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**UNITED STATES**  
**SECURITIES AND EXCHANGE COMMISSION**  
Washington, D.C. 20549  
**FORM 10-Q**

(Mark One)



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

For the quarterly period ended November 29, 2018

OR



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

For the transition period from            to

Commission file number 1-10658

**Micron Technology, Inc.**  
(Exact name of registrant as specified in its charter)

**Delaware**

(State or other jurisdiction of  
incorporation or organization)

**75-1618004**

(IRS Employer Identification No.)

**8000 S. Federal Way, Boise, Idaho**

(Address of principal executive offices)

**83716-9632**

(Zip Code)

Registrant's telephone number, including area code

**(208) 368-4000**

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

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

Large Accelerated Filer ☒    Accelerated Filer ☐    Non-Accelerated Filer ☐    Smaller Reporting Company ☐    Emerging Growth Company ☐

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

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

The number of outstanding shares of the registrant's common stock as of December 12, 2018 was 1,121,046,809.

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## Definitions of Commonly Used Terms

As used herein, "we," "our," "us," and similar terms include Micron Technology, Inc. and our consolidated subsidiaries, unless the context indicates otherwise. Abbreviations, terms, or acronyms are commonly used or found in multiple locations throughout this report and include the following:

Term	Definition	Term	Definition
2022 Term Loan B	Senior Secured Term Loan B due 2022	MMJ Group	MMJ and its subsidiaries
2025 Notes	5.50% Senior Notes due 2025	MMT	Micron Memory Taiwan Co., Ltd.
2032D Notes	3.13% Convertible Senior Notes due 2032	MTTW	Micron Technology Taiwan, Inc.
2033F Notes	2.13% Convertible Senior Notes due 2033	Qimonda	Qimonda AG
2043G Notes	3.00% Convertible Senior Notes due 2043	R&D	Research and Development
IMFT	IM Flash Technologies, LLC	SG&A	Selling, General, and Administrative
Inotera	Inotera Memories, Inc.	SSD	Solid-State Drive
Intel	Intel Corporation	TLC	Triple-Level Cell
Micron	Micron Technology, Inc. (Parent Company)	VIE	Variable Interest Entity
MMJ	Micron Memory Japan, Inc.		

The following Micron subsidiaries appear throughout this report:

Micron Consumer Products Group, Inc	Micron Semiconductor Products, Inc.
Micron Europe Limited	Micron Semiconductor (Shanghai) Co. Ltd.
Micron Semiconductor B.V.,	Micron Semiconductor (Xi'an) Co., Ltd.
Micron Semiconductor (Deutschland) GmbH	

Micron Technology, Inc., including its consolidated subsidiaries, is an industry leader in innovative memory and storage solutions. Through our global brands - Micron<sup>®</sup>, Crucial<sup>®</sup>, and Ballistix<sup>®</sup> – our broad portfolio of high-performance memory and storage technologies, including DRAM, NAND, NOR Flash, and 3D XPoint memory, is transforming how the world uses information to enrich life. Backed by 40 years of technology leadership, our memory and storage solutions enable disruptive trends, including artificial intelligence, machine learning, and autonomous vehicles, in key market segments like cloud, data center, networking, mobile, and automotive.

Micron, Crucial, Ballistix, any associated logos, and all other Micron trademarks are the property of Micron. 3D XPoint is a trademark of Intel in the United States and/or other countries. Other product names or trademarks that are not owned by Micron are for identification purposes only and may be the registered or unregistered trademarks of their respective owners.

## Forward-Looking Statements

This Form 10-Q contains trend information and other forward-looking statements that involve a number of risks and uncertainties. Forward-looking statements include, but are not limited to, statements such as those made regarding our expected NAND and 3D XPoint<sup>™</sup> development activities with Intel; our expectation to exercise our call option to purchase Intel's interest in IMFT and the amount we expect to pay for the transaction; our expectation, from time to time, to engage in additional financing transactions; the sufficiency of our cash and investments, cash flows from operations, and available financing to meet our requirements at least through the next 12 months; and capital spending in 2019. We are under no obligation to update these forward-looking statements. Our actual results could differ materially from our historical results and those discussed in the forward-looking statements. Factors that could cause actual results to differ materially include, but are not limited to, those identified in "Part II, Other Information – Item 1A. Risk Factors."

## PART I. FINANCIAL INFORMATION

### ITEM 1. FINANCIAL STATEMENTS

#### MICRON TECHNOLOGY, INC.

#### CONSOLIDATED STATEMENTS OF OPERATIONS

(in millions except per share amounts)  
(Unaudited)

Quarter ended	November 29, 2018	November 30, 2017
Revenue	\$ 7,913	\$ 6,803
Cost of goods sold	3,298	3,056
Gross margin	4,615	3,747
Selling, general, and administrative	209	191
Research and development	611	448
Other operating (income) expense, net	36	11
Operating income	3,759	3,097
Interest income	38	23
Interest expense	(33)	(124)
Other non-operating income (expense), net	9	(204)
	3,773	2,792
Income tax provision	(477)	(114)
Net income	3,296	2,678
Net income attributable to noncontrolling interests	(3)	—
Net income attributable to Micron	\$ 3,293	\$ 2,678
Earnings per share		
Basic	\$ 2.91	\$ 2.36
Diluted	2.81	2.19
Number of shares used in per share calculations		
Basic	1,133	1,134
Diluted	1,174	1,225

*See accompanying notes to consolidated financial statements.*

**MICRON TECHNOLOGY, INC.**

**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME**

(in millions)

(Unaudited)

<b>Quarter ended</b>	<b>November 29, 2018</b>	<b>November 30, 2017</b>
Net income	\$ 3,296	\$ 2,678
Other comprehensive income (loss), net of tax		
Gains (losses) on derivative instruments	(12)	(3)
Unrealized gains (losses) on investments	(3)	(1)
Pension liability adjustments	—	(1)
Other comprehensive income (loss)	(15)	(5)
Total comprehensive income	3,281	2,673
Comprehensive income attributable to noncontrolling interests	(3)	—
Comprehensive income attributable to Micron	<u>\$ 3,278</u>	<u>\$ 2,673</u>

*See accompanying notes to consolidated financial statements.*

**MICRON TECHNOLOGY, INC.**  
**CONSOLIDATED BALANCE SHEETS**  
(in millions except par value amounts)  
(Unaudited)

As of	November 29, 2018	August 30, 2018
<b>Assets</b>		
Cash and equivalents	\$ 4,447	\$ 6,506
Short-term investments	1,116	296
Receivables	5,418	5,478
Inventories	3,876	3,595
Other current assets	182	164
Total current assets	15,039	16,039
Long-term marketable investments	1,565	473
Property, plant, and equipment	24,807	23,672
Intangible assets	356	331
Deferred tax assets	842	1,022
Goodwill	1,228	1,228
Other noncurrent assets	758	611
Total assets	<u>\$ 44,595</u>	<u>\$ 43,376</u>
<b>Liabilities and equity</b>		
Accounts payable and accrued expenses	\$ 4,200	\$ 4,374
Current debt	398	859
Other current liabilities	591	521
Total current liabilities	5,189	5,754
Long-term debt	3,734	3,777
Other noncurrent liabilities	834	581
Total liabilities	9,757	10,112
Commitments and contingencies		
Redeemable convertible notes	2	3
Redeemable noncontrolling interest	97	97
<b>Micron shareholders' equity</b>		
Common stock, \$0.10 par value, 3,000 shares authorized, 1,172 shares issued and 1,120 outstanding (1,170 shares issued and 1,161 outstanding as of August 30, 2018)	117	117
Additional capital	8,350	8,201
Retained earnings	27,769	24,395
Treasury stock, 52 shares held (9 shares as of August 30, 2018)	(2,362)	(429)
Accumulated other comprehensive income (loss)	(5)	10
Total Micron shareholders' equity	33,869	32,294
Noncontrolling interests in subsidiaries	870	870
Total equity	34,739	33,164
Total liabilities and equity	<u>\$ 44,595</u>	<u>\$ 43,376</u>

*See accompanying notes to consolidated financial statements.*

**MICRON TECHNOLOGY, INC.**

**CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY**

(in millions)

(Unaudited)

	Micron Shareholders								
	Common Stock		Additional Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Income (Loss)	Total Micron Shareholders' Equity	Noncontrolling Interests in Subsidiaries	Total Equity
	Number of Shares	Amount							
<b>Balance at August 30, 2018</b>	1,170	\$ 117	\$ 8,201	\$ 24,395	\$ (429)	\$ 10	\$ 32,294	\$ 870	\$33,164
Cumulative effect of adopting new accounting standards				92			92		92
Net income				3,293			3,293	—	3,293
Other comprehensive income (loss), net						(15)	(15)		(15)
Stock issued under stock plans	3	—	15				15		15
Stock-based compensation expense			61				61		61
Repurchase of stock	(1)	—	108	(11)	(1,933)		(1,836)		(1,836)
Reclassification of redeemable convertible notes, net			1				1		1
Conversion and repurchase of convertible notes			(36)				(36)		(36)
<b>Balance at November 29, 2018</b>	<u>1,172</u>	<u>\$ 117</u>	<u>\$ 8,350</u>	<u>\$ 27,769</u>	<u>\$(2,362)</u>	<u>\$ (5)</u>	<u>\$ 33,869</u>	<u>\$ 870</u>	<u>\$34,739</u>

	Micron Shareholders								
	Common Stock		Additional Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Income (Loss)	Total Micron Shareholders' Equity	Noncontrolling Interests in Subsidiaries	Total Equity
	Number of Shares	Amount							
<b>Balance at August 31, 2017</b>	1,116	\$ 112	\$ 8,287	\$ 10,260	\$ (67)	\$ 29	\$ 18,621	\$ 849	\$ 19,470
Net income				2,678			2,678	—	2,678
Other comprehensive income (loss), net						(5)	(5)		(5)
Contributions from noncontrolling interests								18	18
Stock issued in public offering	34	3	1,363				1,366		1,366
Stock issued under stock plans	9	1	105				106		106
Stock-based compensation expense			51				51		51
Repurchase of stock	(1)	—	(90)		67		(23)		(23)
Reclassification of redeemable convertible notes, net			3				3		3
Conversion and repurchase of convertible notes			(271)				(271)		(271)
<b>Balance at November 30, 2017</b>	<u>1,158</u>	<u>\$ 116</u>	<u>\$ 9,448</u>	<u>\$ 12,938</u>	<u>\$ —</u>	<u>\$ 24</u>	<u>\$ 22,526</u>	<u>\$ 867</u>	<u>\$ 23,393</u>

*See accompanying notes to consolidated financial statements.*

**MICRON TECHNOLOGY, INC.**

**CONSOLIDATED STATEMENTS OF CASH FLOWS**

(in millions)

(Unaudited)

Quarter ended	November 29, 2018	November 30, 2017
<b>Cash flows from operating activities</b>		
Net income	\$ 3,296	\$ 2,678
Adjustments to reconcile net income to net cash provided by operating activities		
Depreciation expense and amortization of intangible assets	1,335	1,090
Amortization of debt discount and other costs	18	29
Stock-based compensation	61	51
(Gain) loss on debt prepayments, repurchases, and conversions	(14)	195
Change in operating assets and liabilities		
Receivables	189	(121)
Inventories	(286)	(37)
Deferred tax assets	192	37
Accounts payable and accrued expenses	(46)	(230)
Other	65	(56)
Net cash provided by operating activities	<u>4,810</u>	<u>3,636</u>
<b>Cash flows from investing activities</b>		
Expenditures for property, plant, and equipment	(2,700)	(1,956)
Purchases of available-for-sale securities	(2,047)	(186)
Proceeds from government incentives	236	—
Proceeds from sales of available-for-sale securities	77	554
Proceeds from maturities of available-for-sale securities	60	85
Other	(53)	69
Net cash provided by (used for) investing activities	<u>(4,427)</u>	<u>(1,434)</u>
<b>Cash flows from financing activities</b>		
Payments to acquire treasury stock	(1,836)	(23)
Repayments of debt	(577)	(2,744)
Payments on equipment purchase contracts	(20)	(133)
Proceeds from issuance of stock	15	1,472
Proceeds from issuance of debt	—	150
Other	(17)	(4)
Net cash provided by (used for) financing activities	<u>(2,435)</u>	<u>(1,282)</u>
Effect of changes in currency exchange rates on cash, cash equivalents, and restricted cash	(10)	(6)
Net increase (decrease) in cash, cash equivalents, and restricted cash	(2,062)	914
Cash, cash equivalents, and restricted cash at beginning of period	6,587	5,216
Cash, cash equivalents, and restricted cash at end of period	<u>\$ 4,525</u>	<u>\$ 6,130</u>

*See accompanying notes to consolidated financial statements.*

## MICRON TECHNOLOGY, INC.

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(All tabular amounts in millions except per share amounts)

(Unaudited)

#### Basis of Presentation

The accompanying consolidated financial statements include the accounts of Micron and our consolidated subsidiaries and have been prepared in accordance with accounting principles generally accepted in the United States of America consistent in all material respects with those applied in our Annual Report on Form 10-K for the year ended August 30, 2018, except for changes related to recently adopted accounting standards. See "Recently Adopted Accounting Standards" note. Prior year information is presented in accordance with the accounting guidance in effect during that period and has not been recast for recently adopted accounting standards. In the opinion of our management, the accompanying unaudited consolidated financial statements contain all necessary adjustments, consisting of a normal recurring nature, to fairly state the financial information set forth herein. Certain reclassifications have been made to prior period amounts to conform to current period presentation.

Our fiscal year is the 52 or 53-week period ending on the Thursday closest to August 31. Fiscal years 2019 and 2018 each contain 52 weeks. All period references are to our fiscal periods unless otherwise indicated. These interim financial statements should be read in conjunction with the consolidated financial statements and accompanying notes included in our Annual Report on Form 10-K for the year ended August 30, 2018.

#### Variable Interest Entities

We have interests in entities that are VIEs. If we are the primary beneficiary of a VIE, we are required to consolidate it. To determine if we are the primary beneficiary, we evaluate whether we have the power to direct the activities that most significantly impact the VIE's economic performance and the obligation to absorb losses or the right to receive benefits of the VIE that could potentially be significant to the VIE. Our evaluation includes identification of significant activities and an assessment of our ability to direct those activities based on governance provisions and arrangements to provide or receive product and process technology, product supply, operations services, equity funding, financing, and other applicable agreements and circumstances. Our assessments of whether we are the primary beneficiary of our VIEs require significant assumptions and judgments.

##### Unconsolidated VIEs

**PTI Xi'an:** Powertech Technology Inc. Xi'an ("PTI Xi'an") is a wholly-owned subsidiary of Powertech Technology Inc. ("PTI") and was created to provide assembly services to us at our manufacturing site in Xi'an, China. We do not have an equity interest in PTI Xi'an. PTI Xi'an is a VIE because of the terms of its service agreement with us and its dependency on PTI to finance its operations. We have determined that we do not have the power to direct the activities of PTI Xi'an that most significantly impact its economic performance, primarily because we have no governance rights. Therefore, we do not consolidate PTI Xi'an. In connection with our assembly services with PTI, we had capital lease obligations and net property, plant, and equipment of \$60 million and \$61 million, respectively, as of November 29, 2018 and \$63 million and \$63 million, respectively, as of August 30, 2018.

