

CABOT MICROELECTRONICS CORP  
Form 10-Q  
May 07, 2018  
UNITED STATES  
SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

FORM 10-Q

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

For the quarterly period ended

March 31, 2018  
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 000-30205

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

DELAWARE 36-4324765  
(State of Incorporation) (I.R.S. Employer Identification No.)

870 NORTH COMMONS DRIVE 60504  
AURORA, ILLINOIS (Zip Code)  
(Address of principal executive offices)

Registrant's telephone number, including area code: (630) 375-6631

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.

YESXNO

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 (Section 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).

YESXNO

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

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Large accelerated filer	Accelerated filer	Non-accelerated filer (Do not check if a smaller reporting company)	Smaller reporting company	Emerging growth company
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If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act

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

YES NOX

As of April 30, 2018, the Company had 25,682,590 shares of Common Stock, par value \$0.001 per share, outstanding.

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CABOT MICROELECTRONICS CORPORATION

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## PART I. FINANCIAL INFORMATION

## ITEM 1.

CABOT MICROELECTRONICS CORPORATION  
 CONSOLIDATED STATEMENTS OF INCOME  
 (Unaudited and in thousands, except per share amounts)

	Three Months Ended		Six Months Ended	
	March 31,		March 31,	
	2018	2017	2018	2017
Revenue	\$ 142,978	\$ 119,184	\$ 282,957	\$ 242,438
Cost of goods sold	67,933	59,153	133,898	120,902
Gross profit	75,045	60,031	149,059	121,536
Operating expenses:				
Research, development and technical	13,368	14,090	25,519	27,486
Selling and marketing	6,790	7,268	12,626	14,820
General and administrative	17,799	14,699	36,714	27,195
Total operating expenses	37,957	36,057	74,859	69,501
Operating income	37,088	23,974	74,200	52,035
Interest expense	1,158	1,135	2,290	2,285
Other income, net	1,062	234	1,734	1,230
Income before income taxes	36,992	23,073	73,644	50,980
Provision for income taxes	7,255	4,793	46,990	10,469
Net income	\$ 29,737	\$ 18,280	\$ 26,654	\$ 40,511
Basic earnings per share	\$ 1.16	\$ 0.73	\$ 1.05	\$ 1.63
Weighted average basic shares outstanding	25,593	25,031	25,474	24,798
Diluted earnings per share	\$ 1.14	\$ 0.71	\$ 1.02	\$ 1.60
Weighted average diluted shares outstanding	26,161	25,526	26,076	25,304
Dividends per share	\$ 0.40	\$ 0.20	\$ 0.60	\$ 0.38

The accompanying notes are an integral part of these Consolidated Financial Statements.

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CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

(Unaudited and in thousands)

	Three Months Ended March 31,		Six Months Ended March 31,	
	2018	2017	2018	2017
Net income	\$29,737	\$18,280	\$26,654	\$40,511
Other comprehensive income (loss), net of tax:				
Foreign currency translation adjustments	3,961	13,883	11,105	(3,691 )
Unrealized gain on available-for-sale securities	46	-	-	-
Net unrealized gain (loss) on cash flow hedges	(52 )	152	147	818
Other comprehensive income (loss), net of tax	3,955	14,035	11,252	(2,873 )
Comprehensive income	\$33,692	\$32,315	\$37,906	\$37,638

The accompanying notes are an integral part of these Consolidated Financial Statements.

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CONSOLIDATED BALANCE SHEETS

(Unaudited and in thousands, except share amounts)

	March 31, 2018	September 30, 2017
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents	\$461,434	\$397,890
Accounts receivable, less allowance for doubtful accounts of \$1,817 at March 31, 2018, and \$1,747 at September 30, 2017	70,086	64,793
Inventories	76,813	71,873
Prepaid expenses and other current assets	22,853	16,426
Total current assets	631,186	550,982
Property, plant and equipment, net	109,292	106,361
Goodwill	102,915	101,932
Other intangible assets, net	38,761	42,710
Deferred income taxes	6,293	21,598
Other long-term assets	10,526	10,517
Total assets	\$898,973	\$834,100
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable	\$18,216	\$17,624
Current portion of long-term debt	13,125	10,938
Accrued expenses, income taxes payable and other current liabilities	62,492	62,651
Total current liabilities	93,833	91,213
Long-term debt, net of current portion, less prepaid debt issuance cost of \$315 at March 31, 2018, and \$441 at September 30, 2017	124,373	132,997
Deferred income taxes	65	63
Other long-term liabilities	45,191	14,790
Total liabilities	263,462	239,063
Commitments and contingencies (Note 10)		
Stockholders' equity:		
Common Stock: Authorized: 200,000,000 shares, \$0.001 par value; Issued: 35,747,299 shares at March 31, 2018, and 35,230,742 shares at September 30, 2017	36	35
Capital in excess of par value of common stock	609,104	580,938
Retained earnings	408,992	397,881
Accumulated other comprehensive income	15,201	3,949
Treasury stock at cost, 10,051,422 shares at March 31, 2018, and 9,948,190 shares at September 30, 2017	(397,822)	(387,766)
Total stockholders' equity	635,511	595,037
Total liabilities and stockholders' equity	\$898,973	\$834,100

The accompanying notes are an integral part of these Consolidated Financial Statements.



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CONSOLIDATED STATEMENTS OF CASH FLOWS

(Unaudited and amounts in thousands)

	Six Months Ended March 31,	
	2018	2017
Cash flows from operating activities:		
Net income	\$26,654	\$40,511
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	13,123	13,214
Provision for doubtful accounts	5	(38 )
Share-based compensation expense	10,082	6,465
Deemed repatriation transition tax	24,641	-
Deferred income tax expense	15,291	1,570
Tax benefit from share-based compensation plans	(6,021 )	-
Non-cash foreign exchange (gain)	(11 )	(174 )
Loss (gain) on disposal of property, plant and equipment	18	(64 )
Realized loss on the sale of available-for-sale securities	118	-
(Gain) on sale of assets	(956 )	-
Other	2,140	207
Changes in operating assets and liabilities:		
Accounts receivable	(4,370 )	1,449
Inventories	(3,771 )	723
Prepaid expenses and other assets	(5,503 )	(2,310 )
Accounts payable	(407 )	(4,418 )
Accrued expenses, income taxes payable and other liabilities	(3,899 )	774
Net cash provided by operating activities	67,134	57,909
Cash flows from investing activities:		
Additions to property, plant and equipment	(8,804 )	(11,677 )
Proceeds from the sale of property, plant and equipment	-	90
Proceeds from the sale of assets	2,999	-
Purchases of available-for-sale securities	(50,673 )	-
Proceeds from the sale and maturities of available-for-sale securities	50,548	-
Net cash used in investing activities	(5,930 )	(11,587 )
Cash flows from financing activities:		
Repayment of long-term debt	(6,563 )	(4,375 )
Repurchases of common stock	(9,937 )	(4,451 )
Proceeds from issuance of stock	18,089	24,802
Dividends paid	(10,228 )	(8,926 )
Tax benefits associated with share-based compensation expense	-	5,164
Net cash provided by (used in) financing activities	(8,639 )	12,214
Effect of exchange rate changes on cash	10,979	(2,332 )
Increase in cash and cash equivalents	63,544	56,204
Cash and cash equivalents at beginning of period	397,890	287,479
Cash and cash equivalents at end of period	\$461,434	\$343,683



Supplemental disclosure of non-cash investing and financing activities:

Purchases of property, plant and equipment in accrued liabilities and accounts payable at the end of the period	\$2,068	\$2,496
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The accompanying notes are an integral part of these Consolidated Financial Statements.

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CABOT MICROELECTRONICS CORPORATION

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(Unaudited and in thousands, except share and per share amounts)

1. BACKGROUND AND BASIS OF PRESENTATION

Cabot Microelectronics Corporation ("Cabot Microelectronics", "the Company", "us", "we", or "our") supplies high-performance polishing slurries and pads used in the manufacture of advanced integrated circuit (IC) devices within the semiconductor industry, in a process called chemical mechanical planarization (CMP). CMP polishes surfaces at an atomic level, thereby helping to enable IC device manufacturers to produce smaller, faster and more complex IC devices with fewer defects. We develop, produce and sell CMP slurries for polishing many of the conducting and insulating materials used in IC devices. We develop, manufacture and sell CMP polishing pads, which are used in conjunction with slurries in the CMP process. We also develop and provide products for demanding surface modification applications in other industries through our Engineered Surface Finishes (ESF) business. For additional information, refer to Part 1, Item 1, "Business", in our Annual Report on Form 10-K for the fiscal year ended September 30, 2017.

The unaudited Consolidated Financial Statements have been prepared by Cabot Microelectronics pursuant to the rules of the Securities and Exchange Commission (SEC) and accounting principles generally accepted in the United States of America (U.S. GAAP). In the opinion of management, these unaudited Consolidated Financial Statements include all adjustments, consisting of normal recurring adjustments, necessary for the fair statement of Cabot Microelectronics' financial position as of March 31, 2018, cash flows for the six months ended March 31, 2018 and March 31, 2017, and results of operations for the three and six months ended March 31, 2018 and March 31, 2017. The Consolidated Balance Sheets as of September 30, 2017 were derived from audited financial statements. The results of operations for the three and six months ended March 31, 2018 may not be indicative of results to be expected for future periods, including the fiscal year ending September 30, 2018. This Report on Form 10-Q does not contain all of the footnote disclosures from the annual financial statements and should be read in conjunction with the Consolidated Financial Statements and related notes thereto included in Cabot Microelectronics' Annual Report on Form 10-K for the fiscal year ended September 30, 2017.

The Consolidated Financial Statements include the accounts of Cabot Microelectronics and its subsidiaries. All intercompany transactions and balances between the companies have been eliminated as of March 31, 2018.

USE OF ESTIMATES

The preparation of financial statements and related disclosures in conformity with U.S. GAAP requires management to make judgments, assumptions and estimates that affect the amounts reported in the Consolidated Financial Statements and accompanying notes. The accounting estimates that require management's most difficult and subjective judgments include, but are not limited to, those estimates related to bad debt expense, inventory valuation, valuation and classification of auction rate securities, impairment of long-lived assets and investments, business combinations, goodwill, other intangible assets, interest rate swaps, share-based compensation, income taxes and contingencies. We base our estimates on historical experience, current conditions and on various other assumptions that we believe are reasonable under the circumstances. However, future events are subject to change and estimates and judgments routinely require adjustment. Actual results may differ from these estimates under different assumptions or conditions.

The results of operations for the quarter ended December 31, 2017 and six months ended March 31, 2018 include a correction to prior period amounts, which we determined to be immaterial to the prior periods to which they relate and are expected to be immaterial to our fiscal 2018 results. The adjustments, relating primarily to accumulated earnings

taxes of a foreign operation, increased the income tax expense for the first quarter of fiscal 2018 by \$2,071. Separately, in Note 14 of this Report on Form 10-Q, we discuss the effects of the Tax Cuts and Jobs Act ("Tax Act") on our financial statements.

## 2. AVAILABLE-FOR-SALE SECURITIES

During the first quarter of fiscal 2018, the Company entered into a managed investment arrangement with a third party to invest in fixed income securities. These assets were classified as available-for-sale securities and were recorded at fair value. The balance of these securities as of December 31, 2017 was \$48,272. Subsequent to the enactment of the Tax Act in the United States, the Company sold all of its non-U.S. available-for-sale securities prior to repatriating the funds to the U.S. The Company recognized a loss of \$118 associated with the sale of these investments in the second quarter of fiscal 2018.

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## 3. FAIR VALUE OF FINANCIAL INSTRUMENTS

Fair value is defined as the price that would be received from the sale of an asset or paid to transfer a liability (an exit price) in the principal or most advantageous market for the asset or liability in an orderly transaction between market participants on the measurement date. The Financial Accounting Standards Board ("FASB") established a three-level hierarchy for disclosure based on the extent and level of judgment used to estimate fair value. Level 1 inputs consist of valuations based on quoted market prices in active markets for identical assets or liabilities. Level 2 inputs consist of valuations based on quoted prices for similar assets or liabilities, quoted prices for identical assets or liabilities in an inactive market, or other observable inputs. Level 3 inputs consist of valuations based on unobservable inputs that are supported by little or no market activity.

The following table presents financial instruments, other than long-term debt, that we measured at fair value on a recurring basis at March 31, 2018 and September 30, 2017. See Note 8 for a detailed discussion of our long-term debt. We have classified the following assets and liabilities in accordance with the fair value hierarchy set forth in the applicable standards. In instances where the inputs used to measure the fair value of an asset fall into more than one level of the hierarchy, we have classified them based on the lowest-level input that is significant to the determination of the fair value.

		Level	Level	Total
	Level 1	2	3	Fair
March 31, 2018				Value
Assets:				
Cash and cash equivalents	\$461,434	\$-	\$ -	\$461,434
Other long-term investments	1,071	-	-	1,071
Derivative financial instruments	-	517	-	517
Total assets	\$462,505	\$517	\$ -	\$463,022

Liabilities:				
Derivative financial instruments	-	9,102	-	9,102
Total liabilities	\$-	\$9,102	\$ -	\$9,102

		Level	Level	Total
	Level 1	2	3	Fair
September 30, 2017				Value
Assets:				
Cash and cash equivalents	\$397,890	\$-	\$ -	\$397,890
Other long-term investments	929	-	-	929
Derivative financial instruments	-	263	-	263
Total assets	\$398,819	\$263	\$ -	\$399,082

Liabilities:				
Derivative financial instruments	-	1,881	-	1,881
Total liabilities	\$-	\$1,881	\$ -	\$1,881

Our cash and cash equivalents consist of various bank accounts used to support our operations and investments in institutional money-market funds that are traded in active markets. We are invested exclusively in AAA-rated, prime institutional money market funds, comprised of high quality, fixed income securities. Our other long-term investments represent the fair value of investments under the Cabot Microelectronics Supplemental Employee Retirement Plan

(SERP), which is a nonqualified supplemental savings plan. The fair value of the investments is determined through quoted market prices within actively traded markets. Although the investments are allocated to individual participants and investment decisions are made solely by those participants, the SERP is a nonqualified plan. Consequently, the Company owns the assets and the related offsetting liability for disbursement until a participant makes a qualifying withdrawal. The long-term investment was adjusted to \$1,071 in the second quarter of fiscal 2018 to reflect its fair value as of March 31, 2018.

