ — 1,781 (3,225) 1,466	Three Months Ended June 30, June 30, 2018 2017 \$ — \$ — 1,781 2,068 (3,225) (4,060) 1,466 1,446	June 30, June 30, 2018 2017 2018 \$ — \$ — \$ 11 1,781 2,068 11 (3,225) (4,060)) (6) 1,466 1,446 40		

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

	Domestic Pension Plan	ns Foreign Pension Plans
	Six Months Ended	Six Months Ended
	June 30, June 30,	June 30, June 30,
	2018 2017	2018 2017
Service cost	\$ — \$ —	\$ 22

Interest cost	3,562	4,136		22		17	
Expected return on plan assets (1)	(6,450)	(8,121)	(13)	(10)
Amortization of loss	2,932	2,892		82		77	
Other cost due to retirement		61					
Expense (income), net	\$ 44	\$ (1,032)	\$ 113		\$ 108	

Expense (income), net \$ 44 \$ (1,032) \$ 113 \$ 108 (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	;	Six			
	Mont	hs	Months			
	Ende	d	Ended			
	June	June	June	June		
	30,	30,	30,	30,		
	2018	2017	2018	2017		
Service cost	\$ —	\$ —	\$1	\$1		
Interest cost	39	40	78	80		
Amortization of gain	(11)	(25)	(23)	(50)		
Expense, net	\$28	\$15	\$56	\$31		

NOTE 7 – Other Intangible Assets

Intangible assets consist of the following components:

	As of			
	June 30, 2	2018		
	Gross Carrying Amount	Accumulate Amortization		Net Amount
Customer lists/relationships	\$64,323	\$ (35,387)	\$ 28,936
Patents	10,319	(10,319)	_
Technology and other intangibles	44,460	(12,039)	32,421
In process research and development	2,200			2,200
Other intangible assets, net	\$121,302	\$ (57,745)	\$ 63,557
Amortization expense for the three months ended June 30, 2018		\$ 1,704		
Amortization expense for the six months ended June 30, 2018		\$ 3,424		

	As of			
	December	31, 2017		
	Gross Carrying Amount	Accumulate Amortizatio	- 1	Net Amount
Customer lists/relationships	\$64,323	\$ (33,685) \$	30,638
Patents	10,319	(10,319) -	
Technology and other intangibles	44,460	(10,355) 3	34,105
In process research and development	2,200		2	2,200
Other intangible assets, net	\$121,302	\$ (54,359) \$	66,943
Amortization expense for the three months ended June 30, 2017		\$ 1,613		
Amortization expense for the three months ended June 30, 2017		\$ 3,149		

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Remaining amortization expense for other intangible assets as of June 30, 2018 is as follows:

	Amortization
	expense
2018	\$ 3,377
2019	6,754
2020	6,624
2021	6,467
2022	6,230
Thereafter	34,105
Total amortization expense	\$ 63,557

NOTE 8 – Costs Associated with Exit and Restructuring Activities

Costs associated with exit and restructuring activities are recorded in the Condensed Consolidated Statement of Earnings as a separate component of Operating earnings.

Total restructuring charges, all related to the June 2016 Plan described below, were as follows:

Three Months

Ended

June 30, June 30,

2018 2017

Restructuring charges \$1,172 \$ 729

Six Months

Ended

June 30, June 30,

2018 2017

Restructuring charges \$2,367 \$1,507

In June 2016, we announced plans to restructure operations by phasing out production at our Elkhart facility by the end of 2018 and transitioning it into a research and development center supporting our global operations ("June 2016 Plan"). Additional organizational changes were also implemented in various other locations. During the third quarter of 2017, we revised the June 2016 Plan. The amendment added an additional \$1,100 in planned costs related to the relocation of our corporate headquarters in Lisle, IL and our plant in Bolingbrook, IL, both of which will be consolidated into a single facility. The total cost of the plan is expected to be approximately \$13,400. The total restructuring liability related to severance and other one-time benefit arrangements under the June 2016 Plan was \$1,223 at June 30, 2018, and \$1,460 at December 31, 2017. Additional costs related to production line movements, equipment charges, and other costs will be expensed as incurred.

The following table displays the planned restructuring charges associated with the June 2016 Plan as well as a summary of the actual costs incurred through June 30, 2018:

Actual costs

Planned incurred through

June 2016 Plan Costs June 30, 2018

Workforce reduction \$3,075 \$ 3,211 Building and equipment relocation 9,025 5,518

Other charges 1,300 825 Total restructuring charges \$13,400\$ 9,554

In April 2014, we announced plans to restructure our operations and consolidate our Canadian operations into other existing facilities as part of our overall plan to simplify our business model and rationalize our global footprint ("April 2014 Plan"). These restructuring actions were completed in 2015. The remaining restructuring liability related to the April 2014 Plan was \$433 at June 30, 2018, and \$453 at December 31, 2017.