##### Consolidated VIE

**IMFT:** IMFT is a VIE because all of its costs are passed to us and its other member, Intel, through product purchase agreements and because IMFT is dependent upon us or Intel for additional cash requirements. The primary activities of IMFT are driven by the constant introduction of product and process technology. Because we perform a significant majority of the technology development, we have the power to direct its key activities. We consolidate IMFT because we have the power to direct the activities of IMFT that most significantly impact its economic performance and because we have the obligation to absorb losses and the right to receive benefits from IMFT that could potentially be significant to it. At any time through December 2018, Intel can exercise its option to require us to purchase, and from January 2019 through December 2021, we can exercise our option to purchase from Intel, Intel's interest in IMFT. On October 18, 2018, we announced our intent to exercise our option to acquire Intel's interest in IMFT. Upon such exercise, Intel can elect to set the closing date of the transaction to be any time between six months and one year from the date we exercise our option. (See "Equity – Noncontrolling Interests in Subsidiaries – IMFT" note.)



## Recently Adopted Accounting Standards

In October 2016, the Financial Accounting Standards Board ("FASB") issued Accounting Standards Update ("ASU") 2016-16 – *Intra-Entity Transfers Other Than Inventory* ("ASU 2016-16"), which requires an entity to recognize the income tax consequences of an intra-entity transfer of an asset other than inventory when the transfer occurs. We adopted this ASU in the first quarter of 2019 under the modified retrospective method and, in connection therewith, made certain adjustments as noted in the table below.

In January 2016, the FASB issued ASU 2016-01 – *Recognition and Measurement of Financial Assets and Financial Liabilities*, which provides guidance for the recognition, measurement, presentation, and disclosure of financial assets and liabilities. We adopted this ASU in the first quarter of 2019 under the modified retrospective method, with prospective adoption for amendments related to equity securities without readily determinable fair values. The adoption of this ASU did not have a material impact on our financial statements.

In May 2014, the FASB issued ASU 2014-09 – *Revenue from Contracts with Customers* (as amended, "ASC 606"), which supersedes nearly all existing revenue recognition guidance under generally accepted accounting principles in the United States. The core principal of ASC 606 is that an entity should recognize revenue when it transfers promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. ASC 606 also requires additional disclosure about the nature, amount, timing, and uncertainty of revenue and cash flows arising from customer contracts, including significant judgments and changes in judgments, and assets recognized from costs incurred to obtain or fulfill a contract. We adopted ASC 606 in the first quarter of 2019 under the modified retrospective method and, in connection therewith, made certain adjustments as noted in the table below.

The following table summarizes the effects of adopting ASU 2016-16 and ASC 606.

	Ending Balance as of August 30, 2018	Adjustments from:		Opening Balance as of August 31, 2018
		ASU 2016-16	ASC 606	
Receivables	\$ 5,478	\$ —	\$ 114	\$ 5,592
Inventories	3,595	—	(5)	3,590
Other current assets	164	(14)	30	180
Deferred tax assets	1,022	56	(92)	986
Other current liabilities	521	—	(4)	517
Other noncurrent liabilities	581	—	1	582
Retained earnings	24,395	42	50	24,487

As a result of the adoption of ASC 606, the opening balances as of August 31, 2018 for receivables, other current assets, and other current liabilities increased as a result of the reclassification of allowances for rebates, pricing adjustments, and returns to conform to the new presentation requirements. The margin from previously deferred sales to distributors was reclassified from other current liabilities to retained earnings. The tax effects of the adoption of ASC 606 were recorded primarily as a reduction of net deferred tax assets, substantially as a result of recognizing income for accounting purposes earlier under ASC 606 than for tax purposes in various jurisdictions.

The effects of ASC 606 to our consolidated statement of operations and balance sheet were as follows:

<b>Quarter ended November 29, 2018</b>	<b>As Reported</b>	<b>Adjustments</b>	<b>Amounts Without the Effects of Adoption of ASC 606</b>
Revenue	\$ 7,913	\$ (95)	\$ 7,818
Cost of goods sold	3,298	(41)	3,257
Interest expense	(33)	2	(31)
Income tax provision	(477)	3	(474)
Net income attributable to Micron	3,293	(49)	3,244

<b>As of November 29, 2018</b>	<b>As Reported</b>	<b>Adjustments</b>	<b>Amounts Without the Effects of Adoption of ASC 606</b>
Receivables	\$ 5,418	\$ (161)	\$ 5,257
Other current assets	182	(41)	141
Deferred tax assets	842	92	934
Accounts payable and accrued expenses	4,200	(2)	4,198
Other current liabilities	591	(8)	583
Other noncurrent liabilities	834	(1)	833
Retained earnings	27,769	(99)	27,670

## Recently Issued Accounting Standards Not Yet Adopted

In November 2018, the FASB issued ASU 2018-18 – *Collaborative Arrangements*, which clarifies that certain transactions between collaborative arrangement participants should be accounted for as revenue when the collaborative arrangement participant is a customer in the context of a unit of account and precludes recognizing as revenue consideration received from a collaborative arrangement participant if the participant is not a customer. This ASU will be effective for us in the first quarter of 2021 with early adoption permitted. This ASU requires retrospective adoption to the date we adopted ASC 606, August 31, 2018, by recognizing a cumulative-effect adjustment to the opening balance of retained earnings of the earliest annual period presented. We are evaluating the timing and effects of our adoption of this ASU on our financial statements.

In June 2016, the FASB issued ASU 2016-13 – *Measurement of Credit Losses on Financial Instruments*, which requires a financial asset (or a group of financial assets) measured on the basis of amortized cost to be presented at the net amount expected to be collected. This ASU requires that the income statement reflect the measurement of credit losses for newly recognized financial assets as well as the increases or decreases of expected credit losses that have taken place during the period. This ASU requires that credit losses of debt securities designated as available-for-sale be recorded through an allowance for credit losses and limits the credit loss to the amount by which fair value is below amortized cost. This ASU will be effective for us in the first quarter of 2021 with adoption permitted as early as the first quarter of 2020. This ASU requires modified retrospective adoption, with prospective adoption for debt securities for which an other-than-temporary impairment had been recognized before the effective date. We are evaluating the timing and effects of our adoption of this ASU on our financial statements.

In February 2016, the FASB issued ASU 2016-02 – *Leases*, which amends a number of aspects of lease accounting, including requiring lessees to recognize operating leases with a term greater than one year on their balance sheet as a right-of-use asset and corresponding liability, measured at the present value of lease payments. This ASU, as amended, will be effective for us in the first quarter of 2020 with early adoption permitted and allows for either a modified retrospective adoption or a retrospective adoption by recognizing a cumulative-effect adjustment to the opening balance of retained earnings in the period of adoption. The adoption of this ASU will result in an increase to our consolidated balance sheets for these right-of-use assets and corresponding liabilities. We are evaluating the timing and other effects of our adoption of this ASU on our financial statements.

## Cash and Investments

Cash and equivalents and the fair values of our available-for-sale investments, which approximated amortized costs, were as follows:

As of	November 29, 2018				August 30, 2018			
	Cash and Equivalents	Short-term Investments	Long-term Marketable Investments <sup>(1)</sup>	Total Fair Value	Cash and Equivalents	Short-term Investments	Long-term Marketable Investments <sup>(1)</sup>	Total Fair Value
Cash	\$ 2,073	\$ —	\$ —	\$ 2,073	\$ 3,223	\$ —	\$ —	\$ 3,223
Level 1 <sup>(2)</sup>								
Money market funds	2,014	—	—	2,014	2,443	—	—	2,443
Level 2 <sup>(3)</sup>								
Corporate bonds	56	588	943	1,587	3	172	272	447
Government securities	158	309	243	710	5	63	103	171
Asset-backed securities	2	78	369	449	—	34	96	130
Commercial paper	74	82	—	156	26	16	—	42
Certificates of deposit	70	59	10	139	806	11	2	819
	4,447	\$ 1,116	\$ 1,565	\$ 7,128	6,506	\$ 296	\$ 473	\$ 7,275
Restricted cash <sup>(4)</sup>	78				81			
Cash, cash equivalents, and restricted cash	\$ 4,525				\$ 6,587			

<sup>(1)</sup> The maturities of long-term marketable securities range from one to four years.

<sup>(2)</sup> The fair value of Level 1 securities is measured based on quoted prices in active markets for identical assets.

<sup>(3)</sup> The fair value of Level 2 securities is measured using information obtained from pricing services, which obtain quoted market prices for similar instruments, non-binding market consensus prices that are corroborated by observable market data, or various other methodologies, to determine the appropriate value at the measurement date. We perform supplemental analyses to validate information obtained from these pricing services. No adjustments were made to the fair values indicated by such pricing information as of November 29, 2018 or August 30, 2018.

<sup>(4)</sup> Restricted cash is included in other noncurrent assets and primarily consisted of balances related to the MMJ Creditor Payments. The restrictions on the MMJ Creditor Payments lapse upon approval by the trustees and/or Tokyo District Court.

Gross realized gains and losses from sales of available-for-sale securities were not material for any period presented. As of November 29, 2018, there were no available-for-sale securities that had been in a loss position for longer than 12 months.

## Receivables

As of	November 29, 2018	August 30, 2018
Trade receivables	\$ 4,980	\$ 5,056
Income and other taxes	226	161
Other	212	261
	\$ 5,418	\$ 5,478

## Inventories

As of	November 29, 2018	August 30, 2018
Finished goods	\$ 745	\$ 815
Work in process	2,643	2,357
Raw materials and supplies	488	423
	<u>\$ 3,876</u>	<u>\$ 3,595</u>

## Property, Plant, and Equipment

As of	November 29, 2018	August 30, 2018
Land	\$ 346	\$ 345
Buildings	9,006	8,680
Equipment <sup>(1)</sup>	39,652	38,249
Construction in progress <sup>(2)</sup>	1,467	1,162
Software	732	655
	<u>51,203</u>	<u>49,091</u>
Accumulated depreciation	<u>(26,396)</u>	<u>(25,419)</u>
	<u>\$ 24,807</u>	<u>\$ 23,672</u>

<sup>(1)</sup> Included costs related to equipment not placed into service of \$1.85 billion and \$1.73 billion, as of November 29, 2018 and August 30, 2018, respectively.

<sup>(2)</sup> Included building-related construction, tool installation, and software costs for assets not yet placed into service.

## Intangible Assets and Goodwill

As of	November 29, 2018		August 30, 2018	
	Gross Amount	Accumulated Amortization	Gross Amount	Accumulated Amortization
Amortizing assets				
Product and process technology	\$ 713	\$ (357)	\$ 567	\$ (344)
Non-amortizing assets				
In-process R&D	—	—	108	—
Total intangible assets	<u>\$ 713</u>	<u>\$ (357)</u>	<u>\$ 675</u>	<u>\$ (344)</u>
Goodwill	<u>\$ 1,228</u>		<u>\$ 1,228</u>	

In the first quarters of 2019 and 2018, we capitalized \$49 million and \$9 million, respectively, for product and process technology with weighted-average useful lives of 7 years and 10 years, respectively, and placed in service \$108 million of in-process R&D in the first quarter of 2019, which is being amortized on a straight-line basis over 6 years. Expected amortization expense is \$55 million for the remainder of 2019, \$64 million for 2020, \$58 million for 2021, \$47 million for 2022, and \$40 million for 2023.

## Accounts Payable and Accrued Expenses

As of	November 29, 2018	August 30, 2018
Accounts payable	\$ 1,683	\$ 1,692
Property, plant, and equipment payables	1,213	1,238
Income and other taxes	569	402
Salaries, wages, and benefits	550	841
Other	185	201
	<u>\$ 4,200</u>	<u>\$ 4,374</u>

## Debt

As of	November 29, 2018					August 30, 2018		
	Stated Rate	Effective Rate	Net Carrying Amount			Net Carrying Amount		
			Current	Long- Term	Total	Current	Long- Term	Total
IMFT Member Debt	N/A	N/A	\$ —	\$ 1,009	\$ 1,009	\$ —	\$ 1,009	\$ 1,009
Capital lease obligations	N/A	4.03%	289	509	798	310	536	846
MMJ Creditor Payments	N/A	9.76%	1	172	173	309	183	492
2022 Term Loan B	4.06%	4.47%	5	719	724	5	720	725
2025 Notes	5.50%	5.56%	—	515	515	—	515	515
2032D Notes <sup>(1)(2)</sup>	3.13%	6.33%	36	124	160	—	132	132
2033F Notes <sup>(1)(3)</sup>	2.13%	4.93%	67	—	67	235	—	235
2043G Notes <sup>(1)</sup>	3.00%	6.76%	—	686	686	—	682	682
			<u>\$ 398</u>	<u>\$ 3,734</u>	<u>\$ 4,132</u>	<u>\$ 859</u>	<u>\$ 3,777</u>	<u>\$ 4,636</u>

<sup>(1)</sup> Since the closing price of our common stock exceeded 130% of the conversion price per share for at least 20 trading days in the 30 trading day period ended on September 30, 2018, these notes are convertible by the holders at any time through the calendar quarter ended December 31, 2018. Additionally, the closing price of our common stock also exceeded the thresholds for our 2032D Notes and 2033F Notes for the calendar quarter ended December 31, 2018; therefore, such notes are convertible by the holders at any time through March 31, 2019.

<sup>(2)</sup> Current debt as of November 29, 2018 included an aggregate of \$36 million for the settlement obligation (including principal and amounts in excess of principal) for conversions of our 2032D Notes that will settle in cash in the second quarter of 2019.

<sup>(3)</sup> The 2033F Notes were classified as current as of November 29, 2018 because the terms of these notes require us to pay cash for the principal amount of any converted notes and holders of these notes had the right to convert their notes as of that date.

### Convertible Senior Notes

As of November 29, 2018, the trading price of our common stock was higher than the initial conversion prices of our convertible notes and, as a result, the aggregate conversion value of \$2.11 billion exceeded the aggregate principal amount of \$1.23 billion by \$877 million.

### Available Revolving Credit Facility

On November 27, 2018, we increased the amount available to draw under our existing revolving credit facility expiring in July 2023 from \$2.0 billion to \$2.5 billion. As of November 29, 2018, there were no outstanding amounts drawn under this facility.

## **Debt Conversions**

During the first quarter of 2019, we settled conversions of debt with an aggregate principal amount of \$38 million. When we receive a notice of conversion for any of our convertible notes and elect to settle in cash any amount of the conversion obligation in excess of the principal amount, the cash settlement obligations become derivative debt liabilities subject to mark-to-market accounting treatment based on the volume-weighted-average price of our common stock over a period of 20 consecutive trading days. Accordingly, at the date of our election to settle a conversion in cash, we reclassify the fair value of the equity component of the converted notes from additional capital to derivative debt liability within current debt in our consolidated balance sheet.

The following table presents the effects of conversions and settlements of debt in the first three months of 2019:

Three months ended November 29, 2018	Decrease in Principal	Increase (Decrease) in Carrying Value	Decrease in Cash	Decrease in Equity	Gain (Loss)
Settled conversions					
2033F Notes	\$ (38)	\$ (169)	\$ (164)	\$ (8)	\$ 13
Conversions not settled					
2032D Notes <sup>(1)</sup>	—	27	—	(28)	1
	<u>\$ (38)</u>	<u>\$ (142)</u>	<u>\$ (164)</u>	<u>\$ (36)</u>	<u>\$ 14</u>

<sup>(1)</sup> As of November 29, 2018, an aggregate of \$10 million principal amount of our 20332D Notes (with a carrying value of \$36 million) had converted but not settled. These notes will settle in the second quarter of 2019 in cash.

## **Contingencies**

We have accrued a liability and charged operations for the estimated costs of adjudication or settlement of various asserted and unasserted claims existing as of the balance sheet date, including those described below. We are currently a party to other legal actions arising from the normal course of business, none of which is expected to have a material adverse effect on our business, results of operations, or financial condition.

## **Patent Matters**

As is typical in the semiconductor and other high-tech industries, from time to time, others have asserted, and may in the future assert, that our products or manufacturing processes infringe upon their intellectual property rights.