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Our derivative financial instruments include forward foreign exchange contracts and interest rate swaps. In the first quarter of fiscal 2015, we entered into floating-to-fixed interest rate swap agreements to hedge the variability in LIBOR-based interest payments on a portion of our outstanding variable rate debt. In the fourth quarter of fiscal 2017, we entered into forward foreign exchange contracts in an effort to protect our net investment in a foreign operation against potential adverse changes resulting from foreign currency fluctuation. The fair value of our derivative instruments is estimated using standard valuation models and market-based observable inputs over the contractual term, including one-month LIBOR-based yield curves for interest rate swaps, and forward rates and/or the Overnight Index Swap (OIS) curve for forward foreign exchange contracts, among others. We consider the risk of nonperformance, including counterparty credit risk, in the calculation of the fair value of derivative financial instruments. See Note 9 of this Report on Form 10-Q for more information on our use of derivative financial instruments.

## 4. INVENTORIES

Inventories consisted of the following:

	March 31, 2018	September 30, 2017
Raw materials	\$40,401	\$ 36,415
Work in process	7,242	7,365
Finished goods	29,170	28,093
Total	\$76,813	\$ 71,873

## 5. GOODWILL AND OTHER INTANGIBLE ASSETS

Goodwill was \$102,915 as of March 31, 2018, and \$101,932 as of September 30, 2017. The increase in goodwill was due to \$1,678 in foreign exchange fluctuations of the New Taiwan dollar, partially offset by a \$695 decrease related to the sale of certain ESF assets. As a result of this sale of assets in March 2018, we received net proceeds of \$3,249, of which \$250 is held in escrow, and recorded a preliminary gain of \$956 in other income in the Consolidated Statements of Income.

The components of other intangible assets are as follows:

	March 31, 2018		September 30, 2017	
	Gross Carrying Amount	Accumulated Amortization	Gross Carrying Amount	Accumulated Amortization
Other intangible assets subject to amortization:				
Product technology	\$46,422	\$ 20,284	\$42,287	\$ 17,604
Acquired patents and licenses	8,270	8,247	8,270	8,241
Trade secrets and know-how	2,550	2,550	2,550	2,550
Customer relationships, distribution rights and other	28,591	17,161	28,229	15,421
Total other intangible assets subject to amortization	85,833	48,242	81,336	43,816

Other intangible assets not subject to amortization:

In-process technology	-		4,000	
Other indefinite-lived intangibles*	1,170		1,190	
Total other intangible assets not subject to amortization	1,170		5,190	
Total other intangible assets	\$87,003	\$ 48,242	\$86,526	\$ 43,816

\*Other indefinite-lived intangible assets not subject to amortization consist primarily of trade names.

During the first quarter of fiscal 2018, development of our in-process technology was completed, and we reclassified \$4,000 to product technology under other intangible assets subject to amortization.

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Amortization expense on our intangible assets was \$1,963 and \$3,936 for the three and six months ended March 31, 2018, respectively, and was \$1,926 and \$3,925 for the three and six months ended March 31, 2017, respectively. Estimated future amortization expense for the five succeeding fiscal years is as follows:

Fiscal Year	Estimated Amortization Expense
Remainder of 2018	\$ 3,558
2019	7,119
2020	7,115
2021	7,108
2022	7,108

In the first quarter of fiscal 2018, we adopted ASU No. 2017-04 "Simplifying the Test for Goodwill Impairment." The provisions of this standard eliminate Step 2 from the goodwill impairment test, which required an entity to determine the fair value of its assets and liabilities at the impairment testing date of its goodwill and compare it to its carrying amount to determine a possible impairment loss. Goodwill impairment testing is now done by comparing the fair value of a reporting unit and its carrying amount.

Goodwill and indefinite-lived intangible assets are tested for impairment annually in the fourth quarter of the fiscal year or more frequently if indicators of potential impairment exist, using a fair-value-based approach. The recoverability of goodwill is measured at the reporting unit level, which is defined as either an operating segment or one level below an operating segment. An entity has the option to assess the fair value of a reporting unit either using a qualitative analysis ("step zero") or a quantitative analysis ("step one"). Similarly, an entity has the option to use a step zero or a step one approach to determine the recoverability of indefinite-lived intangible assets. In fiscal 2017, we used a step one analysis for both goodwill impairment and indefinite-lived intangible asset impairment.

We completed our annual impairment test during our fourth quarter of fiscal 2017 and concluded that no impairment existed. There were no indicators of potential impairment during the quarter ended March 31, 2018, so it was not necessary to perform an impairment review for goodwill and indefinite-lived intangible assets during the quarter. There have been no impairment charges recorded on the goodwill for any of our reporting units.

## 6. OTHER LONG-TERM ASSETS

Other long-term assets consisted of the following:

	March 31, 2018	September 30, 2017
Auction rate securities (ARS)	\$5,319	\$ 5,319
Long-term contract assets	2,071	2,115
Other long-term assets	2,065	2,154
Other long-term investments	1,071	929
Total	\$10,526	\$ 10,517



Our ARS investments at March 31, 2018 consisted of two tax exempt municipal debt securities with a total par value of \$5,319, both of which have maturities greater than ten years. The fair value of our ARS, determined using Level 2 fair value inputs, was \$5,041 as of March 31, 2018. We have classified our ARS as held-to-maturity securities based on our intention and ability to hold the securities until maturity. We believe the gross unrecognized loss of \$278 is due to the illiquidity in the ARS market, rather than to credit loss. Although we believe these securities will ultimately be collected in full, we believe that it is not likely that we will be able to monetize the securities in our next business cycle (which for us is generally one year). We will continue to monitor our ARS for impairment indicators, which may require us to record an impairment charge that is deemed other-than-temporary.

In the third quarter of fiscal 2015, we amended a supply agreement with an existing supplier. The amended agreement includes a fee of \$4,500, of which we already have paid \$3,000, which provides us the option to purchase certain raw materials beyond calendar 2016 through the expiration of the agreement in December 2019. This fee was recorded as a long-term asset at its present value and is being amortized into cost of goods sold on a straight-line basis through the expiration date of the agreement. See Note 10 for more information regarding this agreement.

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Other long-term assets are comprised of the long-term portion of prepaid unamortized debt costs, related to our Revolving Credit Facility, as well as miscellaneous deposits and prepayments on contracts extending beyond the next 12 months. As discussed in Note 3, we recorded a long-term asset and a corresponding long-term liability of \$1,071 representing the fair value of our SERP investments as of March 31, 2018.

## 7. ACCRUED EXPENSES, INCOME TAXES PAYABLE AND OTHER CURRENT LIABILITIES

Accrued expenses, income taxes payable and other current liabilities consisted of the following:

	March 31, 2018	September 30, 2017
Accrued compensation	\$23,495	\$ 35,332
Income taxes payable	13,062	9,717
Dividends payable	10,621	5,314
Goods and services received, not yet invoiced	3,570	2,172
Deferred revenue and customer advances	2,282	1,559
Warranty accrual	232	247
Taxes, other than income taxes	2,079	1,688
Current portion of long-term contract liability	1,500	1,500
Other accrued expenses	5,651	5,122
Total	\$62,492	\$ 62,651

## 8. DEBT

On February 13, 2012, we entered into a credit agreement (the "Credit Agreement") among the Company, as Borrower, Bank of America, N.A., as administrative agent, swing line lender and an L/C issuer, Bank of America, Merrill Lynch and J.P. Morgan Securities LLC, as joint lead arrangers and joint book managers, JPMorgan Chase Bank, N.A., as syndication agent, and Wells Fargo Bank, N.A. as documentation agent. The Credit Agreement provided us with a \$175,000 term loan (the "Term Loan"), which we drew on February 27, 2012 to fund approximately half of the special cash dividend we paid to our stockholders on March 1, 2012, and a \$100,000 revolving credit facility (the "Revolving Credit Facility"), which has never been drawn, with sub-limits for multicurrency borrowings, letters of credit and swing-line loans. The Term Loan and the Revolving Credit Facility are referred to as the "Credit Facilities." On June 27, 2014, we entered into an amendment (the "Amendment") to the Credit Agreement, which (i) increased term loan commitments by \$17,500, from \$157,500 to \$175,000, the same level as the original amount under the Credit Agreement at its inception in 2012; (ii) increased the uncommitted accordion feature on the Revolving Credit Facility from \$75,000 to \$100,000; (iii) extended the expiration date of the Credit Facilities from February 13, 2017 to June 27, 2019; (iv) relaxed the consolidated leverage ratio financial covenant; and (v) revised certain pricing terms and other terms within the Credit Agreement. On June 27, 2014, we drew the \$17,500 of increased term loan commitments, bringing the total outstanding commitments under the Term Loan to \$175,000. The Term Loan was subsequently paid off in April 2018. See Note 18 of this Report on Form 10-Q for more information.

Borrowings under the amended Credit Facilities (other than in respect of swing-line loans) bear interest at a rate per annum equal to the "Applicable Rate" (as defined below) plus, at our option, either (1) a LIBOR rate determined by

reference to the cost of funds for deposits in the relevant currency for the interest period relevant to such borrowing or (2) the "Base Rate", which is the highest of (x) the prime rate of Bank of America, N.A., (y) the federal funds rate plus 1/2 of 1.00% and (z) the one-month LIBOR rate plus 1.00%. The current Applicable Rate for borrowings under the amended Credit Facilities is 1.50%, with respect to LIBOR borrowings and 0.25% with respect to Base Rate borrowings, with such Applicable Rate subject to adjustment based on our consolidated leverage ratio. Swing-line loans bear interest at the Base Rate plus the Applicable Rate for Base Rate loans under the Revolving Credit Facility. In addition to paying interest on outstanding principal under the Credit Agreement, we pay a commitment fee to the lenders under the Revolving Credit Facility in respect of the unutilized commitments thereunder. As amended, the fee ranges from 0.20% to 0.30%, based on our consolidated leverage ratio. Interest expense and commitment fees are paid according to the relevant interest period and no less frequently than at the end of each calendar quarter. We also pay letter of credit fees as necessary. The Term Loan has periodic scheduled repayments; however, we may voluntarily prepay the Credit Facilities without premium or penalty, subject to customary "breakage" fees and reemployment costs in the case of LIBOR borrowings. All obligations under the Credit Agreement are guaranteed by certain of our existing and future direct and indirect domestic subsidiaries. The obligations under the Credit Agreement and guarantees of those obligations are secured, subject to certain exceptions, by first priority liens and security interests in the assets of the Company and certain of its domestic subsidiaries.

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As of March 31, 2018 and September 30, 2017, unamortized debt issuance costs related to our Term Loan that are presented as a reduction of long-term debt were \$315 and \$441, respectively. Unamortized debt issuance costs related to our Revolving Credit Facility were not material.

The Credit Agreement contains covenants that restrict the ability of the Company and its subsidiaries to take certain actions, including, among other things and subject to certain significant exceptions: creating liens, incurring indebtedness, making investments, engaging in mergers, selling property, paying dividends or amending organizational documents. The Credit Agreement requires us to comply with certain financial ratio maintenance covenants. These include a maximum consolidated leverage ratio of 2.75 to 1.00 and a minimum consolidated fixed charge coverage ratio of 1.25 to 1.00 for the period January 1, 2016 through the expiration of the Credit Agreement. As of March 31, 2018, our consolidated leverage ratio was 0.78 to 1.00 and our consolidated fixed charge coverage ratio was 3.40 to 1.00. The Credit Agreement also contains customary affirmative covenants and events of default. We believe we are in compliance with these covenants.

At March 31, 2018, the fair value of the Term Loan, using Level 2 inputs, approximated its carrying value of \$137,813 as the loan bears a floating market rate of interest. As of March 31, 2018, \$13,125 of the debt outstanding is classified as short-term.

Principal repayments of the Term Loan are generally made on the last calendar day of each quarter if that day is considered to be a business day. As of March 31, 2018, scheduled principal repayments of the Term Loan were as follows:

Fiscal Year	Principal Repayments
Remainder of 2018	\$ 4,375
2019	133,438
Total	\$ 137,813

## 9. DERIVATIVE FINANCIAL INSTRUMENTS

We are exposed to various market risks, including risks associated with interest rates and foreign currency exchange rates. We enter into certain derivative transactions to mitigate the volatility associated with these exposures. We have policies in place that define acceptable instrument types we may enter into and we have established controls to limit our market risk exposure. We do not use derivative financial instruments for trading or speculative purposes. In addition, all derivatives, whether designated in hedging relationships or not, are required to be recorded on the Consolidated Balance Sheets at fair value on a gross basis.

### Cash Flow Hedges – Interest Rate Swap Agreements

In the first quarter of fiscal 2015, we entered into floating-to-fixed interest rate swap agreements to hedge the variability in LIBOR-based interest payments on \$86,406 of our outstanding variable rate debt. The notional amount of the swaps decreases each quarter by an amount in proportion to our scheduled quarterly principal payment of debt. The notional value of the swaps was \$68,906 as of March 31, 2018, and the swaps are scheduled to expire on June 27, 2019.

We have designated these swap agreements as cash flow hedges pursuant to ASC 815, "Derivatives and Hedging". As cash flow hedges, unrealized gains are recognized as assets and unrealized losses are recognized as liabilities. Unrealized gains and losses are designated as effective or ineffective based on a comparison of the changes in fair

value of the interest rate swaps and changes in fair value of the underlying exposures being hedged. The effective portion is recorded as a component of accumulated other comprehensive income or loss, while the ineffective portion is recorded as a component of interest expense. Changes in the method by which we pay interest from one-month LIBOR to another rate of interest could create ineffectiveness in the swaps, and result in amounts being reclassified from other comprehensive income into net income. Hedge effectiveness is tested quarterly to determine if hedge treatment continues to be appropriate.

The interest rate swap agreements were subsequently terminated in April 2018 in conjunction with the payoff of the Term Loan. See Note 18 of this Report on Form 10-Q for more information.

INDEXForeign Currency Contracts Not Designated as Hedges

Periodically we enter into forward foreign exchange contracts in an effort to mitigate the risks associated with currency fluctuations on certain foreign currency balance sheet exposures. These foreign exchange contracts do not qualify for hedge accounting; therefore, the gains and losses resulting from the impact of currency exchange rate movements on our forward foreign exchange contracts are recognized as other income or expense in the accompanying consolidated income statements in the period in which the exchange rates change. As of March 31, 2018 and September 30, 2017, the notional amounts of the forward contracts we held to purchase U.S. dollars in exchange for foreign currencies were \$6,980 and \$8,176, respectively, and the notional amounts of forward contracts we held to sell U.S. dollars in exchange for foreign currencies were \$22,095 and \$24,295, respectively.