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The following table displays the restructuring liability activity for all plans for the six months ended June 30, 2018:

Restructuring liability at January 1, 2018 \$1,913 Restructuring charges Cost paid (2,603)Other activity (1) (21) Restructuring liability at June 30, 2018 \$1,656

(1) Other activity includes the effects of currency translation and other charges that do not flow through restructuring expense.

NOTE 9 – Accrued Liabilities

The components of accrued liabilities are as follows:

	As of	
	June 30,	December
	Julie 30,	31,
	2018	2017
Accrued product related costs	\$4,716	\$ 5,297
Accrued income taxes	8,512	5,475
Accrued property and other taxes	2,080	997
Accrued professional fees	3,055	2,228
Contract liabilities	2,664	1,595
Dividends payable	1,323	1,318
Remediation reserves	14,570	17,067
Other accrued liabilities	6,885	7,367
Total accrued liabilities	\$43,805	\$41,344

NOTE 10 – Contingencies

Remediation expense

Certain processes in the manufacture of our current and past products create by-products classified as hazardous waste. We have been notified by the U.S. Environmental Protection Agency, state environmental agencies, and in some cases, groups of potentially responsible parties, that we may be potentially liable for environmental contamination at several sites currently and formerly owned or operated by us. Some sites, such as Asheville, North Carolina and Mountain View, California, are designated National Priorities List sites under the U.S. Environmental Protection Agency's Superfund program. We reserve for probable remediation activities and for claims and proceedings against us with respect to other environmental matters. We record reserves on an undiscounted basis. In the opinion of management, based upon presently available information relating to 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, we cannot provide assurance that our ultimate environmental liability 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.

A roll forward of remediation reserves included in accrued liabilities on the balance sheet is comprised of the following:

As of June 30, December 31, 2018 2017 Balance at beginning of period \$17,067 \$ 18,176 1.048 307

Net remediation payments (3,545)(1,416) Balance at end of the period \$14,570 \$ 17,067

Unrelated to the environmental claims described above, certain other claims are pending against us with respect to matters arising in the ordinary conduct of our 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 us, we believe 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 11 - Debt

Long-term debt was comprised of the following:

	As of					
	I 20		June 20 De		Decembe	r
	June 30,		31,			
	2018		2017			
Total credit facility	\$300,000		\$300,000)		
Balance outstanding	\$57,000		\$76,300			
Standby letters of credit	\$1,940		\$2,065			
Amount available	\$241,060		\$221,635	j		
Weighted-average interest rate	3.01	%	2.30	%		
Commitment fee percentage per annum	0.25	%	0.25	%		

On August 10, 2015, we entered into a five-year credit agreement ("Revolving Credit Facility") with a group of banks in order to support our financing needs. The Revolving Credit Facility originally provided for a credit line of \$200,000. On May 23, 2016, we requested and received a \$100,000 increase in the aggregate revolving credit commitments under the 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 our option, at the base rate plus the applicable margin for base rate loans or London Interbank Offered Rate ("LIBOR") plus the applicable margin for LIBOR loans. We also pay 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 our total leverage ratio.

The Revolving Credit Facility requires, among other things, that we comply with a maximum total leverage ratio and a minimum fixed charge coverage ratio. Failure to comply with these covenants could reduce the borrowing availability under the Revolving Credit Facility. We were in compliance with all debt covenants at June 30, 2018. The Revolving Credit Facility requires that we deliver quarterly financial statements, annual financial statements, auditor 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 our 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 our subsidiaries and affiliates; and make stock repurchases and dividend payments. Interest rates on the Revolving Credit Facility fluctuate based upon the LIBOR and the Company's quarterly total leverage ratio.

We have debt issuance costs related to our 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 Condensed Consolidated Statement of Earnings. Amortization expense was approximately \$46 for both the three months ended June 30, 2018 and June 30, 2017, respectively, and approximately \$93 for both the six months ended June 30, 2018 and June 30, 2017, respectively.

Note 12 - 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.

The effective portion of derivative gains and losses are recorded in accumulated other comprehensive (loss) income until the hedged transaction affects earnings upon settlement, at which time they are reclassified to cost of goods sold or net sales. If it is probable that an anticipated hedged transaction 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 (loss) income to other income (expense).

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On April 1, 2018, the company adopted the provisions of ASU 2017-12 "Derivatives and Hedging (Topic 815): Target Improvements to Accounting for Hedging Activities". As a result, hedge effectiveness was reviewed qualitatively by verifying that the critical terms of the hedging instrument and the forecasted transaction continue to match, and that there have been no adverse developments that have increased the risk that the counterparty will default. No recognition of ineffectiveness was recorded in our Condensed Consolidated Statement of Earnings for the three months ended June 30, 2018.

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.