On November 21, 2014, Elm 3DS Innovations, LLC ("Elm") filed a patent infringement action against Micron; Micron Semiconductor Products, Inc.; and Micron Consumer Products Group, Inc. in the U.S. District Court for the District of Delaware. On March 27, 2015, Elm filed an amended complaint against the same entities. The amended complaint alleges that unspecified semiconductor products of ours that incorporate multiple stacked die infringe 13 U.S. patents and seeks damages, attorneys' fees, and costs.

On December 15, 2014, Innovative Memory Solutions, Inc. ("IMS") filed a patent infringement action against Micron in the U.S. District Court for the District of Delaware. The complaint alleges that a variety of our NAND products infringe eight U.S. patents and seeks damages, attorneys' fees, and costs. On July 23, 2018, IMS served a patent infringement complaint on Micron Semiconductor (Deutschland) GmbH and Micron Europe Limited alleging that products including our SSDs infringe a European patent. The complaint seeks unspecified damages and an order forbidding Micron Semiconductor (Deutschland) GmbH and Micron Europe Limited from offering to sell, using, and importing the accused products. On August 31, 2018, Micron was served with a complaint filed by IMS in Shenzhen Intermediate People's Court in Guangdong Province, China. The complaint alleges that certain of our NAND flash products infringe a Chinese patent. The complaint seeks an order requiring Micron to stop manufacturing, using, selling, and offering for sale the accused products in China, and to pay damages of 1 million Chinese yuan plus expenses.

On March 19, 2018, Micron Semiconductor (Xi'an) Co., Ltd. ("MXA") was served with a patent infringement complaint filed by Fujian Jinhua Integrated Circuit Co., Ltd. ("Jinhua") in the Fuzhou Intermediate People's Court in Fujian Province, China (the "Fuzhou Court"). On April 3, 2018, Micron Semiconductor (Shanghai) Co. Ltd. ("MSS") was served with the same complaint. The complaint alleges that MXA and MSS infringe a Chinese patent by manufacturing and selling certain Crucial

DDR4 DRAM modules. The complaint seeks an order requiring MXA and MSS to destroy inventory of the accused products and equipment for manufacturing the accused products in China, to stop manufacturing, using, selling, and offering for sale the accused products in China, and to pay damages of 98 million Chinese yuan plus court fees incurred.

On March 21, 2018, MXA was served with a patent infringement complaint filed by United Microelectronics Corporation ("UMC") in the Fuzhou Court. On April 3, 2018, MSS was served with the same complaint. The complaint alleges that MXA and MSS infringe a Chinese patent by manufacturing and selling certain Crucial DDR4 DRAM modules. The complaint seeks an order requiring MXA and MSS to destroy inventory of the accused products and equipment for manufacturing the accused products in China, to stop manufacturing, using, selling, and offering for sale the accused products in China, and to pay damages of 90 million Chinese yuan plus court fees incurred.

On April 3, 2018, MSS was served with another patent infringement complaint filed by Jinhua and two additional complaints filed by UMC in the Fuzhou Court. The three additional complaints allege that MSS infringes three Chinese patents by manufacturing and selling certain Crucial MX300 SSDs and certain GDDR5 memory chips. The two complaints filed by UMC each seek an order requiring MSS to destroy inventory of the accused products and equipment for manufacturing the accused products in China, to stop manufacturing, using, selling, and offering for sale the accused products in China, and to pay damages of 90 million Chinese yuan plus court fees incurred. The complaint filed by Jinhua seeks an order requiring MSS to destroy inventory of the accused products and equipment for manufacturing the accused products in China, to stop manufacturing, using, selling, and offering for sale the accused products in China, and to pay damages of 98 million Chinese yuan plus court fees incurred. On October 9, 2018, UMC withdrew its complaint that alleged MSS infringed a Chinese patent by manufacturing and selling certain GDDR5 memory chips.

On July 5, 2018, MXA and MSS were notified that the Fuzhou Court granted a preliminary injunction against those entities that enjoins them from manufacturing, selling, or importing certain Crucial and Ballistic-branded DRAM modules and solid-state drives in China. The affected products make up slightly more than 1% of our annualized revenues. We are complying with the ruling and have requested the Fuzhou Court to reconsider or stay its decision.

Among other things, the above lawsuits pertain to substantially all of our DRAM, NAND, and other memory and storage products we manufacture, which account for a significant portion of our revenue.

We are unable to predict the outcome of assertions of infringement made against us and therefore cannot estimate the range of possible loss. A determination that our products or manufacturing processes infringe the intellectual property rights of others or entering into a license agreement covering such intellectual property could result in significant liability and/or require us to make material changes to our products and/or manufacturing processes. Any of the foregoing could have a material adverse effect on our business, results of operations, or financial condition.

### **Qimonda**

On January 20, 2011, Dr. Michael Jaffé, administrator for Qimonda's insolvency proceedings, filed suit against Micron and Micron Semiconductor B.V., our Netherlands subsidiary ("Micron B.V."), in the District Court of Munich, Civil Chamber. The complaint seeks to void, under Section 133 of the German Insolvency Act, a share purchase agreement between Micron B.V. and Qimonda signed in fall 2008, pursuant to which Micron B.V. purchased substantially all of Qimonda's shares of Inotera (the "Inotera Shares"), representing approximately 18% of Inotera's outstanding shares as of November 29, 2018, and seeks an order requiring us to re-transfer those shares to the Qimonda estate. The complaint also seeks, among other things, to recover damages for the alleged value of the joint venture relationship with Inotera and to terminate, under Sections 103 or 133 of the German Insolvency Code, a patent cross-license between us and Qimonda entered into at the same time as the share purchase agreement.

Following a series of hearings with pleadings, arguments, and witnesses on behalf of the Qimonda estate, on March 13, 2014, the court issued judgments: (1) ordering Micron B.V. to pay approximately \$1 million in respect of certain Inotera Shares sold in connection with the original share purchase; (2) ordering Micron B.V. to disclose certain information with respect to any Inotera Shares sold by it to third parties; (3) ordering Micron B.V. to disclose the benefits derived by it from ownership of the Inotera Shares, including in particular, any profits distributed on the Inotera Shares and all other benefits; (4) denying Qimonda's claims against Micron for any damages relating to the joint venture relationship with Inotera; and (5) determining that Qimonda's obligations under the patent cross-license agreement are canceled. In addition, the court issued interlocutory judgments ordering, among other things: (1) that Micron B.V. transfer to the Qimonda estate the Inotera Shares still owned by Micron B.V. and pay to the Qimonda estate compensation in an amount to be specified for any Inotera Shares sold to third parties; and (2) that Micron B.V. pay the Qimonda estate as compensation an amount to be specified for benefits derived by

Micron B.V. from ownership of the Inotera Shares. The interlocutory judgments have no immediate, enforceable effect on us, and, accordingly, we expect to be able to continue to operate with full control of the Inotera Shares subject to further developments in the case. We have filed a notice of appeal, and the parties have submitted briefs to the appeals court.

We are unable to predict the outcome of the matter and therefore cannot estimate the range of possible loss. The final resolution of this lawsuit could result in the loss of the Inotera Shares or monetary damages, unspecified damages based on the benefits derived by Micron B.V. from the ownership of the Inotera Shares, and/or the termination of the patent cross-license, which could have a material adverse effect on our business, results of operation, or financial condition.

### **Antitrust Matters**

On April 27, 2018, a purported class-action lawsuit was filed against Micron and other DRAM suppliers in the U.S. District Court for the Northern District of California asserting claims based on alleged price-fixing of DRAM products during the period from June 1, 2016 to February 1, 2018. Similar cases were subsequently filed in federal court in the United States, as well as in Canadian courts in Quebec, Montreal and Toronto, Ontario. The complaints seek treble monetary damages, costs, interest, attorneys' fees, and other injunctive and equitable relief. We are unable to predict the outcome of these matters and therefore cannot estimate the range of possible loss. The final resolution of these matters could result in significant liability and could have a material adverse effect on our business, results of operations, or financial condition.

On May 15, 2018, the Chinese State Administration for Market Regulation ("SAMR") notified Micron that it was investigating potential collusion and other anticompetitive conduct by DRAM suppliers in China. On May 31, 2018, SAMR made unannounced visits to our sales offices in Beijing, Shanghai, and Shenzhen to seek certain information as part of its investigation. We are cooperating with SAMR in its investigation.

### **Other**

On December 5, 2017, Micron filed a complaint against UMC and Jinhua in the U.S. District Court for the Northern District of California. The complaint alleges that UMC and Jinhua violated the Defend Trade Secrets Act, the civil provisions of the Racketeer Influenced and Corrupt Organizations Act, and California's Uniform Trade Secrets Act by misappropriating Micron's trade secrets and other misconduct. Micron's complaint seeks damages, restitution, disgorgement of profits, injunctive relief, and other appropriate relief.

In the normal course of business, we are a party to a variety of agreements pursuant to which we may be obligated to indemnify the other party. It is not possible to predict the maximum potential amount of future payments under these types of agreements due to the conditional nature of our obligations and the unique facts and circumstances involved in each particular agreement. Historically, our payments under these types of agreements have not had a material adverse effect on our business, results of operations, or financial condition.

## **Equity**

### **Micron Shareholders' Equity**

**Common Stock Repurchases:** Our Board of Directors has authorized the discretionary repurchase of up to \$10 billion of our outstanding common stock beginning in our fiscal 2019. We may purchase shares on a discretionary basis through open-market purchases, block trades, privately-negotiated transactions, derivative transactions, and/or pursuant to Rule 10b5-1 trading plans, subject to market conditions and our ongoing determination of the best use of available cash. The repurchase authorization does not obligate us to acquire any common stock.

In the first quarter of 2019, we repurchased an aggregate of 42 million shares of our common stock for \$1.80 billion under an accelerated share repurchase agreement, a Rule 10b5-1 plan, and through open market repurchases. The shares were recorded as treasury stock.

On November 5, 2018, we entered into Rule 10b5-1 plans under which our brokers have authority to purchase our common stock on our behalf in our second quarter (with such purchases beginning on December 20, 2018), third quarter, and fourth quarter of 2019. We may cancel any of the plans at any time at our option.



## Noncontrolling Interests in Subsidiaries

As of	November 29, 2018		August 30, 2018	
	Balance	Percentage	Balance	Percentage
IMFT	\$ 853	49%	\$ 853	49%
Other	17	Various	17	Various
	<u>\$ 870</u>		<u>\$ 870</u>	

**IMFT:** Since 2006, we have owned 51% of IMFT, a joint venture between us and Intel. IMFT is governed by a Board of Managers, for which the number of managers appointed by each member varies based on the members' respective ownership interests. IMFT manufactures semiconductor products exclusively for its members under a long-term supply agreement at prices approximating cost. In the first quarter of 2018, IMFT discontinued production of NAND and subsequent to that time has been entirely focused on 3D XPoint memory production. Through our IMFT joint venture, we continue to jointly develop 3D XPoint technologies with Intel through the second generation of 3D XPoint technology, which is expected to be completed in the second half of 2019. To better optimize the 3D XPoint technology for our product roadmap and maximize the benefits for our customers and shareholders, in the fourth quarter of 2018, we announced that we will no longer jointly develop with Intel subsequent generations of 3D XPoint technology. IMFT will continue to manufacture memory based on 3D XPoint technology at the fabrication facility in Lehi, Utah for its members. IMFT sales to Intel were \$175 million and \$112 million, in the first quarters of 2019 and 2018, respectively.

The IMFT joint venture agreement extends through 2024 and includes certain buy-sell rights. At any time through December 2018, Intel can exercise its option to require us to purchase, and from January 2019 through December 2021, we can exercise our option to purchase from Intel, Intel's interest in IMFT, in either case, for a price that approximates Intel's interest in the net book value of IMFT plus member debt at the time of the closing. If Intel exercises its option, we can elect to set the closing date of the transaction any time between six months and two years following such election by Intel and we can elect to receive financing of the purchase price from Intel for one to two years from the closing date. On October 18, 2018, we announced our intent to exercise our option to acquire Intel's interest in IMFT. Upon such exercise, Intel can elect to set the closing date of the transaction to be any time between six months and one year from the date we exercise our option. Following the closing date resulting from exercise of either option, we will continue to supply to Intel for a period of up to one year, at a margin that varies depending on which option was exercised. For the first six months of such one-year period, Intel can receive supply ranging from 50% to 100%, at Intel's choice, of the volume supplied to Intel by IMFT in the six-month period immediately prior to the closing date. For the second six months of such one-year period, Intel can receive supply ranging from 0% to 100%, at Intel's choice, of the volume supplied to Intel by IMFT in the first six-month period.

IMFT's capital requirements are generally determined based on an annual plan approved by the members, and capital contributions to IMFT are requested as needed. Capital requests are made to the members in proportion to their then-current ownership interest. Members may elect to not contribute their proportional share, and in such event, the contributing member may elect to contribute any amount of the capital request, either in the form of an equity contribution or member debt financing. Under the supply agreement, the members have rights and obligations to the capacity of IMFT in proportion to their investment, including member debt financing. Any capital contribution or member debt financing results in a proportionate adjustment to the sharing of output on an eight-month lag. Members pay their proportionate share of fixed costs associated with IMFT's capacity.

Creditors of IMFT have recourse only to IMFT's assets and do not have recourse to any other of our assets. The following table presents the assets and liabilities of IMFT included in our consolidated balance sheets:

<b>As of</b>	<b>November 29, 2018</b>	<b>August 30, 2018</b>
<b>Assets</b>		
Cash and equivalents	\$ 169	\$ 91
Receivables	120	126
Inventories	105	114
Other current assets	3	8
Total current assets	397	339
Property, plant, and equipment	2,539	2,641
Other noncurrent assets	46	45
Total assets	<u>\$ 2,982</u>	<u>\$ 3,025</u>
<b>Liabilities</b>		
Accounts payable and accrued expenses	\$ 102	\$ 138
Current debt	16	20
Other current liabilities	8	9
Total current liabilities	126	167
Long-term debt	1,064	1,064
Other noncurrent liabilities	71	74
Total liabilities	<u>\$ 1,261</u>	<u>\$ 1,305</u>

*Amounts exclude intercompany balances that were eliminated in our consolidated balance sheets.*

## Fair Value Measurements

All of our marketable debt and equity investments were classified as available-for-sale and carried at fair value as of the dates noted below. The estimated fair values of our convertible and other notes in the table below were determined based on Level 2 inputs, and together with the carrying value of our outstanding debt instruments (excluding the carrying value of equity and mezzanine equity components of our convertible notes) were as follows:

<b>As of</b>	<b>November 29, 2018</b>		<b>August 30, 2018</b>	
	<b>Fair Value</b>	<b>Carrying Value</b>	<b>Fair Value</b>	<b>Carrying Value</b>
Notes and MMJ Creditor Payments	\$ 2,459	\$ 2,421	\$ 2,798	\$ 2,741
Convertible notes	2,125	913	3,124	1,049

## Derivative Instruments

	Gross Notional Amount <sup>(1)</sup>	Fair Value of	
		Current Assets <sup>(2)</sup>	Current Liabilities <sup>(3)</sup>
<b>As of November 29, 2018</b>			
Derivative instruments with hedge accounting designation			
Cash flow currency hedges	\$ 417	\$ —	\$ (10)
Derivative instruments without hedge accounting designation			
Non-designated currency hedges	2,555	12	(17)
Convertible notes settlement obligation <sup>(4)</sup>		—	(37)
		12	(54)
		\$ 12	\$ (64)
<b>As of August 30, 2018</b>			
Derivative instruments with hedge accounting designation			
Cash flow currency hedges	\$ 538	\$ —	\$ (13)
Derivative instruments without hedge accounting designation			
Non-designated currency hedges	1,919	14	(10)
Convertible notes settlement obligation <sup>(4)</sup>		—	(167)
		14	(177)
		\$ 14	\$ (190)

<sup>(1)</sup> Notional amounts of currency hedge contracts in U.S. dollars.

