

DARCY RANDY G  
Form 4  
June 28, 2006

**FORM 4**

UNITED STATES SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

OMB APPROVAL

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**STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES**

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934, Section 17(a) of the Public Utility Holding Company Act of 1935 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person \*  
DARCY RANDY G

(Last) (First) (Middle)

GENERAL MILLS,  
INC., NUMBER ONE GENERAL  
MILLS BLVD.

(Street)

MINNEAPOLIS, MN 55426

(City) (State) (Zip)

2. Issuer Name and Ticker or Trading Symbol  
GENERAL MILLS INC [GIS]

3. Date of Earliest Transaction  
(Month/Day/Year)  
06/26/2006

4. If Amendment, Date Original Filed(Month/Day/Year)

5. Relationship of Reporting Person(s) to Issuer

(Check all applicable)

\_\_\_ Director \_\_\_ 10% Owner  
 Officer (give title below) \_\_\_ Other (specify below)  
EXECUTIVE VICE PRESIDENT

6. Individual or Joint/Group Filing(Check Applicable Line)  
 Form filed by One Reporting Person  
\_\_\_ Form filed by More than One Reporting Person

**Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned**

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)	4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)	5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount or Price		
COMMON STOCK	06/26/2006		A		11,573 (2)	A	\$ 0 0 D
COMMON STOCK	06/26/2006		A		68	A	\$ 0 112,520 D
COMMON STOCK							6,129 I (See Footnote (1))

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

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required to respond unless the form displays a currently valid OMB control number.

**Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned**  
(e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)	5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)	6. Date Exercisable and Expiration Date (Month/Day/Year)	7. Title and Amount of Underlying Securities (Instr. 3 and 4)	Amount or Number of Shares
OPTION TO BUY	\$ 51.26	06/26/2006		A	93,750	06/26/2010 07/26/2016	COMMON STOCK	93,750

## Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
DARCY RANDY G GENERAL MILLS, INC. NUMBER ONE GENERAL MILLS BLVD. MINNEAPOLIS, MN 55426			EXECUTIVE VICE PRESIDENT	

## Signatures

Christopher A. Rauschl by Power of Attorney on behalf of RANDY DARCY

06/27/2006

\_\_Signature of Reporting Person

Date

## Explanation of Responses:

\* If the form is filed by more than one reporting person, see Instruction 4(b)(v).

\*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations. See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

(1) Held in Trust by the Trustee of the General Mills Savings Plan.

(2) Award of restricted stock units that vest on June 26, 2010.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

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Corporate notes and bonds  
2,433,622

4,654

(1,840  
)

2,436,436

10,051

2,426,385

—

—

Mortgage backed securities — residential  
102,760

87

(489  
)

102,358

—

102,358

—

—

Mortgage backed securities — commercial  
65,828

9

(98  
)

65,739

—

65,739

—

—

Level 2 Total  
2,896,999

5,277

(2,721  
)

2,899,555

10,051

2,889,504

—

—

Total  
\$  
6,349,485

\$  
8,968

\$

Explanation of Responses:

(4,832  
)

\$  
6,353,621

\$  
2,377,534

\$  
3,663,628

\$  
256,205

\$  
56,254

The Company accounts for its investment portfolio at fair value. Realized gains (losses) for investment sales are specifically identified. Management assesses the fair value of investments in debt securities that are not actively traded through

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consideration of interest rates and their impact on the present value of the cash flows to be received from the investments. The Company also considers whether changes in the credit ratings of the issuer could impact the assessment of fair value. The Company did not recognize any losses on investments due to other-than-temporary impairments during the three months ended September 24, 2017 or September 25, 2016. Additionally, gross realized gains/(losses) from sales of investments were approximately \$0.8 million and \$(1.0) million, respectively, in the three months ended September 24, 2017, and \$2.6 million and \$(0.2) million, respectively, in the three months ended September 25, 2016.

The following is an analysis of the Company's cash, cash equivalents, investments, and restricted cash and investments in unrealized loss positions:

	September 24, 2017		Total
	Unrealized Losses Less than 12 Months	Unrealized Losses 12 Months or Greater	
	Gross Fair Value	Gross Fair Value	Gross Fair Value
	Unrealized Loss	Unrealized Loss	Unrealized Loss
	(in thousands)		
U.S. Treasury and agencies	\$660,429	\$ (2,671 )	\$660,429
Municipal notes and bonds	18,653	(21 )	18,653
Mutual funds	3,122	(70 )	3,122
Government-sponsored enterprises	55,297	(322 )	55,297
Foreign government bonds	33,729	(128 )	33,729
Corporate notes and bonds	1,282,655	(2,376 )	1,282,655
Mortgage backed securities — residential	30,210	(93 )	32,216
Mortgage backed securities — commercial	18,303	(261 )	100,937
	\$2,182,398	\$ (5,942 )	\$2,187,038
		\$ 4,640	\$ (37 )
			\$ (5,979 )

The amortized cost and fair value of cash equivalents, investments, and restricted investments with contractual maturities are as follows as of September 24, 2017:

	Cost	Estimated Fair Value
	(in thousands)	
Due in one year or less	\$2,764,552	\$2,764,415
Due after one year through five years	2,987,295	2,986,525
Due in more than five years	143,704	143,502
	\$5,895,551	\$5,894,442

The Company has the ability, if necessary, to liquidate its investments in order to meet the Company's liquidity needs in the next 12 months. Accordingly, those investments with contractual maturities greater than twelve months from the date of purchase nonetheless are classified as short-term on the accompanying Condensed Consolidated Balance Sheets.

#### Derivative Instruments and Hedging

The Company carries derivative financial instruments ("derivatives") on its Condensed Consolidated Balance Sheets at their fair values. The Company enters into foreign currency forward contracts and foreign currency options with financial institutions with the primary objective of reducing volatility of earnings and cash flows related to foreign currency exchange rate fluctuations. In addition, the Company enters into interest rate swap arrangements to manage interest rate risk. The counterparties to these derivatives are large global financial institutions that the Company believes are creditworthy, and therefore, it does not consider the risk of counterparty nonperformance to be material.



Table of Contents**Cash Flow Hedges**

The Company's financial position is routinely subjected to market risk associated with foreign currency exchange rate fluctuations on non-U.S. dollar transactions or cash flows, primarily from Japanese yen-denominated revenues and euro- denominated and Korean won-denominated expenses. The Company's policy is to mitigate the foreign exchange risk arising from the fluctuations in the value of these non-U.S. dollar denominated transactions or cash flows through a foreign currency cash flow hedging program, using forward contracts and foreign currency options that generally expire within 12 months and no later than 24 months. These hedge contracts are designated as cash flow hedges and are carried on the Company's balance sheet at fair value with the effective portion of the contracts' gains or losses included in accumulated other comprehensive income (loss) and subsequently recognized in revenue/expense in the same period the hedged items are recognized.

In addition, the Company has entered into interest rate swap agreements to hedge against the variability of cash flows due to changes in certain benchmark interest rates on fixed rate debt. These instruments are designated as cash flow hedges at inception and are settled in conjunction with the issuance of debt. The effective portion of the contracts' gains or losses is included in accumulated other comprehensive (loss) and is amortized into income as the hedged item impacts earnings.

At inception and at each quarter-end, hedges are tested prospectively and retrospectively for effectiveness using regression analysis. Changes in the fair value of the forward contracts due to changes in time value are excluded from the assessment of effectiveness and are recognized in revenue or expense in the current period. The change in time value related to these contracts was not material for all reported periods. Changes in the fair value of foreign exchange options due to changes in time value are included in the assessment of effectiveness. To qualify for hedge accounting, the hedge relationship must meet criteria relating to both the derivative instrument and the hedged item. These criteria include identification of the hedging instrument, the hedged item, the nature of the risk being hedged and how the hedging instrument's effectiveness in offsetting the exposure to changes in the hedged item's fair value or cash flows will be measured. There were no material gains or losses during the three months ended September 24, 2017 or September 25, 2016 associated with ineffectiveness or forecasted transactions that failed to occur.

To receive hedge accounting treatment, all hedging relationships are formally documented at the inception of the hedge, and the hedges must be tested to demonstrate an expectation of providing highly effective offsetting changes to future cash flows on hedged transactions. When derivative instruments are designated and qualify as effective cash flow hedges, the Company recognizes effective changes in the fair value of the hedging instrument within accumulated other comprehensive income (loss) until the hedged exposure is realized. Consequently, with the exception of excluded time value associated with the forward contracts and hedge ineffectiveness recognized, the Company's results of operations are not subject to fluctuation as a result of changes in the fair value of the derivative instruments. If hedges are not highly effective or if the Company does not believe that the underlying hedged forecasted transactions will occur, the Company may not be able to account for its derivative instruments as cash flow hedges. If this were to occur, future changes in the fair values of the Company's derivative instruments would be recognized in earnings. Additionally, related amounts previously recorded in other comprehensive income would be reclassified to income immediately. As of September 24, 2017, the Company had gains of \$6.3 million accumulated in other comprehensive income, net of tax, related to foreign exchange cash flow hedges which it expects to reclassify from other comprehensive income into earnings over the next 12 months. Additionally, the Company had a net loss of \$1.9 million accumulated in other comprehensive income, net of tax, related to interest rate contracts which it expects to reclassify from other comprehensive income into earnings over the next 7.5 years.

**Fair Value Hedges**

The Company has interest rate contracts whereby the Company receives fixed rates and pays variable rates based on certain benchmark interest rates, resulting in a net increase or decrease to interest expense, a component of other expense, net in our Condensed Consolidated Statement of Operations. These interest rate contracts are designated as fair value hedges and hedge against changes in the fair value of our debt portfolio. The Company concluded that these interest rate contracts meet the criteria necessary to qualify for the short-cut method of hedge accounting, and as such an assumption is made that the change in the fair value of the hedged debt, due to changes in the benchmark rate,



exactly offsets the change in the fair value of the interest rate swap. Therefore, the derivative is considered to be effective at achieving offsetting changes in the fair value of the hedged liability, and no ineffectiveness is recognized.

**Balance Sheet Hedges**

The Company also enters into foreign currency forward contracts to hedge fluctuations associated with foreign currency denominated monetary assets and liabilities, primarily cash, third-party accounts receivable, accounts payable, and intercompany receivables and payables. These forward contracts are not designated for hedge accounting treatment. Therefore, the change in fair value of these derivatives is recorded as a component of other income (expense) and offsets the change in fair value of the foreign currency denominated assets and liabilities, which are also recorded in other income (expense).

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As of September 24, 2017, the Company had the following outstanding foreign currency contracts that were entered into under its cash flow and balance sheet hedge programs:

	Notional Value		Derivatives Not Designated as Hedging Instruments:	
	Derivatives Designated as Hedging Instruments:		Derivatives Not Designated as Hedging Instruments:	
	(in thousands)			
Foreign currency forward contracts	Buy Contracts	Sell Contracts	Buy Contracts	Sell Contracts
Japanese yen	\$—	\$ 393,345	\$—	\$ 282,311
Euro	31,917	—	31,246	—
Korean won	13,536	—	—	84,122
Taiwan dollar	—	—	12,658	—
Swiss franc	—	—	9,375	—
Chinese renminbi	—	—	7,137	—
Singapore dollar	—	—	4,469	—
	\$45,453	\$ 393,345	\$64,885	\$ 366,433
Foreign currency option contracts				
	Buy Put	Sell Put	Buy Put <sup>(1)</sup>	Sell Put
Japanese yen	\$36,036	\$ —	\$8,929	\$ 8,929

(1) Contracts were entered into and designated as cash flow hedges under ASC 815 at contract inception as part of the Company's cash flow hedge program. The contracts were subsequently de-designated; changes in fair market value subsequent to de-designation effect current earnings.

The fair value of derivative instruments in the Company's Condensed Consolidated Balance Sheets as of September 24, 2017, and June 25, 2017 were as follows:

September 24, 2017				June 25, 2017				
Fair Value of Derivative Instruments (Level 2)				Fair Value of Derivative Instruments (Level 2)				
Asset Derivatives		Liability Derivatives		Asset Derivatives		Liability Derivatives		
Balance Sheet Location	Fair Value	Balance Sheet Location	Fair Value	Balance Sheet Location	Fair Value	Balance Sheet Location	Fair Value	
(in thousands)								
Derivatives designated as hedging instruments:								
Foreign exchange forward contracts	Prepaid expense and other assets	\$ 9,598	Accrued expenses and other current liabilities	\$ 368	Prepaid expense and other assets	\$ 8,061	Accrued expenses and other current liabilities	\$ 2,916
Interest rate contracts, short-term	Prepaid expense and other assets	316					Accrued expenses and other current liabilities	2,833
Interest rate contracts, long-term			Other long-term liabilities	13,077			Other long-term liabilities	7,269
Derivatives not designated as hedging instruments:								
		109		461		213		342

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Foreign exchange forward contracts	Prepaid expense and other assets	Accrued expenses and other current liabilities	Prepaid expense and other assets	Accrued expenses and other current liabilities	
Total		\$ 10,023	\$ 13,906	\$ 8,274	\$ 13,360
Derivatives					

Under the master netting agreements with the respective counterparties to the Company's derivative contracts, subject to applicable requirements, the Company is allowed to net settle transactions of the same currency with a single net amount payable by one party to the other. However, the Company has elected to present the derivative assets and derivative liabilities on a gross basis on its balance sheet. As of September 24, 2017, the potential effect of rights of offset associated with the above foreign exchange and interest rate contracts would be an offset to assets and liabilities by \$5.1 million, resulting in a net

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derivative asset of \$4.9 million and net derivative liability of \$8.8 million. As of June 25, 2017, the potential effect of rights of offset associated with the above foreign exchange contracts would be an offset to both assets and liabilities by \$5.9 million, resulting in a net derivative asset of \$2.3 million and a net derivative liability of \$7.4 million. The Company is not required to pledge, nor is the Company entitled to receive, cash collateral for these derivative transactions.