We continue to monitor the Company's overall currency exposure and may elect to add cash flow hedges in the future. At June 30, 2018, we had a net unrealized gain of \$59 in accumulated other comprehensive (loss) income, of which \$5 is expected to be reclassified to income within the next 12 months. At June 30, 2017 we had a net unrealized gain of \$428 in accumulated other comprehensive (loss) income. The notional amount of foreign currency forward contracts outstanding was \$21.1 million at June 30, 2018.

Interest Rate Swaps

We use 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, we 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, we entered into three additional 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. These swaps are treated as cash flow hedges and consequently, the changes in fair value were recorded in other comprehensive (loss) income. The estimated net amount of the existing gains that are reported in accumulated other comprehensive (loss) income that are expected to be reclassified into earnings within the next twelve months is approximately \$524.

The location and fair values of derivative instruments designated as hedging instruments in the Condensed Consolidated Balance Sheets as of June 30, 2018, are shown in the following table:

As of
June December
30, 31,
2018 2017

Interest rate swaps reported in Other current assets \$524 \$ 278

Interest rate swaps reported in Other assets \$835 \$ 693

Foreign currency hedges reported in Other current assets \$76 \$ —

Foreign currency hedges reported in Accrued liabilities \$— \$ (742)

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 \$301 and foreign currency derivative liabilities of \$225.

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

	Three Month Ended	-	Six Mo Ended	onths
	June	June	June	June
	30,	30,	30,	30,
	2018	2017	2018	2017
Foreign Exchange Contracts:				
Gain (loss) recognized in Net sales	\$21	\$(57)	\$(37)	\$(59)
Gain (loss) recognized in Cost of goods sold	32	58	140	(86)
(Loss) gain recognized in Selling, general and administrative expense	(4)	13	(5)	10
Loss recognized in Other income	_	(1)	(1)	(9)
Interest Rate Swaps:				
Benefit recorded in Interest expense	\$105	\$	\$170	\$ —
Total gain (loss)	\$154	\$13	\$267	\$(144)

NOTE 13 – 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 revolving credit facility'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 we have deferred income statement recognition of gains and losses until the hedged transactions occur, at which time amounts are reclassified into earnings. Further information related to our derivative financial instruments is included in Note 12 - Derivative Financial Instruments and Note 16 – 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 our pension obligations is included in Note 6 – Retirement Plans.

Cumulative translation adjustments relate to our non-U.S. subsidiary companies that have designated a functional currency other than the U.S. dollar. We are 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 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 for the three and six months ended June 30, 2018 were \$2,194 and \$918, respectively and transaction gains for the three and six months ended June 30, 2017 were \$1,162 and \$1,557, respectively, which have been included in other income (expense) in the Condensed Consolidated Statement of Earnings.

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The components of accumulated other comprehensive (loss) income for the three months ended June 30, 2018, are as follows:

of
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50)
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27,055)
,152
1,903)
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75,862)
1 1 1 1 1 1

The components of accumulated other comprehensive (loss) income for the three months ended June 30, 2017, are as follows:

	As of March 31, 2017		Gain (Loss) Reclassified from AOCI to Income	
Changes in fair market value of hedges:				
Gross	\$1,308	\$ (223)	\$ (15)	\$1,070
Income tax (benefit) expense	(474)	81	5	(388)
Net	834	(142)	(10)	682
Changes in unrealized pension cost:				
Gross	(150,322)		1,466	(148,856)
Income tax expense (benefit)	60,192	_	(524)	59,668
Net	(90,130)		942	(89,188)
Cumulative translation adjustment:				
Gross	(2,328)	196	_	(2,132)
Income tax expense	94	4	_	98
Net	(2,234)	200	_	(2,034)
Total accumulated other comprehensive (loss) income	\$(91,530)	\$ 58	\$ 932	\$(90,540)

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The components of accumulated other comprehensive (loss) income for the six months ended June 30, 2018, are as follows:

			Gain (Loss)			
	As of	Gain (Loss)	Reclassified	As of		
	December 31	, Recognized	from AOCI	June 30,		
	2017	in OCI	to Income	2018		
Changes in fair market value of hedges:						
Gross	\$ 289	\$ 1,397	\$ (268)	\$1,418		
Income tax (benefit) expense	(105)	(315)	60	(360)		
Net	184	1,082		1,058		
Changes in unrealized pension cost:						
Gross	(130,096)	_	3,041	(127,055)		
Income tax expense (benefit)	52,837	_	(685)	52,152		
Net	(77,259)		2,356	(74,903)		
Cumulative translation adjustment:						
Gross	(1,985)	(130)	_	(2,115)		
Income tax expense (benefit)	100	(2)	_	98		
Net	(1,885)	(132)		(2,017)		
Total accumulated other comprehensive (loss) income	\$ (78,960)	\$ 950	\$ 2,148	\$(75,862)		

The components of accumulated other comprehensive (loss) income for the six months ended June 30, 2017, are as follows:

Gain (Loss)