<sup>(2)</sup> Included in receivables – other.

<sup>(3)</sup> Included in accounts payable and accrued expenses – other for forward contracts and in current debt for convertible notes settlement obligations.

<sup>(4)</sup> Notional amounts of convertible notes settlement obligations as of November 29, 2018 and August 30, 2018 were 1 million and 3 million shares of our common stock, respectively.

### Derivative Instruments with Hedge Accounting Designation

We utilize currency forward contracts that generally mature within 12 months to hedge our exposure to changes in currency exchange rates. Currency forward contracts are measured at fair value based on market-based observable inputs including currency exchange spot and forward rates, interest rates, and credit-risk spreads (Level 2). We do not use derivative instruments for speculative purposes.

**Cash Flow Hedges:** We utilize cash flow hedges for our exposure from changes in currency exchange rates for certain capital expenditures. For derivative instruments designated as cash flow hedges, the effective portion of the realized and unrealized gains or losses on derivatives is included as a component of accumulated other comprehensive income. Amounts in accumulated other comprehensive income are reclassified into earnings in the same line items and in the same periods in which the underlying transactions affect earnings. For the periods presented prior to the second quarter of 2018, the ineffective and excluded portion of the realized and unrealized gain or loss was included in other non-operating income (expense). As a result of adopting ASU 2017-12, beginning in the second quarter of 2018, the excluded portion of such amounts is included in the same line item in which the underlying transactions affect earnings and the ineffective portion of the realized and unrealized gains or losses on derivatives is included as a component of accumulated other comprehensive income.

We recognized losses of \$13 million and \$4 million for the first quarters of 2019 and 2018, respectively, in accumulated other comprehensive income from the effective portion of cash flow hedges. Neither the amount excluded from hedge effectiveness nor the reclassifications from accumulated other comprehensive income to earnings were material in the first

quarters of 2019 or 2018. The amounts from cash flow hedges included in accumulated other comprehensive income that are expected to be reclassified into earnings in the next 12 months were also not material.

### **Derivative Instruments without Hedge Accounting Designation**

**Currency Derivatives:** We generally utilize a rolling hedge strategy with currency forward contracts that mature within three months to hedge our exposures of monetary assets and liabilities from changes in currency exchange rates. At the end of each reporting period, monetary assets and liabilities denominated in currencies other than the U.S. dollar are remeasured into U.S. dollars and the associated outstanding forward contracts are marked to market. Currency forward contracts are valued at fair values based on the middle of bid and ask prices of dealers or exchange quotations (Level 2). Realized and unrealized gains and losses on derivative instruments without hedge accounting designation as well as the changes in the underlying monetary assets and liabilities from changes in currency exchange rates are included in other non-operating income (expense). For derivative instruments without hedge accounting designation, we recognized losses of \$11 million in the first quarter of 2019 and amounts recognized were not material in the first quarter 2018.

**Convertible Notes Settlement Obligations:** For settlement obligations associated with our convertible notes subject to mark-to-market accounting treatment, the fair values of the underlying derivative settlement obligations were initially determined using the Black-Scholes option valuation model (Level 2), which requires inputs of stock price, expected stock-price volatility, estimated option life, risk-free interest rate, and dividend rate. The subsequent measurement amounts were based on the volume-weighted-average trading price of our common stock (Level 2). (See "Debt" note.) We recognized gains of \$16 million in the first quarter of 2019 and amounts recognized were not material in the first quarter of 2018 in other non-operating income (expense), net for the changes in fair value of the derivative settlement obligations.

## **Equity Plans**

As of November 29, 2018, 115 million shares of our common stock were available for future awards under our equity plans.

### **Stock Options**

Stock options granted and assumptions used in the Black-Scholes option valuation model were as follows:

<b>Quarter ended</b>	<b>November 29, 2018</b>	<b>November 30, 2017</b>
Stock options granted	—	1
Weighted-average grant-date fair value per share	\$ 19.50	\$ 17.67
Average expected life in years	5.4	5.6
Weighted-average expected volatility	44%	44%
Weighted-average risk-free interest rate	2.9%	2.1%
Expected dividend yield	0.0%	0.0%

### **Restricted Stock and Restricted Stock Units ("Restricted Stock Awards")**

Restricted Stock Awards activity is summarized as follows:

<b>Quarter ended</b>	<b>November 29, 2018</b>	<b>November 30, 2017</b>
Restricted stock award shares granted	6	2
Weighted-average grant-date fair value per share	\$ 39.02	\$ 39.01

## **Stock-based Compensation Expense**

<b>Quarter ended</b>	<b>November 29, 2018</b>	<b>November 30, 2017</b>
Stock-based compensation expense by caption		
Cost of goods sold	\$ 26	\$ 20
Selling, general, and administrative	19	18
Research and development	16	13
	<u>\$ 61</u>	<u>\$ 51</u>
Stock-based compensation expense by type of award		
Restricted stock awards	\$ 41	\$ 34
Stock options	12	17
Employee Stock Purchase Plan	8	—
	<u>\$ 61</u>	<u>\$ 51</u>

Income tax benefits related to share-based payment arrangements were \$23 million and \$57 million for the first quarters of 2019 and 2018, respectively. Income tax benefits related to share-based compensation for the first quarter of 2018 were offset by an increase in the U.S. valuation allowance. As of November 29, 2018, \$498 million of total unrecognized compensation costs for unvested awards, before the effect of any future forfeitures, was expected to be recognized through the first quarter of 2023, resulting in a weighted-average period of 1.4 years.

## **Revenue and Contract Liabilities**

Our revenues are primarily recognized at a point in time, when control of the promised goods is transferred to our customers, in an amount that reflects the consideration we expect to be entitled to in exchange for those goods. Contracts with our customers are generally short-term in duration at fixed, negotiated prices with payment generally due shortly after delivery. We estimate a liability for returns using the expected value method based on historical rates of return. In addition, we generally offer price protection to our distributors, which is a form of variable consideration that decreases the transaction price. We estimate the amount of consideration we expect to be entitled to from sales to distributors, using the expected value method, based on historical price adjustments and current pricing trends. Differences between the estimated and actual amounts are recognized as adjustments to revenue. (See "Segment and Other Information" note for disclosure of disaggregated revenue.)

### **Contract Liabilities**

<b>As of</b>	<b>November 29, 2018</b>	<b>Opening Balance as of August 31, 2018</b>
Contract liabilities from customer advances	\$ 183	\$ 235
Other contract liabilities	115	113
	<u>\$ 298</u>	<u>\$ 348</u>

Our contract liabilities are for advance payments received from customers to secure product in future periods and for other arrangements where we have received amounts in advance of satisfying performance obligations and are reported in the accompanying consolidated balance sheets within other current liabilities and other noncurrent liabilities. Revenue and interest expense associated with contract liabilities for the time value of advance payments was not material in any period presented. As of November 29, 2018, our future performance obligations beyond one year were not material.

Changes in contract liabilities were as follows:

Contract liabilities balance as of August 31, 2018	\$	348
Revenue recognized from beginning balance		(117)
Additions and other activity		67
Contract liabilities balance as of November 29, 2018	\$	298

Contract liabilities increase as a result of receiving new advance payments from customers and decrease as revenue is recognized from customers purchasing product under advance payment arrangements. Additions and other activity included new customer advances, payments received from license and other arrangements in advance of performance, and interest accrued for financing components on advance payments. Revenue recognized in the first quarter of 2019 included \$112 million from shipments against customer advances and \$5 million in revenue recognized upon meeting other performance obligations.

### **Consideration Payable to Customers**

As of November 29, 2018, other current liabilities included \$332 million for estimates of consideration payable to customers, including estimates for pricing adjustments and returns.

## **Research and Development**

We share the cost of certain product and process development activities with development partners. Our R&D expenses were reduced by \$30 million and \$56 million, for the first quarters of 2019 and 2018, respectively, pursuant to reimbursements under these arrangements.

We have agreements to jointly develop NAND and 3D XPoint technologies with Intel. We continue to jointly develop NAND technologies with Intel through the third generation of 3D NAND, which is expected to be completed in the second half of 2019. In the second quarter of 2018, we and Intel agreed to independently develop subsequent generations of 3D NAND in order to better optimize the technology and products for our respective business needs. We continue to jointly develop 3D XPoint technologies with Intel through the second generation of 3D XPoint technology, which is expected to be completed in the second half of 2019. To better optimize 3D XPoint technology for our product roadmap and maximize the benefits for our customers and shareholders, in the fourth quarter of 2018, we announced that we will no longer jointly develop with Intel subsequent generations of 3D XPoint technology.

## **Other Operating (Income) Expense, Net**

Quarter ended	November 29, 2018	November 30, 2017
Restructure and asset impairments	\$ 33	\$ 6
Other	3	5
	<u>\$ 36</u>	<u>\$ 11</u>

Restructure and asset impairments in the first quarter of 2019 included cost of \$16 million primarily as a result of our continued emphasis to centralize certain key functions and impairment losses of \$16 million to write-off the carrying value of certain property, plant, and equipment.

## **Other Non-Operating Income (Expense), Net**

Quarter ended	November 29, 2018	November 30, 2017
Gain (loss) on debt prepayments, repurchases, and conversions	\$ 14	\$ (195)
Loss from changes in currency exchange rates	(5)	(9)
	<u>\$ 9</u>	<u>\$ (204)</u>

For the first quarter of 2018, loss on debt prepayments, repurchases, and conversions was primarily due to losses recognized in connection with the repurchase of our 2023 Secured Notes and our 2023 Notes.

## Income Taxes

On December 22, 2017, the United States enacted comprehensive tax legislation commonly referred to as the Tax Cuts and Jobs Act (the "Tax Act") which imposed a one-time transition tax in 2018 (the "Repatriation Tax") and, beginning in 2019, created a new minimum tax on certain foreign earnings (the "Foreign Minimum Tax"). SEC Staff Accounting Bulletin No. 118 ("SAB 118") allows the use of provisional amounts (reasonable estimates) if the analyses of the impacts of the Tax Act have not been completed when financial statements are issued. During the first quarter of 2019, we finalized the computations of the income tax effects of the Tax Act. As such, in accordance with SAB 118, our accounting for the effects of the Tax Act is complete.

Our income tax provision consisted of the following:

Quarter ended	November 29, 2018	November 30, 2017
Income tax provision, excluding items below	\$ (378)	\$ (88)
Utilization of and other changes in net deferred tax assets of MMJ, MMT, and MTTW	(52)	(26)
Repatriation Tax, net of adjustments related to uncertain tax positions	(47)	—
	<u>\$ (477)</u>	<u>\$ (114)</u>

As of November 29, 2018, we had gross unrecognized income tax benefits of \$268 million, substantially all of which would affect our effective tax rate in the future, if recognized. The amount accrued for interest and penalties related to uncertain tax positions was not material for any period presented.

We operate in a number of tax jurisdictions outside the United States, including Singapore, where we have tax incentive arrangements, which expire in whole or in part at various dates through 2031, that are conditional, in part, upon meeting certain business operations and employment thresholds. The effect of tax incentive arrangements reduced our tax provision by \$427 million (benefiting our diluted earnings per share by \$0.36) for the first quarter of 2019 and by \$391 million (\$0.32 per diluted share) for the first quarter of 2018.

## Earnings Per Share

Quarter ended	November 29, 2018	November 30, 2017
Net income attributable to Micron – Basic and Diluted	\$ 3,293	\$ 2,678
Weighted-average common shares outstanding – Basic	1,133	1,134
Dilutive effect of equity plans and convertible notes	41	91
Weighted-average common shares outstanding – Diluted	<u>1,174</u>	<u>1,225</u>
Earnings per share		
Basic	\$ 2.91	\$ 2.36
Diluted	2.81	2.19

Antidilutive potential common stock shares that could dilute basic earnings per share in the future were 6 million and 2 million for the first quarters of 2019 and 2018, respectively.

## Segment and Other Information

Segment information reported herein is consistent with how it is reviewed and evaluated by our chief operating decision maker. We have the following four business units, which are our reportable segments:

**Compute and Networking Business Unit ("CNBU"):** Includes memory products sold into cloud server, enterprise, client, graphics, and networking markets.

**Mobile Business Unit ("MBU"):** Includes memory products sold into smartphone and other mobile-device markets.

**Storage Business Unit ("SBU"):** Includes SSDs and other storage products, including component-level solutions sold into enterprise and cloud, client, and consumer SSD markets, other discrete storage products sold in component and wafer forms to the removable storage markets, and sales of 3D XPoint memory.

**Embedded Business Unit ("EBU"):** Includes memory and storage products sold into automotive, industrial, medical, and consumer markets.

Certain operating expenses directly associated with the activities of a specific segment are charged to that segment. Other indirect operating income and expenses are generally allocated to segments based on their respective percentage of cost of goods sold or forecasted wafer production. We do not identify or report internally our assets (other than goodwill) or capital expenditures by segment, nor do we allocate gains and losses from equity method investments, interest, other non-operating income or expense items, or taxes to segments.

Quarter ended	November 29, 2018	November 30, 2017
Revenue		
CNBU	\$ 3,604	\$ 3,212
MBU	2,212	1,365
SBU	1,143	1,383
EBU	933	830
All Other	21	13
	<u>\$ 7,913</u>	<u>\$ 6,803</u>
Operating income (loss)		
CNBU	\$ 2,211	\$ 1,914
MBU	1,203	505
SBU	80	400
EBU	387	342
All Other	6	(4)
	<u>3,887</u>	<u>3,157</u>
Unallocated		
Stock-based compensation	(61)	(51)
Restructure and asset impairments	(30)	(6)
Employee severance, start-up costs, and other	(37)	(3)
	<u>(128)</u>	<u>\$ (60)</u>
Operating income	<u>\$ 3,759</u>	<u>\$ 3,097</u>

Revenue by product type was as follows:

Quarter ended	November 29, 2018	November 30, 2017
DRAM	\$ 5,373	\$ 4,562
NAND	2,179	1,898
Other (primarily 3D XPoint memory and NOR)	361	343
	<u>\$ 7,913</u>	<u>\$ 6,803</u>



**Customer Concentrations:** Revenue from Huawei Technologies Co., Ltd. was 13% of total revenue for the first quarter of 2019 and no other customer exceeded 10%.

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

*This discussion should be read in conjunction with the consolidated financial statements and accompanying notes included in our Annual Report on Form 10-K for the year ended August 30, 2018. All period references are to our fiscal periods unless otherwise indicated. Our fiscal year is the 52 or 53-week period ending on the Thursday closest to August 31. Our fiscal 2019 and 2018 each contain 52 weeks. All production data includes the production of IMFT. All tabular dollar amounts are in millions, except per share amounts.*

### **Overview**

Micron Technology, Inc., including its consolidated subsidiaries, is an industry leader in innovative memory and storage solutions. Through our global brands - Micron<sup>®</sup>, Crucial<sup>®</sup>, and Ballistix<sup>®</sup> – our broad portfolio of high-performance memory and storage technologies, including DRAM, NAND, NOR Flash, and 3D XPoint memory, is transforming how the world uses information to enrich life. Backed by 40 years of technology leadership, our memory and storage solutions enable disruptive trends, including artificial intelligence, machine learning, and autonomous vehicles, in key market segments like cloud, data center, networking, mobile, and automotive.