The effect of derivative instruments designated as cash flow hedges on the Company's Condensed Consolidated Statements of Operations, including accumulated other comprehensive income ("AOCI") was as follows:

		Three Months Ended September 24, 2017			Three Months Ended September 25, 2016		
		Effective Portion	Ineffective Portion and Amount Excluded from Effectiveness	Effective Portion	Ineffective Portion and Amount Excluded from Effectiveness		
Derivatives Designated as Hedging Instruments	Location of Gain (Loss) Recognized in or Reclassified into Income	(Loss) Gain Recognized in AOCI	(Loss) Gain Reclassified from AOCI into Income	Gain (Loss) Recognized in Income	(Loss) Gain Recognized in AOCI	(Loss) Gain Reclassified from AOCI into Income	Gain (Loss) Recognized in Income
(in thousands)							
Foreign Exchange Contracts	Revenue	\$ (9 )	\$ (3,806 )	\$ 2,547	\$ (2,913)	\$ (13,605 )	\$ 705
Foreign Exchange Contracts	Cost of goods sold	2,443	824	(208 )	235	173	(67 )
Foreign Exchange Contracts	Selling, general, and administrative	1,356	714	(117 )	(24 )	(9 )	(21 )
Foreign Exchange Contracts	Other expense, net	—	—	(17 )	—	—	—
Interest Rate Contracts	Other expense, net	—	(31 )	—	—	9	—
		\$3,790	\$ (2,299 )	\$ 2,205	\$ (2,702)	\$ (13,432 )	\$ 617

The effect of derivative instruments not designated as cash flow hedges on the Company's Condensed Consolidated Statements of Operations was as follows:

		Three Months Ended September 24, 2017		Three Months Ended September 25, 2016	
Derivatives Not Designated as Hedging Instruments:	Location of Gain (Loss) Recognized in Income	Gain Recognized in Income	Loss Recognized in Income	Gain Recognized in Income	Loss Recognized in Income
(in thousands)					
Foreign Exchange Contracts	Other income	\$2,672	\$ (383 )		

Concentrations of Credit Risk

Financial instruments that potentially subject the Company to concentrations of credit risk consist principally of cash and cash equivalents, investments, restricted cash and investments, trade accounts receivable, and derivative financial instruments used in hedging activities. Cash is placed on deposit at large global financial institutions. Such deposits

may be in excess of insured limits. Management believes that the financial institutions that hold the Company's cash are creditworthy and, accordingly, minimal credit risk exists with respect to these balances.

The Company's overall portfolio of available-for-sale securities must maintain an average minimum rating of "AA-" or "Aa3" as rated by Standard and Poor's, Fitch Ratings, or Moody's Investor Services. To ensure diversification and minimize concentration, the Company's policy limits the amount of credit exposure with any one financial institution or commercial issuer.

The Company is exposed to credit losses in the event of nonperformance by counterparties on foreign currency and interest rate hedge contracts that are used to mitigate the effect of exchange rate and interest rate fluctuations, and on contracts related to structured share repurchase arrangements. These counterparties are large global financial institutions and, to date, no such counterparty has failed to meet its financial obligations to the Company.

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Credit risk evaluations, including trade references, bank references, and Dun & Bradstreet ratings, are performed on all new customers and the Company monitors its customers' financial condition and payment performance. In general, the Company does not require collateral on sales.

**NOTE 8 — INVENTORIES**

Inventories are stated at the lower of cost (first-in, first-out method) or net realizable value. System shipments to Japanese customers, for which title does not transfer until customer acceptance, are classified as finished goods inventory and carried at cost until title transfers. Inventories consist of the following:

	September 24, 2017	June 25, 2017
	(in thousands)	
Raw materials	\$721,352	\$625,600
Work-in-process	200,271	213,066
Finished goods	406,674	394,250
	\$1,328,297	\$1,232,916

**NOTE 9 — GOODWILL AND INTANGIBLE ASSETS****Goodwill**

The balance of goodwill is approximately \$1.5 billion and \$1.4 billion as of September 24, 2017, and June 25, 2017, respectively. As of September 24, 2017, \$61.1 million of the goodwill balance is tax deductible and the remaining balance is not tax deductible due to purchase accounting and applicable foreign law.

**Intangible Assets**

The following table provides the Company's intangible assets:

	September 24, 2017			June 25, 2017		
	Gross	Accumulated Amortization	Net	Gross	Accumulated Amortization	Net
	(in thousands)					
Customer relationships	\$630,257	\$(383,131)	\$247,126	\$615,164	\$(366,439)	\$248,725
Existing technology	669,603	(508,983)	160,620	643,196	(487,056)	156,140
Patents	36,553	(31,872)	4,681	36,553	(31,238)	5,315
Other intangible assets	43,814	(35,882)	7,932	36,514	(35,699)	815
Total intangible assets	\$1,380,227	\$(959,868)	\$420,359	\$1,331,427	\$(920,432)	\$410,995

The Company recognized \$39.3 million and \$38.7 million in intangible asset amortization expense during the three months ended September 24, 2017, and September 25, 2016, respectively. Refer to Note 15 - Business Combinations for additional information regarding intangible assets acquired during the three months ended September 24, 2017.

The estimated future amortization expense of intangible assets, excluding those with indefinite lives, as of September 24, 2017, was as follows:

Fiscal Year	Amount
	(in thousands)
2018 (remaining 9 months)	\$ 121,147
2019	123,429
2020	58,296
2021	55,611
2022	51,801
Thereafter	10,075
	\$ 420,359



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## NOTE 10 — ACCRUED EXPENSES AND OTHER CURRENT LIABILITIES

Accrued expenses and other current liabilities consist of the following:

	September 24, 2017	June 25, 2017
	(in thousands)	
Accrued compensation	\$510,583	\$447,363
Warranty reserves	168,337	161,981
Income and other taxes payable	145,022	95,127
Dividend payable	73,127	72,738
Other	181,929	192,152
	\$1,078,998	\$969,361

## NOTE 11 — LONG-TERM DEBT AND OTHER BORROWINGS

As of September 24, 2017, and June 25, 2017, the Company's outstanding debt consisted of the following:

	September 24, 2017		June 25, 2017	
	Amount	Effective	Amount	Effective
	(in thousands)	Interest Rate	(in thousands)	Interest Rate
Fixed-rate 1.25% Convertible Notes Due May 15, 2018 ("2018 Notes")	\$238,367	(1) 5.27 %	\$447,436	(2) 5.27 %
Fixed-rate 2.75% Senior Notes Due March 15, 2020 ("2020 Notes")	500,000	2.88 %	500,000	2.88 %
Fixed-rate 2.80% Senior Notes Due June 15, 2021 ("2021 Notes")	800,000	2.95 %	800,000	2.95 %
Fixed-rate 3.80% Senior Notes Due March 15, 2025 ("2025 Notes")	500,000	3.87 %	500,000	3.87 %
Fixed-rate 2.625% Convertible Notes Due May 15, 2041 ("2041 Notes")	538,468	(1) 4.28 %	631,074	(2) 4.28 %
Total debt outstanding, at par	2,576,835		2,878,510	
Unamortized discount	(145,241 )		(178,589 )	
Fair value adjustment - interest rate contracts	(12,761 )		(10,102 )	
Unamortized bond issuance costs	(2,798 )		(3,161 )	
Total debt outstanding, at carrying value	\$2,416,035		\$2,686,658	
Reported as:				
Current portion of long-term debt	\$639,252	(3)	\$907,827	(3)
Long-term debt	1,776,783		1,778,831	
Total debt outstanding, at carrying value	\$2,416,035		\$2,686,658	

(1) As of September 24, 2017, these notes were convertible at the option of the bondholder, as a result of the condition described in (3) below. Upon closure of the conversion period, the 2041 Notes not converted will be reclassified back into noncurrent liabilities and the temporary equity will be reclassified into permanent equity.

(2) As of June 25, 2017, these notes were convertible at the option of the bond holder, as a result of the condition described in (3) below.

(3) As of the report date, the market value of the Company's Common Stock was greater than 130% of the convertible notes conversion price for 20 or more of the 30 consecutive trading days preceding the quarter-end. As a result, the 2041 Notes were classified in current liabilities and a portion of the equity component, associated with the convertible notes representing the unamortized discount, was classified in temporary equity on the Company's Consolidated Balance Sheets.



Convertible Senior Notes

In May 2011, the Company issued and sold \$450 million in aggregate principal amount of 1.25% Convertible Senior Notes due May 2018 (the “2018 Notes”) at par. The Company pays cash interest at an annual rate of 1.25%, on a semi-annual basis on May 15 and November 15 of each year.

In June 2012, with the acquisition of Novellus Systems, Inc. (“Novellus”), the Company assumed \$700 million in aggregate principal amount of 2.625% Convertible Senior Notes due May 2041 (the “2041 Notes,” and collectively with the 2018 Notes, the “Convertible Notes”). The Company pays cash interest at an annual rate of 2.625%, on a semi-annual basis on May 15 and November 15 of each year on the 2041 Notes. The 2041 Notes also have a contingent interest payment provision that may

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require the Company to pay additional interest, up to 0.60% per year, based on certain thresholds, beginning with the semi-annual interest payment on May 15, 2021, and upon the occurrence of certain events, as outlined in the indenture governing the 2041 Notes.

The Company separately accounts for the liability and equity components of the Convertible Notes. The initial debt components of the Convertible Notes were valued based on the present value of the future cash flows using the Company's borrowing rate at the date of the issuance or assumption for similar debt instruments without the conversion feature, which equals the effective interest rate on the liability component disclosed in the table below, respectively. The equity component was initially valued equal to the principle value of the notes, less the present value of the future cash flows using the Company's borrowing rate at the date of the issuance or assumption for similar debt instruments without a conversion feature, which equated to the initial debt discount.

Under certain circumstances, the Convertible Notes may be converted into shares of the Company's Common Stock. The number of shares each debenture is convertible into is based on conversion rates, disclosed in the table below. The principal value of Convertible Note conversions in the three months ended September 24, 2017, was approximately \$301.7 million.

Selected additional information regarding the Convertible Notes outstanding as of September 24, 2017, and June 25, 2017, is as follows:

	September 24, 2017		June 25, 2017	
	2018	2041 Notes	2018 Notes	2041 Notes
	(in thousands, except years, percentages, conversion rate, and conversion price)			
Carrying amount of permanent equity component, net of tax	\$92,388	\$157,210	\$89,604	\$156,374
Carrying amount of temporary equity component, net of tax	\$5,816	\$131,180	\$15,186	\$154,675
Remaining amortization period (years)	0.6	23.6	0.8	23.8
Fair Value of Notes (Level 2)	\$697,829	\$2,805,294		
Conversion rate (shares of common stock per \$1,000 principal amount of notes)	16.6142	29.8160		
Conversion price (per share of common stock)	\$60.19	\$33.54		
If-converted value in excess of par value	\$461,533	\$2,298,926		
Estimated share dilution using average quarterly stock price \$159.71 per share	2,468	12,683		

**Convertible Note Hedges and Warrants**

Concurrent with the issuance of the 2018 Notes the Company purchased a convertible note hedge and sold warrants. The warrants settlement is contractually defined as net share settlement. The exercise price is adjusted for certain corporate events, including dividends on the Company's Common Stock. As of September 24, 2017, the warrants associated with the 2018 Notes had not been exercised and remained outstanding.

In conjunction with the convertible note hedge, counterparties agreed to sell to the Company shares of Common Stock equal to the number of shares issuable upon conversion of the 2018 Notes in full. The convertible note hedge transactions will be settled in net shares and will terminate upon the earlier of the maturity date or the first day none of the respective notes remain outstanding due to conversion or otherwise. Settlement of the convertible note hedge in net shares, based on the number of shares issued upon conversion of the 2018 Notes, on the expiration date would result in the Company receiving net shares equivalent to the number of shares issuable by the Company upon conversion of the 2018 Notes. The exercise price is adjusted for certain corporate events, including dividends on the Company's Common Stock. During the period ended September 24, 2017 the note hedge was partially settled, resulting in the receipt of approximately 2,092,000 shares.



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The following table presents the details of the warrants and convertible note hedge arrangements as of September 24, 2017:

	2018 Notes (shares in thousands)
Warrants:	
Underlying shares	7,476
Estimated share dilution using average quarterly stock price \$159.71 per share	4,074
Exercise price	\$ 72.69
	August 15
Expiration date range	- October 24, 2018
Convertible Note Hedge:	
Number of shares available from counterparties	3,960
Exercise price	\$ 60.19

## Senior Notes

On March 12, 2015, the Company completed a public offering of \$500 million aggregate principal amount of the Company's Senior Notes due March, 2020 (the "2020 Notes") and \$500 million aggregate principal amount of the Company's Senior Notes due March, 2025 (the "2025 Notes", together with the 2020 Notes, the "Senior Notes"). The Company pays interest at an annual rate of 2.75% and 3.80%, on the 2020 Notes and 2025 Notes, respectively, on a semi-annual basis on March 15 and September 15 of each year. During the year ended June 26, 2016, the Company entered into a series of interest rate contracts hedging the fair value of a portion of the 2025 Notes par value, whereby the Company receives a fixed rate and pays a variable rate based on a certain benchmark interest rate. Refer to Note 7 for additional information regarding these interest rate contracts.

The Company may redeem the Senior Notes at a redemption price equal to 100% of the principal amount of such series ("par"), plus a "make whole" premium as described in the indenture in respect of the Senior Notes and accrued and unpaid interest before February 15, 2020, for the 2020 Notes and before December 15, 2024, for the 2025 Notes. The Company may redeem the Senior Notes at par, plus accrued and unpaid interest at any time on or after February 15, 2020, for the 2020 Notes and on or after December 24, 2024, for the 2025 Notes. In addition, upon the occurrence of certain events, as described in the indenture, the Company will be required to make an offer to repurchase the Senior Notes at a price equal to 101% of the principal amount of the Senior Notes, plus accrued and unpaid interest.

On June 7, 2016, The Company completed a public offering of \$800 million aggregate principal amount of Senior Notes due June 2021 (the "2021 Notes", together with the 2020 and 2025 Notes, the "Senior Notes"). The Company pays interest at an annual rate of 2.80% on the 2021 Notes on a semi-annual basis on June 15 and December 15 of each year.