			Gain (Loss)	
	As of	Gain (Loss)	Reclassified	As of
	December 31	Recognized	from AOCI	June 30,
	2016	in OCI	to Income	2017
Changes in fair market value of hedges:				
Gross	\$ 116	\$ 819	\$ 135	\$1,070
Income tax benefit	(42)	(297)	(49)	(388)
Net	74	522	86	682
Changes in unrealized pension cost:				
Gross	(151,618)		2,762	(148,856)
Income tax expense (benefit)	60,672	_	(1,004)	59,668
Net	(90,946)	_	1,758	(89,188)
Cumulative translation adjustment:				
Gross	(2,414)	282	_	(2,132)
Income tax expense	92	6		98
Net	(2,322)	288		(2,034)
Total accumulated other comprehensive (loss) income	\$ (93,194)	\$ 810	\$ 1,844	\$(90,540)

NOTE 14 – Shareholders' Equity

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

	As of	
	Juna 20	December
	June 30,	31,
	2018	2017
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	56,781,065	56,632,488
Shares outstanding	33,087,043	32,938,466
Treasury stock		
Shares held	23,694,022	23,694,022

No common stock repurchases were made during the six months ended June 30, 2018. Through June 30, 2018, we had purchased an aggregate of \$7,446 under a board-authorized share repurchase plan allowing for up to \$25,000 in stock repurchases. Approximately \$17,554 is available for future purchases.

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

•			
	Six Months Ended		
	June 30,	June 30,	
	2018	2017	
Balance at the beginning of the year	32,938,466	32,762,494	
Repurchases			
Shares issued upon exercise of stock options			
Restricted share issuances	148,577	170,832	
Balance at the end of the period	33,087,043	32,933,326	

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 June 30, 2018 and June 30, 2017 were 72,658 and 122,511, respectively.

NOTE 15 - Stock-Based Compensation

At June 30, 2018, we had five active stock-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"), the 2014 Performance & Incentive Plan ("2014 Plan"), and the 2018 Equity and Incentive Compensation Plan ("2018 Plan"). Future grants can only be made under the 2018 Plan.

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

	Months		Six Months	
	Ended		Ended	
	June	June	June	Juna 20
	30,	30,	30,	June 30,
	2018	2017	2018	2017
Service-Based RSUs	\$563	\$465	\$1,018	\$1,015
Performance-Based RSUs	643	297	1,153	680
Cash-settled RSUs	57	46	15	(8)
Total	\$1,263	\$808	\$2,186	\$1,687
Income tax benefit	285	304	494	634
Net	\$978	\$504	\$1,692	\$1,053

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:

	U	nrecognized			
	Compensation Weight				
	E	kpense at	Average		
	Ju	ne 30, 2018	Period		
Service-Based RSUs	\$	1,973	1.94		
Performance-Based RSUs	3,	326	1.64		
Total	\$	5,299	1.75		

We recognize 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.

The following table summarizes the status of these plans as of June 30, 2018:

	2018 Plan	2014 Plan	2009 Plan	2004 Plan	Directors' Plan
Awards originally available	2,500,000	1,500,000	3,400,000	6,500,000	N/A
Performance-based options outstanding	_	285,000	_	_	_
Maximum potential RSU and cash settled awards outstanding	_	732,975	92,600	35,952	5,522
Maximum potential awards outstanding	_	1,017,975	92,600	35,952	5,522
RSUs and cash settled awards vested and released	_		_	_	_
Awards available for grant	2,500,000	_	_	_	_
Stock Options					

We have no stock options exercisable or outstanding as of June 30, 2018, 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 employees under the 2014 Plan, of which 285,000 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 the Company or an affiliate) upon our attainment of at least

 $$600,\!000$ in revenues during any of our trailing four quarterly periods (as determined by the Committee) during the term. We have not recognized any expense on these Performance-Based Option Awards

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for the six-month periods ended June 30, 2018 and 2017, since the revenue target was not deemed likely to be attained based on our current forecast.

Service-Based Restricted Stock Units

The following table summarizes the service-based RSU activity as of and for the six months ended June 30, 2018:

	Units	Weighted
		Average
		Grant
		Date
		Fair
		Value
Outstanding at January 1, 2018	399,347	\$ 14.60
Granted	74,222	26.31
Vested and released	(130,301)	14.22
Forfeited	(1,938)	20.86
Outstanding at June 30, 2018	341,330	\$ 17.26
Releasable at June 30, 2018	194,674	\$ 12.82

Performance and Market-Based Restricted Stock Units

The following table summarizes the performance and market-based RSU activity as of and for the six months ended June 30, 2018:

Units	Weighted Average Grant Date Fair Value
271,305	\$ 18.77
72,043	28.75
18,600	17.66
(72,456)	18.66
(21,700)	17.66
267,792	\$ 21.44
	\$ —
	271,305 72,043 18,600 (72,456) (21,700)

The following table summarizes each grant of performance awards outstanding at June 30, 2018.