We manufacture our products at our worldwide, wholly-owned and joint venture facilities. In recent years, we have increased our manufacturing scale and product diversity through strategic acquisitions, expansion, and various partnering arrangements.

We make significant investments to develop proprietary product and process technology, which are implemented in our manufacturing facilities. We generally increase the density per wafer and reduce manufacturing costs of each generation of product through advancements in product and process technology, such as our leading-edge line-width process technology and 3D NAND architecture. We continue to introduce new generations of products that offer improved performance characteristics, including higher data transfer rates, reduced package size, lower power consumption, improved read/write reliability, and increased memory density. Storage products incorporating NAND, a controller, and firmware constitute a significant and increasing portion of our revenues. We generally develop firmware and, in the first quarter of 2019, introduced proprietary controllers into our SSDs. Development of advanced technologies enables us to diversify our product portfolio toward a richer mix of differentiated, high-value solutions and to target high-growth markets.

We market our products through our internal sales force, independent sales representatives, distributors, and e-tailers, primarily to original equipment manufacturers and retailers located around the world. We face intense competition in the semiconductor memory and storage markets and, in order to remain competitive, we must continuously develop and implement new products and technologies and decrease manufacturing costs. Our success is largely dependent on market acceptance of our diversified portfolio of semiconductor-based memory and storage solutions, efficient utilization of our manufacturing infrastructure, successful ongoing development and integration of advanced product and process technology, return-driven capital spending, and successful R&D investments.

## Results of Operations

### Consolidated Results

	First Quarter 2019		Fourth Quarter 2018		First Quarter 2018	
Revenue	\$ 7,913	100 %	\$ 8,440	100 %	\$ 6,803	100 %
Cost of goods sold	3,298	42 %	3,289	39 %	3,056	45 %
Gross margin	4,615	58 %	5,151	61 %	3,747	55 %
Selling, general, and administrative	209	3 %	215	3 %	191	3 %
Research and development	611	8 %	567	7 %	448	7 %
Other operating (income) expense, net	36	— %	(8)	— %	11	— %
Operating income	3,759	48 %	4,377	52 %	3,097	46 %
Interest income (expense), net	5	— %	(16)	— %	(101)	(1)%
Other non-operating income (expense), net	9	— %	(15)	— %	(204)	(3)%
Income tax provision	(477)	(6)%	(20)	— %	(114)	(2)%
Net income attributable to noncontrolling interests	(3)	— %	(1)	— %	—	— %
Net income attributable to Micron	<u>\$ 3,293</u>	42 %	<u>\$ 4,325</u>	51 %	<u>\$ 2,678</u>	39 %

### Total Revenue

Total revenue for the first quarter of 2019 decreased 6% as compared to the fourth quarter of 2018 due to less favorable market conditions as a result of customer inventory corrections and CPU shortages and to a manufacturing issue at one of our suppliers. Sales of DRAM products for the first quarter of 2019 decreased 9% from the fourth quarter of 2018 reflecting decreases in average selling prices from challenging market conditions, particularly in enterprise and cloud server markets and graphics markets, partially offset by increases in sales of mobile products driven by continued execution in delivering new LPDRAM products. Sales of NAND products for the first quarter of 2019 decreased 3% from the fourth quarter of 2018 primarily due to declines in sales of SSD storage products as a result of pricing decreases, partially offset by higher shipment volumes of managed NAND products into mobile markets, which increased more than 50% due to our execution in delivering products featuring advanced 3D NAND technologies combined with strong customer acceptance. Sales volumes of NAND products for the first quarter of 2019 increased by a low to mid-teen percent as compared to the fourth quarter of 2018, which mitigated a similar decline in average selling prices.

Total revenue for the first quarter of 2019 increased 16% as compared to the first quarter of 2018. Higher revenue in the first quarter of 2019 for both DRAM and NAND products as compared to the first quarter of 2018 was driven by strong execution in delivering high-value products featuring our 1Xnm DRAM and 64-layer TLC 3D NAND technologies combined with demand growth across our primary markets. Sales of DRAM products for the first quarter of 2019 increased 18% from the first quarter of 2018 primarily due to moderate increases in both sales volumes and average selling prices as a result of strong market growth, particularly for cloud, enterprise, mobile, and graphics markets, combined with increased sales into high-value markets. Sales of NAND products for the first quarter of 2019 increased 15% from the first quarter of 2018 primarily due to an approximate 70% increase in sales volumes driven by increases in sales of high-value mobile managed NAND products enabled by strong demand and our transition to products featuring 64-layer TLC 3D NAND, partially offset by decreases in average selling prices of approximately 30%.

### Overall Gross Margin

Our overall gross margin percentage decreased to 58% for the first quarter of 2019 from 61% for the fourth quarter of 2018 primarily due to declines in market pricing partially offset by manufacturing cost reductions for NAND products enabled by strong execution in delivering products featuring advanced 3D NAND technologies. For the first quarter of 2019 as compared to the fourth quarter of 2018, margins for DRAM products decreased due to the declines in averages selling prices and margins for NAND products decreased as declines in average selling prices outpaced manufacturing cost reductions.

Our overall gross margin percentage of 58% for the first quarter of 2019 increased from 55% for the first quarter of 2018 primarily due to strong execution in delivering products featuring advanced technologies, including 1Xnm DRAM and 64-layer 3D NAND, enabling manufacturing cost reductions. For the first quarter of 2019 as compared to the first quarter of 2018, pricing for DRAM products increased while manufacturing costs declined and for NAND products, declines in average selling prices slightly outpaced manufacturing cost reductions.

### **Revenue by Business Unit**

	<b>First Quarter 2019</b>		<b>Fourth Quarter 2018</b>		<b>First Quarter 2018</b>	
CNBU	\$ 3,604	46%	\$ 4,361	52%	\$ 3,212	47%
MBU	2,212	28%	1,895	22%	1,365	20%
SBU	1,143	14%	1,242	15%	1,383	20%
EBU	933	12%	923	11%	830	12%
All Other	21	—%	19	—%	13	—%
	<u>\$ 7,913</u>		<u>\$ 8,440</u>		<u>\$ 6,803</u>	

*Percentages are of total revenue but may not total 100% due to rounding.*

CNBU revenue for the first quarter of 2019 decreased 17% as compared to the fourth quarter of 2018 due to customer inventory corrections and CPU shortages, particularly in enterprise server, cloud server, and graphics markets. MBU revenue for the first quarter of 2019, which was comprised primarily of mobile LPDRAM and managed NAND products, increased 17% as compared to the fourth quarter of 2018. The increase was primarily due to an approximate 50% increase in sales volumes of managed NAND driven by strong customer demand and higher market share as well as higher sales of our LPDRAM products driven by customer demand. SBU revenue for the first quarter of 2019 decreased 8% as compared to the fourth quarter of 2018 primarily due to lower demand for NAND storage products resulting from customer inventory corrections in enterprise and cloud storage markets as well as a strategic allocation from storage products to mobile managed NAND products. EBU revenue for the first quarter of 2019 increased slightly from the fourth quarter of 2018 due to continuing strength in industrial and automotive markets. EBU revenue was comprised of products incorporating DRAM, NAND, and NOR Flash in decreasing order of revenue.

CNBU revenue for the first quarter of 2019 increased 12% as compared to the first quarter of 2018 due to demand growth across key markets which drove increases in pricing and sales volumes. MBU revenue for the first quarter of 2019 increased 62% as compared to the first quarter of 2018 primarily due to strong execution in developing and qualifying mobile managed NAND products as bit shipment volumes were more than six times the level in the prior year. MBU sales of LPDRAM products also increased for the first quarter of 2019 as compared to the first quarter of 2018 due to strong customer demand. SBU revenue from sales of NAND products for the first quarter of 2019 decreased by a low twenties percentage as compared to the first quarter of 2018 primarily due to declines in SBU NAND component sales from a strategic reallocation of supply from component sales to mobile managed NAND products. Increases in SBU sales volumes of SSDs for the first quarter of 2019 as compared to the first quarter of 2018 were offset by declines in pricing. EBU revenue for the first quarter of 2019 increased 12% as compared to the first quarter of 2018 primarily due to strong demand across EBU's primary markets including consumer, industrial multimarkets, and automotive.

### **Operating Income (Loss) by Business Unit**

	<b>First Quarter 2019</b>		<b>Fourth Quarter 2018</b>		<b>First Quarter 2018</b>	
CNBU	\$ 2,211	61%	\$ 2,915	67%	\$ 1,914	60 %
MBU	1,203	54%	979	52%	505	37 %
SBU	80	7%	157	13%	400	29 %
EBU	387	41%	382	41%	342	41 %
All Other	6	29%	6	32%	(4)	(31)%
	<u>\$ 3,887</u>		<u>\$ 4,439</u>		<u>\$ 3,157</u>	

*Percentages reflect operating income (loss) as a percentage of revenue for each business unit.*

CNBU operating income for the first quarter of 2019 decreased from the fourth quarter of 2018 primarily due to declines in pricing and sales volumes resulting from the effects of customer inventory corrections and CPU shortages. MBU operating income for the first quarter of 2019 improved from the fourth quarter of 2018 primarily due to increases in managed NAND and LPDRAM sales volumes and manufacturing cost reductions, which outpaced pricing declines. SBU operating income for the first quarter of 2019 decreased from the fourth quarter of 2018 primarily due to price declines, which were partially offset by manufacturing cost reductions enabled by our execution in transitioning to 64-layer TLC 3D NAND products. EBU operating income for the first quarter of 2019 was relatively unchanged from the fourth quarter of 2018.

CNBU operating income for the first quarter of 2019 increased from the first quarter of 2018 primarily due to improved pricing and higher sales volumes resulting from growth in demand for our products combined with manufacturing cost reductions. MBU operating income for the first quarter of 2019 increased from the first quarter of 2018 primarily due to increases in pricing and sales volumes for LPDRAM products, higher sales of managed NAND products, and manufacturing cost reductions. SBU operating income for the first quarter of 2019 decreased from the first quarter of 2018 primarily due to price declines, which were partially offset by manufacturing cost reductions. SBU operating income for the first quarter of 2019 was adversely impacted by fixed costs associated with underutilization of our share of IMFT's capacity. EBU operating income for the first quarter of 2019 increased as compared to the first quarter of 2018 as a result of increased demand for DRAM products across primary markets that drove higher sales volumes and selling prices, partially offset by higher R&D costs.

## **Operating Expenses and Other**

### ***Selling, General, and Administrative***

SG&A expenses for the first quarter of 2019 were relatively unchanged from the fourth quarter of 2018. SG&A expenses for the first quarter of 2019 were 9% higher than the first quarter of 2018 primarily due to increases in consulting fees.

### ***Research and Development***

R&D expenses vary primarily with the number of development wafers processed, the cost of advanced equipment dedicated to new product and process development, and personnel costs. Because of the lead times necessary to manufacture our products, we typically begin to process wafers before completion of performance and reliability testing. Development of a product is deemed complete when it is qualified through reviews and tests for performance and reliability. R&D expenses can vary significantly depending on the timing of product qualification.

R&D expenses for the first quarter of 2019 were 8% higher than the fourth quarter of 2018 primarily due to increases in volumes of development and pre-qualification wafers and employee labor and benefit costs. R&D expenses for the first quarter of 2019 were 36% higher than the first quarter of 2018 primarily due to increases in volumes of development and pre-qualification wafers, employee labor and benefit costs, and depreciation expense as a result of increases in capital spending.

We share the cost of certain product and process development activities under development agreements with partners, including agreements to jointly develop NAND and 3D XPoint technologies with Intel. Our R&D expenses were reduced by reimbursements under these development partner arrangements of \$30 million and \$56 million in the first quarters of 2019 and 2018, respectively, and by \$34 million in the fourth quarter of 2018. The decrease in R&D reimbursements in the first quarter of 2019 was primarily due to reductions in our joint development activities with Intel for 3D XPoint technologies, which we expect to be completed in the second half of 2019. We also expect to complete our joint development activities with Intel for NAND technologies in the second half of 2019, which will further decrease R&D reimbursements.

## Income Taxes

Our income tax provision consisted of the following:

	First Quarter 2019	Fourth Quarter 2018	First Quarter 2018
Income tax provision, excluding items below	\$ (378)	\$ (113)	\$ (88)
Utilization of and other changes in net deferred tax assets of MMJ, MMT, and MTTW	(52)	10	(26)
Repatriation Tax, net of adjustments related to uncertain tax positions	(47)	83	—
	<u>\$ (477)</u>	<u>\$ (20)</u>	<u>\$ (114)</u>
Effective tax rate	12.6%	0.5%	4.1%

Our effective tax rate increased in the first quarter of 2019 primarily as a result of the Foreign Minimum Tax. We operate in a number of tax jurisdictions outside the United States, including Singapore, where we have tax incentive arrangements, which expire in whole or in part at various dates through 2031, that are conditional, in part, upon meeting certain business operations and employment thresholds. The effect of tax incentive arrangements reduced our tax provision by \$427 million (benefiting our diluted earnings per share by \$0.36) for the first quarter of 2019, \$603 million (\$0.49 per diluted share) for the fourth quarter of 2018, and \$391 million (\$0.32 per diluted share) for the first quarter of 2018.

## Other

Interest expense for the first quarter of 2019 declined 34% and 73% as compared to the fourth and first quarters of 2018, respectively, primarily due to decreases in debt obligations and increases in capitalized interest from higher levels of capital spending. Interest income for the first quarter of 2019 increased 12% and 65% as compared to the fourth and first quarters of 2018, respectively, primarily due to increases in cash generated from operations that was invested in short-term and long-term investments.

Further discussion of other operating and non-operating income and expenses can be found in the following notes contained in "Item 1. Financial Statements – Notes to Consolidated Financial Statements – Equity Plans, Other Operating Income (Expense), Net, and Other Non-Operating Income (Expense), Net" notes.

## Liquidity and Capital Resources

Our primary sources of liquidity are cash generated from operations and financing obtained from capital markets and financial institutions. Cash generated from operations is highly dependent on selling prices for our products, which can vary significantly from period to period. We are continuously evaluating alternatives for efficiently funding our capital expenditures and ongoing operations. We expect, from time to time, to engage in a variety of financing transactions for such purposes, including the issuance of securities. We have an undrawn revolving credit facility that expires in July 2023 and provides for borrowings of up to \$2.50 billion. We expect that our cash and investments, cash flows from operations, and available financing will be sufficient to meet our requirements at least through the next 12 months.

To develop new product and process technology, support future growth, achieve operating efficiencies, and maintain product quality, we must continue to invest in manufacturing technologies, facilities and equipment, and R&D. We estimate that capital expenditures in 2019 for property, plant, and equipment, net of partner contributions, to be \$9 billion to \$9.5 billion, focused on technology transitions and product enablement. The actual amounts for 2019 will vary depending on market conditions. As of November 29, 2018, we had commitments of approximately \$2.8 billion for the acquisition of property, plant, and equipment, substantially all of which is expected to be paid within one year.

Our Board of Directors has authorized the discretionary repurchase of up to \$10 billion of our outstanding common stock, beginning in our fiscal 2019, which we may purchase on a discretionary basis through open-market purchases, block trades, privately-negotiated transactions, derivative transactions, and/or pursuant to Rule 10b5-1 trading plans, subject to market conditions and our ongoing determination of the best use of available cash. The repurchase authorization does not obligate us to

acquire any common stock. In the first quarter of 2019, we repurchased an aggregate of 42 million shares of our common stock for \$1.80 billion under an accelerated share repurchase agreement, a Rule 10b5-1 plan, and through open market repurchases.