Net Investment Hedge - Foreign Exchange Contracts

In September 2017, we entered into two forward foreign exchange contracts in an effort to protect the net investment of our South Korean subsidiary against potential adverse changes resulting from currency fluctuations in the Korean won. We entered into forward contracts to sell Korean won and buy U.S. dollars, settling in September 2022. We have designated these forward contracts as an effective net investment hedge. The total notional amount under the contracts is 100 billion Korean won. For the quarter ended March 31, 2018, the change in the fair value of the forward contracts in the net investment hedge relationship of \$2,966 was recorded in foreign currency translation adjustments within Consolidated Statements of Comprehensive Income.

Amounts recognized in the Consolidated Statements of Comprehensive Income for our net investment hedge during the six months ended March 31, 2018 were as follows:

Balance at September 30, 2017	\$920
Loss on net investment hedge	7,338
Tax benefit	(1,549)
Balance at March 31, 2018	\$6,709

In April 2018, we terminated the net investment hedge contracts. See Note 18 of this Report on Form 10-Q for more information.

The fair value of our derivative instruments included in the Consolidated Balance Sheets, which was determined using Level 2 inputs, was as follows:

Consolidated Balance Sheet Location	Asset Derivatives		Liability Derivatives	
	March 31, 2018	September 30, 2017	March 31, 2018	September 30, 2017
Derivatives designated as hedging instruments				
Interest rate swap contracts				
Prepaid expenses and other current assets	\$411	\$ -	\$-	\$ -
Other long-term assets	\$84	\$ 117	\$-	\$ -
Accrued expenses, income taxes payable and other current liabilities	\$-	\$ -	\$211	\$ 31
Other long-term liabilities	\$-	\$ -	\$8,780	\$ 1,442

Foreign exchange contracts  
designated as net investment hedge

Derivatives not designated as  
hedging instruments

Foreign exchange contracts	Prepaid expenses and other current assets	\$22	\$ 146	\$-	\$ -
	Accrued expenses, income taxes payable and other current liabilities	\$-	\$ -	\$111	\$ 408

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The following table summarizes the effect of our derivative instruments on our Consolidated Statements of Income for the three and six months ended March 31, 2018 and 2017:

		Gain (Loss) Recognized in Statement of Income			
		Three Months Ended		Six Months Ended	
Statement of Income Location		March 31, 2018	March 31, 2017	March 31, 2018	March 31, 2017
Derivatives not designated as hedging instruments					
Foreign exchange contracts	Other income, net	\$887	\$ 320	\$78	\$(1,474)

The interest rate swap agreements have been deemed to be effective since inception, so there has been no impact on our Consolidated Statements of Income. We recorded a \$52 unrealized loss and a \$148 unrealized gain, net of tax, in accumulated comprehensive income during the three and six months ended March 31, 2018, respectively, for these interest rate swaps. As of March 31, 2018, during the next 12 months, we expect approximately \$413 to be reclassified from accumulated other comprehensive income into interest expense related to our interest rate swaps based on projected rates of the LIBOR forward curve as of March 31, 2018.

## 10. COMMITMENTS AND CONTINGENCIES

## LEGAL PROCEEDINGS

While we are not involved in any legal proceedings that we believe will have a material impact on our consolidated financial position, results of operations or cash flows, we periodically become a party to legal proceedings in the ordinary course of business.

Refer to Note 18 of "Notes to the Consolidated Financial Statements" in Item 8 of Part II of our Annual Report on Form 10-K for the fiscal year ended September 30, 2017, for additional information regarding commitments and contingencies.

## POSTRETIREMENT OBLIGATIONS IN FOREIGN JURISDICTIONS

We have defined benefit plans covering employees in certain foreign jurisdictions as required by local law, which are unfunded. Benefit costs, consisting primarily of service costs, are recorded as fringe benefit expense under cost of goods sold and operating expenses in our Consolidated Statements of Income. The projected benefit obligations and accumulated benefit obligations under all such unfunded plans are updated annually during the fourth quarter of the fiscal year. Benefit payments under all such unfunded plans to be paid over the next ten years are expected to be approximately \$5,785. For more information regarding these plans, refer to Note 18 of "Notes to the Consolidated Financial Statements" included in Item 8 of Part II of our Annual Report on Form 10-K for the fiscal year ended September 30, 2017.

## PURCHASE OBLIGATIONS

Purchase obligations include take-or-pay arrangements with suppliers, and purchase orders and other obligations entered into in the normal course of business regarding the purchase of goods and services. We have been operating



under a fumed silica supply agreement with Cabot Corporation, our former parent company which is not a related party, the current term of which runs through December 2019. This agreement provides us the option to purchase fumed silica, with no minimum purchase requirements as of 2017, for which we have paid a fee of \$1,500 in each of calendar years 2017 and 2018, and will pay in 2019. The \$1,500 payment due in 2019 is included in accrued expenses on our Consolidated Balance Sheets. As of March 31, 2018, purchase obligations include \$5,884 of contractual commitments related to our Cabot Corporation supply agreement for fumed silica.

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## 11. ACCUMULATED OTHER COMPREHENSIVE INCOME

The table below summarizes the components of accumulated other comprehensive income (AOCI), net of tax provision/(benefit), as of March 31, 2018 and 2017:

	Foreign Currency Translation	Cash Flow Hedges	Pension and Other Postretirement Liabilities	Total
Balance at September 30, 2017	\$ 5,239	\$ 46	\$ (1,336 )	\$ 3,949
Foreign currency translation adjustment, net of tax of \$(1,384)	11,105	-	-	11,105
Unrealized gain (loss) on cash flow hedges:				
Change in fair value, net of tax of \$57	-	165	-	165
Reclassification adjustment into earnings, net of tax of \$(6)	-	(18 )	-	(18 )
Balance at March 31, 2018	\$ 16,344	\$ 193	\$ (1,336 )	\$ 15,201

	Foreign Currency Translation	Cash Flow Hedges	Pension and Other Postretirement Liabilities	Total
Balance at September 30, 2016	\$ 11,985	\$(817 )	\$ (1,612 )	\$ 9,556
Foreign currency translation adjustment, net of tax of \$(1,732)	(3,691 )	-	-	(3,691 )
Unrealized gain (loss) on cash flow hedges:				
Change in fair value, net of tax of \$576	-	1,026	-	1,026
Reclassification adjustment into earnings, net of tax of \$(117)	-	(208 )	-	(208 )
Balance at March 31, 2017	\$ 8,294	\$ 1	\$ (1,612 )	\$ 6,683

The before tax amounts reclassified from AOCI to net income during the six months ended March 31, 2018 and 2017, related to our cash flow hedges, were recorded as interest expense on our Consolidated Statements of Income. For the six months ended March 31, 2018, we recorded \$11,105 in currency translation gains, net of tax, primarily due to exchange rate fluctuations in the Japanese yen and Korean won versus the U.S. dollar, that are included in other comprehensive income, including a net loss of \$5,789 related to our net investment hedge. These gains and losses primarily relate to changes in the U.S. dollar value of assets and liabilities denominated in local currencies when these asset and liability amounts are translated at month-end exchange rates.

## 12. SHARE-BASED COMPENSATION PLANS

We issue share-based awards under the following programs: our Cabot Microelectronics Corporation 2012 Omnibus Incentive Plan, as amended effective March 7, 2017 (OIP); our Cabot Microelectronics Corporation 2007 Employee Stock Purchase Plan, as Amended and Restated January 1, 2010 (ESPP); and, pursuant to the OIP, our Directors' Deferred Compensation Plan, as amended September 23, 2008 (DDCP), and our 2001 Executive Officer Deposit Share Program (DSP). In March 2017, our stockholders reapproved the material terms of performance-based awards under the OIP for purposes of complying with Section 162(m) of the Internal Revenue Code of 1986, as amended. Prior to March 2012, when our stockholders first approved the OIP, we issued share-based payments under our Second Amended and Restated Cabot Microelectronics Corporation 2000 Equity Incentive Plan, as amended and restated September 23, 2008 (EIP); our ESPP, and, pursuant to the EIP, the DDCP and DSP. For additional

information regarding these programs, refer to Note 13 of "Notes to the Consolidated Financial Statements" included in Item 8 of Part II of our Annual Report on Form 10-K for the fiscal year ended September 30, 2017. Other than the ESPP, all share-based payments granted beginning March 6, 2012 are made from the OIP, and since then, the EIP no longer has been available for any awards.

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We record share-based compensation expense for all share-based awards, including stock option grants, and restricted stock, restricted stock unit and performance share unit ("PSU") awards, and employee stock purchase plan purchases. We calculate share-based compensation expense using the straight-line approach based on awards ultimately expected to vest, which requires the use of an estimated forfeiture rate. Our estimated forfeiture rate is primarily based on historical experience, but may be revised in future periods if actual forfeitures differ from the estimate. We use the Black-Scholes option-pricing model to estimate the grant date fair value of our stock options and employee stock purchase plan purchases. This model requires the input of highly subjective assumptions, including the price volatility of the underlying stock, the expected term of our stock options, expected dividend yield and the risk-free interest rate. We estimate the expected volatility of our stock options based on a combination of our stock's historical volatility and the implied volatilities from actively-traded options on our stock. We calculate the expected term of our stock options using historical stock option exercise data, and for stock option grants made prior to December 2017, we have added a slight premium to this expected term for employees who meet the definition of retirement-eligible pursuant to their stock option grants during the contractual term of the grant. As of December 2017, the provisions of new stock option grants and restricted stock unit awards state that except in certain circumstances including termination for cause, once an employee meets the retirement eligibility requirements, any remaining unvested share-based awards will continue to vest regardless of termination of service. Consequently, the requisite service period for the award is satisfied upon retirement eligibility. Therefore, for those employees who have met the retirement eligibility at the grant date, we now record the total share-based compensation expense upon award; for those employees who will meet the retirement eligibility during the four-year vesting period, we now record the share-based compensation expense over the period from the grant date through the date of retirement eligibility, rather than over the four-year vesting period stated in the award agreement.

The expected dividend yield represents our annualized dividend in dollars divided by the stock price on the date of grant. The risk-free interest rate is derived from the U.S. Treasury yield curve in effect at the time of grant.

The PSUs that have been awarded may be subject to downward or upward adjustment depending on the total shareholder return achieved by the Company during the particular performance period related to the PSUs, relative to the total shareholder return of the S&P SmallCap 600 Index. We use a third-party service provider to estimate the fair value of the PSUs at grant date by using a Monte Carlo simulation model. This model simulates the stock price movements of the Company and Index constituents using certain assumptions, including the stock price of our company and Index constituents, the risk-free interest rate and stock price volatility.

In December 2017, we announced the appointment of Scott D. Beamer as our Vice President and Chief Financial Officer, effective as of January 15, 2018, and the intention of William S. Johnson, the Company's then current Executive Vice President and Chief Financial Officer, to retire. Upon the effective date of Mr. Beamer's appointment, Mr. Johnson resigned as our Vice President and Chief Financial Officer, and now is performing transition responsibilities in a senior advisor role until his retirement date in January 2019 (the "Retirement Date"). Mr. Johnson's currently outstanding non-qualified stock option, restricted stock, and restricted stock unit awards under the OIP remain outstanding in accordance with their terms, which include that he will forfeit any unvested awards as of the Retirement Date. Applying the guidance in ASC 718 "Compensation—Stock Compensation", we recorded \$1,744 of related share-based compensation expense in the three months ended December 31, 2017.

In the first quarter of fiscal 2018, we adopted ASU No. 2016-09, "Improvements to Employee Share Based Payment Accounting" (Topic 718) (ASU 2016-09) prospectively. The provisions of this standard relate to aspects of the accounting for share-based payments transactions, including income tax consequences, classification of awards as either equity or liabilities, classification of excess tax benefits on the Consolidated Statements of Cash Flows and earnings per share calculations. Upon adoption, we recorded a tax benefit of \$2,806 in our Consolidated Statements of Income. The net loss, including the impact of the tax benefits, was used to calculate our basic loss per share under the new guidance. In addition, we have elected to continue to estimate forfeitures under ASC 718 pursuant to the

adoption of ASU 2016-09.

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Share-based compensation expense for the three and six months ended March 31, 2018 and 2017, was as follows:

	Three Months		Six Months Ended	
	Ended March 31, 2018	2017	March 31, 2018	2017
Cost of goods sold	\$567	\$552	\$1,354	\$1,093
Research, development and technical	516	459	1,046	878
Selling and marketing	329	347	671	686
General and administrative	2,872	2,194	7,011	3,808
Total share-based compensation expense	4,284	3,552	10,082	6,465
Tax benefit	(1,022)	(1,220)	(2,249)	(2,167)
Total share-based compensation expense, net of tax	\$3,262	\$2,332	\$7,833	\$4,298

For additional information regarding the estimation of fair value, refer to Note 13 of "Notes to the Consolidated Financial Statements" included in Item 8 of Part II of our Annual Report on Form 10-K for the fiscal year ended September 30, 2017.

## 13. OTHER INCOME, NET

Other income, net, consisted of the following:

	Three		Six Months	
	Months Ended March 31, <b>2018</b>	2017	Months Ended March 31, 2018	2017
Interest income	\$1,156	\$516	\$2,107	\$ 937
Other income (expense)	(94 )	(282)	(373 )	293
Total other income, net	\$1,062	\$234	\$1,734	\$1,230

## 14. INCOME TAXES

Our effective tax rate was 19.6% and 63.8% for the three and six months ended March 31, 2018, respectively, compared to a 20.8% and 20.5% effective income tax rate for the three and six months ended March 31, 2017. The significant increase in our effective tax rate for the six months ended March 31, 2018 compared to the prior year is primarily driven by discrete adjustments related to recently enacted Tax Act in the United States. Other factors that impacted the Company's effective tax rate for the three and six months ended March 31, 2018 were primarily related to benefits in excess of compensation cost from share based compensation recorded in the income statement (as opposed to equity prior to October 2017) and the absence of benefits of a tax holiday in South Korea, which expired as of October 2017. The Company currently expects its effective tax rate for the remainder quarters to be within the range of 21% to 24%. Previously, before the impact of the Tax Act, the Company had estimated an effective tax rate of 24% to 27% for the full fiscal year.

The Tax Act, enacted on December 22, 2017, includes broad and complex changes to the U.S. tax code, including but not limited to: (1) reducing the U.S. federal corporate income tax rate to 21.0% effective January 1, 2018; and (2) requiring a one-time transition tax on certain un-repatriated earnings of foreign subsidiaries that is payable over eight years. For fiscal 2018, we will record our income tax provision using a blended U.S. statutory tax rate of 24.5%, which is based on a proration of the applicable tax rates before and after the Tax Act. The U.S. statutory tax rate of 21.0% will apply for fiscal 2019 and beyond.