Description	Grant Date	Vesting Year	Vesting Dependency	Target Units Outstanding	Number of Units gto be Granted
2016 - 2018 Performance RSUs	February 16, 2016	2018	35% RTSR, 35% sales growth, 30% operating cash flow	92,840	185,680
2017 - 2019 Performance RSUs	February 9, 2017	2019	35% RTSR, 35% sales growth, 30% operating cash flow	71,796	143,592
2017 - 2019 Performance RSUs	February 9, 2017	2018 - 2020	Operating Income	27,113	27,113
		2020		40,223	80,446

2018 - 2020 Performance	February 8,		35% RTSR, 35% sales growth, 30%		
RSUs	2018		operating cash flow		
2018 - 2020 Performance	February 16,	2020	35% RTSR, 35% sales growth, 30%	31.820	63,640
RSUs	2018	2020	operating cash flow	31,020	05,010
Single Crystal Performance RSUs	March 31, 2016	2018	Various	4,000	8,000

Cash-Settled Restricted Stock Units

Cash-Settled RSUs entitle the holder to receive the cash equivalent of one share of common stock for each unit when the unit vests. These RSUs are issued to key employees residing in foreign locations as direct compensation. Generally, these RSUs vest over a three-year period. Cash-Settled RSUs are classified as liabilities and are remeasured at each reporting date until settled. At June 30, 2018 and December 31, 2017 we had 17,248 and 14,082 cash-settled RSUs outstanding, respectively. At June 30, 2018 and December 31, 2017, liabilities of \$184 and \$241, respectively were included in Accrued liabilities on our Condensed Consolidated Balance Sheets.

NOTE 16 — Fair Value Measurements

We use interest rate swaps to convert our Revolving Credit Facility'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 our financial assets that were measured at fair value on a recurring basis at June 30, 2018:

		Quoted			
		Prices			
	Asset	in Active	Significant		
	Carrying	Markets for	Other	Significant	
	Value at	Identical	Observable	Unobservable	e
	June 30,	Instruments	Inputs	Inputs	
	2018	(Level 1)	(Level 2)	(Level 3)	
Interest rate swaps	\$ 1,359	\$ -	-\$ 1,359	\$ -	
Foreign currency hedges	\$ 76	\$ -	-\$ 76	\$ -	

The table below summarizes the financial assets (liabilities) that were measured at fair value on a recurring basis as of December 31, 2017:

				Quoted			
	A	sset		Prices			
	(Liability)			in Active	Significant		
	Carrying			Markets for	Other	Significant	
	Value at December 31, 2017			Identical	Observable	Unobserval	ole
				Instruments	Inputs	Inputs	
				(Level 1)	(Level 2)	(Level 3)	
Interest rate swaps	\$	971		\$ -	- \$ 971	\$	_
Foreign currency hedges	\$	(742)	\$ -	-\$ (742)	\$	_

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.

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

		Foreign	l
	Interest	Currency	
Total gains (losses) for the period:	Rate Swaps	Hedges	
Balance at January 1, 2017	\$ 753	\$ (601)
Settled in cash	_	(132)
Included in earnings	_	38	
Included in other comprehensive earnings	218	(47)
Balance at December 31, 2017	\$ 971	\$ (742)
Settled in cash		(21)
Included in earnings	(170)	97	
Included in other comprehensive earnings	558	742	
Balance at June 30, 2018	\$ 1,359	\$ 76	

Our long-term debt consists of the Revolving Credit Facility which is recorded at its carrying value. There is a readily determinable market for our 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 17 — Income Taxes

The effective tax rates for the three and six-month periods ended June 30, 2018 and 2017 were:

	Three Months Ended			Six Months		
				Ended		
	Luna 2	20	Juna 20	June	June	
	June 30,	ю,	June 30,		30,	30,
	2018		2017		2018	2017
Effective tax rate	37.7	%	28.4	%	30.2%	29.4%

Our effective income tax rate was 37.7% and 28.4% in the second quarters of 2018 and 2017, respectively. The increase in the effective tax rate for the three months ended June 30, 2018, compared with the same period in 2017, was primarily attributed to tax expense of \$1,703 related to a one-time cash distribution from Taiwan, offset by a reduction in our statutory tax rate as a result of the 2017 Tax and Jobs Act (the "Tax Act"). The tax rate in the second quarter of 2018 was higher than the U.S. statutory federal tax rate primarily due to foreign withholding taxes, state taxes and foreign earnings that are taxed at higher rates. The tax rate in the second quarter of 2017 was lower than the U.S. statutory federal tax rate primarily due to lower foreign tax rates applicable on foreign earnings.