At any time through December 2018, Intel can exercise its option to require us to purchase, and from January 2019 through December 2021, we can exercise our option to purchase from Intel, Intel's interest in IMFT. On October 18, 2018, we announced our intent to exercise our option to acquire Intel's interest in IMFT. Upon such exercise, Intel can elect to set the closing date of the transaction to be any time between six months and one year from the date we exercise our option. At the time of close, we expect to pay approximately \$1.5 billion in cash for the transaction, dissolving Intel's noncontrolling interest in IMFT as well as IMFT Member Debt, which was \$1 billion as of November 29, 2018.

Cash and marketable investments totaled \$7.13 billion and \$7.28 billion as of November 29, 2018 and August 30, 2018, respectively. Our investments consist primarily of money market funds and liquid investment-grade, fixed-income securities, diversified among industries and individual issuers. To mitigate credit risk, we invest through high-credit-quality financial institutions and by policy generally limit the concentration of credit exposure by restricting the amount of investments with any single obligor.

### **Limitations on the Use of Cash and Investments**

**MMJ Group:** Cash and marketable investments as of November 29, 2018 included \$306 million held by the MMJ Group. As a result of the corporate reorganization proceedings of MMJ initiated in March 2012, and for so long as such proceedings are continuing, the MMJ Group is prohibited from paying dividends to us. In addition, pursuant to an order of the Tokyo District Court, the MMJ Group cannot make loans or advances, other than certain ordinary course advances, to us without the consent of the Tokyo District Court and may, under certain circumstances, be subject to the approval of the legal trustee. As a result, the assets of the MMJ Group are not available for use by us in our other operations. Furthermore, certain uses of the assets of the MMJ Group, including investments in certain capital expenditures, may require consent of MMJ's trustees and/or the Tokyo District Court.

**IMFT:** Cash and marketable investments included \$169 million held by IMFT as of November 29, 2018. Our ability to access funds held by IMFT to finance our other operations is subject to agreement by Intel and contractual limitations. Amounts held by IMFT are not anticipated to be available to finance our other operations.

**Indefinitely Reinvested:** As of November 29, 2018, the amount of cash and marketable investments held by foreign subsidiaries whose earnings were considered to be indefinitely reinvested consisted of all the \$306 million of cash and marketable investments held by the MMJ Group. Determination of the amount of unrecognized deferred tax liabilities related to investments in these foreign subsidiaries is not practicable.

### **Cash Flows**

	<b>First Quarter</b>	
	<b>2019</b>	<b>2018</b>
Net cash provided by operating activities	\$ 4,810	\$ 3,636
Net cash provided by (used for) investing activities	(4,427)	(1,434)
Net cash provided by (used for) financing activities	(2,435)	(1,282)
Effect of changes in currency exchange rates on cash, cash equivalents, and restricted cash	(10)	(6)
Net increase (decrease) in cash, cash equivalents, and restricted cash	\$ (2,062)	\$ 914

**Operating Activities:** For the first quarter of 2019, cash provided by operating activities was due primarily to net income and the effect of working capital adjustments, which included a \$286 million increase in inventory due to higher levels of work in process and raw materials inventories, a \$192 million decrease in deferred income taxes due primarily to the utilization of deferred tax assets, and a \$189 million decrease in receivables as a result of lower levels of revenue. For the first quarter of 2018, cash provided by operating activities was due primarily to net income and the effect of working capital adjustments, which included a \$261 million decrease in accounts payable, accrued expenses, and other current liabilities, and a \$121 million increase in receivables due to a higher level of revenue.

**Investing Activities:** For the first quarter of 2019, net cash used for investing activities consisted primarily of \$2.46 billion of expenditures for property, plant, and equipment (net of partner contributions) and \$1.91 billion of net outflows from sales, maturities, and purchases of available-for-sale securities. For the first quarter of 2018, net cash used for investing activities

consisted primarily of \$1.86 billion of expenditures for property, plant, and equipment (net of partner contributions), partially offset by \$453 million of net inflows from sales, maturities, and purchases of available-for-sale securities.

**Financing Activities:** For the first quarter of 2019, net cash used for financing activities consisted primarily of \$1.80 billion for the acquisition of 42 million shares of treasury stock under an accelerated share repurchase agreement, a Rule 10b5-1 plan, and through open market repurchases and cash payments to reduce our debt, including \$413 million for scheduled repayment of other notes and capital leases and \$164 million to settle conversions of notes. For the first quarter of 2018, net cash used for financing activities consisted primarily of cash payments to reduce our debt, including \$2.64 billion to repurchase debt and settle conversions of notes and \$109 million for scheduled repayment of other notes and capital leases. Cash used for financing activities in the first quarter of 2018 was partially offset by net proceeds of \$1.36 billion from the issuance of 34 million shares of our common stock for \$41.00 per share in a public offering.

### **Potential Settlement Obligations of Convertible Notes**

Since the closing price of our common stock exceeded 130% of the conversion price per share of all our convertible notes for at least 20 trading days in the 30 trading day period ended on September 30, 2018, holders may convert such notes at any time through the calendar quarter ended December 31, 2018. Additionally, the closing price of our common stock also exceeded the thresholds for our 2032D Notes and 2033F Notes for the calendar quarter ended December 31, 2018; therefore, such notes are convertible by the holders at any time through March 31, 2019. The following table summarizes the potential settlements that we could be required to make for the calendar quarter ending December 31, 2018 if all holders converted their notes. The amounts in the table below are based on our closing share price of \$37.91 as of November 29, 2018.

	<b>Settlement Option</b>		<b>Underlying Shares</b>	<b>If Settled With Minimum Cash Required</b>		<b>If Settled Entirely With Cash</b>
	<b>Principal Amount</b>	<b>Amount in Excess of Principal</b>		<b>Cash</b>	<b>Remainder in Shares</b>	
2032D Notes	Cash and/or shares	Cash and/or shares	14	\$ 37	13	\$ 544
2033F Notes	Cash	Cash and/or shares	6	69	5	240
2043G Notes	Cash and/or shares	Cash and/or shares	35	—	35	1,324
			55	\$ 106	53	\$ 2,108

### **Contractual Obligations**

<b>As of November 29, 2018</b>	<b>Payments Due by Period</b>				
	<b>Total</b>	<b>Remainder of 2019</b>	<b>2020 - 2021</b>	<b>2022 - 2023</b>	<b>2024 and Thereafter</b>
Notes payable <sup>(1)(2)</sup>	\$ 4,213	\$ 113	\$ 594	\$ 855	\$ 2,651
Capital lease obligations <sup>(2)</sup>	928	245	339	118	226
Operating leases <sup>(3)</sup>	621	29	97	100	395
Total	\$ 5,762	\$ 387	\$ 1,030	\$ 1,073	\$ 3,272

<sup>(1)</sup> Amounts include MMJ Creditor Payments, convertible notes, and other notes.

<sup>(2)</sup> Amounts include principal and interest.

<sup>(3)</sup> Amounts include contractually obligated minimum lease payments for operating leases having an initial noncancelable term in excess of one year.

### **Critical Accounting Estimates**

For a discussion of our critical accounting estimates, see "Part I – Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations" of our Annual Report on Form 10-K for the year ended August 30, 2018. Except for the critical accounting estimates associated with revenue recognition as discussed below, there have been no material changes to our critical accounting estimates since our Annual Report on Form 10-K for the year ended August 30, 2018.

**Revenue recognition:** Revenue is primarily recognized when control of the promised goods is transferred to our customers in an amount that reflects the consideration we expect to be entitled to in exchange for those goods. Contracts with our



customers are generally short-term in duration at fixed, negotiated prices with payment generally due shortly after delivery. We estimate a liability for returns using the expected value method based on historical rates of return. In addition, we generally offer price protection to our distributors, which is a form of variable consideration that decreases the transaction price. We estimate the amount of consideration we expect to be entitled to from sales to distributors, using the expected value method, based on historical price adjustment claims and current pricing trends. The difference between the estimated and actual amount is recognized as an adjustment to revenue.

## **Recently Adopted Accounting Standards**

See "Item 1. Financial Statements – Notes to Consolidated Financial Statements – Recently Adopted Accounting Standards."

## **Recently Issued Accounting Standards Not Yet Adopted**

See "Item 1. Financial Statements – Notes to Consolidated Financial Statements – Recently Issued Accounting Standards Not Yet Adopted."

## **ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK**

We are affected by changes in currency exchange and interest rates. For further discussion about market risk and sensitivity analysis related to changes in currency exchange rates, see "Part II - Item 7A. Quantitative and Qualitative Disclosures About Market Risk" of our Annual Report on Form 10-K for the year ended August 30, 2018.

## **ITEM 4. CONTROLS AND PROCEDURES**

An evaluation was carried out under the supervision and with the participation of our management, including our principal executive officer and principal financial officer, of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934) as of the end of the period covered by this report. Based upon that evaluation, the principal executive officer and principal financial officer concluded that those disclosure controls and procedures were effective to ensure that information required to be disclosed by us in the reports that we file or submit under the Exchange Act are recorded, processed, summarized, and reported within the time periods specified in the Commission's rules and forms and that such information is accumulated and communicated to our management, including the principal executive officer and principal financial officer, to allow timely decision regarding disclosure.

During the first quarter of 2019, there were no changes in our internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

## **PART II. OTHER INFORMATION**

### **ITEM 1. LEGAL PROCEEDINGS**

For a discussion of legal proceedings, see "Part I – Item 3. Legal Proceedings" of our Annual Report on Form 10-K for the year ended August 30, 2018 and "Part I. Financial Information – Item 1. Financial Statements – Notes to Consolidated Financial Statements – Contingencies" and "Item 1A. Risk Factors" herein.

### **ITEM 1A. RISK FACTORS**

In addition to the factors discussed elsewhere in this Form 10-Q, the following are important factors, the order of which is not necessarily indicative of the level of risk that each poses to us, which could cause actual results or events to differ



materially from those contained in any forward-looking statements made by us. Our operations could also be affected by other factors that are presently unknown to us or not considered significant. Any of the factors below could have a material adverse effect on our business, results of operations, financial condition, or stock price.

**We have experienced volatility in average selling prices for our semiconductor memory and storage products which may adversely affect our business.**

We have experienced significant volatility in our average selling prices, including dramatic declines, as noted in the table below, and may continue to experience such volatility in the future. In some prior periods, average selling prices for our products have been below our manufacturing costs and we may experience such circumstances in the future. Average selling prices for our products that decline faster than our costs could have a material adverse effect on our business, results of operations, or financial condition.

	<b>DRAM</b>	<b>Trade NAND</b>
	(percentage change in average selling prices)	
2018 from 2017	37 %	(11)%
2017 from 2016	19 %	(9)%
2016 from 2015	(35)%	(20)%
2015 from 2014	(11)%	(17)%
2014 from 2013	6 %	(23)%

**We may be unable to maintain or improve gross margins.**

Our gross margins are dependent in part upon continuing decreases in per gigabit manufacturing costs achieved through improvements in our manufacturing processes and product designs, including, but not limited to, process line-width, additional 3D memory layers, additional bits per cell (i.e., cell levels), architecture, number of mask layers, number of fabrication steps, and yield. In future periods, we may be unable to reduce our per gigabit manufacturing costs at sufficient levels to maintain or improve gross margins. Factors that may limit our ability to reduce costs include, but are not limited to, strategic product diversification decisions affecting product mix, the increasing complexity of manufacturing processes, difficulties in transitioning to smaller line-width process technologies, 3D memory layers, NAND cell levels, process complexity including number of mask layers and fabrication steps, manufacturing yield, technological barriers, changes in process technologies, and new products that may require relatively larger die sizes. Per gigabit manufacturing costs may also be affected by a broader product portfolio, which may have smaller production quantities and shorter product lifecycles. Our inability to maintain or improve gross margins could have a material adverse effect on our business, results of operations, or financial condition.

**The semiconductor memory and storage markets are highly competitive.**

We face intense competition in the semiconductor memory and storage markets from a number of companies, including Intel; Samsung Electronics Co., Ltd.; SK Hynix Inc.; Toshiba Memory Corporation; and Western Digital Corporation. Some of our competitors are large corporations or conglomerates that may have greater resources to invest in technology, capitalize on growth opportunities, and withstand downturns in the semiconductor markets in which we compete. Consolidation of industry competitors could put us at a competitive disadvantage. In addition, some governments have provided, and may continue to provide, significant assistance, financial or otherwise, to some of our competitors or to new entrants and may intervene in support of national industries and/or competitors. In particular, we face the threat of increasing competition as a result of significant investment in the semiconductor industry by the Chinese government and various state-owned or affiliated entities that is intended to advance China's stated national policy objectives. In addition, the Chinese government may restrict us from participating in the China market or may prevent us from competing effectively with Chinese companies.

Our competitors generally seek to increase silicon capacity, improve yields, and reduce die size in their product designs which may result in significant increases in worldwide supply and downward pressure on prices. Increases in worldwide supply of semiconductor memory and storage also result from fabrication capacity expansions, either by way of new facilities, increased capacity utilization, or reallocation of other semiconductor production to semiconductor memory and storage production. Our competitors may increase capital expenditures resulting in future increases in worldwide supply. We and some of our competitors have plans to ramp, or are constructing or ramping, production at new fabrication facilities. Increases in worldwide supply of semiconductor memory and storage, if not accompanied by commensurate increases in demand, would lead to further declines in average selling prices for our products and would materially adversely affect our business, results of

operations, or financial condition. If competitors are more successful at developing or implementing new product or process technology, their products could have cost or performance advantages.

The competitive nature of our industry could have a material adverse effect on our business, results of operations, or financial condition.

**We may be unable to generate sufficient cash flows or obtain access to external financing necessary to fund our operations, make scheduled debt payments, and make adequate capital investments.**

Our cash flows from operations depend primarily on the volume of semiconductor memory and storage products sold, average selling prices, and manufacturing costs. To develop new product and process technology, support future growth, achieve operating efficiencies, and maintain product quality, we must make significant capital investments in manufacturing technology, capital equipment, facilities, R&D, and product and process technology. We estimate that capital expenditures in 2019 for property, plant, and equipment, net of partner contributions, to be \$9 billion to \$9.5 billion, focused on technology transitions and product enablement.

As a result of the corporate reorganization proceedings of MMJ initiated in 2012, and for so long as such proceedings are continuing, MMJ is prohibited from paying dividends, including any cash dividends, to us and such proceedings require that excess earnings be used in MMJ's business or to fund the MMJ creditor payments. In addition, pursuant to an order of the Tokyo District Court, MMJ cannot make loans or advances, other than certain ordinary course advances, to us without the consent of the Tokyo District Court and may, under certain circumstances, be subject to approval of the legal trustee. As a result, the assets of MMJ are not available for use by us in our other operations. Furthermore, certain uses of the assets of MMJ, including certain capital expenditures of MMJ, may require consent of MMJ's trustees and/or the Tokyo District Court.

In the past we have utilized external sources of financing when needed. As a result of our debt levels, expected debt amortization, and general economic conditions, it may be difficult for us to obtain financing on terms acceptable to us. There can be no assurance that we will be able to generate sufficient cash flows, use cash held by MMJ to fund its capital expenditures, access capital markets or find other sources of financing to fund our operations, make debt payments, and make adequate capital investments to remain competitive in terms of technology development and cost efficiency. Our inability to do any of the foregoing could have a material adverse effect on our business, results of operations, or financial condition.