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As a result of the Tax Act, the SEC staff issued accounting guidance which provides up to a one-year measurement period during which a company may complete its accounting for the impacts of the Tax Act (SAB 118). To the extent that a company's accounting for certain income tax effects of the Tax Act is incomplete but for which the company is able to determine a reasonable estimate, it must record a provisional estimate in its financial statements. If a company cannot determine a provisional estimate to be included in its financial statements, it should continue to apply the provisions of the tax laws that were in effect immediately before the enactment of the Tax Act.

In connection with our initial analysis of the impact of the Tax Act, we recorded provisional discrete tax expense of \$32,880 in the quarter ended December 31, 2017. In the quarter ended March 31, 2018, we recorded an additional \$212 for a change in estimated withholding taxes and the re-measurement of U.S. deferred tax assets and liabilities. For various reasons that are discussed more fully below, we have not completed our accounting for the income tax effects of certain elements of the Tax Act, but we have recorded the following provisional estimates.

**Deemed Repatriation Transition Tax:** The Deemed Repatriation Transition Tax (Transition Tax) is a tax on previously untaxed accumulated and current earnings and profits (E&P) of certain of our foreign subsidiaries. To determine the amount of the Transition Tax, we must determine, in addition to other factors, the amount of post-1986 E&P of the relevant subsidiaries, as well as the amount of non-U.S. withholding taxes on such earnings. We were able to make a reasonable estimate, and recorded \$24,641 of provisional estimate of Transition Tax, which included U.S. federal and state tax implications, for the six months ended March 31, 2018. Of this estimate, \$22,450 was included in the other long-term liabilities as of March 31, 2018. In addition, we also recorded a provisional estimate of \$6,683 for non-U.S. withholding taxes to be incurred on actual future distributions of foreign earnings. We are monitoring U.S. federal and state legislative developments for further interpretative guidance and intend to continue to gather additional information to refine provisional estimates during the measurement period provided under SAB 118. Previously, the Company maintained an assertion to permanently reinvest, with certain insignificant exceptions, the earnings of its non-U.S. subsidiaries outside of the U.S., and therefore, did not record U.S. deferred income taxes or foreign withholding taxes for these earnings. In light of the Tax Act and the associated transition to a territorial tax system, in the quarter ended March 31, 2018, the Company decided it will repatriate foreign earnings it expects to generate in the remainder of fiscal 2018, and consequently recorded deferred tax liabilities associated with withholding taxes on such planned distributions.

**Reduction of U.S. Federal Corporate Tax Rate:** The Company re-measured its U.S. deferred tax assets and liabilities and recorded a discrete non-cash tax expense of \$1,767 based on the rates at which the deferred tax assets and liabilities are expected to reverse in the future. We are still analyzing certain aspects of the Tax Act and the actual impact of the reduction in the U.S. federal corporate tax rate may be affected by the timing of the reversal of such balances.

The Company is also analyzing other provisions of the Tax Act to determine their impact on the Company's effective tax rate in fiscal year 2018 or in the future, including the following:

**Global Intangible Low Taxed Income (GILTI):** The Tax Act includes a provision designed to tax GILTI. Because of the complexity of these new GILTI provisions, we are continuing to evaluate this provision. Under U.S. GAAP, we are allowed to make an accounting policy choice of either (1) treating taxes due on future U.S. inclusions in taxable income related to GILTI as a current-period expense when incurred (the "period cost method") or (2) factoring such amounts into a company's measurement of its deferred taxes (the "deferred method"). We are not yet able to reasonably estimate the effect of the GILTI provision of the Tax Act and have not made any adjustments related to potential GILTI tax in our financial statements. If applicable, GILTI tax would first apply to our fiscal year 2019, and will be accounted for as incurred under the period cost method.



Base Erosion and Anti-Abuse Tax (BEAT): The Tax Act creates a new minimum BEAT liability for corporations that make base erosion payments if the corporation has sufficient gross receipts and derives a sufficient level of "base erosion tax benefits". If applicable, any BEAT would be accounted for as incurred under the period cost method. We are further assessing the provisions of the BEAT, and will evaluate the effects on the Company's financial statements as further information becomes available. If applicable, the BEAT provisions would first apply to the Company in fiscal year 2019.

Foreign Derived Intangible Income (FDII): The Tax Act allows a domestic corporation an immediate deduction in U.S. taxable income for a portion of its FDII. The amount of the deduction will depend in part on the Company's U.S. taxable income. The FDII deduction will be available to us for our fiscal year ending September 30, 2019, and if applicable, will be accounted for under the period cost method. We are still assessing the benefits of the FDII deduction, and will account for the effects on the Company's financial statements in future periods.

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The Company previously operated under a tax holiday in South Korea in fiscal years 2013 through 2017 in conjunction with our investment in research, development and manufacturing facilities there, but are no longer under such as of fiscal 2018. This arrangement allowed for a tax at 50% of the local statutory rate in effect for fiscal years 2016 and 2017, following a 0% tax rate in fiscal years 2013, 2014 and 2015. This tax holiday reduced our income tax provision by approximately \$1,915 and increased our diluted earnings per share by approximately \$0.08 during the six months ended March 31, 2017.

## 15. EARNINGS PER SHARE

Basic earnings per share (EPS) is calculated by dividing net income available to common stockholders by the weighted-average number of common shares outstanding during the period, excluding the effects of unvested restricted stock awards that have a right to receive non-forfeitable dividends, which are considered participating securities as prescribed by the two-class method under ASC 260 "Earnings per Share". Diluted EPS is calculated in a similar manner, but the weighted-average number of common shares outstanding during the period is increased to include the weighted-average dilutive effect of "in-the-money" stock options and unvested restricted stock shares using the treasury stock method.

Pursuant to the adoption of ASU 2016-09 in the first quarter of fiscal 2018, the tax benefits associated with share-based compensation plans were recorded as a tax benefit in our Consolidated Statements of Income. The number of shares that would be repurchased with the proceeds from the tax benefits was excluded from the diluted weighted average shares outstanding using treasury stock method under the new guidance.

The standards of accounting for earnings per share require companies to provide a reconciliation of the numerator and denominator of the basic and diluted earnings per share computations. Basic and diluted earnings per share were calculated as follows:

	Three Months Ended March 31,		Six Months Ended March 31,	
	2018	2017	2018	2017
Numerator:				
Net Income	\$29,737	\$18,280	\$26,654	40,511
Less: income attributable to participating securities	(30)	(48)	(34)	(146)
Earnings available to common shares	\$29,707	\$18,232	\$26,620	40,365
Denominator:				
Weighted average common shares (Denominator for basic calculation)	25,592,508	25,030,367	25,473,757	24,798,122
Weighted average effect of dilutive securities:				
Share-based compensation	568,678	496,090	601,925	505,834
Diluted weighted average common shares (Denominator for diluted calculation)	26,161,186	25,526,457	26,075,682	25,303,956
Earnings per share:				
Basic	\$1.16	\$0.73	\$1.05	1.63
Diluted	\$1.14	\$0.71	\$1.02	1.60

Approximately 0.1 million shares for both the three and six months ended March 31, 2018 and 0.4 million shares for both the three and six months ended March 31, 2017, attributable to outstanding stock options were excluded from the calculation of diluted earnings per share.

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## 16. FINANCIAL INFORMATION BY INDUSTRY SEGMENT AND PRODUCT LINE

We operate predominantly in one reportable segment, as defined under ASC 280 "Segment Reporting" – the development, manufacture, and sale of CMP consumables.

Revenue generated by product line for the three and six months ended March 31, 2018 and 2017, was as follows:

	Three Months		Six Months Ended	
	Ended		March 31,	
Revenue:	2018	2017	2018	2017
Tungsten slurries	\$60,428	\$51,835	\$123,305	\$107,136
Dielectric slurries	34,529	27,843	66,261	57,125
Polishing pads	21,016	17,139	39,895	33,348
Other metals slurries	16,884	14,670	33,352	30,450
ESF and other	10,121	7,697	20,144	14,379
Total revenue	\$142,978	\$119,184	\$282,957	\$242,438

## 17. NEW ACCOUNTING PRONOUNCEMENTS

In May 2014, the FASB issued ASU No. 2014-09, "Revenue from Contracts with Customers" (Topic 606), an updated standard on revenue recognition. ASU 2014-09 provides enhancements to how revenue is reported and improves comparability in the financial statements of companies reporting using IFRS and U.S. GAAP. The core principle of the new standard is for companies to recognize revenue for goods or services in amounts that reflect the consideration to which the company expects to be entitled in exchange for those goods or services. The new standard is intended to enhance disclosures about revenue, provide guidance for transactions that were not previously addressed comprehensively, such as service revenue and contract modifications, and improve guidance for multiple-element arrangements. In August 2015, the FASB issued ASU No. 2015-14, "Deferral of Effective Date" (Topic 606). This standard defers the effective date of ASU 2014-09 by one year. ASU 2014-09 will be effective for us beginning October 1, 2018, and may be applied on a full retrospective or modified retrospective approach. In March 2016, the FASB issued ASU No. 2016-08, "Principal versus Agent Considerations (Reporting Revenue Gross versus Net)" (Topic 606). ASU 2016-08 provides clarification for the implementation guidance on principal versus agent considerations. In April 2016, the FASB issued ASU No. 2016-10, ASU No. 2016-11, and ASU 2016-12, and ASU 2017-13 issued in September 2017, all of which provide additional clarification of the original revenue standard. We continue to work to identify potential differences that would result from applying the requirements of the new standard to our revenue contracts, and identify and implement changes to business processes, systems and controls to support recognition and disclosure under the new standard. We anticipate any changes to revenue recognition for our Company are likely to be related to certain pricing and incentive arrangements with our customers within our CMP consumables business, but we believe the recognition of revenue will remain substantially unchanged for the majority of our contracts with customers. We anticipate we will adopt the new revenue standard in the first quarter of fiscal 2019 using the modified retrospective approach to adoption, which will require us to record the cumulative effect of adopting the standard as an adjustment to the beginning balance of retained earnings. We continue to evaluate the impact of the implementation of these standards on our financial statements.

In July 2015, the FASB issued ASU No. 2015-11, "Simplifying the Measurement of Inventory" (Topic 330). The provisions of ASU 2015-11 require an entity to measure inventory at the lower of cost and net realizable value. Net realizable value is the estimated selling price in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. We adopted ASU 2015-11 effective October 1, 2017, and this

pronouncement had no material effect on our financial statements.

In January 2016, the FASB issued ASU No. 2016-01, "Recognition and Measurement of Financial Assets and Financial Liabilities" (Subtopic 825-10). The provision of ASU 2016-01 requires equity investments, other than those accounted for under the equity method of accounting or those that result in consolidation, to be measured at fair value with changes in fair value recognized in net income. ASU 2016-01 simplifies the impairment assessment of equity securities by permitting a qualitative assessment each reporting period, and makes changes to presentation and disclosure of certain classes of financial assets and liabilities. ASU 2016-01 will be effective for us beginning October 1, 2018, but early adoption is permitted. We are currently evaluating the impact of implementation of this standard on our financial statements.

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In February 2016, the FASB issued ASU No. 2016-02, "Leases" (Topic 842). The provisions of ASU 2016-02 require a dual approach for lessee accounting under which a lessee would recognize a right-of-use asset and a corresponding lease liability. Leases will be classified as either finance or operating leases. For finance leases, a lessee will recognize interest expense and amortization of the right-of-use asset, and for operating leases, the lessee will recognize a straight-line total lease expense. The guidance also requires qualitative and specific quantitative disclosures to supplement the amounts recorded in the financial statements, to afford better understanding of an entity's leasing activities, including any significant judgments and estimates. ASU 2016-02 will be effective for us beginning October 1, 2019, but early adoption is permitted. We are currently evaluating the impact of implementation of this standard on our financial statements.

In March 2016, the FASB issued ASU No. 2016-05, "Effect of Derivative Contract Novations on Existing Hedge Accounting Relationships" (Topic 815). The provisions of ASU 2016-05 provide clarification that a change in a counterparty of a derivative instrument that has been designated as a hedging instrument does not require dedesignation of that hedging relationship, provided that all other hedge accounting criteria is met. ASU 2016-05 will be effective for us beginning October 1, 2018, but early adoption is permitted. We do not believe the adoption of this standard will have a material effect on our financial statements.

In March 2016, the FASB issued ASU No. 2016-07, "Simplifying the Transition to the Equity Method of Accounting" (Topic 323). The provisions of ASU 2016-07 require equity method investors to add the cost of acquiring additional interest in the investee to the current basis of the investor's previously held interest and adopt the equity method prospectively as of the date the investment qualifies for the equity method of accounting. ASU 2016-07 will be effective for us beginning October 1, 2018, but early adoption is permitted. We do not believe the adoption of this standard will have a material effect on our financial statements as we currently have no equity method investments.

In June 2016, the FASB issued ASU No. 2016-13, "Measurement of Credit Losses on Financial Instruments" (Topic 326). The provisions of this standard require financial assets measured at amortized cost to be presented at the net amount expected to be collected. An allowance account would be established to present the net carrying value at the amount expected to be collected. ASU 2016-13 also provides that credit losses relating to available-for-sale debt securities should be recorded through an allowance for credit losses. ASU 2016-13 will be effective for us beginning October 1, 2020, but early adoption is permitted as of October 1, 2019. We are currently evaluating the impact of implementation of this standard on our financial statements.

In August 2016, the FASB issued ASU No. 2016-15 "Classification of Certain Cash Receipts and Cash Payments" (Topic 230). The provisions of this standard provide guidance on the classification within the Consolidated Statements of Cash Flows of certain types of cash receipts and cash payments in an effort to eliminate diversity in practice. ASU 2016-15 will be effective for us beginning October 1, 2018, but early adoption is permitted. We do not believe the adoption of this standard will have a material effect on our financial statements as we currently do not have any of the cash receipts or payments discussed in this standard.

In October 2016, the FASB issued ASU No. 2016-16 "Intra-Entity Transfers of Assets Other Than Inventory" (Topic 740). The provisions of this standard provide guidance on recognition of taxes related to intra-entity transfer of assets other than inventory when the transfer occurs. ASU 2016-16 will be effective for us beginning October 1, 2018, but early adoption is permitted. We are currently evaluating the impact of implementation of this standard on our financial statements.