Our effective income tax rate was 30.2% and 29.4% in the first half of 2018 and 2017, respectively. The increase in the effective tax rate for the six months ended June 30, 2018, compared with the same period in 2017, was primarily attributed to tax expense of \$1,703 related to a one-time cash distribution from Taiwan, offset by the previously mentioned statutory tax rate reduction resulting from the Tax Act. The tax rate in the first half of 2018 was higher than the U.S. statutory federal tax rate primarily due to foreign withholding taxes, state taxes, and foreign earnings that are taxed at higher rates. The tax rate in the first half of 2017 was lower than the U.S. statutory federal tax rate primarily due to tax benefits recorded upon vesting of restricted stock units, a release of valuation allowances recorded against realizable foreign NOLs, and favorable tax rates on foreign earnings, offset by the impact of state taxes, tax expense for withholding taxes on the anticipated distribution of earnings in China, and other various permanent items.

We recognized the income tax effects of the Tax Act in the audited consolidated financial statements included in our 2017 Annual Report on Form 10-K. Staff Accounting Bulletin No. 118 provides Securities and Exchange Commission

staff guidance for the application of ASC Topic 740, Income Taxes, which allows for a measurement period of up to one year from the enactment date for companies to complete their accounting for the U.S. tax law changes. As such, our 2017 financial results reflected a provisional amount of \$6,267 that was recorded as deferred tax expense related to the revaluation of deferred tax assets and liabilities, and a provisional amount of \$11,734 that was recorded as current tax expense related to the transition tax on the mandatory deemed repatriation of foreign earnings. During the three and six months ended June 30, 2018, we recognized measurement period adjustments that resulted in additional tax expense of \$0 and \$241, respectively. Any subsequent adjustments to our provisional estimated amounts will be recorded to tax expense in the quarter when the analysis is complete.

For the calendar year beginning in 2018, we are subject to several new provisions of the Tax Act including but not limited to the Global Intangible Low-Taxed Income (GILTI) tax. We have provisionally elected to account for any GILTI tax in the period in

which it is incurred, and therefore have not provided any deferred tax impacts in our consolidated financial statements. For these computations, we have recorded an estimate in our effective tax rate for the three-months ended June 30, 2018. The company will continue to refine our estimates as additional guidance and information becomes available. In general, outside of Canada and the U.K., it has been our historical practice to permanently reinvest the earnings of our non-U.S. subsidiaries into those operations. However, as a result of the Tax Act, we can repatriate our cumulative undistributed foreign earnings to the U.S. as needed with minimal U.S. income tax consequences other than the one-time deemed repatriation tax. We will continue to evaluate whether to repatriate all or a portion of the cumulative undistributed foreign earnings based on expansion needs and as circumstances change. We are still evaluating whether to change our indefinite reinvestment assertion in light of the Tax Act and consider that conclusion to be incomplete under guidance issued by SAB 118. If we subsequently change our assertion during the measurement period, we will account for the change in assertion as part of the Tax Act enactment.

Our continuing practice is to recognize interest and/or penalties related to income tax matters as income tax expense. For the three and six months ended June 30, 2018, and 2017, we recorded interest and penalties of \$0 and \$176, and \$14 and \$352, respectively.

NOTE 18 - Business Combinations

On May 15, 2017, we acquired 100% of the equity interest in Noliac A/S, a privately-held company, for \$19.3 million in cash. Noliac A/S is a designer and manufacturer of tape cast and bulk piezoelectric material as well as transducers for use in the telecommunications, industrial, medical, and defense industries. This acquisition enabled us to increase our product base within our ceramics product lines as well as expand our presence in the European market.

The purchase price of \$19,121, net of cash acquired of \$199, has been allocated to the assets acquired and liabilities assumed on the acquisition date based on their fair values.

•	Fair
	Values at
	May 15,
	2017
Current assets	\$2,836
Property, plant and equipment	580
Other assets	395
Goodwill	9,313
Intangible assets	9,142
Fair value of assets acquired	22,266
Less fair value of liabilities acquired	(3,145)
Net cash paid	\$19,121

Goodwill recorded in connection with this acquisition represents the value we expect to be created by combining the operations of the acquired business with our existing operations, including the expansion into markets within our existing business, access to new customers, and potential cost savings and synergies. Goodwill related to this acquisition is expected to be deductible for tax purposes.

We incurred \$291 in transaction related costs during the six months ended June 30, 2017. These costs are included in selling, general and administrative costs in our Consolidated Statements of Earnings.

NOTE 19 — Recent Accounting Pronouncements

ASU 2018-02 "Income Statement - Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income"

In February 2018, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") No. 2018-02 "Income Statement - Reporting Comprehensive Income (Topic 220): Reclassification of Certain Tax Effects from Accumulated Other Comprehensive Income". This ASU allows for a reclassification from accumulated comprehensive income to retained earnings for the stranded tax effects resulting from the Tax Cuts and Jobs Act enacted in December 2017. This ASU is effective for annual periods beginning after December 15, 2018, and interim periods within those fiscal years. Early adoption is permitted in any interim period for which financial statements have not been issued. We are evaluating the impact this ASU may have on our financial statements.