**Our future success depends on our ability to develop and produce competitive new memory and storage technologies.**

Our key semiconductor memory and storage products and technologies face technological barriers to continue to meet long-term customer needs. These barriers include potential limitations on stacking additional 3D memory layers, increasing bits per cell (i.e., cell levels), meeting higher density requirements, and improving power consumption and reliability. We may face technological barriers to continue to shrink our products at our current or historical rate, which has generally reduced per-unit cost. We have invested and expect to continue to invest in R&D for new and existing products, which involves significant risk and uncertainties. We may be unable to recover our investment in R&D or otherwise realize the economic benefits of reducing die size or increasing memory and storage densities. Our competitors are working to develop new memory and storage technologies that may offer performance and/or cost advantages to existing technologies and render existing technologies obsolete. Accordingly, our future success may depend on our ability to develop and produce viable and competitive new memory and storage technologies. There can be no assurance of the following:

- that we will be successful in developing competitive new semiconductor memory and storage technologies;
- that we will be able to cost-effectively manufacture new products;
- that we will be able to successfully market these technologies; and
- that margins generated from sales of these products will allow us to recover costs of development efforts.

We develop and produce advanced memory technologies, including 3D XPoint memory, a new class of non-volatile technology. There is no assurance that our efforts to develop and market new product technologies will be successful. Unsuccessful efforts to develop new semiconductor memory and storage technologies could have a material adverse effect on our business, results of operations, or financial condition.

**A significant concentration of our revenue is to a select number of customers.**

In each of the last three years, approximately one-half of our total revenue was from our top ten customers. A disruption in our relationship with any of these customers could adversely affect our business. We could experience fluctuations in our customer base or the mix of revenue by customer as markets and strategies evolve. In addition, any consolidation of our

customers could reduce the number of customers to whom our products could be sold. Our inability to meet our customers' requirements or to qualify our products with them could adversely impact our revenue. The loss of one or more of our major customers or any significant reduction in orders from, or a shift in product mix by, these customers could have a material adverse effect on our business, results of operations, or financial condition.

**We have been served with complaints in Chinese courts alleging patent infringement.**

We have been served with complaints in Chinese courts alleging that we infringe certain Chinese patents by manufacturing and selling certain products in China. The complaints seek orders requiring us to destroy inventory of the accused products and equipment for manufacturing the accused products in China, to stop manufacturing, using, selling, and offering for sale the accused products in China, and to pay damages plus court fees.

We are unable to predict the outcome of these assertions of infringement made against us and therefore cannot estimate the range of possible loss. A determination that our products or manufacturing processes infringe the intellectual property rights of others or entering into a license agreement covering such intellectual property could result in significant liability and/or require us to make material changes to our operations in China, products, and/or manufacturing processes. Any of the foregoing could have a material adverse effect on our business, results of operations, or financial condition. (See "Part I. Financial Information – Item 1. Financial Statements – Notes to Consolidated Financial Statements – Contingencies.")

**We are subject to allegations of anticompetitive conduct.**

On April 27, 2018, a purported class-action lawsuit was filed against Micron and other DRAM suppliers in the U.S. District Court for the Northern District of California asserting claims based on alleged price-fixing of DRAM products during the period from June 1, 2016 to February 1, 2018. Similar cases were subsequently filed in federal court in the United States, as well as in Canadian courts in Quebec, Montreal and Toronto, Ontario. The complaints seek treble monetary damages, costs, interest, attorneys' fees, and other injunctive and equitable relief.

On May 15, 2018, the Chinese State Administration for Market Regulation ("SAMR") notified Micron that it was investigating potential collusion and other anticompetitive conduct by DRAM suppliers in China. On May 31, 2018, SAMR made unannounced visits to our sales offices in Beijing, Shanghai, and Shenzhen to seek certain information as part of its investigation. We are cooperating with SAMR in its investigation.

We are unable to predict the outcome of these matters and therefore cannot estimate the range of possible loss. The final resolution of these matters could result in significant liability and could have a material adverse effect on our business, results of operations, or financial condition.

**New product and market development may be unsuccessful.**

We are developing new products, including system-level memory and storage products and solutions, which complement our traditional products or leverage their underlying design or process technology. We have made significant investments in product and process technology and anticipate expending significant resources for new semiconductor product and system-level solution development over the next several years. Additionally, we are increasingly differentiating our products and solutions to meet the specific demands of our customers, which increases our reliance on our customer's ability to accurately forecast the end-customer's needs and preferences. As a result, our product demand forecasts may be impacted significantly by the strategic actions of our customers. In order to continue our success, we must develop, manufacture, and qualify the products our customers need at the time they need those products. The process to develop new products requires us to demonstrate advanced functionality and performance, often well in advance of a planned ramp of production, in order to secure design wins with our customers. In addition, some of our components have long lead-times, requiring us to place orders several months in advance of anticipated demand. Such long lead-times increase the risk of excess inventory or loss of sales in the event our forecasts vary substantially from actual demand. There can be no assurance of the following:

- that our product development efforts will be successful;
- that we will be able to cost-effectively manufacture new products;
- that we will be able to successfully market these products;
- that we will be able to establish or maintain key relationships with customers with specific chip set or design requirements;
- that we will be able to introduce new products into the market and qualify them with our customers on a timely basis;
- or
- that margins generated from sales of these products will allow us to recover costs of development efforts.

Our unsuccessful efforts to develop new products and solutions could have a material adverse effect on our business, results of operations, or financial condition.

**Our joint ventures and strategic relationships involve numerous risks.**

We have entered into strategic relationships, including our joint development partnership and our IMFT joint venture with Intel, to develop new manufacturing process technologies and products and to manufacture certain products. At any time through December 2018, Intel can exercise its option to require us to purchase, and from January 2019 through December 2021, we can exercise our option to purchase from Intel, Intel's interest in IMFT. On October 18, 2018, we announced our intent to exercise our option to acquire Intel's interest in IMFT. Upon such exercise, Intel can elect to set the closing date of the transaction to be any time between six months and one year from the date we exercise our option. Our joint ventures and strategic relationships are subject to various risks that could adversely affect the value of our investments and our results of operations, including the following:

- diverging interests between us and our partners and disagreements on the following:
  - ongoing or future development, manufacturing, or operational activities;
  - the amount, timing, or nature of further investments; and
  - commercial terms in our joint ventures or strategic relationships;
- competition from our partners;
- access by our partners to our proprietary product and process technology which they may use;
- difficulties in transferring technology to joint ventures;
- difficulties and delays in ramping production at joint ventures;
- limited control over the operations of our joint ventures;
- inability of our partners to meet their commitments to us or our joint ventures;
- differences in participation on funding capital investments in our joint ventures due to differing business models or long-term business goals;
- inadequate cash flows to fund increased capital requirements of our joint ventures;
- difficulties or delays in collecting amounts due to us from our joint ventures and partners;
- disputes with partners regarding the terms of arrangements or that terms of such arrangements are unfavorable; and
- changes in tax, legal, or regulatory requirements that necessitate changes in the agreements with our partners.

Our joint ventures and strategic relationships, if unsuccessful, could have a material adverse effect on our business, results of operations, or financial condition.

**Increases in sales of system solutions may increase our dependency upon specific customers and our costs to develop and qualify our system solutions.**

Our development of system-level memory and storage products is dependent, in part, upon successfully identifying and meeting our customers' specifications for those products. Developing and manufacturing system-level products with specifications unique to a customer increases our reliance upon that customer for purchasing our products in sufficient volume, quantity, and in a timely manner. If we fail to identify or develop products on a timely basis, or at all, that comply with our customers' specifications or achieve design wins with our customers, we may experience a significant adverse impact on our revenues and margins. Even if our products meet customer specifications, our sales of system-level solutions are dependent upon our customers choosing our products over those of our competitors and purchasing our products at sufficient volumes and prices. Our competitors' products may be less costly, provide better performance, or include additional features when compared to our products. Our long-term ability to sell system-level memory and storage products is reliant upon our customers' ability to create, market, and sell their products containing our system-level solutions at sufficient volumes and prices in a timely manner. If we fail to successfully develop and market system-level products, our business, results of operations, or financial condition may be materially adversely affected.

Even if we are successful in selling system-level solutions to our customers in sufficient volume, we may be unable to generate sufficient profit if our per-unit manufacturing costs exceed our per-unit selling prices. Manufacturing system-level solutions to customer specifications requires a longer development cycle, as compared to discrete products, to design, test, and qualify, which may increase our costs. Additionally, some of our system solutions are increasingly dependent on sophisticated firmware that may require significant customization to meet customer specifications, which increases our costs and time to market. Additionally, we may need to update our firmware or develop new firmware as a result of new product introductions or changes in customer specifications and/or industry standards, which increases our costs. System complexities and extended warranties for system-level products could also increase our warranty costs. Our failure to cost-effectively manufacture system-

level solutions and/or firmware in a timely manner, may result in reduced demand for our system-level products, and could have a material adverse effect on our business, results of operations, or financial condition.

**Products that fail to meet specifications, are defective, or that are otherwise incompatible with end uses could impose significant costs on us.**

Products that do not meet specifications or that contain, or are perceived by our customers to contain, defects or that are otherwise incompatible with end uses could impose significant costs on us or otherwise materially adversely affect our business, results of operations, or financial condition. From time to time, we experience problems with nonconforming, defective, or incompatible products after we have shipped such products. In recent periods, we have further diversified and expanded our product offerings, which could potentially increase the chance that one or more of our products could fail to meet specifications in a particular application. Our products and solutions may be deemed fully or partially responsible for functions in our customers' products and may result in sharing or shifting of product or financial liability from our customers to us for costs incurred by the end user as a result of our customers' products failing to perform as specified. We could be adversely affected in several ways, including the following:

- we may be required or agree to compensate customers for costs incurred or damages caused by defective or incompatible products and to replace products;
- we could incur a decrease in revenue or adjustment to pricing commensurate with the reimbursement of such costs or alleged damages; and
- we may encounter adverse publicity, which could cause a decrease in sales of our products or harm our relationships with existing or potential customers.

Any of the foregoing items could have a material adverse effect on our business, results of operations, or financial condition.

**Debt obligations could adversely affect our financial condition.**

We have incurred in the past, and expect to incur in the future, debt to finance our capital investments, business acquisitions, and restructuring of our capital structure. As of November 29, 2018, we had debt with a carrying value of \$4.13 billion and may borrow up to an additional \$2.50 billion under an undrawn revolving credit facility. In addition, as of November 29, 2018, the conversion value in excess of principal of our convertible notes was \$877 million, based on the trading price of our common stock of \$37.91 per share on such date.

Our debt obligations could adversely impact us. For example, these obligations could:

- require us to use a large portion of our cash flow to pay principal and interest on debt, which will reduce the amount of cash flow available to fund working capital, capital expenditures, acquisitions, R&D expenditures, and other business activities;
- require us to use cash and/or issue shares of our common stock to settle any conversion obligations of our convertible notes;
- result in certain of our debt instruments being accelerated to be immediately due and payable or being deemed to be in default if certain terms of default are triggered, such as applicable cross payment default and/or cross-acceleration provisions;
- adversely impact our credit rating, which could increase future borrowing costs;
- limit our future ability to raise funds for capital expenditures, strategic acquisitions or business opportunities, R&D, and other general corporate requirements;
- restrict our ability to incur specified indebtedness, create or incur certain liens, and enter into sale-leaseback financing transactions;
- increase our vulnerability to adverse economic and semiconductor memory and storage industry conditions;
- increase our exposure to interest rate risk from variable rate indebtedness;
- continue to dilute our earnings per share as a result of the conversion provisions in our convertible notes; and
- require us to continue to pay cash amounts substantially in excess of the principal amounts upon settlement of our convertible notes to minimize dilution of our earnings per share.

Our ability to meet our payment obligations under our debt instruments depends on our ability to generate significant cash flows in the future. This, to some extent, is subject to market, economic, financial, competitive, legislative, and regulatory factors as well as other factors that are beyond our control. There can be no assurance that our business will generate cash flow from operations, or that additional capital will be available to us, in amounts sufficient to enable us to meet our debt payment

obligations and to fund other liquidity needs. Additionally, events and circumstances may occur which would cause us to not be able to satisfy applicable draw-down conditions and utilize our revolving credit facility. If we are unable to generate sufficient cash flows to service our debt payment obligations, we may need to refinance or restructure our debt, sell assets, reduce or delay capital investments, or seek to raise additional capital. If we are unable to implement one or more of these alternatives, we may be unable to meet our debt payment obligations, which could have a material adverse effect on our business, results of operations, or financial condition.

**We may be unable to protect our intellectual property or retain key employees who are knowledgeable of and develop our intellectual property.**

We maintain a system of controls over our intellectual property, including U.S. and foreign patents, trademarks, copyrights, trade secrets, licensing arrangements, confidentiality procedures, non-disclosure agreements with employees, consultants, and vendors, and a general system of internal controls. Despite our system of controls over our intellectual property, it may be possible for our current or future competitors to obtain, copy, use, or disclose, illegally or otherwise, our product and process technology or other proprietary information. The laws of some foreign countries may not protect our intellectual property to the same degree as do U.S. laws and our confidentiality, non-disclosure, and non-compete agreements may be unenforceable or difficult and costly to enforce.

Additionally, our ability to maintain and develop intellectual property is dependent upon our ability to attract, develop, and retain highly skilled employees. Global competition for such skilled employees in our industry is intense. Due to the volatile nature of our industry and our operating results, a decline in our operating results and/or stock price may adversely affect our ability to retain key employees whose compensation is dependent, in part, upon the market price of our common stock, achieving certain performance metrics, levels of company profitability, or other financial or company-wide performance. If our competitors or future entrants into our industry are successful in hiring our employees, they may directly benefit from the knowledge these employees gained while they were under our employment.

Our inability to protect our intellectual property or retain key employees who are knowledgeable of and develop our intellectual property could have a material adverse effect on our business, results of operations, or financial condition.

**Claims that our products or manufacturing processes infringe or otherwise violate the intellectual property rights of others, or failure to obtain or renew license agreements covering such intellectual property, could materially adversely affect our business, results of operations, or financial condition.**

As is typical in the semiconductor and other high technology industries, from time to time others have asserted, and may in the future assert, that our products or manufacturing processes infringe upon, misappropriate, misuse, or otherwise violate their intellectual property rights. We are unable to predict the outcome of these assertions made against us. Any of these types of claims, regardless of the merits, could subject us to significant costs to defend or resolve such claims and may consume a substantial portion of management's time and attention. As a result of these claims, we may be required to:

- pay significant monetary damages, fines, royalties, or penalties;
- enter into license or settlement agreements covering such intellectual property rights;
- make material changes to or redesign our products and/or manufacturing processes; and/or
- cease manufacturing, having made, selling, offering for sale, importing, marketing, or using products and/or manufacturing processes in certain jurisdictions.

We may not be able to take any of the actions described above on commercially reasonable terms and any of the foregoing results could have a material adverse effect on our business, results of operations, or financial condition. (See "Part I. Financial Information – Item 1. Financial Statements – Notes to Consolidated Financial Statements – Contingencies.")

We have a number of intellectual property license agreements. Some of these license agreements require us to make one-time or periodic payments. We may need to obtain additional licenses or renew existing license agreements in the future. We are unable to predict whether these license agreements can be obtained or renewed on terms acceptable to us. The failure to obtain or renew licenses as necessary could have a material adverse effect on our business, results of operations, or financial condition.