The Company may redeem the 2021 Notes at a redemption price equal to 100% of the principal amount of such series ("par"), plus a "make whole" premium as described in the indenture in respect to the 2021 Notes and accrued and unpaid interest before May 15, 2021. The Company may redeem the 2021 Notes at par, plus accrued and unpaid interest at any time on or after May 15, 2021. In addition, upon the occurrence of certain events, as described in the indenture, the Company will be required to make an offer to repurchase the 2021 Notes at a price equal to 101% of the principal amount of the respective note, plus accrued and unpaid interest.

Selected additional information regarding the Senior Notes outstanding as of September 24, 2017, is as follows:

	Fair Value
Remaining Amortization period	of Notes
	(Level 2)
(years)	(in
	thousands)
2020 Notes 2.5	\$ 507,915

Explanation of Responses:

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2021 Notes 3.7	\$ 810,384
2025 Notes 7.5	\$ 518,625

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## Interest Cost

The following table presents the amount of interest cost recognized relating to both the contractual interest coupon and amortization of the debt discount, issuance costs, and effective portion of interest rate contracts with respect to the Convertible Notes, the Senior Notes, the term loan agreement and the revolving credit facility during the three months ended September 24, 2017, and September 25, 2016.

	Three Months Ended	
	September	September
	24,	25,
	2017	2016
	(in thousands)	
Contractual interest coupon	\$17,956	\$34,712
Amortization of interest discount	4,104	5,914
Amortization of issuance costs	485	918
Effect of interest rate contracts, net	(349 )	(1,058 )
Total interest cost recognized	\$22,196	\$40,486

## Revolving Credit Facility

On November 10, 2015, the Company entered into an Amendment and Restatement Agreement (as amended on April 26, 2016, by Amendment No. 1 to the Amended and Restated Credit Agreement, and as further amended, restated, supplemented or otherwise modified from time to time, the “Amended and Restated Credit Agreement”), which amends and restates the Company’s prior unsecured Credit Agreement, dated March 12, 2014 (as amended by Amendment No. 1, dated March 5, 2015). The Amended and Restated Credit Agreement provides for an increase to our revolving unsecured credit facility, from \$300.0 million to \$750.0 million with a syndicate of lenders. It includes an expansion option, subject to certain requirements, for us to request an increase in the facility of up to an additional \$250.0 million, for a potential total commitment of \$1.0 billion. Proceeds from the credit facility can be used for general corporate purposes. The facility matures on November 10, 2020.

Interest on amounts borrowed under the credit facility is, at the Company’s option, based on (1) a base rate, defined as the greatest of (a) prime rate, (b) Federal Funds rate plus 0.5%, or (c) one-month LIBOR plus 1.0%, plus a spread of 0.0% to 0.5%, or (2) LIBOR multiplied by the statutory rate, plus a spread of 0.9% to 1.5% in each case as the applicable spread is determined based on the rating of the Company’s non-credit enhanced, senior unsecured long-term debt. Principal and any accrued and unpaid interest is due and payable upon maturity. Additionally, the Company will pay the lenders a quarterly commitment fee that varies based on the Company’s credit rating. The Restated Credit Agreement contains affirmative covenants, negative covenants, financial covenants and events of default that are substantially similar to those in the Amended and Restated Term Loan Agreement. As of September 24, 2017, the Company had no borrowings outstanding under the credit facility and was in compliance with all financial covenants. On October 13, 2017, the Company entered into Amendment No. 2 to Amended and Restated Credit Agreement (the “2nd Amendment”), among the Company, the lenders party thereto and JPMorgan Chase Bank, N.A., as administrative agent, which amends the Company’s Credit Agreement (as amended by the 2nd Amendment, the “Amended Credit Agreement”).

Among other things, the Amended Credit Agreement provides for a \$500 million increase to the Company’s revolving credit facility, from \$750 million under the Credit Agreement to \$1.25 billion under the Amended Credit Agreement. The Amended Credit Agreement also modifies the date of maturity of the revolving credit facility from November 10, 2020 to October 13, 2022. The Amended Credit Agreement provides for an expansion option that will allow the Company, subject to certain requirements, to request an increase in the facility of up to an additional \$600 million, for a potential total commitment of \$1.85 billion. Other than as disclosed in this paragraph, the material terms of the Amended Credit Agreement are substantially the same as the Credit Agreement.

## NOTE 12 — COMMITMENTS AND CONTINGENCIES

## Operating Leases and Related Guarantees

The Company leases the majority of its administrative, research and development (“R&D”) and manufacturing facilities, regional sales/service offices, and certain equipment under non-cancelable operating leases. Certain of the Company’s facility leases for buildings located at its Fremont, California headquarters and certain other facility leases provide the Company with options to extend the leases for additional periods or to purchase the facilities. Certain of the Company’s facility leases provide for periodic rent increases based on the general rate of inflation.

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The Company has operating leases regarding certain improved properties in Fremont and Livermore, California (the “Operating Leases”). The Company was required to maintain cash collateral in an aggregate of approximately \$250.0 million in separate interest-bearing accounts as security for the Company’s obligations. These amounts are recorded with other restricted cash and investments in the Company’s Condensed Consolidated Balance Sheet as of September 24, 2017.

During the term of the Operating Leases and when the terms of the Operating Leases expire, the property subject to those Operating Leases may be remarketed. The Company has guaranteed to the lessor that each property will have a certain minimum residual value. The aggregate guarantee made by the Company under the Operating Leases is generally no more than approximately \$220.4 million; however, under certain default circumstances, the guarantee with regard to an Operating Lease may be 100% of the lessor’s aggregate investment in the applicable property, which in no case will exceed \$250.0 million, in the aggregate.

Other Guarantees

The Company has issued certain indemnifications to its lessors for taxes and general liability under some of its agreements. The Company has entered into certain insurance contracts that are intended to limit its exposure to such indemnifications. As of September 24, 2017, the Company had not recorded any liability in connection with these indemnifications, as it does not believe that it is probable that any amounts will be paid under these guarantees. Generally, the Company indemnifies, under pre-determined conditions and limitations, its customers for infringement of third party intellectual property rights by the Company’s products or services. The Company seeks to limit its liability for such indemnity to an amount not to exceed the sales price of the products or services subject to its indemnification obligations. The Company does not believe that it is probable that any material amounts will be paid under these guarantees.

The Company provides guarantees and standby letters of credit to certain parties as required for certain transactions initiated during the ordinary course of business. As of September 24, 2017, the maximum potential amount of future payments that it could be required to make under these arrangements and letters of credit was \$20.6 million. The Company does not believe, based on historical experience and information currently available, that it is probable that any amounts will be required to be paid.

Warranties

The Company provides standard warranties on its systems. The liability amount is based on actual historical warranty spending activity by type of system, customer, and geographic region, modified for any known differences such as the impact of system reliability improvements.

Changes in the Company’s product warranty reserves were as follows:

	Three Months Ended	
	September	September
	24,	25,
	2017	2016
	(in thousands)	
Balance at beginning of period	\$ 161,981	\$ 100,321
Warranties issued during the period	48,790	34,855
Settlements made during the period	(44,053 )	(32,228 )
Changes in liability for pre-existing warranties	1,619	278
Balance at end of period	\$ 168,337	\$ 103,226

Legal proceedings

While the Company is not currently a party to any legal proceedings that it believes material, the Company is either a defendant or plaintiff in various actions that have arisen from time to time in the normal course of business, including intellectual property claims. The Company accrues for a liability when it is both probable that a liability has been incurred and the amount of the loss can be reasonably estimated. Significant judgment is required in both the determination of probability and the determination as to whether a loss is reasonably estimable. Based on current information, the Company does not believe that a material loss from known matters is probable and therefore has not



recorded an accrual for litigation or other contingencies related to existing legal proceedings.

**NOTE 13 — STOCK REPURCHASE PROGRAM**

In November 2016, the Board of Directors authorized the repurchase of up to \$1.0 billion of Common Stock. These repurchases can be conducted on the open market or as private purchases and may include the use of derivative contracts with large financial institutions, in all cases subject to compliance with applicable law. Repurchases are funded using the Company's on-

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shore cash and on-shore cash generation. This repurchase program has no termination date and may be suspended or discontinued at any time.

Repurchases under the repurchase program were as follows during the periods indicated:

Period	Total Number of Shares Repurchased	Total Cost of Repurchase	Average Price Paid Per Share <sup>(1)</sup>	Amount Available Under Repurchase Program
(in thousands, except per share data)				
Available balance as of June 25, 2017				\$ 282,141
Quarter ended September 24, 2017	1,779	\$ 157,938	\$ 158.40	\$ 124,203

(1) Average price paid per share excludes effect of accelerated share repurchases; see additional disclosure below regarding our accelerated share repurchase activity during the fiscal year.

In addition to the shares repurchased under the Board-authorized repurchase program shown above, during the three months ended September 24, 2017, the Company acquired 11 thousand shares at a total cost of \$1.8 million which the Company withheld through net settlements to cover minimum tax withholding obligations upon the vesting of restricted stock unit awards granted under the Company's equity compensation plans. The shares retained by the Company through these net share settlements are not a part of the Board-authorized repurchase program but instead are authorized under the Company's equity compensation plan.

On April 19, 2017, the Company entered into two separate accelerated share repurchase agreements (collectively, the "ASR") with two financial institutions to repurchase a total of \$500 million of Common Stock. The Company took an initial delivery of approximately 2,570,000 shares, which represented 70% of the prepayment amount divided by the Company's closing stock price on April 19, 2017. The total number of shares to be received under the ASR was based upon the average daily volume weighted average price of our Common Stock during the repurchase period, less an agreed upon discount. Following the fiscal year end, the counterparties designated June 30, 2017 as the termination date, at which time the Company settled the ASR. Approximately 780,000 shares were received at final settlement, which resulted in a weighted-average share price of approximately \$149.16 for the transaction period.

**NOTE 14 — ACCUMULATED OTHER COMPREHENSIVE LOSS**

The components of accumulated other comprehensive income (loss) ("AOCI"), net of tax at the end of the period, as well as the activity during the period, were as follows:

	Accumulated Foreign Currency Translation Adjustment	Accumulated Unrealized Holding Gain (Loss) on Cash flow hedges	Accumulated Unrealized Holding Gain (Loss) on Available-For-Sale Investments	Accumulated Unrealized Components Total of Defined Benefit Plans
(in thousands)				
Balance as of June 25, 2017	\$(42,371)	\$ (811 )	\$ 1,106	\$(19,624 ) \$(61,700)
Other comprehensive income (loss) before reclassifications	7,886	3,062	(1,727 )	(2,356 ) 6,865
Losses (income) reclassified from accumulated other comprehensive income (loss) to net income	(17 ) <sup>(1)</sup>	2,188	(123 ) <sup>(1)</sup>	— 2,048
Net current-period other comprehensive income (loss)	\$7,869	\$ 5,250	\$ (1,850 )	\$(2,356 ) \$8,913
Balance as of September 24, 2017	\$(34,502)	\$ 4,439	\$ (744 )	\$(21,980 ) \$(52,787)

(1) Amount of after tax gain reclassified from accumulated other comprehensive income into net income located in other expense, net.

(2) Amount of after tax gain reclassified from AOCI into net income located in revenue: \$3,383 loss; cost of goods sold: \$678 gain; selling, general, and administrative expenses: \$537 gain; and other income and expense: \$20 loss.

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## NOTE 15 – BUSINESS COMBINATIONS

On August 28, 2017, the Company completed the acquisition of the outstanding shares of Coventor, Inc. (“Coventor”), a privately-held company that is a provider of simulation and modeling solutions for semiconductor process technology, micro-electromechanical systems (MEMS), and the Internet of Things, for a total purchase consideration of \$137.6 million.

The following table represents the preliminary purchase price allocation and summarizes the aggregate estimated fair value of the net assets acquired on the closing date of the acquisition:

	Preliminary Purchase Price Allocation (In thousands)
Intangible assets	\$ 48,500
Assets acquired (including cash of \$8.7 million)	12,796
Goodwill	97,832
Liabilities assumed	(21,517 )
Fair value of net assets acquired	\$ 137,611

The preliminary fair values of net tangible and intangible assets acquired were based on preliminary valuations, and management’s estimates and assumptions are subject to change within the measurement period (up to one year from the acquisition date). The primary area that remains open relates to the fair value of intangible assets, certain tangible assets and liabilities assumed and income taxes. The Company expects to continue to obtain information to assist us in determining the fair value of the net assets acquired during the measurement period.

The operating results of the acquired entity, from the date of acquisition, have been included in the Company’s Condensed Consolidated Financial Statements for the three months ended September 24, 2017. Goodwill represents the excess of the purchase price over the net tangible and identifiable intangible assets acquired. None of the goodwill recognized is deductible for income tax purposes.

The identified intangible assets assumed in the acquisition of Coventor were recognized as follows based upon their fair values as of August 28, 2017:

	Fair Value (In thousands)	Weighted-Average Estimated Useful Life (In years)
Existing technology	\$ 26,200	6.0
Customer relationships	15,000	6.0
Trade names and other intangible assets	7,300	6.4
Total identified intangible assets	\$ 48,500	6.0

Acquired existing technology represents the fair value of products that have reached technological feasibility and are a part of Coventor’s product offerings and customer relationships represent the fair values of the underlying relationships and agreements with Coventor’s customers.



enablement, chemistry, plasma and fluidics, advanced systems engineering and a broad range of operational disciplines. Our products and services are designed to help our customers build smaller, faster, and better performing devices that are used in a variety of electronic products, including mobile phones, personal computers, servers, wearables, automotive devices, storage devices, and networking equipment. Our vision is to realize full value from natural technology extensions of our company.

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Our customer base includes leading semiconductor memory, foundry, and integrated device manufacturers that make products such as non-volatile memory (“NVM”), DRAM memory, and logic devices. We aim to increase our strategic relevance with our customers by contributing more to their continued success. Our core technical competency is integrating hardware, process, materials, software, and process control enabling results on the wafer.

Semiconductor manufacturing, our customers’ business, involves the complete fabrication of multiple dies or integrated circuits on a wafer. This involves the repetition of a set of core processes and can require hundreds of individual steps. Fabricating these devices requires highly sophisticated process technologies to integrate an increasing array of new materials with precise control at the atomic scale. Along with meeting technical requirements, wafer processing equipment must deliver high productivity and be cost-effective.