ASU 2017-12 "Derivatives and Hedging (Topic 815): Targeted Improvements to Accounting for Hedging Activities" In August 2017, the FASB issued ASU No. 2017-12 "Derivatives and Hedging (Topic 815): Target Improvements to Accounting for Hedging Activities". This ASU is meant to better align an entity's risk management activities and financial reporting for hedging relationships through changes to both the designation and measurement guidance for qualifying hedging relationships and presentation of the effects of the hedging instrument and the hedged item in the financial statements. This ASU also allows an entity to assess hedge effectiveness on a qualitative basis subsequent to the initial quantitative assessment if the facts and circumstances related to the hedging relationship have not changed such that the entity can assert qualitatively that the hedging relationship was and continues to be highly effective. This ASU is effective for annual periods beginning after December 15, 2018, and interim periods within those fiscal years. Early adoption is permitted in any interim period after issuance. Any changes should be applied to all hedging relationships that exist at the date of adoption by applying a cumulative-effect adjustment related to eliminating the separate measurement of ineffectiveness to accumulated other comprehensive income with a corresponding adjustment to the opening balance of retained earnings as of the beginning of the fiscal year of adoption. Presentation and disclosure guidance is to be applied prospectively. We adopted the provisions of ASU 2017-12 as of April 1, 2018, see Note 1, Basis of Presentation.

ASU 2017-07 "Compensation - Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Post-retirement Benefit Cost"

In March 2017, the FASB issued ASU No. 2017-07 "Compensation - Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and net Periodic Post-retirement Benefit Cost". This ASU is meant to improve the presentation of net periodic pension and net periodic post-retirement benefits costs. Currently, pension and post-retirement benefit costs are comprised of several components reflecting the different aspects of an employer's financial arrangements and cost of providing benefits to employees. These components are aggregated for reporting, but prior guidance does not prescribe where the net cost should be presented in the income statement or capitalized in assets. This ASU requires disaggregation of the service cost component from other components of net benefit cost and provides explicit guidance on how to present the service cost and other components in the income statement, allowing only the service cost component of net benefit costs to be eligible for capitalization. These amendments should be applied retrospectively for the presentation of service cost and other components of net periodic pension and net post-retirement benefit cost in the income statement and prospectively for the capitalization of service cost and net periodic pension cost and periodic post-retirement benefit in assets. We adopted this ASU as of January 1, 2018. It did not have a material impact on our financial statements because the service cost component of our pension cost is immaterial to our financial results on a prospective basis.

ASU 2017-04 "Intangibles -Goodwill and Other (Topic 305): Simplifying the Test for Goodwill Impairment" In January 2017, the FASB issued ASU No. 2017-04 "Intangibles - Goodwill and Other (Topic 305): Simplifying the Test for Goodwill Impairment". This ASU is meant to simplify the subsequent measurement of goodwill for impairment by eliminating the current Step 2 analysis in computing the implied fair value of goodwill. In addition, this ASU requires an entity to consider income tax effects on any tax deductible goodwill on the carrying amount of the reporting unit when measuring an impairment loss, if applicable. Under this ASU, impairment is determined by comparing the reporting unit's fair value to the carrying value. This amendment is effective for fiscal years beginning after December 15, 2019, with early adoption permitted for interim or annual goodwill impairment tests performed on

testing dates after January 1, 2017. We do not expect this guidance to have an impact on our financial statements.

ASU 2017-01 "Business Combinations (Topic 805): Clarifying the Definition of Business"

In January 2017, the FASB issued ASU No. 2017-01 "Business Combinations (Topic 805): Clarifying the Definition of Business". This ASU is meant to clarify the definition of a business to add guidance when determining when an acquisition or disposal should be accounted for as a sale of assets or business. This ASU provides a more robust framework to use in determining when a set of assets or activities should be classified as a business, providing more consistency in accounting for business or asset acquisitions. We adopted this ASU on January 1, 2018 and it will be applied to any business combinations subsequent to that date.

ASU 2016-16 "Income Taxes (Topic 740) Intra-Entity Transfers of Assets Other Than Inventory"

In October 2016, the FASB issued ASU No. 2016-16, "Intra-Entity Transfers of Assets Other Than Inventory". This ASU is meant to improve the accounting for the income tax effect of intra-entity transfers of assets other than inventory. Currently, U.S. GAAP prohibits the recognition of current and deferred income taxes for intra-entity asset transfers until the asset is sold to a third party. This ASU will now require companies to recognize the income tax effect of an intra-entity asset transfer (other than inventory) when the transaction occurs. This ASU is effective for public companies, for fiscal years beginning after December 15, 2019 and interim periods within those annual reporting periods. Early adoption is permitted and is to be applied on a modified retrospective basis through a cumulative-effect adjustment to retained earnings as of the beginning of the period of adoption. This guidance is not expected to have a material impact on our consolidated financial statements.