In October 2016, the FASB issued ASU No. 2016-17 "Interest Held through Related Parties That Are under Common Control" (Topic 810). The provisions of this standard provide further guidance related to ASU 2015-02, and provide guidance on consolidation in relation to VIEs and related parties. We adopted ASU 2016-17 effective October 1, 2017, and this pronouncement had no material effect on our financial statements as we currently have no interest in

any entities that may be considered VIE.

In January 2017, the FASB issued ASU No. 2017-01 "Clarifying the Definition of a Business" (Topic 805). The provisions of this standard provide guidance to determine whether the acquisition or sale of a set of assets or activities constitutes a business. The standard requires that an integrated set of assets and activities include an input and a substantive process that together contribute to the ability to create output. We adopted ASU 2017-01 effective October 1, 2017, and this pronouncement had no material effect on our financial statements.

In January 2017, the FASB issued ASU No. 2017-04 "Simplifying the Test for Goodwill Impairment" (Topic 350). The provisions of this standard eliminate Step 2 from the goodwill impairment test, which required an entity to determine the fair value of its assets and liabilities at the impairment testing date of its goodwill and compare it to its carrying amount to determine a possible impairment loss. Goodwill impairment testing will now be done by comparing the fair value of a reporting unit and its carrying amount. We adopted ASU 2017-04 effective October 1, 2017 and we will apply the new guidance in our annual test for goodwill impairment in the fourth quarter of fiscal 2018.

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In March 2017, the FASB issued ASU No. 2017-07 "Improving the Presentation of Net Period Pension Cost and Net Period Postretirement Benefit Cost" (Topic 715). The provisions of ASU 2017-07 provided specific guidance on the presentation of the components of net benefit cost. ASU 2017-07 will be effective for us beginning October 1, 2018. We are currently evaluating the impact of implementation of this standard on our financial statements.

In May 2017, the FASB issued ASU No. 2017-09 "Scope of Modification Accounting" (Topic 718). The provisions of ASU 2017-09 provide specific guidance about which changes to the term or conditions of a share-based payment require an entity to apply modification accounting. ASU 2017-09 will be effective for us beginning October 1, 2018. We are currently evaluating the impact of implementation of this standard on our financial statements.

In August 2017, the FASB issued ASU No. 2017-12 "Derivatives and Hedging" (Topic 815). The provisions of this standard amend the hedge accounting model in ASC 815 to expand an entity's ability to hedge nonfinancial and financial risk components, reduce complexity in fair value hedges of interest rate risk, eliminate the requirement to separately measure and report hedge ineffectiveness, and generally require the entire change in the fair value of a hedging instrument to be presented in the same income statement line as the hedged item. The guidance also eases certain documentation and assessment requirements and modifies the accounting for components excluded from the assessment of hedge effectiveness. ASU 2017-12 will be effective for us beginning October 1, 2019, but early adoption is permitted. We are currently evaluating the impact of implementation of this standard on our financial statements.

In February 2018, the FASB issued ASU No. 2018-02 "Income Statement – Reporting Comprehensive Income (Topic 220)". The amendments in this standard allow a company to reclassify the stranded tax effects resulting from the Tax Act from accumulated other comprehensive income to retained earnings. ASU 2018-02 will be effective for us beginning October 1, 2019, but early adoption is permitted. We are currently evaluating the impact of implementation of this standard on our financial statements.

## 18. SUBSEQUENT EVENTS

The enactment of the Tax Act in the United States in December 2017 facilitated the Company's intention to repatriate a substantial amount of its non-U.S. cash and available-for-sale securities, and utilize a portion of this cash to payoff its existing Term Loan. In accordance with this, in April 2018, the Company paid off the remaining outstanding Term Loan principal balance of \$137,813 pursuant to the Credit Agreement. There was no penalty upon the Company's prepayment of the Term Loan. As a result of this early extinguishment of the Term Loan, we will expense the remaining immaterial amount of unamortized debt issuance cost in the quarter ending June 30, 2018. In conjunction with the payoff the term loan, we terminated the related interest rate swaps, and the immaterial gain will be reclassified from accumulated other comprehensive income into other income in the Consolidated Statements of Income.

In addition, in anticipation of the cash repatriation described above, the Company terminated its foreign exchange contracts in April 2018, which were used to protect the net investment of our South Korean subsidiary against potential adverse changes resulting from currency fluctuations in the Korean Won. Due to the continued appreciation of the Korean Won, we will recognize an additional loss of \$690, net of tax, on our net investment hedge in the quarter ending June 30, 2018, which will be recorded in foreign currency translation adjustments within the Consolidated Statements of Comprehensive Income.



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ITEM 2. MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

The following "Management's Discussion and Analysis of Financial Condition and Results of Operations", as well as disclosures included elsewhere in this Report on Form 10-Q, include "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995. This Act provides a safe harbor for forward-looking statements to encourage companies to provide prospective information about themselves so long as they identify these statements as forward-looking and provide meaningful cautionary statements identifying important factors that could cause actual results to differ from the projected results. All statements other than statements of historical fact we make in this Report on Form 10-Q are forward-looking. In particular, the statements herein regarding future sales and operating results; growth or contraction of, and trends in, the industry and markets in which the Company participates; the Company's management; various economic or political factors and international or national events, including related to the enactment of trade sanctions, tariffs, or other similar matters; regulatory or legislative activity, including the enactment of the Tax Cuts and Jobs Act ("Tax Act") in December 2017 in the United States; product performance; the generation, protection and acquisition of intellectual property, and litigation related to such intellectual property or third party intellectual property; new product introductions; development of new products, technologies and markets; the Company's supply chain; the financial conditions of the Company's customers; natural disasters; the acquisition of, investment in, or collaboration with other entities; uses and investment of the Company's cash balance, including dividends and share repurchases, which may be suspended, terminated or modified at any time for any reason by the Company, based on a variety of factors; financing facilities and related debt, payoff or payment of principal and interest, and compliance with covenants and other terms; the Company's capital structure; the Company's current or future tax rate, including the effects of the Tax Act in the U.S.; and the operation of facilities by the Company; and statements preceded by, followed by or that include the words "intends," "estimates," "plans," "believes," "expects," "anticipates," "should," "could" or similar expressions, are forward-looking statements. These forward-looking statements involve a number of risks, uncertainties, and other factors, that could cause actual results to differ materially from those described by these forward-looking statements. We assume no obligation to update this forward-looking information. The section entitled "Risk Factors" describes some, but not all, of the factors that could cause these differences.

This section, "Management's Discussion and Analysis of Financial Condition and Results of Operations" (MD&A), should be read in conjunction with our Annual Report on Form 10-K for the fiscal year ended September 30, 2017, including the Consolidated Financial Statements and related notes thereto.

SECOND QUARTER OF FISCAL 2018 OVERVIEW

In our second quarter of fiscal 2018, we experienced continued strong demand for our products, particularly for memory applications. This was driven in part by our memory customers' migration from 2D to 3D NAND. Additionally, continued capacity expansions in 3D NAND are underway, primarily in Korea and China, which should also continue to provide growth opportunities for us in the future. In the advanced logic and foundry segments, we believe that new applications in mobile, artificial intelligence (or AI), and blockchain will continue to drive demand for advanced logic semiconductors going forward. In addition, the legacy logic and foundry area of the industry continues to benefit from growth in automotive, internet of things, and industrial automation applications and connectivity requirements, which in turn could drive increasing demand for our products. We believe we remain well positioned to benefit from these long-term demand trends. However, there are many factors that make it difficult for us to predict future revenue trends for our business, including those discussed in Part II, Item 1A entitled "Risk Factors" in this Report on Form 10-Q.

The enactment of the Tax Act in the United States in December 2017 facilitated the Company's repatriation of a substantial amount of its non-U.S. cash and available-for-sale securities during the second quarter of fiscal 2018 and following the end of the quarter in early April. In April 2018, the Company paid off its existing Term Loan utilizing a portion of this repatriated cash.

Revenue for our second quarter of fiscal 2018 was \$143.0 million, which represented an increase of 20.0% from the second quarter of fiscal 2017, with revenue in dielectrics slurries and polishing pads product areas increasing 24.0% and 22.6% from the same quarter last year, respectively. Revenue from tungsten slurries increased 16.6% from the same quarter last year. Revenue for the first six month of fiscal 2018 was \$283.0 million, which represented an increase of 16.7% from the comparable period of fiscal 2017.

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Gross profit for the second quarter of fiscal 2018 expressed as a percentage of revenue was 52.5%, compared to 50.4% for our second quarter of fiscal 2017, including 90 and 100-basis point of adverse impact of NexPlanar amortization expense, comparatively. Factors affecting our gross profit for the quarter compared to last year included higher sales volume and a higher-valued product mix, partially offset by higher fixed manufacturing costs, including higher incentive compensation expense. Gross profit for the first six months of fiscal 2018 was 52.7% of revenue, compared to 50.1% during the same period last year, which includes 90 and 100-basis points of adverse impact of NexPlanar amortization expense, comparatively. We currently expect our gross profit margin for the full fiscal year 2018 to be between 51% and 53%, an increase from our prior full year guidance range of 50% to 52%. This includes approximately 100 basis points of NexPlanar amortization expense. We may continue to experience fluctuations in our gross profit due to a number of factors, including changes in our product mix and the extent to which we utilize our manufacturing capacity, which may cause our quarterly gross profit to be above or below this annual guidance range.

Operating expenses were \$38.0 million in our second quarter of fiscal 2018 compared to \$36.1 million in the second quarter of fiscal 2017, both periods of which included \$0.5 million in NexPlanar amortization expense. The increase in operating expenses from the comparable quarter of fiscal 2017 was primarily due to higher incentive compensation and annual merit increases. Operating expenses were \$74.9 million in the first six months of fiscal 2018 compared to \$69.5 million during the same period of fiscal 2017, both periods of which included \$1.0 million in NexPlanar amortization expense. We currently expect operating expenses for full fiscal year 2018 to be between \$148.0 million and \$153.0 million, an increase from our prior full year guidance range of \$145.0 million to \$150.0 million. This includes approximately \$1.9 million of NexPlanar amortization expense. We may continue to experience fluctuations in our operating expenses due to a number of factors, including changes in staffing-related expenses, including Short-Term Incentive Program ("STIP") costs, which may cause our operating expenses for the full fiscal year 2018 to be above or below this guidance range.

The Company reported diluted earnings per share of \$1.14 in the second quarter of fiscal 2018, compared to diluted earnings per share of \$0.71 in the same quarter last year. The increase was primarily due to higher revenue and a higher gross profit margin, partially offset by higher operating expenses. Diluted earnings per share were \$1.02 for the first six months of fiscal 2018, compared to \$1.60 during the same period last year. The year-over-year decrease was primarily due to the impact of the enactment of the Tax Act in December 2017, which reduced diluted earnings per share by \$1.27.

## CRITICAL ACCOUNTING POLICIES AND ESTIMATES AND EFFECTS OF RECENT ACCOUNTING PRONOUNCEMENTS

We discuss our critical accounting estimates and effects of recent accounting pronouncements in "Management's Discussion and Analysis of Financial Condition and Results of Operations" included in Item 7 of Part II of our Annual Report on Form 10-K for the fiscal year ended September 30, 2017. There have been no material changes in our critical accounting estimates during the first six months of fiscal 2018. See Note 17 of the Notes to the Consolidated Financial Statements of this Report on Form 10-Q for a discussion of new accounting pronouncements.

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### RESULTS OF OPERATIONS

#### THREE MONTHS ENDED MARCH 31, 2018, VERSUS THREE MONTHS ENDED MARCH 31, 2017

##### REVENUE

Revenue was \$143.0 million for the three months ended March 31, 2018, which represented a 20.0%, or \$23.8 million, increase from the three months ended March 31, 2017. The increase in revenue was primarily driven by a \$14.3 million increase due to higher sales volume, a \$8.3 million increase due to product mix, and a \$2.4 million increase due to foreign exchange fluctuations, partially offset by a \$1.3 million decrease due to price changes. The increase in sales volume was consistent with continued overall strong demand conditions in the global semiconductor industry. Revenue from our tungsten slurries, dielectrics slurries and polishing pads increased 16.6%, 24.0% and 22.6%, respectively, from the comparable period of fiscal 2017.

##### COST OF GOODS SOLD

Total cost of goods sold was \$68.0 million for the three months ended March 31, 2018, which represented an increase of 14.8%, or \$8.8 million, from the three months ended March 31, 2017. The increase in cost of goods sold was primarily driven by a \$3.4 million increase due to higher sales volume, a \$2.3 million increase in fixed manufacturing costs, including higher incentive compensation expense, a \$1.5 million increase due to foreign exchange fluctuations, and a \$0.9 million increase in other variable manufacturing costs, including material costs. Fixed manufacturing costs included \$1.3 million of NexPlanar amortization expense compared to \$1.2 million in same period of fiscal 2017.

##### GROSS PROFIT

Our gross profit as a percentage of revenue was 52.5% for the three months ended March 31, 2018, compared to 50.4% for the three months ended March 31, 2017. The increase in gross profit as a percentage of revenue was primarily due to higher sales volume, a higher-valued product mix and lower variable production costs, partially offset by higher fixed manufacturing costs, including costs associated with incentive compensation expense.

##### RESEARCH, DEVELOPMENT AND TECHNICAL

Total research, development and technical expenses were \$13.4 million for the three months ended March 31, 2018, which represented a decrease of 5.1%, or \$0.7 million, from the three months ended March 31, 2017. The decrease was primarily due to lower materials and supplies used in research and development of \$0.5 million, lower professional expenses of \$0.3 million, and lower depreciation and amortization expense of \$0.2 million, partially offset by higher wafers costs of \$0.3 million.

Our research, development and technical efforts are focused on the following main areas:

- Research related to fundamental CMP technology;
- Development of new and enhanced CMP consumable products, including collaboration on joint development projects with technology-leading customers and suppliers;
- Process development to support rapid and effective commercialization of new products;
- Technical support of CMP products in our customers' research, development and manufacturing facilities; and,
- Development of polishing and metrology applications outside of the semiconductor industry.

## SELLING AND MARKETING

Selling and marketing expenses were \$6.8 million for the three months ended March 31, 2018, which represented a decrease of 6.6%, or \$0.5 million, from the three months ended March 31, 2017. The decrease was primarily due to lower staffing-related costs of \$0.3 million.

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### GENERAL AND ADMINISTRATIVE

General and administrative expenses were \$17.8 million for the three months ended March 31, 2018, which represented an increase of 21.1%, or \$3.1 million, from the three months ended March 31, 2017. The increase was primarily due to higher staffing-related expenses of \$1.5 million, including STIP costs, higher long-term incentive compensation expenses of \$0.7 million, and higher information technology expenses of \$0.6 million.