Demand from cloud computing, Internet of Things, and other markets is driving the need for increasingly powerful and cost-efficient semiconductors. At the same time, there are growing technical challenges with traditional two-dimensional scaling. These trends are driving significant inflections in semiconductor manufacturing, such as the increasing importance of vertical scaling strategies like 3D architectures as well as multiple patterning to enable shrinks.

We believe we are in a strong position with our leadership and competency in deposition, etch, and single-wafer clean to facilitate some of the most significant innovations in semiconductor device manufacturing. Several factors create opportunity for sustainable differentiation for us: our focus on research and development, with a breadth of programs across sustaining engineering, product and process development, and concept and feasibility; our ability to effectively leverage cycles of learning from our broad installed base; and our collaborative focus with ecosystem partners.

During the most recent quarter, demand for our products remained stable with increased investments from our logic customers and continued investments from our memory customers. Technology inflections in our industry, including NVM, multiple patterning, FinFET and advanced packaging have led to an increase in the served addressable market for our products in deposition, etch, single-wafer clean, and customer service business. We believe that demand for our products and services should increase faster than overall spending on wafer fabrication equipment, as the proportion of customers’ capital expenditures rises in these technology inflection areas and we continue to gain market share.

We acquired the outstanding shares of Coventor, Inc., a privately-held company, on August 28, 2017, as further discussed in Note 15 of our Condensed Consolidated Financial Statements. The results of the acquired business are included in our Condensed Consolidated Financial Statements.

The following summarizes certain key financial information for the periods indicated below:

	Three Months Ended		
	September 24, 2017	June 25, 2017	September 25, 2016
	(in thousands, except per share data and percentages)		
Revenue	\$2,478,140	\$2,344,907	\$1,632,419
Gross margin	\$1,149,343	\$1,068,961	\$716,197
Gross margin as a percent of total revenue	46.4	% 45.6	% 43.9
Total operating expenses	\$456,121	\$461,022	\$400,250
Net income	\$590,690	\$526,424	\$263,835
Diluted net income per share	\$3.21	\$2.82	\$1.47

In the September 2017 quarter, revenue increased compared to the June 2017 quarter as modest shipment declines were offset by timing of revenue recognition. Gross margin as a percentage of revenue in the September 2017 quarter increased as compared to the June 2017 quarter primarily due to favorable customer and product mix. Operating expenses in the September 2017 quarter decreased compared to the June 2017 quarter mainly due to lower spend associated with business process reengineering partially offset by acquisition-related costs.

Our cash and cash equivalents, investments, and restricted cash and investments balances increased slightly to \$6.4 billion as of September 24, 2017, in comparison to the same balance as of June 25, 2017. Cash generated by

operations was approximately \$858 million during the September 2017 quarter. We used cash during the September 2017 quarter for approximately \$302 million of principal payments on debt, primarily related to our convertible notes, \$155 million of share repurchases, including net share settlement on employee stock-based compensation, \$116 million for business acquisitions, \$73 million of dividends paid to our stockholders, and \$60 million of capital expenditures. Employee headcount as of September 24, 2017, was approximately 9,800.

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## RESULTS OF OPERATIONS

## Shipments

	Three Months Ended			
	September 24, 2017	June 25, 2017	September 25, 2016	
Shipments (in millions)	\$2,382	\$2,543	\$ 1,708	
Korea	38	% 36	% 28	%
Japan	19	% 21	% 11	%
Taiwan	15	% 14	% 26	%
China	10	% 16	% 11	%
United States	8	% 8	% 8	%
Southeast Asia	5	% 2	% 11	%
Europe	5	% 3	% 5	%

Shipments for the September 2017 quarter decreased 6% from the June 2017 and increased 39% from the September 2016 quarter levels, reflecting timing of customer demand for semiconductor equipment. The increase in the September 2017 quarter from the September 2016 quarter was mainly driven by investments from our memory and logic customers.

The percentages of system shipments to each of the markets we serve were as follows for the periods presented:

	Three Months Ended			
	September 24, 2017	June 25, 2017	September 25, 2016	
Memory	66%	73%	56%	%
Foundry	21%	22%	36%	%
Logic/integrated device manufacturing	13%	5%	8%	%

## Revenue

	Three Months Ended			
	September 24, 2017	June 25, 2017	September 25, 2016	
Revenue (in millions)	\$2,478	\$2,345	\$ 1,632	
Korea	38	% 38	% 23	%
Japan	20	% 17	% 15	%
Taiwan	14	% 16	% 26	%
China	14	% 16	% 14	%
United States	6	% 9	% 7	%
Southeast Asia	5	% 1	% 12	%
Europe	3	% 3	% 3	%

Revenue for the September 2017 quarter increased 6% from the June 2017 quarter and increased 52% compared to the September 2016 quarter, as modest shipment declines were offset by timing of revenue recognition. Our deferred revenue balance decreased to \$938 million as of September 24, 2017, compared to \$966 million as of June 25, 2017, as a result of timing of shipments and revenue recognition. Our deferred revenue balance does not include system shipments to Japanese customers, for which title does not transfer until customer acceptance. Shipments to Japanese customers are classified as inventory at cost until the time of acceptance. The estimated future revenue value from shipments to Japanese customers was approximately \$344 million as of September 24, 2017, and \$397 million as of June 25, 2017.



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## Gross Margin

	Three Months Ended		
	September 24, 2017	June 25, 2017	September 25, 2016
	(in thousands, except percentages)		
Gross margin	\$1,149,343	\$1,068,961	\$716,197
Percent of total revenue	46.4	% 45.6	% 43.9

Gross margin as a percentage of revenue in the September 2017 quarter increased compared to the June 2017 and the September 2016 quarter primarily due to favorable changes in customer and product mix.

## Research and Development

	Three Months Ended		
	September 24, 2017	June 25, 2017	September 25, 2016
	(in thousands, except percentages)		
Research & development ("R&D")	\$275,078	\$285,712	\$235,240
Percent of total revenue	11.1	% 12.2	% 14.4

We continued to make significant R&D investments focused on leading-edge deposition, plasma etch, single-wafer clean and other semiconductor manufacturing requirements. The spending in the September 2017 quarter decreased compared to the June 2017 quarter mainly due to decreases of \$8 million in supplies, \$5 million in variable compensation offset by immaterial other expense increases. The increase in R&D expenses during the September 2017 quarter compared to the same period in the prior year was mainly due to increases of \$24 million in employee compensation from higher headcount, \$12 million in supplies, \$2 million in depreciation and amortization, and \$2 million of employee-related costs, offset by a \$3 million decrease in costs associated with a campus consolidation realized in September 2016.

## Selling, General, and Administrative

	Three Months Ended		
	September 24, 2017	June 25, 2017	September 25, 2016
	(in thousands, except percentages)		
Selling, general, and administrative	\$181,043	\$175,310	\$165,010
Percent of total revenue	7.3	% 7.5	% 10.1

The increase in selling, general, and administrative ("SG&A") expenses during the September 2017 quarter compared to the June 2017 quarter was primarily due to increases of \$3 million in facilities cost, \$2 million increase in depreciation and amortization, \$2 million increases in outside services, \$1 million increase in Coventor acquisition-related costs offset by a \$4 million reduction in business process reengineering costs. The increase in SG&A expenses during the September 2017 quarter compared to the same period in the prior year was primarily due to increases of \$8 million in employee compensation from higher headcount, and \$5 million outside services.

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## Other Expense, Net

Other expense, net consisted of the following:

	Three Months Ended		
	September 24, 2017	June 25, 2017	September 25, 2016
	(in thousands)		
Interest income	\$20,209	\$17,805	\$12,763
Interest expense	(23,905 )	(24,912 )	(41,429 )
Gains on deferred compensation plan related assets, net	3,453	5,749	6,172
Foreign exchange (losses) gains, net	(3,000 )	(3,479 )	1,219
Other, net	(2,259 )	393	(1,879 )
	\$(5,502 )	\$(4,444 )	\$(23,154 )

Interest income increased in the September 2017 quarter compared to the June 2017 quarter as a result of higher cash and investment balances, longer portfolio duration, and higher yield. Interest income increased in the September 2017 quarter compared to the September 2016 quarter as a result of an increase in yield.

Interest expense decreased in the September 2017 quarter compared to the June 2017 quarter due to the conversions of the 2018 and 2041 Convertible Notes. Interest expense decreased in the September 2017 quarter compared to the September 2016 quarter due to the termination of the Term Loan Agreement and mandatory redemption of the Senior Notes due 2023 and 2026 during the December 2016 quarter.

Changes in the market value of securities in the portfolio drove the noted variability in the gains/losses on assets related to obligations under our deferred compensation plan.

Foreign exchange losses in the September 2017 quarter were lower in comparison to losses in the June 2017 quarter but were higher in comparison to gains in the September 2016 quarter due to unfavorable currency movements against our unhedged balance sheet exposures.

Other, net was higher during the September 2017 quarter, compared to the June 2017 quarter, primarily due to net losses on equity investments and increased charitable contributions.

## Income Tax Expense

Our provision for income taxes and effective tax rate for the periods indicated were as follows:

	Three Months Ended		
	September 24, 2017	June 25, 2017	September 25, 2016
	(in thousands, except percentages)		
Income tax expense	\$97,030	\$77,071	\$28,958
Effective tax rate	14.1 %	12.8 %	9.9 %

The increase in the effective tax rate for the September 2017 quarter compared to the June 2017 quarter was due to the change in level and proportion of income in higher and lower tax jurisdictions and recognition of previously unrecognized tax benefits from lapse of statutes of limitation in the June 2017 quarter.

The increase in the effective tax rate for the September 2017 quarter compared to the September 2016 quarter was primarily due to the change in level and proportion of income in higher and lower tax jurisdictions and an increase in deferred tax accrual related to increase in foreign earnings to be repatriated in the September 2017 quarter.

International revenues account for a significant portion of our total revenues, such that a material portion of our pre-tax income is earned and taxed outside the United States at rates that are generally lower than in the United States. Please refer to Note 6 of the notes to our Consolidated Financial Statements in our 2017 Form 10-K for additional information.



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## Uncertain Tax Positions

We reevaluate uncertain tax positions on a quarterly basis. This evaluation is based on factors including but not limited to, changes in facts or circumstances, changes in tax law, effectively settled issues under audit and new audit activity. Any change in recognition or measurement would result in the recognition of a tax benefit or an additional charge to the tax provision.

## CRITICAL ACCOUNTING POLICIES AND ESTIMATES

A critical accounting policy is defined as one that has both a material impact on our financial condition and results of operations and requires us to make difficult, complex and/or subjective judgments, often as a result of the need to make estimates about matters that are inherently uncertain. The preparation of financial statements in conformity with U.S. generally accepted accounting principles (“GAAP”) requires management to make certain judgments, estimates and assumptions that could affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the reporting period. We base our estimates and assumptions on historical experience and on various other assumptions we believe to be applicable and evaluate them on an ongoing basis to ensure they remain reasonable under current conditions. Actual results could differ significantly from those estimates, which could have a material impact on our business, results of operations, and financial condition. Our critical accounting estimates include:

- the recognition and valuation of revenue from multiple-element arrangements, which impacts revenue;
- the valuation of inventory, which impacts gross margin;
- the valuation of warranty reserves, which impacts gross margin;
- the valuation of equity-based compensation expense, including forfeiture estimates, which impacts both gross margin and operating expenses;
- the recognition and measurement of current and deferred income taxes, including the measurement of uncertain tax positions, which impact our provision for income tax expenses; and
- the valuation and recoverability of long-lived assets, which impacts gross margin and operating expenses when we record asset impairments or accelerate their depreciation or amortization.

We believe that the following critical accounting policies reflect the more significant judgments and estimates used in the preparation of our consolidated financial statements regarding the critical accounting estimates indicated above.

**Revenue Recognition:** We recognize revenue when persuasive evidence of an arrangement exists, delivery has occurred and title has passed or services have been rendered, the selling price is fixed or determinable, collection of the receivable is reasonably assured, and we have received customer acceptance or are otherwise released from our customer acceptance obligations. If terms of the sale provide for a lapsing customer acceptance period, we recognize revenue upon the expiration of the lapsing acceptance period or customer acceptance, whichever occurs first. If the practices of a customer do not provide for a written acceptance or the terms of sale do not include a lapsing acceptance provision, we recognize revenue when it can be reliably demonstrated that the delivered system meets all of the agreed-to customer specifications. In situations with multiple deliverables, we recognize revenue upon the delivery of the separate elements to the customer and when we receive customer acceptance or are otherwise released from our customer acceptance obligations. We allocate revenue from multiple-element arrangements among the separate elements using their relative selling prices, based on our best estimate of selling price. Our sales arrangements do not include a general right of return. The maximum revenue recognized on a delivered element is limited to the amount that is not contingent upon the delivery of additional items. We generally recognize revenue related to sales of spare parts and system upgrade kits upon shipment. We generally recognize revenue related to services upon completion of the services requested by a customer order. We recognize revenue for extended maintenance service contracts with a fixed payment amount on a straight-line basis over the term of the contract. When goods or services have been delivered to the customer, but all conditions for revenue recognition have not been met, deferred revenue and deferred costs are recorded in deferred profit on our Consolidated Balance Sheet.

**Inventory Valuation:** Our policy is to assess the valuation of all inventories including manufacturing raw materials, work-in-process, finished goods, and spare parts in each reporting period. Obsolete inventory or inventory in excess of

management's estimated usage requirement is written down to its estimated net realizable value if less than cost. Estimates of market value include but are not limited to management's forecasts related to our future manufacturing schedules, customer demand, technological and/or market obsolescence, general semiconductor market conditions, and possible alternative uses. If future customer demand or market conditions are less favorable than our projections, additional inventory write-downs may be required and would be reflected in cost of goods sold in the period in which we make the revision.

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**Warranty:** We record a provision for estimated warranty expenses to cost of sales for each system when we recognize revenue. We periodically monitor the performance and cost of warranty activities, if actual costs incurred are different than our estimates, we may recognize adjustments to provisions in the period in which those differences arise or are identified. We do not maintain general or unspecified reserves; all warranty reserves are related to specific systems.