ASU 2016-15 "Statement of Cash Flows (Topic 230) Classification of Certain Cash Receipts and Cash Payments" In August 2016, the FASB issued 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. We adopted this ASU as of January 1, 2018 and it did not have an impact on our financial statements.

ASU 2016-02 "Leases (Topic 842)"

In February 2016, the FASB issued ASU 2016-02, "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 on 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 months, a company is allowed to elect not to record the asset and liability. Expense related to these leases are to be amortized on a straight-line basis over the expected 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 earliest period presented in our financial statements upon adoption. 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 early adoption is permitted. We have begun the process of reviewing existing agreements and are evaluating the impact of this ASU on our financial statements. We expect certain operating leases to be recognized as assets and liabilities as a result of adopting the standard.

Item 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, 2017.

Overview

CTS Corporation ("CTS", "we", "our" or "us") is a leading designer and manufacturer of products that Sense, Connect and Move. We manufacture sensors, actuators, and electronic components in North America, Europe, and Asia, and provide engineered products to customers in the aerospace/defense, industrial, medical, telecommunications/IT, and transportation markets.

Results of Operations: Second Quarter 2018 versus Second Quarter 2017

The following table highlights changes in significant components of the Unaudited Condensed Consolidated Statements of Earnings for the quarters ended June 30, 2018, and June 30, 2017:

	Three Months Ended			Percent of Percent of		
	June 30,	June 30,	Percent	Net Sales -	Net Sales –	
	2018	2017	Change	2018	2017	
Net sales	\$118,021	\$105,686	11.7	100.0	100.0	
Cost of goods sold	76,208	69,892	9.0	64.6	66.1	
Gross margin	41,813	35,794	16.8	35.4	33.9	
Selling, general and administrative expenses	19,621	15,808	24.1	16.6	15.0	
Research and development expenses	6,476	6,049	7.1	5.5	5.7	
Restructuring charges	1,172	729	60.8	1.0	0.7	
Total operating expenses	27,269	22,586	20.7	23.1	21.4	
Operating earnings	14,544	13,208	10.1	12.3	12.5	
Total other (expense) income	(2,973)	716	(515.2)	(2.5)	0.7	
Earnings before income taxes	11,571	13,924	(16.9)	9.8	13.2	
Income tax expense	4,362	3,958	10.2	3.7	3.7	
Net earnings	\$7,209	\$9,966	(27.7)	6.1	9.5	
Earnings per share:						
Diluted net earnings per share	\$0.21	\$0.30				

Sales were \$118,021 in the second quarter of 2018, an increase of \$12,335 or 11.7% from the second quarter of 2017. Sales to transportation markets increased \$5,185 or 7.5%. Other sales increased \$7,150 or 19.3%. The Noliac acquisition, which was completed in May 2017, added \$2,508 in sales in the second quarter of 2018 and \$1,543 in the second quarter of 2017. Changes in foreign exchange rates increased sales by \$1,794 year-over-year due to the U.S. Dollar depreciating compared to the Euro and Chinese Renminbi and relating mostly to sales of transportation products.

Gross margin as a percent of sales was 35.4% in the second quarter of 2018 compared to 33.9% in the second quarter of 2017. Major drivers for the improvement include savings related to product line transfers and favorable foreign exchange impact. The second quarter of 2017 also included costs related to certain production rework issues resolved in the first quarter of 2017.

Selling, general and administrative ("SG&A") expenses were \$19,621 or 16.6% of sales in the second quarter of 2018 versus \$15,808 or 15.0% of sales in the second quarter of 2017. The 2018 SG&A costs include a \$950 environmental charge, \$525 for tax projects, a full quarter of amortization of intangibles and other operating costs associated with our Noliac acquisition, higher stock-based compensation, and non-cash pension expense versus income in 2017. The

environmental charge relates to soil remediation at one of our older facilities in Asia.

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Research and development expenses were \$6,476 or 5.5% of sales in the second quarter of 2018 compared to \$6,049 or 5.7% of sales in the comparable quarter of 2017. Research and development expenses are focused on expanded applications of existing products and new product development as well as current product and process enhancements. Restructuring charges were \$1,172 or 1.0% of sales in the second quarter of 2018. The charges were mainly for building and equipment relocation, severance, and travel costs related to the restructuring of certain operations as part of the 2016 Restructuring Plan. Restructuring charges were \$729 or 0.7% of sales in the first quarter of 2017. Operating earnings were \$14,544 or 12.3% of sales in the second quarter of 2018 compared to operating earnings of \$13,208 or 12.5% of sales in the comparable quarter of 2017 as a result of the items discussed above. Other income and expense items are summarized in the following table:

Interest expense decreased mainly as a result of the reduction in debt year-over-year. Interest income increased due to higher interest rates. Other expense in the second quarter of 2018 was principally driven by foreign currency translation losses, mainly due to the appreciation of the U.S. Dollar compared to the Chinese Renminbi and Euro during the quarter.

Three Months Ended June 30,