### INTEREST EXPENSE

Interest expense was \$1.2 million for the three months ended March 31, 2018, and was comparable to \$1.1 million for the three months ended March 31, 2017. As of March 31, 2018, the interest rate on 50% of our outstanding debt continues to be fixed through interest rate swaps, while we maintain a variable interest rate on the rest of our outstanding debt. This Term Loan was subsequently paid off in April 2018. See Note 18 of this Report on Form 10-Q for more information.

### OTHER INCOME, NET

Other income was \$1.1 million for the three months ended March 31, 2018, which represented an increase of 353.8%, or \$0.8 million, from the three months ended March 31, 2017. The increase was primarily due to \$1.0 million gain on the sale of certain ESF assets in the second quarter of fiscal 2018 and higher interest income of \$0.6 million resulting from higher investment balances and higher average interest rates, partially offset by higher foreign exchange loss of \$0.4 million in the three months ended March 31, 2018 compared to the same period of fiscal 2017.

### PROVISION FOR INCOME TAXES

The Company's effective tax rate for the second quarter of fiscal 2018 was 19.6 percent, compared to 20.8 percent in the same quarter last year. The decrease is primarily driven by the decrease in our U.S. corporate income tax rate as a result of the Tax Act, and benefit from stock option exercises recorded in the income statement beginning October 2017, and partially offset by the absence of benefits of a tax holiday in South Korea, which expired as of October 2017. The Company continues to expect its effective tax rate for the remainder quarters to be within the range of 21 to 24 percent. Previously, before the impact of the Tax Act, the Company had estimated an effective tax rate of 24 to 27 percent for the full fiscal year. See Note 14 of the Notes to the Consolidated Financial Statements of this Report on Form 10-Q for more information on our income taxes.

### NET INCOME

Net income was \$29.7 million for the three months ended March 31, 2018, which represented an increase of 62.7%, or \$11.5 million, from the three months ended March 31, 2017. The significant increase was primarily due to higher revenue and higher gross profit margin, partially offset by higher operating expenses.

### SIX MONTHS ENDED MARCH 31, 2018, VERSUS SIX MONTHS ENDED MARCH 31, 2017

### REVENUE

Revenue was \$283.0 million for the six months ended March 31, 2018, which represented a 16.7%, or \$40.5 million, increase from the six months ended March 31, 2017. The increase in revenue was primarily driven by a \$27.3 million increase due to higher sales volume, a \$14.1 million increase due to product mix, and a \$2.3 million increase due to exchange rate fluctuations, partially offset by a \$3.2 million decrease due to price changes. Revenue from tungsten slurries, dielectrics slurries and polishing pads increased 15.1%, 16.0%, and 19.6%, respectively, from the comparable period of fiscal 2017.

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### COST OF GOODS SOLD

Total cost of goods sold was \$133.9 million for the six months ended March 31, 2018, which represented an increase of 10.7%, or \$13.0 million, from the six months ended March 31, 2017. The increase in cost of goods sold was primarily driven by a \$6.1 million increase due to higher sales volume, a \$5.3 million increase in fixed manufacturing costs, including higher incentive compensation expense, and a \$1.0 million increase due to foreign exchange fluctuations. Fixed manufacturing costs included \$2.5 million of NexPlanar amortization expense, compared to \$2.4 million in same period of fiscal 2017.

### GROSS PROFIT

Our gross profit as a percentage of revenue was 52.7% for the six months ended March 31, 2018, as compared to 50.1% for the six months ended March 31, 2017. The increase in gross profit as a percentage of revenue was primarily due to higher sales volume, a higher-valued product mix and lower variable production costs, partially offset by higher fixed manufacturing costs, including costs associated with incentive compensation expense.

### RESEARCH, DEVELOPMENT AND TECHNICAL

Total research, development and technical expenses were \$25.5 million for the six months ended March 31, 2018, which represented a decrease of 7.2%, or \$2.0 million, from the six months ended March 31, 2017. The decrease was primarily due to lower professional expenses of \$0.7 million, lower depreciation and amortization expense of \$0.6 million, and lower materials and supplies used in research and development of \$0.6 million.

### SELLING AND MARKETING

Selling and marketing expenses were \$12.6 million for the six months ended March 31, 2018, which represented a decrease of 14.8%, or \$2.2 million, from the six months ended March 31, 2017. The decrease was primarily due to lower staffing-related costs of \$1.1 million, lower severance expense of \$0.7 million, and lower information technology expenses of \$0.4 million.

### GENERAL AND ADMINISTRATIVE

General and administrative expenses were \$36.7 million for the six months ended March 31, 2018, which represented an increase of 35.0%, or \$9.5 million, from the six months ended March 31, 2017. The increase was primarily due to costs of \$2.8 million associated with the CFO transition, higher staffing-related costs of \$3.3 million, including STIP costs, higher long-term incentive compensation expenses of \$1.5 million, and higher information technology expenses of \$1.0 million.

### INTEREST EXPENSE

Interest expense was \$2.3 million for the six months ended March 31, 2018, and was consistent with the \$2.3 million for the six months ended March 31, 2017.



OTHER INCOME, NET

Other income was \$1.7 million for the six months ended March 31, 2018, which represented an increase of 41.0%, or \$0.5 million, from the six months ended March 31, 2017. The increase was primarily due to \$1.0 million gain on the sale of certain ESF assets in the second quarter of fiscal 2018, and higher interest income of \$1.2 million resulting from higher investment balances and higher average interest rates, partially offset by foreign exchange loss in the first six months ended March 31, 2018 compared to foreign exchange gain in the comparable period of fiscal 2017.

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### PROVISION FOR INCOME TAXES

Our effective income tax rate was 63.8% for the six months ended March 31, 2018 compared to 20.5% for the six months ended March 31, 2017. The increase in the effective tax rate during the first six months of fiscal 2018 was primarily due to the one-time unfavorable impact of the Tax Act that occurred in the first quarter of fiscal 2018 and the absence of benefits of a tax holiday in South Korea, which expired as of October 2017, partially offset by the benefit from stock option exercises beginning October 2017.

### NET INCOME

Net income was \$26.7 million for the six months ended March 31, 2018, which represented a decrease of 34.2%, or \$13.9 million, from the six months ended March 31, 2017. The decrease was primarily due to the one-time effect of the Tax Act of \$32.9 million that occurred in the first quarter of fiscal 2018, partially offset by higher revenue and a higher gross profit margin.

### LIQUIDITY AND CAPITAL RESOURCES

We generated \$67.1 million in cash flows from operating activities in the first six months of fiscal 2018, compared to \$57.9 million in cash from operating activities in the first six months of fiscal 2017. Our cash provided by operating activities in the first six months of fiscal 2018 reflected net income of \$26.7 million, \$58.4 million in non-cash items, including \$24.6 million related to the deemed repatriation transition tax of the Tax Act, and a \$18.0 million decrease in cash flow due to a net increase in working capital. The increase in cash flows from operating activities compared to the first six months of fiscal 2017 was primarily due to higher revenue and gross margin, and also reflected the non-cash impacts of the Tax Act, and changes in the timing and amount of accrued expense payments, including payments related to our STIP, and a higher accounts receivable balance at March 31, 2018, due to an increase in revenue. We are still analyzing certain aspects of the Tax Act, which could potentially affect the measurement of these balances or give rise to new deferred tax amounts. Our accruals for incentive compensation under our STIP are higher in fiscal 2018 than in fiscal 2017. In addition, the STIP payment in the first quarter of fiscal 2018 related to our performance in fiscal 2017 was \$14.1 million higher than the STIP payment related to our performance in fiscal 2016, which was paid in the first quarter of fiscal 2017.

In the first six months of fiscal 2018, cash flows used in investing activities were \$5.9 million, representing \$50.7 million in purchases of investments designated as available-for-sale securities under a managed investment arrangement that were offset by \$50.5 million in proceeds upon the subsequent sale of these investments, property, plant and equipment additions of \$8.8 million, and the sale of certain ESF assets of \$3.0 million. In the first six months of fiscal 2017, cash flows used in investing activities were \$11.6 million for purchases of property, plant and equipment. We continue to expect our total capital expenditures in fiscal 2018 to be within the range of \$18.0 million to \$22.0 million.

In the first six months of fiscal 2018, cash flows used in financing activities were \$8.6 million. We used \$10.2 million to pay dividends and dividend equivalents on our common stock, and \$6.6 million to repay long-term debt. We also used \$3.4 million to repurchase common stock pursuant to the terms of our OIP for shares withheld from award recipients to cover payroll taxes on the vesting of restricted stock and restricted stock units granted under the OIP, and used \$6.5 million to repurchase common stock under our share repurchase program. We received \$18.1 million from the issuance of common stock related to the exercise of stock options granted under our EIP and OIP, and for the sale of shares to employees under our ESPP. The tax benefit of \$6.0 million in the first six months of fiscal 2018 related to exercises of stock options under the EIP and OIP, and vesting of restricted stock and restricted stock units awarded under the OIP is now presented in the operating activities section of the Consolidated Statements of Cash Flows

pursuant to the adoption of ASU 2016-09. In the first six months of fiscal 2017, cash flows provided by financing activities were \$12.2 million. We received \$24.8 million from the issuance of common stock related to the exercise of stock options granted under our EIP and OIP, and for the sale of shares to employees under our ESPP, and we received \$5.2 million in tax benefits related to exercises of stock options and vesting of restricted stock and restricted stock units granted under the EIP and OIP. We used \$2.3 million to repurchase common stock under our share repurchase program and \$2.1 million to repurchase common stock pursuant to the terms of our OIP for shares withheld from award recipients to cover payroll taxes on the vesting of restricted stock and restricted stock units granted under these plans. We also paid \$8.9 million in dividends and dividend equivalents on our common stock, and \$4.4 million to repay long-term debt.

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In January 2016, our Board of Directors authorized an increase in the amount available under our share repurchase program from the previously remaining \$75.0 million to \$150.0 million. Under this program, we repurchased 65,978 shares for \$6.6 million during the first six months of fiscal 2018 and we repurchased 36,978 shares for \$2.3 million during the first six months of fiscal 2017. As of March 31, 2018, approximately \$115.4 million remained outstanding under our share repurchase program. Share repurchases are made from time to time, depending on market and other conditions. The timing, manner, price and amounts of repurchases are determined at the Company's discretion, and the share repurchase program may be suspended, terminated or modified at any time for any reason. The repurchase program does not obligate the Company to acquire any specific number of shares. To date, we have funded share purchases under our share repurchase program from our available cash balance, and anticipate we will continue to do so. Periodically, we also continue the "10b5-1" stock purchase plan agreements with independent brokers to repurchase shares of our common stock in accordance with guidelines pursuant to Rule 10b5-1 of the Securities Exchange Act of 1934, as amended. A plan under Rule 10b5-1 allows a company to repurchase its shares at times when it otherwise might be prevented from doing so under insider trading laws or because of self-imposed trading blackout periods. Repurchases are subject to SEC regulations as well as certain conditions specified in the plan.

In January 2016, we announced that our Board of Directors authorized the initiation of a regular dividend program under which the Company intends to pay quarterly cash dividends on our common stock. Pursuant to this announcement, our Board of Directors declared quarterly cash dividends of \$0.18 per share, during the second, third, and fourth quarters of fiscal 2016, and during the first quarter of fiscal 2017. Starting in the second quarter of fiscal 2017, our Board of Directors declared quarterly cash dividends of \$0.20 per share in the second, third and fourth quarters of fiscal 2017. Starting in the second quarter of fiscal 2018, our Board of Directors declared quarterly cash dividends of \$0.40 per share, the latest of which we paid in April 2018. The declaration and payment of future dividends is subject to the discretion and determination of the Company's Board of Directors and management, based on a variety of factors, and the program may be suspended, terminated or modified at any time for any reason.

We entered into a Credit Agreement in February 2012 and amended this Credit Agreement in June 2014. The amended Credit Agreement provided us with a \$175.0 million Term Loan, which we paid off in April 2018, and a \$100.0 million Revolving Credit Facility, with sub-limits for multicurrency borrowings, letters of credit, swing-line loans, as well as a \$100.0 million uncommitted accordion feature that allows us to request the existing lenders or, if necessary, third-party financial institutions, to provide additional capacity in the Revolving Credit Facility. The Term Loan and Revolving Credit Facility are referred to as the "Credit Facilities", and have a maturity date of June 27, 2019. As of March 31, 2018, the Term Loan had periodic scheduled principal repayments; however, we prepaid the loan without penalty in April 2018. The Term Loan had \$137.8 million outstanding as of March 31, 2018, while the Revolving Credit Facility remained undrawn. The Credit Agreement contains covenants that restrict the ability of the Company and its subsidiaries to take certain actions, including, among other things and subject to certain significant exceptions and according to certain terms: creating liens, incurring indebtedness, making investments, engaging in mergers, selling property, paying dividends or amending organizational documents. The Credit Agreement requires us to comply with certain financial ratio maintenance covenants. These include a maximum consolidated leverage ratio of 2.75 to 1.00 and a minimum consolidated fixed charge coverage ratio of 1.25 to 1.00 through the expiration of the Credit Agreement. As of March 31, 2018, our consolidated leverage ratio was 0.78 to 1.00 and our consolidated fixed charge coverage ratio was 3.40 to 1.00. The Credit Agreement also contains customary affirmative covenants and events of default. We believe we are in compliance with these covenants. The interest rate swap agreements were subsequently terminated in April 2018 in conjunction with the payoff of the Term Loan. See Note 8 and 18 of the Notes to the Consolidated Financial Statements of this Report on Form 10-Q for additional information regarding the Credit Agreement and payoff of the Term Loan.

As of March 31, 2018, we had \$461.4 million of cash and cash equivalents, \$296.3 million of which was held in foreign subsidiaries. In April 2018, a significant portion of the non-U.S. cash was repatriated to the United States. See Part II, Item 1A entitled "Risk Factors" in this Report on Form 10-Q for additional discussion of our foreign

operations.

We believe that our current balance of cash, cash generated by our operations, cash repatriation to the United States enabled by the Tax Act, and available borrowing capacity under our Credit Facilities will be sufficient to fund our operations, expected capital expenditures, merger and acquisition activities, dividend payments, and share repurchases for at least the next twelve months. However, in pursuit of corporate development or other initiatives, we may need to raise additional funds in the future through equity or debt financing, or other arrangements. Depending on future conditions in the capital and credit markets, we could encounter difficulty securing additional financing in the type or amount necessary to pursue these objectives.