**Equity-based Compensation: Employee Stock Purchase Plan (“ESPP”) and Employee Stock Plans:** We determine the fair value of our restricted stock units (“RSUs”), excluding market-based performance RSUs, based upon the fair market value of our Common Stock at the date of grant, discounted for dividends. We estimate the fair value of our market-based performance RSUs using a Monte Carlo simulation model at the date of the grant. We estimate the fair value of our stock options and ESPP awards using a Black-Scholes option valuation model. This model requires the input of highly subjective assumptions, including expected stock price volatility and the estimated life of each award. We amortize the fair value of equity-based awards over the vesting periods of the award and we have elected to use the straight-line method of amortization. We estimate expected equity award forfeitures based on historical forfeiture rate activity and expected future employee turnover. We recognize the effect of adjustments made to the forfeiture rate, if any in the period that we change the forfeiture estimate.

**Income Taxes:** Deferred income taxes reflect the net tax effect of temporary differences between the carrying amount of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes, as well as the tax effect of carryforwards. We record a valuation allowance to reduce our deferred tax assets to the amount that is more likely than not to be realized. Realization of our net deferred tax assets is dependent on future taxable income. We believe it is more likely than not that such assets will be realized; however, ultimate realization could be negatively impacted by market conditions and other variables not known or anticipated at this time. In the event that we determine that we would not be able to realize all or part of our net deferred tax assets, an adjustment would be charged to earnings in the period such determination is made. Likewise, if we later determine that it is more likely than not that the deferred tax assets would be realized, then the previously provided valuation allowance would be reversed.

We recognize the benefit from a tax position only if it is more likely than not that the position would be sustained upon audit based solely on the technical merits of the tax position. Our policy is to include interest and penalties related to unrecognized tax benefits as a component of income tax expense.

**Long-lived assets:** We review goodwill at least annually for impairment. If certain events or indicators of impairment occur between annual impairment tests, we will perform an impairment test at that date. In testing for a potential impairment of goodwill, we: (1) allocate goodwill to the reporting units to which the acquired goodwill relates; (2) estimate the fair value of our reporting units; and (3) determine the carrying value (book value) of those reporting units. Prior to this allocation of the assets to the reporting units, we assess long-lived assets for impairment.

Furthermore, if the estimated fair value of a reporting unit is less than the carrying value, we must estimate the fair value of all identifiable assets and liabilities of that reporting unit, in a manner similar to a purchase price allocation for an acquired business. This can require independent valuations of certain internally generated and unrecognized intangible assets such as in-process R&D and developed technology. Only after this process is completed can the amount of goodwill impairment, if any, be determined. In our goodwill impairment process we first assess qualitative factors to determine whether it is necessary to perform a quantitative analysis. We do not calculate the fair value of a reporting unit unless we determine, based on a qualitative assessment, that it is more likely than not that the reporting unit’s fair value is less than its carrying amount.

The process of evaluating the potential impairment of goodwill is subjective and requires significant judgment at many points during the analysis. We determine the fair value of our reporting units by using an income approach. Under the income approach, we determine fair value based on estimated future cash flows of each reporting unit, discounted by an estimated weighted-average cost of capital, which reflects the overall level of inherent risk of a reporting unit and the rate of return an outside investor would expect to earn.

In estimating the fair value of a reporting unit, we make estimates and judgments about the future cash flows of our reporting units, including estimated growth rates and assumptions about the economic environment. Although our cash flow forecasts are based on assumptions that are consistent with the plans and estimates we are using to manage



the underlying businesses, there is significant judgment involved in determining the cash flows attributable to a reporting unit. In addition, we make certain judgments about allocating shared assets to the estimated balance sheets of our reporting units. Changes in judgment on these assumptions and estimates could result in a goodwill impairment charge.

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As a result, several factors could result in an impairment of a material amount of our goodwill balance in future periods, including but not limited to: (1) weakening of the global economy, weakness in the semiconductor equipment industry, or our failure to reach internal forecasts, which could impact our ability to achieve our forecasted levels of cash flows and reduce the estimated discounted cash flow value of our reporting units; and (2) a decline in our Common Stock price and resulting market capitalization, to the extent we determine that the decline is sustained and indicates a reduction in the fair value of our reporting units below their carrying value. Further, the value assigned to intangible assets, other than goodwill, is based on estimates and judgments regarding expectations such as the success and lifecycle of products and technology acquired. If actual product acceptance differs significantly from the estimates, we may be required to record an impairment charge to write down the asset to its realizable value. For other long-lived assets, we routinely consider whether indicators of impairment are present. If such indicators are present, we determine whether the sum of the estimated undiscounted cash flows attributable to the assets is less than their carrying value. If the sum is less, we recognize an impairment loss based on the excess of the carrying amount of the assets over their respective fair values. Fair value is determined by discounted future cash flows, appraisals or other methods. We recognize an impairment charge to the extent the present value of anticipated net cash flows attributable to the asset are less than the asset's carrying value. The fair value of the asset then becomes the asset's new carrying value, which we depreciate over the remaining estimated useful life of the asset. Assets to be disposed of are reported at the lower of the carrying amount or fair value.

**Recent Accounting Pronouncements**

For a description of recent accounting pronouncements, including the expected dates of adoption and estimated effects, if any, on our condensed consolidated financial statements, see Note 2, "Recent Accounting Pronouncements," of our Condensed Consolidated Financial Statements, included in Part 1 of this report.

**LIQUIDITY AND CAPITAL RESOURCES**

Total gross cash and cash equivalents, investments, and restricted cash and investments (together comprising total cash and investments) were \$6.4 billion at September 24, 2017 compared to \$6.3 billion as of June 25, 2017.

Approximately \$5.4 billion and \$4.8 billion of our total cash and investments as of September 24, 2017, and June 25, 2017, respectively, was held outside the United States in our foreign subsidiaries, the majority of which is held in U.S. dollars and substantially all of which would be subject to tax at U.S. rates if it were to be repatriated.

**Cash Flows from Operating Activities**

Net cash provided by operating activities of \$858.3 million during the three months ended September 24, 2017, consisted of (in millions):

Net income	\$590.7
Non-cash charges:	
Depreciation and amortization	79.1
Equity-based compensation	41.8
Deferred income taxes	43.2
Amortization of note discounts and issuance costs	4.6
Changes in operating asset and liability accounts	92.3
Other	6.6
	\$858.3

Significant changes in operating asset and liability accounts, net of foreign exchange impact, included the following uses of cash: increases in inventories of \$107.1 million, and prepaid expense and other assets of \$44.9 million and decreases in trade accounts payable of \$13.2 million and deferred profit of \$9.8 million. The uses of cash are offset by sources of cash resulting from decreases in accounts receivable of \$145.0 million, and increases in accrued expenses and other liabilities of \$122.3 million.

**Cash Flows from Investing Activities**

Net cash used for investing activities during the three months ended September 24, 2017, was \$303.9 million, primarily consisting of net purchases of available-for-sale securities of \$117.8 million, business acquisition of \$115.6 million, and capital expenditures of \$60.1 million.



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### Cash Flows from Financing Activities

Net cash used for financing activities during the three months ended September 24, 2017, was \$528.8 million, primarily consisting of \$301.7 million of cash paid for debt extinguishment, \$155.4 million in treasury stock repurchases, \$72.7 million of dividends paid, partially offset by \$1.0 million of stock issuance and treasury stock reissuances associated with our employee stock-based compensation plans.

### Liquidity

Given that the semiconductor equipment industry is highly competitive and has historically experienced rapid changes in demand, we believe that maintaining sufficient liquidity reserves is important to support sustaining levels of investment in R&D and capital infrastructure. Anticipated cash flows from operations based on our current business outlook, combined with our current levels of cash, cash equivalents, and short-term investments as of September 24, 2017, are expected to be sufficient to support our anticipated levels of operations, investments, debt service requirements, capital expenditures, capital redistributions, and dividends through at least the next 12 months.

However, uncertainty in the global economy and the semiconductor industry, as well as disruptions in credit markets, have in the past, and could in the future, impact customer demand for our products, as well as our ability to manage normal commercial relationships with our customers, suppliers, and creditors.

Under certain circumstances, our Convertible Notes may be converted into shares of our Common Stock. During the quarter ended September 24, 2017, approximately \$301.7 million principle value of Convertible Notes were converted. We anticipate that conversions may continue in the coming quarters as the 2018 Notes approach maturity. We expect to have sufficient levels of cash, cash equivalents, and short term investments to fund the near-term settlement of these Convertible Notes.

On October 13, 2017, we entered into Amendment No. 2 to Amended and Restated Credit Agreement (the “2nd Amendment”), among the Company, the lenders party thereto and JPMorgan Chase Bank, N.A., as administrative agent, which amends the Company’s Credit Agreement (as amended by the 2nd Amendment, the “Amended Credit Agreement”).

Among other things, the Amended Credit Agreement provides for a \$500 million increase to the Company’s revolving credit facility, from \$750 million under the Credit Agreement to \$1.25 billion under the Amended Credit Agreement. The Amended Credit Agreement also modifies the date of maturity of the revolving credit facility from November 10, 2020 to October 13, 2022. The Amended Credit Agreement provides for an expansion option that will allow the Company, subject to certain requirements, to request an increase in the facility of up to an additional \$600 million, for a potential total commitment of \$1.85 billion. Other than as disclosed in this paragraph, the material terms of the Amended Credit Agreement are substantially the same as the Credit Agreement.

In the longer term, liquidity will depend to a great extent on our future revenues and our ability to appropriately manage our costs based on demand for our products and services. While we have substantial cash balances in the United States and offshore, we may require additional funding and need or choose to raise the required funds through borrowings or public or private sales of debt or equity securities. We believe that, if necessary, we will be able to access the capital markets on terms and in amounts adequate to meet our objectives. However, given the possibility of changes in market conditions or other occurrences, there can be no certainty that such funding will be available in needed quantities or on terms favorable to us.

### ITEM 3. Quantitative and Qualitative Disclosures about Market Risk

For financial market risks related to changes in interest rates, marketable equity security prices, and foreign currency exchange rates, refer to Part II, Item 7A, “Quantitative and Qualitative Disclosures About Market Risk”, in our 2017 Form 10-K. Other than noted below, our exposure related to market risk has not changed materially since June 25, 2017. All of the potential changes noted below are based on sensitivity analysis performed on our financial position as of September 24, 2017. Actual results may differ materially.

#### Fixed Income Securities

Our investments in various interest earning securities carry a degree of market risk for changes in interest rates. At any time, a sharp rise in interest rates could have a material adverse impact on the fair value of our fixed income investment portfolio. Conversely, declines in interest rates could have a material adverse impact on interest income for

our investment portfolio. We target to maintain a conservative investment policy, which focuses on the safety and preservation of our capital by limiting default risk, market risk, reinvestment risk, and concentration risk.

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The following table presents the hypothetical fair values of fixed income securities that would result from selected potential decreases and increases in interest rates. Market changes reflect immediate hypothetical parallel shifts in the yield curve of plus or minus 50 basis points (“BPS”), 100 BPS, and 150 BPS. The hypothetical fair values as of September 24, 2017, were as follows:

	Valuation of Securities Given an Interest Rate Decrease of X Basis Points			Fair Value as of September 24, 2017 0.00%	Valuation of Securities Given an Interest Rate Increase of X Basis Points		
	(150 BPS)	(100 BPS)	(50 BPS)		50 BPS	100 BPS	150 BPS
	(in thousands)						
Time deposit	\$693,205	\$693,205	\$693,205	\$ 693,205	\$693,205	\$693,205	\$693,205
U.S. Treasury and agencies	860,113	850,957	841,399	831,833	822,169	812,508	802,848
Municipal notes and bonds	166,973	166,847	166,139	165,330	164,522	163,713	162,905
Government-sponsored enterprises	57,316	56,719	56,121	55,523	54,924	54,326	53,727
Foreign government bonds	69,049	68,367	67,684	67,002	66,320	65,638	64,956
Bank and corporate notes	2,599,697	2,577,869	2,555,944	2,534,018	2,512,095	2,490,174	2,468,255
Mortgage backed securities - residential	47,992	47,530	47,046	46,561	46,077	45,591	45,106
Mortgage backed securities - commercial	110,143	108,741	107,339	105,938	104,537	103,137	101,738
Total	\$4,604,488	\$4,570,235	\$4,534,877	\$ 4,499,410	\$4,463,849	\$4,428,292	\$4,392,740

We mitigate default risk by investing in high credit quality securities and by positioning our portfolio to respond appropriately to a significant reduction in a credit rating of any investment issuer or guarantor. The portfolio includes only marketable securities with active secondary or resale markets to achieve portfolio liquidity and maintain a prudent amount of diversification.

**ITEM 4. Controls and Procedures****Design of Disclosure Controls and Procedures and Internal Control over Financial Reporting**

We maintain disclosure controls and procedures and internal control over financial reporting that are designed to comply with Rule 13a-15 of the Exchange Act. In designing and evaluating the controls and procedures associated with each, management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and that the effectiveness of controls cannot be absolute because the cost to design and implement a control to identify errors or mitigate the risk of errors occurring should not outweigh the potential loss caused by the errors that would likely be detected by the control. Moreover, we believe that a control system cannot be guaranteed to be 100% effective all of the time. Accordingly, a control system, no matter how well designed and operated, can provide only reasonable, not absolute, assurance that the control system’s objectives will be met.

**Disclosure Controls and Procedures**

As required by Exchange Act Rule 13a-15(b), as of September 24, 2017, we carried out an evaluation, under the supervision and with the participation of our management, including our Chief Executive Officer and our Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures as defined in Rule 13a-15(e). Based upon that evaluation, our Chief Executive Officer, along with our Chief Financial Officer, concluded that our disclosure controls and procedures are effective at the reasonable assurance level.

We intend to review and evaluate the design and effectiveness of our disclosure controls and procedures on an ongoing basis and to correct any material deficiencies that we may discover. Our goal is to ensure that our senior management has timely access to material information that could affect our business.

**Changes in Internal Control over Financial Reporting**

There has been no change in our internal control over financial reporting during our most recent fiscal quarter that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.



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Effectiveness of Controls

While we believe the present design of our disclosure controls and procedures and internal control over financial reporting is effective, future events affecting our business may cause us to modify our disclosure controls and procedures or internal control over financial reporting.

PART II. OTHER INFORMATION

ITEM 1. Legal Proceedings

While we are not currently a party to any legal proceedings that we believe are material, we are either a defendant or plaintiff in various actions that have arisen from time to time in the normal course of business, including intellectual property claims. We accrue for a liability when it is both probable that a liability has been incurred and the amount of the loss can be reasonably estimated. Significant judgment is required in both the determination of probability and the determination as to whether a loss is reasonably estimable. Based on current information, we do not believe that a material loss from known matters is probable and therefore have not recorded an accrual for litigation or other contingencies related to existing legal proceedings.

ITEM 1A. Risk Factors

In addition to the other information in this Form 10-Q, the following risk factors should be carefully considered in evaluating us and our business because such factors may significantly impact our business, operating results, and financial condition. As a result of these risk factors, as well as other risks discussed in our other SEC filings, our actual results could differ materially from those projected in any forward-looking statements. No priority or significance is intended, nor should be attached, to the order in which the risk factors appear.

The Semiconductor Capital Equipment Industry Is Subject to Variability and Periods of Rapid Growth or Decline; We Therefore Face Risks Related to Our Strategic Resource Allocation Decisions

The semiconductor capital equipment industry has historically been characterized by rapid changes in demand. The industry environment has moved toward being more characterized by variability across segments and customers accentuated by consolidation within the industry. Variability in our customers' business plans may lead to changes in demand for our equipment and services, which could negatively impact our results. The variability in our customers' investments during any particular period is dependent on several factors, including but not limited to electronics demand, economic conditions (both general and in the semiconductor and electronics industries), industry supply and demand, prices for semiconductors, and our customers' ability to develop and manufacture increasingly complex and costly semiconductor devices. The changes in demand may require our management to adjust spending and other resources allocated to operating activities.

During periods of rapid growth or decline in demand for our products and services, we face significant challenges in maintaining adequate financial and business controls, management processes, information systems, and procedures for training and managing our workforce, and in appropriately sizing our supply chain infrastructure and facilities, workforce, and other components of our business on a timely basis. If we do not adequately meet these challenges during periods of increasing or declining demand, our gross margins and earnings may be negatively impacted.

We continuously reassess our strategic resource allocation choices in response to the changing business environment. If we do not adequately adapt to the changing business environment, we may lack the infrastructure and resources to scale up our business to meet customer expectations and compete successfully during a period of growth, or we may expand our capacity too rapidly and/or beyond what is appropriate for the actual demand environment, resulting in excess fixed costs.

Especially during transitional periods, resource allocation decisions can have a significant impact on our future performance, particularly if we have not accurately anticipated industry changes. Our success will depend, to a significant extent, on the ability of our executive officers and other members of our senior management to identify and respond to these challenges effectively.





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Future Declines in the Semiconductor Industry, and the Overall World Economic Conditions on Which It Is Significantly Dependent, Could Have a Material Adverse Impact on Our Results of Operations and Financial Condition

Our business depends on the capital equipment expenditures of semiconductor manufacturers, which in turn depend on the current and anticipated market demand for integrated circuits. With the consolidation of customers within the industry, the semiconductor capital equipment market may experience rapid changes in demand driven both by changes in the market generally and the plans and requirements of particular customers. The economic, political, and business conditions occurring nationally, globally, or in any of our key sales regions, which are often unpredictable, have historically impacted customer demand for our products and normal commercial relationships with our customers, suppliers, and creditors. Additionally, in times of economic uncertainty, our customers' budgets for our products, or their ability to access credit to purchase them, could be adversely affected. This would limit their ability to purchase our products and services. As a result, changing business or economic conditions can cause material adverse changes to our results of operations and financial condition, including but not limited to:

- a decline in demand for our products or services;
- an increase in reserves on accounts receivable due to our customers' inability to pay us;
- an increase in reserves on inventory balances due to excess or obsolete inventory as a result of our inability to sell such inventory;
- valuation allowances on deferred tax assets;
- restructuring charges;
- asset impairments including the potential impairment of goodwill and other intangible assets;
- a decline in the value of our investments;
- exposure to claims from our suppliers for payment on inventory that is ordered in anticipation of customer purchases that do not come to fruition;
- a decline in the value of certain facilities we lease to less than our residual value guarantee with the lessor; and
- challenges maintaining reliable and uninterrupted sources of supply.

Fluctuating levels of investment by semiconductor manufacturers may materially affect our aggregate shipments, revenues, operating results, and earnings. Where appropriate, we will attempt to respond to these fluctuations with cost management programs aimed at aligning our expenditures with anticipated revenue streams, which sometimes result in restructuring charges. Even during periods of reduced revenues, we must continue to invest in R&D and maintain extensive ongoing worldwide customer service and support capabilities to remain competitive, which may temporarily harm our profitability and other financial results.

Our Quarterly Revenues and Operating Results Are Variable

Our revenues and operating results may fluctuate significantly from quarter to quarter due to a number of factors, not all of which are in our control. We manage our expense levels based in part on our expectations of future revenues. Because our operating expenses are based in part on anticipated future revenues, and a certain amount of those expenses are relatively fixed, a change in the timing of recognition of revenue and/or the level of gross profit from a small number of transactions can unfavorably affect operating results in a particular quarter. Factors that may cause our financial results to fluctuate unpredictably include but are not limited to:

- economic conditions in the electronics and semiconductor industries in general and specifically the semiconductor equipment industry;
- the size and timing of orders from customers;
- consolidation of the customer base, which may result in the investment decisions of one customer or market having a significant effect on demand for our products or services;
- procurement shortages;
- the failure of our suppliers or outsource providers to perform their obligations in a manner consistent with our expectations;
- manufacturing difficulties;
- customer cancellations or delays in shipments, installations, and/or customer acceptances;

Explanation of Responses:

- the extent that customers continue to purchase and use our products and services in their business;
- our customers' reuse of existing and installed products, to the extent that such reuse decreases their need to purchase new products or services;
- changes in average selling prices, customer mix, and product mix;
- our ability to develop, introduce, and market new, enhanced, and competitive products in a timely manner;
- our competitors' introduction of new products;
- legal or technical challenges to our products and technologies;

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transportation, communication, demand, information technology, or supply disruptions based on factors outside our control, such as strikes, acts of God, wars, terrorist activities, and natural or man-made disasters;  
 legal, tax, accounting, or regulatory changes (including but not limited to change in import/export regulations) or changes in the interpretation or enforcement of existing requirements;  
 changes in our estimated effective tax rate;

foreign currency exchange rate fluctuations; and

the dilutive impact of our Convertible Notes (as defined below) and related warrants on our earnings per share.

**We May Incur Impairments to Goodwill or Long-Lived Assets**

We review our long-lived assets, including goodwill and other intangible assets, for impairment annually or whenever events or changes in circumstances indicate that the carrying amount of these assets may not be recoverable. Negative industry or economic trends, including reduced market prices of our Common Stock, reduced estimates of future cash flows, disruptions to our business, slower growth rates, or lack of growth in our relevant business units, could lead to impairment charges against our long-lived assets, including goodwill and other intangible assets. If, in any period, our stock price decreases to the point where our fair value, as determined by our market capitalization, is less than the book value of our assets, this could also indicate a potential impairment, and we may be required to record an impairment charge in that period, which could adversely affect our result of operations.

Our valuation methodology for assessing impairment requires management to make judgments and assumptions based on historical experience and to rely heavily on projections of future operating performance. We operate in a highly competitive environment and projections of future operating results and cash flows may vary significantly from actual results. Additionally, if our analysis indicates potential impairment to goodwill in one or more of our business units, we may be required to record additional charges to earnings in our financial statements, which could negatively affect our results of operations.

**Our Leverage and Debt Service Obligations and Potential Note Conversion or Related Hedging Activities May Adversely Affect Our Financial Condition, Results of Operations, and Earnings per Share**

We have \$2.6 billion in aggregate principal amount of senior unsecured notes and convertible note instruments outstanding. Additionally, we have \$1.25 billion available to us in revolving credit arrangements, with an option for us to request an increase in the facility of up to an additional \$600 million, for a potential total commitment of \$1.85 billion. We may, in the future, decide to borrow amounts under the revolving credit agreement, or to enter into additional debt arrangements.

In addition, we have entered, and in the future may enter, into derivative instrument arrangements to hedge against the variability of cash flows due to changes in the benchmark interest rate of fixed rate debt. We could be exposed to losses in the event of nonperformance by the counterparties to our derivative instruments.

Our indebtedness could have adverse consequences, including:

risk associated with any inability to satisfy our obligations;

a portion of our cash flows that may have to be dedicated to interest and principal payments and may not be available for operations, working capital, capital expenditures, expansion, acquisitions, or general corporate or other purposes; and

impairing our ability to obtain additional financing in the future.

Our ability to meet our expenses and debt obligations will depend on our future performance, which will be affected by financial, business, economic, regulatory, and other factors. Furthermore, our operations may not generate sufficient cash flows, particularly in the United States, to enable us to meet our expenses and service our debt. As a result, we may need to enter into new financing arrangements to obtain the necessary funds. If we determine it is necessary to seek additional funding for any reason, we may not be able to obtain such funding or, if funding is available, obtain it on acceptable terms. If we fail to make a payment on our debt, we could be in default on such debt, and this default could cause us to be in default on our other outstanding indebtedness.

Conversion of our Convertible Notes and the exercise of the related warrants may cause dilution to our stockholders and to our earnings per share. The number of shares of our Common Stock into which the Convertible Notes are convertible and for which related warrants are exercisable for may be adjusted from time to time, including increases

in such rates as a result of dividends that we pay to our stockholders. Upon conversion of any Convertible Notes, we will deliver cash in the amount of the principal amount of the Convertible Notes and, with respect to any excess conversion value greater than the principal amount of the Convertible Notes, shares of our Common Stock, which would result in dilution to our stockholders. This dilution may not be completely mitigated by the hedging transactions we entered into in connection with the sale of certain Convertible Notes or

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through share repurchases. Prior to the maturity of the Convertible Notes, if the price of our Common Stock exceeds the conversion price, U.S. generally accepted accounting principles require that we report an increase in diluted share count, which would result in lower reported earnings per share. The price of our Common Stock could also be affected by sales of our Common Stock by investors who view the Convertible Notes as a more attractive means of equity participation in our company and also by hedging activity that may develop involving our Common Stock by holders of the Convertible Notes.

**Our Credit Agreements Contain Covenant Restrictions That May Limit Our Ability to Operate Our Business**

We may be unable to respond to changes in business and economic conditions, engage in transactions that might otherwise be beneficial to us, or obtain additional financing because our debt agreements contain, and any of our other future similar agreements may contain, covenant restrictions that limit our ability to, among other things:

- incur additional debt, assume obligations in connection with letters of credit, or issue guarantees;
- create liens;
- enter into transactions with our affiliates;
- sell certain assets; and
- merge or consolidate with any person.

Our ability to comply with these covenants is dependent on our future performance, which will be subject to many factors, some of which are beyond our control, including prevailing economic conditions. In addition, our failure to comply with these covenants could result in a default under the Senior Notes, the Convertible Notes, or our other debt, which could permit the holders to accelerate such debt. If any of our debt is accelerated, we may not have sufficient funds available to repay such debt, which could materially and negatively affect our financial condition and results of operation.

**We Have a Limited Number of Key Customers**

Sales to a limited number of large customers constitute a significant portion of our overall revenue, shipments, cash flows, collections, and profitability. As a result, the actions of even one customer may subject us to variability in those areas that is difficult to predict. In addition, large customers may be able to negotiate requirements that result in decreased pricing, increased costs, and/or lower margins for us; compliance with specific environmental, social, and corporate governance standards; and limitations on our ability to share jointly developed technology with others. Similarly, significant portions of our credit risk may, at any given time, be concentrated among a limited number of customers so that the failure of even one of these key customers to pay its obligations to us could significantly impact our financial results.

**We Depend on Creating New Products and Processes and Enhancing Existing Products and Processes for Our Success. Consequently, We Are Subject to Risks Associated with Rapid Technological Change**

Rapid technological changes in semiconductor manufacturing processes subject us to increased pressure to develop technological advances that enable those processes. We believe that our future success depends in part upon our ability to develop and offer new products with improved capabilities and to continue to enhance our existing products. If new products or existing products have reliability, quality, design, or safety problems, our performance may be impacted by reduced orders, higher manufacturing costs, delays in acceptance of and payment for new products, and additional service and warranty expenses. We may be unable to develop and manufacture products successfully, or products that we introduce may fail in the marketplace. For more than 25 years, the primary driver of technology advancement in the semiconductor industry has been to shrink the lithography that prints the circuit design on semiconductor chips. That driver could be approaching its technological limit, leading semiconductor manufacturers to investigate more complex changes in multiple technologies in an effort to continue technology development. In the face of uncertainty on which technology solutions will become successful, we will need to focus our efforts on developing the technology changes that are ultimately successful in supporting our customer requirements. Our failure to develop and offer the correct technology solutions in a timely manner with productive and cost-effective products could adversely affect our business in a material way. Our failure to commercialize new products in a timely manner could result in loss of market share, unanticipated costs, and inventory obsolescence, which would adversely affect our financial results.

In order to develop new products and processes and enhance existing products and processes, we expect to continue to make significant investments in R&D, to investigate the acquisition of new products and technologies, to invest in or acquire such business or technologies, and to pursue joint development relationships with customers, suppliers, or other members of the industry. Our investments and acquisitions may not be as successful as we may expect, particularly as we seek to invest or acquire product lines and technologies that are new to us. We may find that acquisitions are not available to us, for regulatory or other reasons, and that we must therefore limit ourselves to collaboration and joint venture development activities, which do not have the same benefits as acquisitions. Pursuing development through collaboration and/or joint development activities rather than through an acquisition poses substantial challenges for management, including those related to aligning business

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objectives, sharing confidential information and intellectual property, sharing value with third parties, and realizing synergies that might have been available in an acquisition but are not available through a joint development project. We must manage product transitions and joint development relationships successfully, as the introduction of new products could adversely affect our sales of existing products and certain jointly developed technologies may be subject to restrictions on our ability to share that technology with other customers, which could limit our market for products incorporating those technologies. Future technologies, processes, or product developments may render our current product offerings obsolete, leaving us with non-competitive products, obsolete inventory, or both. Moreover, customers may adopt new technologies or processes to address the complex challenges associated with next-generation devices. This shift may result in a reduction in the size of our addressable markets or could increase the relative size of markets in which we either do not compete or have relatively low market share.