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OFF-BALANCE SHEET ARRANGEMENTS

At March 31, 2018 and September 30, 2017, we did not have any unconsolidated entities or financial partnerships, such as entities often referred to as structured finance or special purpose entities, which might have been established for the purpose of facilitating off-balance sheet arrangements.

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## TABULAR DISCLOSURE OF CONTRACTUAL OBLIGATIONS

The following summarizes our contractual obligations at March 31, 2018, and the effect such obligations are expected to have on our liquidity and cash flows in future periods.

CONTRACTUAL OBLIGATIONS	Total	Less	1-3	3-5	After
		Than			5
(In millions)		1			
		Year	Years	Years	Years
Long-term debt	\$137.8	\$13.1	\$124.7	\$ -	\$-
Interest expense and fees on long-term debt	4.3	3.7	0.6	-	-
Purchase obligations	38.6	32.4	4.7	1.5	-
Operating leases	21.3	3.6	5.1	3.8	8.8
Severance agreements	1.5	1.0	0.5	-	-
Other long-term liabilities *	35.5	0.1	4.3	3.9	27.2
Total contractual obligations	\$239.0	\$53.9	\$139.9	\$ 9.2	\$36.0

\* Other long-term liabilities include \$22.5 million for deemed dividend taxes as required by the Tax Act. We have excluded \$0.1 million in deferred tax liabilities from the other long-term liability amounts presented, as the deferred taxes that will be settled in cash are not known and the timing of any such payments is uncertain. We have also excluded \$0.4 million in deferred rent as the rent payments are included in the table above under the caption "Operating leases."

We have been operating under a multi-year supply agreement with Cabot Corporation, which is not a related party and has not been one since 2002, for the purchase of fumed silica, the current term of which runs through December 31, 2019. This agreement provides us the option to purchase fumed silica with no minimum purchase requirements as of 2017, for which we have paid a fee of \$1.5 million in each of calendar years 2017 and 2018, and for which we will pay the same in 2019. The purchase obligation in the table above reflect management's expectation that we will meet our forecasted quantities in calendar 2018 and beyond. Purchase obligations include an aggregate amount of \$1.5 million of contractual commitments related to our Cabot Corporation supply agreement for fumed silica. The \$1.5 million payment for calendar 2019 is included in accrued liabilities on our Consolidated Balance Sheets as of March 31, 2018.

Interest payments on long-term debt reflect interest rates in effect at March 31, 2018. The interest payments reflect variable LIBOR-based rates currently in effect on \$68.9 million of our outstanding debt, and fixed interest rates on \$68.9 million of outstanding debt for which we have implemented interest rate swaps. Commitment fees are based on our estimated consolidated leverage ratio in future periods. On April 6, 2018, the Company paid off the remaining outstanding Term Loan balance. See Note 8 and Note 18 of the Notes to the Consolidated Financial Statements of this Report on Form 10-Q for additional information regarding our long-term debt.

Refer to Item 7 "Management's Discussion and Analysis of Financial Condition and Results of Operations" of Part II of our Annual Report on Form 10-K for the fiscal year ended September 30, 2017, for additional information regarding our contractual obligations.

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ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

EFFECT OF FOREIGN CURRENCY EXCHANGE RATES AND EXCHANGE RATE RISK MANAGEMENT

We conduct business operations outside of the United States through our foreign operations. Some of our foreign operations maintain their accounting records in their local currencies. Consequently, period to period comparability of results of operations is affected by fluctuations in exchange rates. The primary currencies to which we have exposure are the Korean won, Japanese yen, and the New Taiwan dollar. Approximately 25% of our revenue is transacted in currencies other than the U.S. dollar. However, we also incur expenses in foreign countries that are transacted in currencies other than the U.S. dollar, which mitigates the exposure on the Consolidated Statements of Income. We periodically enter into forward contracts in an effort to manage foreign currency exchange exposure on our Consolidated Balance Sheets. However, we are unlikely to be able to hedge these exposures completely. We do not enter into forward contracts or other derivative instruments for speculative or trading purposes.

Fluctuations of the won, yen, and New Taiwan dollar have not had a material impact on our Consolidated Statements of Income for the six months ended March 31, 2018 and 2017; however, fluctuations of the won and yen during such time have had a significant impact on other comprehensive income on our Consolidated Balance Sheets. During the six months ended March 31, 2018, we recorded \$11.1 million in foreign currency translation gains, net of tax, that are included in other comprehensive income. During six months ended March 31, 2017, we recorded \$3.7 million in foreign currency translation losses, net of tax, that are included in other comprehensive income. These gains and losses primarily relate to changes in the U.S. dollar value of assets and liabilities denominated in local currencies when these asset and liability amounts are translated at month-end exchange rates.

In the fourth quarter of fiscal 2017, we entered into forward foreign exchange contracts in an effort to protect our net investment in a foreign operation against potential adverse changes resulting from foreign currency fluctuation. This transaction is designated as a net investment hedge and is accounted for under hedge accounting. In the six months ended March 31, 2018, we recorded \$5.8 million in gross currency translation losses related to this hedge, which are included in other comprehensive income noted above.

MARKET RISK AND SENSITIVITY ANALYSIS RELATED TO FOREIGN EXCHANGE RATE RISK

We have performed a sensitivity analysis assuming a hypothetical 10% additional adverse movement in foreign exchange rates. As of March 31, 2018, the analysis demonstrated that such market movements would not have a material adverse effect on our consolidated financial position, results of operations or cash flows over a one-year period. Actual gains and losses in the future may differ materially from this analysis based on changes in the timing and amount of foreign currency rate movements and our actual exposures.

INTEREST RATE RISK

At March 31, 2018, we had \$137.8 million in debt outstanding on our Term Loan. In fiscal 2015, we entered into interest rate swap agreements to hedge the variability in LIBOR-based interest rate payments on half of our outstanding debt. The notional amount of the swaps decreases each quarter by an amount in proportion to our scheduled quarterly principal repayment to maintain a fixed rate of interest on half of our outstanding debt. As of March 31, 2018 the fair value of this cash flow hedge was \$0.5 million. At March 31, 2018, we had \$68.9 million of outstanding debt at a variable rate of interest. Assuming a hypothetical 100 basis point increase in our current variable interest rate, our interest expense would increase by approximately \$0.2 million per quarter. However, in April 2018, we paid off the Term Loan and will no longer incur related interest expense.



MARKET RISK RELATED TO INVESTMENTS IN AUCTION RATE SECURITIES

At March 31, 2018, we owned two auction rate securities (ARS) with a total estimated fair value \$5.0 million and par value of \$5.3 million, which were classified as other long-term assets on our Consolidated Balance Sheets. Beginning in 2008, general uncertainties in the global credit markets significantly reduced liquidity in the ARS market, and this illiquidity continues. For more information on our ARS, see Note 6 of the Notes to the Consolidated Financial Statements of this Report on Form 10-Q.

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ITEM 4. CONTROLS AND PROCEDURES

EVALUATION OF DISCLOSURE CONTROLS AND PROCEDURES

Our management, with the participation of our Chief Executive Officer (CEO) and Chief Financial Officer (CFO), has conducted an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934, as amended) as of March 31, 2018. Based on that evaluation, our CEO and CFO have concluded that our disclosure controls and procedures were effective to ensure that information required to be disclosed in our Exchange Act reports is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms, and to ensure that such information is accumulated and communicated to management, including the CEO and CFO, as appropriate to allow timely decisions regarding required disclosure.

While we believe the present design of our disclosure controls and procedures is effective enough to make known to our senior management in a timely fashion all material information concerning our business, we intend to continue to improve the design and effectiveness of our disclosure controls and procedures to the extent we believe necessary in the future to provide our senior management with timely access to such material information, and to correct deficiencies that we may discover in the future, as appropriate.

CHANGES IN INTERNAL CONTROL OVER FINANCIAL REPORTING

There were no changes in our internal control over financial reporting that occurred during our most recent fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

INHERENT LIMITATIONS ON EFFECTIVENESS OF CONTROLS

Because of inherent limitations, our disclosure controls or our internal control over financial reporting may not prevent all errors and all fraud. A control system, no matter how well conceived and operated, can provide only reasonable, not absolute, assurance that the objectives of the control system are met. Further, the design of a control system must take into account the benefits of controls relative to their costs. Because of the inherent limitations in all control systems, no evaluation of controls can provide absolute assurance that all control issues and instances of fraud, if any, within the Company have been detected. These inherent limitations include possible faulty judgment in decision-making and breakdowns due to a simple error or mistake. Additionally, controls can be circumvented by the individual acts of some persons, by collusion of two or more people or by management override of the controls. The design of any system of controls also is based in part upon certain assumptions about the likelihood of future events, and there can be no assurance that any design will succeed in achieving its stated goals under all potential future conditions. Over time, controls may become inadequate because of changes in conditions, or the degree of compliance with policies or procedures may deteriorate. Because of the inherent limitations in a cost-effective control system, misstatements due to error or fraud may occur and not be detected.

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PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

While we are not involved in any legal proceedings that we believe will have a material impact on our consolidated financial position, results of operations or cash flows, we periodically become a party to legal proceedings in the ordinary course of business.

ITEM 1A. RISK FACTORS

We do not believe there have been any material changes in our risk factors since the filing of our Annual Report on Form 10-K for the fiscal year ended September 30, 2017. However, we may update our risk factors, including adding or deleting them, in our SEC filings from time to time for clarification purposes or to include additional information, at management's discretion, even when there have been no material changes.

RISKS RELATING TO OUR BUSINESS

DEMAND FOR OUR PRODUCTS FLUCTUATES AND OUR BUSINESS MAY BE ADVERSELY AFFECTED BY WORLDWIDE ECONOMIC AND INDUSTRY CONDITIONS

Our business is affected by economic and industry conditions and our revenue is primarily dependent upon semiconductor demand. Historically, semiconductor demand has fluctuated due to economic and industry cycles and seasonal shifts in demand, which can affect our business, causing demand for our products to fluctuate. For example, the strengthening of demand conditions in the semiconductor industry we experienced during the second half of fiscal 2016 through fiscal 2017 continued through our second quarter of fiscal 2018, following relatively soft demand conditions during the second half of fiscal 2015 and the first half of fiscal 2016. Furthermore, competitive dynamics within the semiconductor industry may impact our business. Our limited visibility to future customer orders makes it difficult for us to predict industry trends. If the global economy or the semiconductor industry weakens, whether in general or as a result of specific factors, such as macroeconomic factors, or unpredictable events such as natural disasters or geopolitical events, we could experience material adverse impacts on our results of operations and financial condition.

Adverse global economic and industry conditions could have other negative effects on our Company. For instance, we could experience negative impacts on cash flows due to the inability of our customers to pay their obligations to us, or our production process could be harmed if our suppliers cannot fulfill their obligations to us. We also might have to reduce the carrying value of goodwill and other intangible assets, which could harm our financial position and results of operations.

Some additional factors that affect demand for our products include: demand trends for different types of electronic devices, such as logic versus memory IC devices, or digital versus analog IC devices; the various technology nodes at which those products are manufactured; customers' efficiencies in the use of CMP consumables; customers' device architectures and specific manufacturing processes; the short order to delivery time for our products; quarter-to-quarter changes in customer order patterns; market share and competitive gains and losses; and pricing changes by us and our competitors.

WE HAVE A NARROW PRODUCT RANGE AND OUR PRODUCTS MAY BECOME OBSOLETE, OR TECHNOLOGICAL CHANGES MAY REDUCE OR LIMIT INCREASES IN THE CONSUMPTION OF CMP

## SLURRIES AND PADS

Our business is substantially dependent on CMP slurries and pads, which account for the majority of our revenue. Our business would suffer if these products became obsolete or if consumption of these products decreased. Our success depends on our ability to keep pace with technological changes and advances in the semiconductor industry, and to adapt, improve and customize our products for advanced IC applications in response to evolving customer needs and industry trends. Since its inception, the semiconductor industry has experienced technological changes and advances in the design, manufacture, performance and application of IC devices. Our customers continually pursue lower cost of ownership and higher quality and performance of materials consumed in their manufacturing processes, including CMP slurries and pads, as a means to reduce costs, increase the yield in their manufacturing facilities, and achieve desired performance of the IC devices they produce. We expect these technological changes, and this drive toward lower costs, higher quality and performance and higher yields, will continue in the future. Potential technology developments in the semiconductor industry, as well as our customers' efforts to reduce consumption of CMP consumables, including through use of smaller quantities, could render our products less important to the IC device manufacturing process.

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**A SIGNIFICANT AMOUNT OF OUR BUSINESS COMES FROM A LIMITED NUMBER OF LARGE CUSTOMERS AND OUR REVENUE AND PROFITS COULD DECREASE SIGNIFICANTLY IF WE LOST ONE OR MORE OF THESE CUSTOMERS OR BUSINESS FROM THEM**

Our CMP consumables customer base is concentrated among a limited number of large customers. Over the past several years, the semiconductor industry has been consolidating as the larger semiconductor manufacturers have generally grown faster than the smaller ones, through business gains, mergers and acquisitions, and strategic alliances. While the pace of consolidation has recently slowed, we believe that consolidation is likely to continue in the future. We have not experienced any notable impact on our sales due to consolidation in the industry. One or more of these principal customers could stop buying CMP consumables from us or could substantially reduce the quantity of CMP consumables purchased from us. Our principal customers also hold considerable purchasing power, which can impact the pricing and terms of sale of our products. Any deferral or significant reduction in the quantity or price of CMP consumables sold to these principal customers could seriously harm our business, financial condition and results of operations.

During the six months ended March 31, 2018 and 2017, our five largest customers accounted for approximately 57% of our revenue for each of the periods. During the six months ended March 31, 2018, Samsung and Taiwan Semiconductor Manufacturing Company (TSMC), were our largest customers, accounting for approximately 18% and 13%, respectively, of our revenue. During the six months ended March 31, 2017, Samsung, TSMC, and Micron Technology, Inc. were our largest customers, accounting for approximately 16%, 14%, and 11%, respectively, of our revenue.

**OUR BUSINESS COULD BE SERIOUSLY HARMED IF OUR COMPETITORS DEVELOP COMPETITIVE CMP CONSUMABLES PRODUCTS, OFFER BETTER PRICING, SERVICE OR OTHER TERMS, OR OBTAIN OR ASSERT CERTAIN INTELLECTUAL PROPERTY RIGHTS**

Competition from other CMP consumables manufacturers or any new entrants could seriously harm our business and results of operations, and this competition could continue to increase. Competition has and will likely continue to impact the prices we are able to charge for our CMP consumables products, as well as our overall business. In addition, our competitors could have, obtain or assert intellectual property rights that could affect or restrict our ability to market our existing products and/or to innovate and develop new products, thus increasing our costs of doing business, could attempt to introduce products similar to ours following the expiration of our patents, as referenced with respect to certain intellectual property important to some of our legacy business, or could attempt to introduce products that do not fall within the scope of our intellectual property rights.