**We Are Subject to Risks Relating to Product Concentration and Lack of Product Revenue Diversification**

We derive a substantial percentage of our revenues from a limited number of products. Our products are priced up to approximately \$10 million per system. As a result, the inability to recognize revenue on even a few systems can cause a significantly adverse impact on our revenues for a given quarter, and, in the longer term, the continued market acceptance of these products is critical to our future success. Our business, operating results, financial condition, and cash flows could therefore be adversely affected by:

- a decline in demand for even a limited number of our products,
- a failure to achieve continued market acceptance of our key products,
- export restrictions or other regulatory or legislative actions that could limit our ability to sell those products to key customers or customers within certain markets,
- an improved version of products being offered by a competitor in the markets in which we participate,
- increased pressure from competitors that offer broader product lines,
- technological changes that we are unable to address with our products, or
- a failure to release new or enhanced versions of our products on a timely basis.

In addition, the fact that we offer limited product lines creates the risk that our customers may view us as less important to their business than our competitors that offer additional products and/or product capabilities. This may impact our ability to maintain or expand our business with certain customers. Such product concentration may also subject us to additional risks associated with technology changes. Our business is affected by our customers' use of our products in certain steps in their wafer fabrication processes. Should technologies change so that the manufacture of semiconductors requires fewer steps using our products, this could have a larger impact on our business than it would on the business of our less concentrated competitors.

**Strategic Alliances and Customer Consolidation May Have Negative Effects on Our Business**

Increasingly, semiconductor manufacturing companies are entering into strategic alliances or consolidating with one another to expedite the development of processes and other manufacturing technologies and/or achieve economies of scale. The outcomes of such an alliance can be the definition of a particular tool set for a certain function and/or the standardization of a series of process steps that use a specific set of manufacturing equipment, while the outcomes of consolidation can lead to an overall reduction in the market for semiconductor manufacturing equipment as customers' operations achieve economies of scale and/or increased purchasing power based on their higher volumes. In certain instances, this could work to our disadvantage if a competitor's tools or equipment become the standard equipment for such functions or processes. Additional outcomes of such consolidation may include our customers re-evaluating their future supplier relationships to consider our competitors' products and/or gaining additional influence over the pricing of products and the control of intellectual property.

Similarly, our customers may partner with, or follow the lead of, educational or research institutions that establish processes for accomplishing various tasks or manufacturing steps. If those institutions utilize a competitor's equipment when they establish those processes, it is likely that customers will tend to use the same equipment in setting up their own manufacturing lines. Even if they select our equipment, the institutions and the customers that follow their lead could impose conditions on acceptance of that equipment, such as adherence to standards and requirements or limitations on how we license our proprietary rights, that increase our costs or require us to take on greater risk. These



actions could adversely impact our market share and financial results.

**We Depend on a Limited Number of Key Suppliers and Outsource Providers, and We Run the Risk That They Might Not Perform as We Expect**

Outsource providers and component suppliers have played and will continue to play a key role in our manufacturing operations, field installation and support, and many of our transactional and administrative functions, such as information technology, facilities management, and certain elements of our finance organization. These providers and suppliers might suffer financial setbacks, be acquired by third parties, become subject to exclusivity arrangements that preclude further business with us, or be

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unable to meet our requirements or expectation due to their independent business decisions or force majeure events that could interrupt or impair their continued ability to perform as we expect.

Although we attempt to select reputable providers and suppliers and we attempt to secure their performance on terms documented in written contracts, it is possible that one or more of these providers or suppliers could fail to perform as we expect, or fail to secure or protect intellectual property rights, and such failure could have an adverse impact on our business. In some cases, the requirements of our business mandate that we obtain certain components and sub-assemblies included in our products from a single supplier or a limited group of suppliers. Where practical, we endeavor to establish alternative sources to mitigate the risk that the failure of any single provider or supplier will adversely affect our business, but this is not feasible in all circumstances. There is therefore a risk that a prolonged inability to obtain certain components or secure key services could impair our ability to manage operations, ship products, and generate revenues, which could adversely affect our operating results and damage our customer relationships.

**We Face Risks Related to the Disruption of Our Primary Manufacturing Facilities**

Our manufacturing facilities are concentrated in just a few locations. These locations are subject to disruption for a variety of reasons, such as natural or man-made disasters, terrorist activities, disruptions of our information technology resources, and utility interruptions. Such disruptions may cause delays in shipping our products, which could result in the loss of business or customer trust, adversely affecting our business and operating results.

**Once a Semiconductor Manufacturer Commits to Purchase a Competitor's Semiconductor Manufacturing Equipment, the Manufacturer Typically Continues to Purchase That Competitor's Equipment, Making It More Difficult for Us to Sell Our Equipment to That Customer**

Semiconductor manufacturers must make a substantial investment to qualify and integrate wafer processing equipment into a semiconductor production line. We believe that once a semiconductor manufacturer selects a particular supplier's processing equipment, the manufacturer generally relies upon that equipment for that specific production line application for an extended period of time, especially for customers that are more focused on tool reuse. Accordingly, we expect it to be more difficult to sell our products to a given customer if that customer initially selects a competitor's equipment for the same product line application.

**We Face a Challenging and Complex Competitive Environment**

We face significant competition from multiple competitors, and with increased consolidation efforts in our industry, we may face increasing competitive pressures. Other companies continue to develop systems and/or acquire businesses and products that are competitive to ours and may introduce new products and product capabilities that may affect our ability to sell our existing products. We face a greater risk if our competitors enter into strategic relationships with leading semiconductor manufacturers covering products similar to those we sell or may develop, as this could adversely affect our ability to sell products to those manufacturers.

We believe that to remain competitive we must devote significant financial resources to offer products that meet our customers' needs, to maintain customer service and support centers worldwide, and to invest in product and process R&D. Certain of our competitors, including those that are created and financially backed by foreign governments, have substantially greater financial resources and more extensive engineering, manufacturing, marketing, and customer service and support resources than we do and therefore have the potential to offer customers a more comprehensive array of products and/or product capabilities and to therefore achieve additional relative success in the semiconductor equipment industry. These competitors may deeply discount or give away products similar to those that we sell, challenging or even exceeding our ability to make similar accommodations and threatening our ability to sell those products. We also face competition from our own customers, who in some instances have established affiliated entities that manufacture equipment similar to ours. In addition, we face competition from companies that exist in a more favorable legal or regulatory environment than we do, allowing the freedom of action in ways that we may be unable to match. In many cases speed to solution is necessary for customer satisfaction and our competitors may be better positioned to achieve these objectives. For these reasons, we may fail to continue to compete successfully worldwide.

In addition, our competitors may be able to develop products comparable or superior to those we offer or may adapt more quickly to new technologies or evolving customer requirements. In particular, while we continue to develop product enhancements that we believe will address future customer requirements, we may fail in a timely manner to complete the development or introduction of these additional product enhancements successfully, or these product enhancements may not achieve market acceptance or be competitive. Accordingly, competition may intensify, and we may be unable to continue to

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compete successfully in our markets, which could have a material adverse effect on our revenues, operating results, financial condition, and/or cash flows.

Our Future Success Depends Heavily on International Sales and the Management of Global Operations  
 Non-U.S. sales, as reflected in Part 1 Item 1. Business, accounted for approximately 94%, 92%, and 92% of total revenue in the three months ended September 24, 2017 and fiscal years 2017, and 2016, respectively. We expect that international sales will continue to account for a substantial majority of our total revenue in future years.

We are subject to various challenges related to international sales and the management of global operations including but not limited to:

- trade balance issues;
- tariffs and other barriers;
- global or national economic and political conditions;
- changes in currency controls;
- differences in the enforcement of intellectual property and contract rights in varying jurisdictions;
- our ability to respond to customer and foreign government demands for locally sourced systems, spare parts, and services and develop the necessary relationships with local suppliers;
- compliance with U.S. and international laws and regulations affecting foreign operations, including U.S. and international trade restrictions and sanctions, anti-bribery, anti-corruption, environmental, tax, and labor laws;
- fluctuations in interest and foreign currency exchange rates;
- our ability to repatriate cash in a tax-efficient manner;
- the need for technical support resources in different locations; and
- our ability to secure and retain qualified people, and effectively manage people, in all necessary locations for the successful operation of our business.

Certain international sales depend on our ability to obtain export licenses from the U.S. government. Our failure or inability to obtain such licenses would substantially limit our markets and severely restrict our revenues. Many of the challenges noted above are applicable in China, which is a fast developing market for the semiconductor equipment industry and therefore an area of potential significant growth for our business. As the business volume between China and the rest of the world grows, there is inherent risk, based on the complex relationships among China, Japan, Korea, Taiwan, and the United States, that political and diplomatic influences might lead to trade disruptions. This would adversely affect our business with China, Japan, Korea, and/or Taiwan and perhaps the entire Asia Pacific region. A significant trade disruption in these areas could have a materially adverse impact on our future revenue and profits. In addition, there are risks that the Chinese government may, among other things, insist on the use of local suppliers; compel companies that do business in China to partner with local companies to design and supply equipment on a local basis, requiring the transfer of intellectual property rights and/or local manufacturing; and provide special incentives to government-backed local customers to buy from local competitors, even if their products are inferior to ours; all of which could adversely impact our revenues and margins.

We are exposed to potentially adverse movements in foreign currency exchange rates. The majority of our sales and expenses are denominated in U.S. dollars. However, we are exposed to foreign currency exchange rate fluctuations primarily related to revenues denominated in Japanese yen and expenses denominated in euro and Korean won. Currently, we hedge certain anticipated foreign currency cash flows, primarily anticipated revenues denominated in Japanese yen and expenses dominated in euro and Korean won. In addition, we enter into foreign currency hedge contracts to minimize the short-term impact of the foreign currency exchange rate fluctuations on certain foreign currency monetary assets and liabilities, primarily third-party accounts receivables, accounts payables, and intercompany receivables and payables. We believe these are our primary exposures to currency rate fluctuation. We expect to continue to enter into hedging transactions, for the purposes outlined, for the foreseeable future. However, these hedging transactions may not achieve their desired effect because differences between the actual timing of the underlying exposures and our forecasts of those exposures may leave us either over or under hedged on any given transaction. Moreover, by hedging these foreign currency denominated revenues, expenses, monetary assets, and liabilities, we may miss favorable currency trends that would have been advantageous to us but for the hedges.

Additionally, we are exposed to short-term foreign currency exchange rate fluctuations on non-U.S. dollar-denominated monetary assets and liabilities (other than those currency exposures previously discussed), and currently we do not enter into foreign currency hedge contracts against these exposures. Therefore, we are subject to potential unfavorable foreign currency exchange rate fluctuations to the extent that we transact business (including intercompany transactions) in these currencies.

The magnitude of our overseas business also affects where our cash is generated. Certain uses of cash, such as share repurchases, payment of dividends, or the repayment of our notes, can usually only be made with onshore cash balances. Since

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the majority of our cash is generated outside of the United States, this may impact certain business decisions and adversely affect business outcomes.

**Our Ability to Attract, Retain, and Motivate Key Employees Is Critical to Our Success**

Our ability to compete successfully depends in large part on our ability to attract, retain, and motivate key employees with the appropriate skills, experiences and competencies. This is an ongoing challenge due to intense competition for top talent, fluctuations in industry or business economic conditions, as well as increasing geographic expansion that may require cycles of hiring activity and workforce reductions. Our success in hiring depends on a variety of factors, including the attractiveness of our compensation and benefit programs, global economic or political and industry conditions, our organizational structure, global competition for talent and the availability of qualified employees, the availability of career development opportunities, the ability to obtain necessary authorizations for workers to provide services outside their home countries, and our ability to offer a challenging and rewarding work environment. We periodically evaluate our overall compensation and benefit programs and make adjustments, as appropriate, to maintain or enhance their competitiveness. If we are not able to successfully attract, retain, and motivate key employees, we may be unable to capitalize on market opportunities and our operating results may be materially and adversely affected.

**We Rely upon Certain Critical Information Systems for the Operation of Our Business That Are Susceptible to Cybersecurity and Other Threats or Incidents**

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. Many of these information systems and outsourced service providers, including certain hosted software applications that we use for storage of confidential data and data processing (e.g., company-related, whether intellectual property or not; customer-related; supplier-related; and/or employee-related), employ Cloud technology for such storage and data processing (which refers to an information technology hosting and delivery system in which data is not stored or processed within the user’s physical infrastructure but instead is delivered to and consumed by the user as an Internet-based service). All of these information systems are subject to disruption, breach or failure from 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 to computers, hard drives, communication lines, and networking equipment. 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 ISO 27001 compliant security procedures and virus protection software, intrusion prevention systems, access control, and emergency recovery processes to mitigate the outlined risks with respect to information systems that are under our control, they cannot be guaranteed to be fail-safe and may be breached. Our inability to use or access these information systems at critical points in time, or unauthorized releases of proprietary or confidential information, could unfavorably impact the timely and efficient operation of our business, including our results of operations, and our reputation.

We have experienced cyber attacks. Although past attacks have not resulted in a material adverse effect, we may incur material losses related to cyber attacks in the future. The insurance we carry may not fully compensate us for the effects of potential losses arising from a cyber-related incident. Cyber-related incidents could result in:

- disruptions to our operations;
- misappropriation or theft of Company, customer, supplier, or other’s assets or resources, including intellectual property and confidential information, and costs associated therewith;
- litigation with, or claims of damages arising from, our employees, customers, suppliers, or other third parties with whom we collaborate; or
- adverse impact to our results of operations, as a result of associated remediation costs such as those related to responding to potential regulatory inquiries, to rebuild the effected information systems, and those associated with improving our security and internal control environment.