**ANY PROBLEM OR DISRUPTION IN OUR SUPPLY CHAIN, INCLUDING SUPPLY OF OUR MOST IMPORTANT RAW MATERIALS, OR IN OUR ABILITY TO MANUFACTURE AND DELIVER OUR PRODUCTS TO OUR CUSTOMERS, COULD ADVERSELY AFFECT OUR RESULTS OF OPERATIONS**

We depend on our supply chain to enable us to meet the demands of our customers. Our supply chain includes the raw materials we use to manufacture our products, our production operations and the means by which we deliver our products to our customers. Our business could be adversely affected by any problem or interruption in the supply of the key raw materials we use in our CMP slurries and pads, including raw materials that do not meet the stringent quality and consistency requirements of our customers, any problem or interruption that may occur during production or delivery of our products, such as weather-related problems, natural disasters, or geopolitical, trade, or labor-related issues, or any difficulty in producing sufficient quantities of our products to meet growing demand from our customers. Our supply chain may also be negatively impacted by unanticipated price increases due to supply

restrictions beyond the control of our Company or our raw materials suppliers.

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We believe it would be difficult to promptly secure alternative sources of key raw materials in the event one of our suppliers becomes unable to supply us with sufficient quantities of raw materials that meet the quality and technical specifications required by us and our customers. In addition, new contract terms, contractual amendments to existing agreements with, or non-performance by, our suppliers, including any significant financial distress our suppliers may suffer, could adversely affect us. Also, if we change the supplier or type of key raw materials we use to make our CMP slurries or pads, or are required to purchase them from a different manufacturer or manufacturing facility or otherwise modify our products, in certain circumstances our customers might have to requalify our CMP slurries and pads for their manufacturing processes and products. The requalification process could take a significant amount of time and expense to complete and could occupy technical resources of our customers that might otherwise be used to evaluate our new products, thus delaying potential revenue growth, or motivate our customers to consider purchasing products from our competitors, possibly interrupting or reducing our sales of CMP consumables to these customers.

## **WE ARE SUBJECT TO RISKS ASSOCIATED WITH OUR FOREIGN OPERATIONS**

We currently have operations and a large customer base outside of the United States. Approximately 87% of our revenue was generated by sales to customers outside of the United States for both the six months ended March 31, 2018 and full fiscal year ended September 30, 2017. We may encounter risks in doing business in certain foreign countries, including, but not limited to, adverse changes in economic and political conditions, both in foreign locations and in the United States with respect to non-U.S. operations of U.S. businesses like ours, geopolitical and/or trade tensions, fluctuation in exchange rates, changes in international trade requirements and tariffs that affect our business and that of our customers and suppliers, compliance with a variety of foreign laws and regulations and related audits and investigations, as well as difficulty in enforcing business and customer contracts and agreements, including protection of intellectual property rights. We also may encounter risks that we may not be able to repatriate additional earnings from our foreign operations, derive anticipated tax benefits of our foreign operations or recover the investments made in our foreign operations, whether due to regulatory or policy changes in the U.S. or in the countries outside of the U.S. in which we do business, or other factors.

In particular, China is a fast-developing market for the semiconductor industry, and is an area of potential continued growth for us. As business volume between China and the rest of the world continues to grow, there is risk that geopolitical, regulatory, trade and political matters could adversely affect business for companies like ours based on the complex relationships among China, the United States, and other countries in the Asia Pacific region, which could have a material adverse impact on our business. In addition, there are risks that the Chinese government may, among other things, require the use of local suppliers, compel companies that do business in China to partner with local companies to conduct business, and, provide incentives to government-backed local customers to buy from local suppliers rather than companies like ours, all of which could adversely impact our business, including our results of operations.

## **BECAUSE WE RELY HEAVILY ON OUR INTELLECTUAL PROPERTY, OUR FAILURE TO ADEQUATELY OBTAIN OR PROTECT IT COULD SERIOUSLY HARM OUR BUSINESS**

Protection of intellectual property is particularly important in our industry because we develop complex technical formulas and processes for CMP products that are proprietary in nature and differentiate our products from those of our competitors. Our intellectual property is important to our success and ability to compete. We attempt to protect our intellectual property rights through a combination of patent, trademark, copyright and trade secret laws, as well as employee and third-party nondisclosure and assignment agreements. In addition, we protect our product differentiation through various other means, such as proprietary supply arrangements for certain raw materials, and use of certain manufacturing technologies. Due to our international operations, we pursue protection in different

jurisdictions, which may provide varying degrees of protection, and we cannot provide assurance that we can obtain adequate protection in each such jurisdiction. Our failure to obtain or maintain adequate protection of our intellectual property rights for any reason, including through the patent prosecution process or in the event of litigation related to such intellectual property, could seriously harm our business. In addition, certain types of intellectual property, such as patents, expire after a certain period of time, and products protected by our patents then lose such protection, so we refresh our intellectual property portfolio on an ongoing basis through continued innovation, and failure to do so could adversely affect our business. Also, the costs of obtaining or protecting our intellectual property could negatively affect our operating results.



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**WE MAY PURSUE ACQUISITIONS OF, INVESTMENTS IN, AND MERGERS OR STRATEGIC ALLIANCES WITH OTHER ENTITIES, WHICH COULD DISRUPT OUR OPERATIONS AND HARM OUR OPERATING RESULTS IF THEY ARE UNSUCCESSFUL OR WE MAY ENCOUNTER UNANTICIPATED ISSUES IN IMPLEMENTING THEM**

We expect to continue to make investments in technologies, assets and companies, either through acquisitions, mergers, investments or alliances, in order to supplement our internal growth and development efforts. Acquisitions, mergers, and investments, including our acquisition of NexPlanar, which we completed in October 2015, involve numerous risks, including the following: difficulties and risks in integrating the operations, technologies, products and personnel of acquired companies; difficulties and risks from unanticipated issues arising subsequent to a transaction related to the other entity; diversion of management's attention from normal daily operations of the business; increased risk associated with foreign operations; potential difficulties and risks in entering markets in which we have limited or no direct prior experience and where competitors have stronger positions; potential difficulties in operating new businesses with different business models; potential difficulties with regulatory or contract compliance in areas in which we have limited experience; initial dependence on unfamiliar supply chains or relatively small supply partners; insufficient revenues to offset increased expenses associated with acquisitions; potential loss of key employees of the acquired companies; or inability to effectively cooperate and collaborate with our alliance partners.

Further, we may never realize the perceived or anticipated benefits of a business combination or merger with, or asset or other acquisition of, or investments in, other entities. Transactions such as these could have negative effects on our results of operations, in areas such as contingent liabilities, gross profit margins, amortization charges related to intangible assets and other effects of accounting for the purchases of other business entities. Investments in and acquisitions of technology-related companies or assets are inherently risky because these businesses or assets may never develop, and we may incur losses related to these investments. For example, in fiscal 2016, we recorded \$1.0 million of impairment expense related to certain in-process technology, related to the NexPlanar acquisition. In addition, we may be required to impair the carrying value of these acquisitions or investments to reflect other than temporary declines in their value, which could harm our business and results of operations.

**BECAUSE WE HAVE LIMITED EXPERIENCE IN BUSINESS AREAS OUTSIDE OF CMP CONSUMABLES, EXPANSION OF OUR BUSINESS INTO OTHER PRODUCTS AND APPLICATIONS MAY NOT BE SUCCESSFUL**

An element of our strategy has been to leverage our current customer relationships, technological expertise and other capabilities and competencies to expand our business beyond CMP consumables into other areas, such as other electronic materials. In addition, in our Engineered Surface Finishes business, we have been pursuing other surface modification applications. Expanding our business into new product areas could involve technologies, production processes and business models in which we have limited experience, and we may not be able to develop and produce products or provide services that satisfy customers' needs, or we may be unable to keep pace with technological or other developments. Or, we may decide that we no longer wish to pursue these new business initiatives. Also, our competitors may have or obtain intellectual property rights that could restrict our ability to market our existing products and/or to innovate and develop new products.

**CERTAIN CRITICAL INFORMATION SYSTEMS COULD BE SUSCEPTIBLE TO CYBERSECURITY AND OTHER THREATS**

We maintain and rely upon certain critical information systems for the effective operation of our business. These information systems include, but are not limited to, telecommunications, the Internet, our corporate intranet, various

computer hardware and software applications, network communications, and email. These information systems may be owned and maintained by us, our outsourced providers, or third parties such as vendors, contractors, and Cloud providers. All of these information systems are subject to disruption, breach or failure from various sources including, but not limited to, attacks, degradation, and failures resulting from potential sources, including viruses, malware, denial of service, destructive or inadequate code, power failures, and physical damage. Confidential and/or sensitive information stored on these information systems, or transmitted to or from Cloud storage, could be intentionally or unintentionally compromised, lost, and/or stolen. While we have implemented security procedures and virus protection software, intrusion prevention systems, access control, and emergency recovery processes to mitigate risks like these with respect to information systems that are under our control, they are not fail-safe and may be subject to breaches. Further, we cannot assure that third parties upon whom we rely for various IT services will maintain sufficient vigilance and controls over their systems. Our inability to use or access these information systems at critical points in time, or unauthorized releases of personal or confidential information, could unfavorably impact the timely and efficient operation of our business, including our results of operations, and our reputation, as well as our relationships with our employees or other individuals whose information may have been affected by such cybersecurity incidents.

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**OUR INABILITY TO ATTRACT AND RETAIN KEY PERSONNEL COULD CAUSE OUR BUSINESS TO SUFFER**

We utilize and rely upon a global workforce. If we fail to attract and retain the necessary managerial, technical and customer support personnel, our business and our ability to maintain existing and obtain new customers, develop new products and provide acceptable levels of customer service could suffer. We compete worldwide with other industry participants for qualified personnel, particularly those with significant experience in the semiconductor industry. The loss of services of key employees, or our inability to obtain or maintain visas or other travel or residency documents on their behalf with respect to our business needs, could harm our business and results of operations. Periodically, we engage in succession planning for our key employees, and our Board of Directors reviews succession planning for our executive officers, including our chief executive officer, on an annual basis.

**RISKS RELATING TO THE MARKET FOR OUR COMMON STOCK**

**THE MARKET PRICE MAY FLUCTUATE SIGNIFICANTLY AND RAPIDLY**

The market price of our common stock has fluctuated and could continue to fluctuate significantly as a result of factors such as: economic, geopolitical, political and stock market conditions generally and specifically as they may impact participants in the semiconductor and related industries; changes in financial estimates and recommendations by securities analysts who follow our stock; earnings and other announcements, and changes in market evaluations, by securities analysts, investors, market participants or others, of or related to, us or participants in the semiconductor and related industries; changes in business, trade or regulatory conditions affecting us or participants in the semiconductor and related industries; announcements or implementation by us, our competitors, or our customers of technological innovations, new products or different business strategies; changes in our capital deployment strategy, or entering into a business combination; and trading volume of our common stock.

**ANTI-TAKEOVER PROVISIONS UNDER OUR CERTIFICATE OF INCORPORATION AND BYLAWS MAY DISCOURAGE THIRD PARTIES FROM MAKING AN UNSOLICITED BID FOR OUR COMPANY**

Our certificate of incorporation and bylaws, and various provisions of the Delaware General Corporation Law may make it more difficult or expensive to effect a change in control of our Company. For instance, our amended and restated certificate of incorporation provides for the division of our Board of Directors into three classes as nearly equal in size as possible with staggered three-year terms.

We have adopted change in control arrangements covering our executive officers and other key employees. These arrangements provide for a cash severance payment, continued medical benefits and other ancillary payments and benefits upon termination of service of a covered employee's employment following a change in control, which may make it more expensive to acquire our Company.

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## ITEM 2. UNREGISTERED SALES OF EQUITY SECURITIES AND USE OF PROCEEDS

## ISSUER PURCHASES OF EQUITY SECURITIES

Period	Total Number of Shares Purchased	Average Price Paid Per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Approximate Dollar Value of Shares that May Yet Be Purchased Under the Plans or Programs (in thousands)
Jan. 1 through Jan. 31, 2018	20,960	\$99.18	17,850	\$ 118,623
Feb. 1 through Feb. 28, 2018	16,150	\$99.77	16,150	\$ 117,011
Mar. 1 through Mar. 31, 2018	14,728	\$109.39	14,728	\$ 115,400
Total	51,838	\$102.26	48,728	\$ 115,400

In January 2016, our Board of Directors authorized an increase in the amount available under our share repurchase program to \$150.0 million. Under this program, we repurchased 48,728 shares for \$5.0 million during the second quarter of fiscal 2018. As of March 31, 2018, \$115.4 million remained outstanding under our share repurchase program. The manner in which the Company repurchases its shares is discussed in Part I, Item 2, Management's Discussion and Analysis of Financial Condition and Results of Operations, under the heading "Liquidity and Capital Resources", of this Report on Form 10-Q. To date, we have funded share purchases under our share repurchase program from our available cash balance, and anticipate we will continue to do so.

## ITEM 3. DEFAULTS UPON SENIOR SECURITIES

Not applicable.

## ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

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ITEM 6. EXHIBITS

The exhibit numbers in the following list correspond to the number assigned to such exhibits in the Exhibit Table of Item 601 of Regulation S-K:

Exhibit

Number Description

31.1 Certification of Chief Executive Officer pursuant to Rule 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

31.2 Certification of Chief Financial Officer pursuant to Rule 13a-14(a) and 15d-14(a) of the Securities Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

32.1 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

101.CAL XBRL Taxonomy Extension Calculation Linkbase

101.DEF XBRL Taxonomy Extension Definition Linkbase

101.LAB XBRL Taxonomy Extension Label Linkbase

101.PRE XBRL Taxonomy Extension Presentation Linkbase

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SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned thereunto duly authorized.

CABOT MICROELECTRONICS CORPORATION  
[Registrant]

Date: May 7, 2018 By: /s/ SCOTT D. BEAMER  
Scott D. Beamer  
Vice President and Chief Financial Officer  
[Principal Financial Officer]

Date: May 7, 2018 By: /s/ THOMAS S. ROMAN  
Thomas S. Roman  
Corporate Controller  
[Principal Accounting Officer]