**Our Financial Results May Be Adversely Impacted by Higher than Expected Tax Rates or Exposure to Additional Tax Liabilities**

As a global company, our effective tax rate is highly dependent upon the geographic composition of worldwide earnings and tax regulations governing each region. We are subject to income taxes in the United States and various foreign jurisdictions, and significant judgment is required to determine worldwide tax liabilities. Our effective tax rate could be adversely affected by changes in the split of earnings between countries with differing statutory tax rates, in the valuation allowance of deferred tax assets, in tax laws, by material audit assessments, or changes in or expirations of agreements with tax authorities. These factors could affect our profitability. In particular, the carrying value of deferred tax assets, which are predominantly in the United

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States, is dependent on our ability to generate future taxable income in the United States. In addition, the amount of income taxes we pay is subject to ongoing audits in various jurisdictions, and a material assessment by a governing tax authority could affect our profitability.

**A Failure to Comply with Environmental Regulations May Adversely Affect Our Operating Results**

We are subject to a variety of domestic and international governmental regulations related to the handling, discharge, and disposal of toxic, volatile, or otherwise hazardous chemicals. Failure to comply with present or future environmental regulations could result in fines being imposed on us, require us to suspend production, and/or cease operations, or cause our customers to not accept our products. These regulations could require us to alter our current operations, acquire significant additional equipment, incur substantial other expenses to comply with environmental regulations, or take other actions. Any failure to comply with regulations governing the use, handling, sale, transport, or disposal of hazardous substances could subject us to future liabilities that may adversely affect our operating results, financial condition, and ability to operate our business.

**If We Choose to Acquire or Dispose of Businesses, Product Lines, and Technologies, We May Encounter Unforeseen Costs and Difficulties That Could Impair Our Financial Performance**

An important element of our management strategy is to review acquisition prospects that would complement our existing products, augment our market coverage and distribution ability, or enhance our technological capabilities. As a result, we may seek to make acquisitions of complementary companies, products, or technologies, or we may reduce or dispose of certain product lines or technologies that no longer fit our long-term strategies. For regulatory or other reasons, we may not be successful in our attempts to acquire or dispose of businesses, products, or technologies, resulting in significant financial costs, reduced or lost opportunities, and diversion of management's attention.

Managing an acquired business, disposing of product technologies, or reducing personnel entails numerous operational and financial risks, including difficulties in assimilating acquired operations and new personnel or separating existing business or product groups, diversion of management's attention away from other business concerns, amortization of acquired intangible assets, adverse customer reaction to our decision to cease support for a product, and potential loss of key employees or customers of acquired or disposed operations. There can be no assurance that we will be able to achieve and manage successfully any such integration of potential acquisitions, disposition of product lines or technologies, or reduction in personnel or that our management, personnel, or systems will be adequate to support continued operations. Any such inability or inadequacy could have a material adverse effect on our business, operating results, financial condition, and/or cash flows.

In addition, any acquisition could result in changes such as potentially dilutive issuances of equity securities, the incurrence of debt and contingent liabilities, the amortization of related intangible assets, and goodwill impairment charges, any of which could materially adversely affect our business, financial condition, results of operations, cash flows, and/or the price of our Common Stock.

**The Market for Our Common Stock Is Volatile, Which May Affect Our Ability to Raise Capital or Make Acquisitions or May Subject Our Business to Additional Costs**

The market price for our Common Stock is volatile and has fluctuated significantly over the past years. The trading price of our Common Stock could continue to be highly volatile and fluctuate widely in response to a variety of factors, many of which are not within our control or influence. These factors include but are not limited to the following:

- general market, semiconductor, or semiconductor equipment industry conditions;
- economic or political events, trends, and unexpected developments occurring nationally, globally, or in any of our key sales regions;
- variations in our quarterly operating results and financial condition, including our liquidity;
- variations in our revenues, earnings, or other business and financial metrics from forecasts by us or securities analysts or from those experienced by other companies in our industry;
- announcements of restructurings, reductions in force, departure of key employees, and/or consolidations of operations;
- government regulations;



developments in, or claims relating to, patent or other proprietary rights;  
technological innovations and the introduction of new products by us or our competitors;  
commercial success or failure of our new and existing products;  
disruptions of relationships with key customers or suppliers; or  
dilutive impacts of our Convertible Notes and related warrants.

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In addition, the stock market experiences significant price and volume fluctuations. Historically, we have witnessed significant volatility in the price of our Common Stock due in part to the price of and markets for semiconductors. These and other factors have and may again adversely affect the price of our Common Stock, regardless of our actual operating performance. In the past, following volatile periods in the price of their stock, many companies became the object of securities class action litigation. If we are sued in a securities class action, we could incur substantial costs, and it could divert management's attention and resources and have an unfavorable impact on our financial performance and the price for our Common Stock.

**Intellectual Property, Indemnity, and Other Claims Against Us Can Be Costly and We Could Lose Significant Rights That Are Necessary to Our Continued Business and Profitability**

Third parties may assert infringement, unfair competition, product liability, breach of contract, or other claims against us. From time to time, other persons send us notices alleging that our products infringe their patent or other intellectual property rights. In addition, law enforcement authorities may seek criminal charges relating to intellectual property or other issues. We also face risks of claims arising from commercial and other relationships. In addition, our bylaws and other indemnity obligations provide that we will indemnify officers and members of our Board of Directors against losses that they may incur in legal proceedings resulting from their service to us. From time to time, in the normal course of business, we indemnify third parties with whom we enter into contractual relationships, including customers and suppliers, with respect to certain matters. We have agreed, under certain conditions, to hold these third parties harmless against specified losses, such as those arising from a breach of representations or covenants, other third-party claims that our products when used for their intended purposes infringe the intellectual property rights of such other third parties, or other claims made against certain parties. In such cases, it is our policy either to defend the claims or to negotiate licenses or other settlements on commercially reasonable terms. However, we may be unable in the future to negotiate necessary licenses or reach agreement on other settlements on commercially reasonable terms, or at all, and any litigation resulting from these claims by other parties may materially adversely affect our business and financial results, and we may be subject to substantial damage awards and penalties. Moreover, although we have insurance to protect us from certain claims and cover certain losses to our property, such insurance may not cover us for the full amount of any losses, or at all, and may be subject to substantial exclusions and deductibles.

**We May Fail to Protect Our Critical Proprietary Technology Rights, Which Could Affect Our Business**

Our success depends in part on our proprietary technology and our ability to protect key components of that technology through patents, copyrights, and trade secret protection. Protecting our key proprietary technology helps us to achieve our goals of developing technological expertise and new products and systems that give us a competitive advantage; increasing market penetration and growth of our installed base; and providing comprehensive support and service to our customers. As part of our strategy to protect our technology, we currently hold a number of U.S. and foreign patents and pending patent applications, and we keep certain information, processes, and techniques as trade secrets. However, other parties may challenge or attempt to invalidate or circumvent any patents the U.S. or foreign governments issue to us; these governments may fail to issue patents for pending applications; or we may lose trade secret protection over valuable information due to the intentional or unintentional actions or omissions of third parties, of ours, or even of our own employees. Additionally, intellectual property litigation can be expensive and time-consuming and even when patents are issued or trade secret processes are followed, the legal systems in certain of the countries in which we do business do not enforce patents and other intellectual property rights as rigorously as the United States. The rights granted or anticipated under any of our patents, pending patent applications, or trade secrets may be narrower than we expect or, in fact, provide no competitive advantages. Moreover, because we determine the jurisdictions in which to file patents at the time of filing, we may not have adequate protection in the future based on such previous decisions. Any of these circumstances could have a material adverse impact on our business.

**We Are Exposed to Various Risks from Our Regulatory Environment**

We are subject to various risks related to (1) new, different, inconsistent, or even conflicting laws, rules, and regulations that may be enacted by legislative bodies and/or regulatory agencies in the countries that we operate;

(2) disagreements or disputes between national or regional regulatory agencies related to international trade; and  
(3) the interpretation and application of laws, rules, and regulations. As a public company with global operations, we are subject to the laws of multiple jurisdictions and the rules and regulations of various governing bodies, including those related to financial and other disclosures, corporate governance, privacy, anti-corruption, such as the Foreign Corrupt Practices Act and other local laws prohibiting corrupt payments to governmental officials, conflict minerals or other social responsibility legislation, immigration or travel regulations, and antitrust regulations, among others. Each of these laws, rules, and regulations imposes costs on our business, including financial costs and potential diversion of our management's attention associated with compliance, and may present risks to our business, including potential fines, restrictions on our actions, and reputational damage if we are unable to fully comply.

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To maintain high standards of corporate governance and public disclosure, we intend to invest all reasonably necessary resources to comply with all evolving standards. Changes in or ambiguous interpretations of laws, regulations, and standards may create uncertainty regarding compliance matters. Efforts to comply with new and changing regulations have resulted in, and are likely to continue to result in, increased selling, general, and administrative expenses and a diversion of management's time and attention from revenue-generating activities to compliance activities. If we are found by a court or regulatory agency not to be in compliance with the laws and regulations, our business, financial condition, and/or results of operations could be adversely affected.

**There Can Be No Assurance That We Will Continue to Declare Cash Dividends or Repurchase Our Shares at All or in Any Particular Amounts**

Our Board of Directors has declared quarterly dividends since April 2014. Our intent to continue to pay quarterly dividends and to repurchase our shares is subject to capital availability and, in the case of dividends, periodic determinations by our Board of Directors that cash dividends are in the best interest of our stockholders and are in compliance with all laws and agreements applicable to the declaration and payment of cash dividends by us. Future dividends and share repurchases may also be affected by, among other factors, our views on potential future capital requirements for investments in acquisitions and the funding of our research and development; legal risks; changes in federal and state income tax laws or corporate laws; contractual restrictions, such as financial or operating covenants in our debt arrangements; availability of onshore cash flow; and changes to our business model. Our dividend payments and share repurchases may change from time to time, and we cannot provide assurance that we will continue to declare dividends or repurchase shares at all or in any particular amounts. A reduction or suspension in our dividend payments could have a negative effect on the price of our Common Stock.

**ITEM 2. Unregistered Sales of Equity Securities and Use of Proceeds**

**Repurchases of Company Shares**

In November 2016, the Board of Directors authorized us to repurchase up to \$1.0 billion of Common Stock, which included the remaining value available under our prior authorization. These repurchases can be conducted on the open market or as private purchases and may include the use of derivative contracts with large financial institutions, in all cases subject to compliance with applicable law. Repurchases will be funded using our on-shore cash and on-shore cash generation. This repurchase program has no termination date and may be suspended or discontinued at any time.

Share repurchases, including those under the repurchase program, were as follows:

	Total Number of Shares Repurchased (1)	Average Price Paid Per Share (2)	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Amount Available Under Repurchase Program
Amount available at June 25, 2017				\$ 282,141
June 26, 2017 - July 23, 2017	989	\$ 152.81	986	250,996
July 24, 2017 - August 20, 2017	484	\$ 155.04	480	176,516
August 21, 2017 - September 24, 2017	317	\$ 167.15	313	124,203
Quarter ended September 24, 2017	1,790	\$ 158.40	1,779	\$ 124,203

(in thousands, except share and per share data)

During the three months ended September 24, 2017, the Company acquired 11 thousand shares at a total cost of \$1.8 million, which the Company withheld through net share settlements to cover minimum tax withholding (1) obligations upon the vesting of restricted stock unit awards granted under the Company's equity compensation plans. The shares retained by the Company through these net share settlements are not a part of the Board-authorized repurchase program but instead are authorized under the Company's equity compensation plan.

(2) Average price paid per share excludes effect accelerated share repurchases; see additional disclosure below regarding our accelerated share repurchase activity during the fiscal year.

On April 19, 2017, the Company entered into two separate accelerated share repurchase agreements (collectively, the “ASR”) with two financial institutions to repurchase a total of \$500 million of Common Stock. The Company took an initial delivery of approximately 2,570,000 shares, which represented 70% of the prepayment amount divided by the Company’s closing stock price on April 19, 2017. The total number of shares to be received under the ASR is based upon the average daily volume weighted average price of our Common Stock during the repurchase period, less an agreed upon discount. Following the fiscal year end, the counterparties designated June 30, 2017 as the termination date, at which time the Company settled the ASR.

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Approximately 780,000 shares were received at final settlement, which resulted in a weighted-average share price of approximately \$149.16 for the transaction period.

ITEM 3. Defaults Upon Senior Securities

None.

ITEM 4. Mine Safety Disclosures

Not applicable.

ITEM 5. Other Information

None.

ITEM 6. Exhibits

See the Exhibit Index following the signature page to this Quarterly Report on Form 10-Q for a list of exhibits filed or furnished with this report, which Exhibit Index is incorporated herein by reference.

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LAM RESEARCH CORPORATION  
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.

Date: October 23, 2017 LAM RESEARCH CORPORATION  
(Registrant)

/s/ Douglas R. Bettinger  
Douglas R. Bettinger  
Executive Vice President, Chief Financial Officer  
(Principal Financial Officer and Principal Accounting  
Officer)

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EXHIBIT INDEX

Exhibit  
Number Description

10.1 <sup>(1)</sup> Amendment No. 2 to Amended and Restated Credit Agreement, dated October 13, 2017, among Lam Research Corporation, as borrower, the lenders party thereto and JPMorgan Chase Bank, N.A., as administrative agent.

31.1 Rule 13a-14(a)/15d-14(a) Certification (Principal Executive Officer)

31.2 Rule 13a-14(a)/15d-14(a) Certification (Principal Financial Officer)

32.1 Section 1350 Certification (Principal Executive Officer)

32.2 Section 1350 Certification (Principal Financial Officer)

101.INS XBRL Instance Document

101.SCHXBRL Taxonomy Extension Schema Document

101.CALXBRL Taxonomy Extension Calculation Linkbase Document

101.DEF XBRL Taxonomy Extension Definition Linkbase Document

101.LABXBRL Taxonomy Extension Label Linkbase Document

101.PRE XBRL Taxonomy Extension Presentation Linkbase Document

(1) Incorporated by reference to Registrant's Current Report on Form 8-K filed on October 17, 2017 (SEC File No. 000-12933)

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