**Litigation could have a material adverse effect on our business, results of operations, or financial condition.**

From time to time we are subject to various legal proceedings and claims that arise out of the ordinary conduct of our business or otherwise, both domestically and internationally. Any claim, with or without merit, could result in significant legal fees that could negatively impact our financial results, disrupt our operations, and require significant attention from our

management. We could be subject to litigation or arbitration disputes arising from our relationships with vendors or customers, supply agreements, or contractual obligations with our subcontractors or business partners. We may also be associated with and subject to litigation arising from the actions of our subcontractors or business partners. We may also be subject to litigation as a result of indemnities we issue, primarily with our customers, the terms of our product warranties, and from product liability claims. As we continue to focus on developing system solutions with manufacturers of consumer products, including autonomous driving, augmented reality, and others, we may be exposed to greater potential for personal liability claims against us as a result of consumers' use of those products. There can be no assurance that we are adequately insured to protect against all claims and potential liabilities, and we may elect to self-insure with respect to certain matters. Exposures to various litigation could lead to significant costs and expenses as we defend claims, are required to pay damage awards, or enter into settlement agreements, any of which could have a material adverse effect on our business, results of operations, or financial condition.

**If our manufacturing process is disrupted, our business, results of operations, or financial condition could be materially adversely affected.**

We and our subcontractors manufacture products using highly complex processes that require technologically advanced equipment and continuous modification to improve yields and performance. Difficulties in the manufacturing process or the effects from a shift in product mix can reduce yields or disrupt production and may increase our per gigabit manufacturing costs. We and our subcontractors maintain operations and continuously implement new product and process technology at manufacturing facilities, which are widely dispersed in multiple locations in several countries including the United States, Singapore, Taiwan, Japan, Malaysia, and China. Additionally, our control over operations at IMFT is limited by our agreements with Intel. From time to time, there have been disruptions in the manufacturing process as a result of power outages, improperly functioning equipment, disruptions in supply of raw materials or components, equipment failures, earthquakes, or other environmental events. If production is disrupted for any reason, manufacturing yields may be adversely affected or we may be unable to meet our customers' requirements and they may purchase products from other suppliers. This could result in a significant increase in manufacturing costs, loss of revenues, or damage to customer relationships, any of which could have a material adverse effect on our business, results of operations, or financial condition.

**Increases in tariffs or other trade restrictions or taxes on our or our customers' products or equipment and supplies could have an adverse impact on our operations.**

In 2018, 88% of our revenue was from customers located outside the United States. We also purchase a significant portion of equipment and supplies from suppliers outside the United States. Additionally, a significant portion of our facilities are located outside the United States, including Taiwan, Singapore, Japan, and China. The United States and other countries have levied tariffs and taxes on certain goods. General trade tensions between the U.S. and China have been escalating in 2018, with three rounds of U.S. tariffs on Chinese goods taking effect in July, August, and September 2018, each followed by a round of retaliatory Chinese tariffs on U.S. goods. Some of our products are included in these announced tariffs. Higher duties on existing tariffs and further rounds of tariffs have been announced or threatened by U.S. and Chinese leaders. For example, a U.S. tariff on Chinese goods, including certain of our products, was scheduled to increase from 10% to 25% on January 1, 2019; however, that increase has been delayed for 90 days pending trade negotiations between the U.S. and China. If the U.S. were to impose additional tariffs on components that we or our suppliers source from China, our cost for such components would increase. We may also incur increases in manufacturing costs due to our efforts to mitigate the impact of tariffs on our customers and our operations. Additionally, tariffs on our customers' products could impact their sales of such end products, resulting in lower demand for our products. Further changes in trade policy, tariffs, additional taxes, restrictions on exports or other trade barriers, or restrictions on supplies, equipment, and raw materials including rare earth minerals, may limit our ability to produce products, increase our selling and/or manufacturing costs, decrease margins, reduce the competitiveness of our products, or inhibit our ability to sell products or purchase necessary equipment and supplies, which could have a material adverse effect on our business, results of operations, or financial conditions.

**We must attract, retain, and motivate highly skilled employees.**

To remain competitive, we must attract, retain, and motivate executives and other highly skilled employees. Hiring and retaining qualified executives, engineers, technical staff, and sales representatives are critical to our business, and competition for experienced employees in our industry can be intense. Our inability to attract and retain key employees may inhibit our ability to expand our business operations. Additionally, changes to immigration policies in the numerous countries in which we operate, including the United States, may limit our ability to hire and/or retain talent in specific locations. If our total compensation programs and workplace culture cease to be viewed as competitive, our ability to attract, retain, and motivate employees could be weakened, which could have a material adverse effect on our business, results of operations, or financial condition.

**The acquisition of our ownership interest in Inotera from Qimonda has been challenged by the administrator of the insolvency proceedings for Qimonda.**

On January 20, 2011, Dr. Michael Jaffé, administrator for Qimonda's insolvency proceedings, filed suit against Micron and Micron Semiconductor B.V., our Netherlands subsidiary ("Micron B.V."), in the District Court of Munich, Civil Chamber. The complaint seeks to void, under Section 133 of the German Insolvency Act, a share purchase agreement between Micron B.V. and Qimonda signed in fall 2008, pursuant to which Micron B.V. purchased substantially all of Qimonda's shares of Inotera (the "Inotera Shares"), representing approximately 18% of Inotera's outstanding shares as of November 29, 2018, and seeks an order requiring us to re-transfer those shares to the Qimonda estate. The complaint also seeks, among other things, to recover damages for the alleged value of the joint venture relationship with Inotera and to terminate, under Sections 103 or 133 of the German Insolvency Code, a patent cross-license between us and Qimonda entered into at the same time as the share purchase agreement.

Following a series of hearings with pleadings, arguments, and witnesses on behalf of the Qimonda estate, on March 13, 2014, the court issued judgments: (1) ordering Micron B.V. to pay approximately \$1 million in respect of certain Inotera Shares sold in connection with the original share purchase; (2) ordering Micron B.V. to disclose certain information with respect to any Inotera Shares sold by it to third parties; (3) ordering Micron B.V. to disclose the benefits derived by it from ownership of the Inotera Shares, including in particular, any profits distributed on the Inotera Shares and all other benefits; (4) denying Qimonda's claims against Micron for any damages relating to the joint venture relationship with Inotera; and (5) determining that Qimonda's obligations under the patent cross-license agreement are canceled. In addition, the Court issued interlocutory judgments ordering, among other things: (1) that Micron B.V. transfer to the Qimonda estate the Inotera Shares still owned by Micron B.V. and pay to the Qimonda estate compensation in an amount to be specified for any Inotera Shares sold to third parties; and (2) that Micron B.V. pay the Qimonda estate as compensation an amount to be specified for benefits derived by Micron B.V. from ownership of the Inotera Shares. The interlocutory judgments have no immediate, enforceable effect on us, and, accordingly, we expect to be able to continue to operate with full control of the Inotera Shares subject to further developments in the case. We have filed a notice of appeal, and the parties have submitted briefs to the appeals court.

We are unable to predict the outcome of the matter and, therefore, cannot estimate the range of possible loss. The final resolution of this lawsuit could result in the loss of the Inotera Shares or monetary damages, unspecified damages based on the benefits derived by Micron B.V. from the ownership of the Inotera Shares, and/or the termination of the patent cross-license, which could have a material adverse effect on our business, results of operations, or financial condition.

**Breaches of our security systems could expose us to losses.**

We maintain a system of controls over the physical security of our facilities. We also manage and store various proprietary information and sensitive or confidential data relating to our operations. In addition, we process, store, and transmit large amounts of data relating to our customers and employees, including sensitive personal information. Unauthorized persons or employees may gain access to our facilities or network systems to steal trade secrets or other proprietary information, compromise confidential information, create system disruptions, or cause shutdowns. These parties may also be able to develop and deploy viruses, worms, and other malicious software programs that disrupt our operations and create security vulnerabilities. Breaches of our physical security and attacks on our network systems could result in significant losses and damage our reputation with customers and suppliers and may expose us to litigation if the confidential information of our customers, suppliers, or employees is compromised, which could have a material adverse effect on our business, results of operations, or financial condition.

**Changes in foreign currency exchange rates could materially adversely affect our business, results of operations, or financial condition.**

Across our global operations, significant transactions and balances are denominated in currencies other than the U.S. dollar (our reporting currency), primarily the euro, Singapore dollar, New Taiwan dollar, and yen. Although we hedge our primary exposures to changes in currency exchange rates from our monetary assets and liabilities, the effectiveness of these hedges is dependent upon our ability to accurately forecast our monetary assets and liabilities. In addition, a significant portion of our manufacturing costs are denominated in foreign currencies. Exchange rates for some of these currencies against the U.S. dollar, particularly the yen, have been volatile in recent periods. If these currencies strengthen against the U.S. dollar, our manufacturing costs could significantly increase. Exchange rates for the U.S. dollar that adversely change against our foreign currency exposures could have a material adverse effect on our business, results of operations, or financial condition.



**We may make future acquisitions and/or alliances, which involve numerous risks.**

Acquisitions and the formation or operation of alliances, such as joint ventures and other partnering arrangements, involve numerous risks, including the following:

- integrating the operations, technologies, and products of acquired or newly formed entities into our operations;
- increasing capital expenditures to upgrade and maintain facilities;
- increased debt levels;
- the assumption of unknown or underestimated liabilities;
- the use of cash to finance a transaction, which may reduce the availability of cash to fund working capital, capital expenditures, R&D expenditures, and other business activities;
- diverting management's attention from daily operations;
- managing larger or more complex operations and facilities and employees in separate and diverse geographic areas;
- hiring and retaining key employees;
- requirements imposed by governmental authorities in connection with the regulatory review of a transaction, which may include, among other things, divestitures or restrictions on the conduct of our business or the acquired business;
- inability to realize synergies or other expected benefits;
- failure to maintain customer, vendor, and other relationships;
- inadequacy or ineffectiveness of an acquired company's internal financial controls, disclosure controls and procedures, compliance programs, and/or environmental, health and safety, anti-corruption, human resource, or other policies or practices; and
- impairment of acquired intangible assets, goodwill, or other assets as a result of changing business conditions, technological advancements, or worse-than-expected performance of the acquired business.

In previous years, supply of memory and storage products has significantly exceeded customer demand resulting in significant declines in average selling prices. The global memory and storage industry has experienced consolidation and may continue to consolidate. We engage, from time to time, in discussions regarding potential acquisitions and similar opportunities. To the extent we are successful in completing any such transactions, we could be subject to some or all of the risks described above, including the risks pertaining to funding, assumption of liabilities, integration challenges, and increases in debt that may accompany such transactions. Acquisitions of, or alliances with, technology companies are inherently risky and may not be successful and could have a material adverse effect on our business, results of operations, or financial condition.

**Our business, results of operations, or financial condition could be adversely affected by the limited availability and quality of materials, supplies, and capital equipment, or the dependency on third-party service providers.**

Our supply chain and operations are dependent on the availability of materials that meet exacting standards and the use of third parties to provide us with components and services. We generally have multiple sources of supply for our raw materials and services. However, only a limited number of suppliers are capable of delivering certain raw materials and services that meet our standards and, in some cases, materials, components, or services are provided by a single supplier. Various factors could reduce the availability of raw materials or components such as chemicals, silicon wafers, gases, photoresist, controllers, substrates, lead frames, printed circuit boards, targets, and reticle glass blanks. Shortages or increases in lead times may occur from time to time in the future. Our manufacturing processes are also dependent on our relationships with third-party manufacturers of controllers used in a number of our products and with outsourced semiconductor assembly and test providers, contract manufacturers, logistic carriers, and other service providers. Certain raw materials are primarily available in certain countries, including rare earth minerals available primarily from China, and trade disputes or other political or economic conditions may limit our availability to obtain such raw materials. We and/or our suppliers and service providers could be affected by tariffs, embargoes or other trade restrictions, as well as laws and regulations enacted in response to concerns regarding climate change, conflict minerals, and responsible sourcing practices, which could limit the supply of our raw materials and/or increase the cost. In addition, disruptions in transportation lines could delay our receipt of raw materials. Lead times for the supply of raw materials have been extended in the past. The disruption of our supply of raw materials, components, services, or the extension of our lead times could have a material adverse effect on our business, results of operations, or financial condition.

Our operations are dependent on our ability to procure advanced semiconductor manufacturing equipment that enables the transition to lower cost manufacturing processes. For certain key types of equipment, including photolithography tools, we are sometimes dependent on a single supplier. From time to time, we have experienced difficulties in obtaining some equipment on a timely basis due to suppliers' limited capacity. Our inability to obtain equipment on a timely basis could adversely affect our ability to transition to next generation manufacturing processes and reduce our costs. Delays in obtaining equipment could also impede our ability to ramp production at new facilities and could increase our overall costs of a ramp. Our inability to obtain

advanced semiconductor manufacturing equipment in a timely manner could have a material adverse effect on our business, results of operations, or financial condition.

**A downturn in the worldwide economy may harm our business.**

Downturns in the worldwide economy have harmed our business in the past and future downturns could also adversely affect our business. Adverse economic conditions affect demand for devices that incorporate our products, such as personal computers, mobile devices, SSDs, and servers. Reduced demand for these products could result in significant decreases in our average selling prices and product sales. A deterioration of current conditions in worldwide credit markets could limit our ability to obtain external financing to fund our operations and capital expenditures. In addition, we may experience losses on our holdings of cash and investments due to failures of financial institutions and other parties. Difficult economic conditions may also result in a higher rate of losses on our accounts receivables due to credit defaults. As a result, a downturn in the worldwide economy could have a material adverse effect on our business, results of operations, or financial condition.

**Our results of operations could be affected by natural disasters and other events in the locations in which we or our customers or suppliers operate.**

We have manufacturing and other operations in locations subject to natural occurrences such as severe weather and geological events, including earthquakes or tsunamis, that could disrupt operations or result in construction delays. In addition, our suppliers and customers also have operations in such locations. A natural disaster, fire, explosion, or other event that results in a prolonged disruption to our operations, or the operations of our customers or suppliers, could have a material adverse effect on our business, results of operations, or financial condition.

**Our incentives from various governments are conditional upon achieving or maintaining certain performance obligations and are subject to reduction, termination, or clawback.**

We have received, and may in the future continue to receive, benefits and incentives from national, state, and local governments in various regions of the world designed to encourage us to establish, maintain, or increase investment, workforce, or production in those regions. These incentives may take various forms, including grants, loan subsidies, and tax arrangements, and typically require us to perform or maintain certain levels of investment, capital spending, employment, technology deployment, or research and development activities to qualify for such incentives. We cannot guarantee that we will successfully achieve performance obligations required to qualify for these incentives or that the granting agencies will provide such funding. These incentive arrangements typically provide the granting agencies with rights to audit our performance with the terms and obligations. Such audits could result in modifications to, or termination of, the applicable incentive program. The incentives we receive could be subject to reduction, termination, or clawback, and any decrease or clawback of government incentives could have a material adverse effect on our business, results of operations, or financial condition.

**A change in tax laws in key jurisdictions could materially increase our tax expense.**

We are subject to income taxes in the U.S. and many foreign jurisdictions. Changes to income tax laws and regulations in any of the jurisdictions in which we operate, or in the interpretation of such laws, could significantly increase our effective tax rate and ultimately reduce our cash flow from operating activities and otherwise have a material adverse effect on our financial condition. For example, as a result of the Tax Cuts and Jobs Act (the "Tax Act") enacted on December 22, 2017 by the United States, our effective tax rate increased to 12.6% in the first quarter of 2019, depending on the amount and geographic mix of our taxable income. Additionally, various levels of government are increasingly focused on tax reform and other legislative action to increase tax revenue. Further changes in the tax laws of foreign jurisdictions could arise as a result of the base erosion and profit shifting project undertaken by the Organization for Economic Co-operation and Development, which represents a coalition of member countries and recommended changes to numerous long-standing tax principles. If adopted by countries, such changes, as well as changes in U.S. federal and state tax laws or in taxing jurisdictions' administrative interpretations, decisions, policies, and positions, could have a material adverse effect on our business, results of operations, or financial condition.

**We may incur additional tax expense or become subject to additional tax exposure.**

We operate in a number of locations outside the United States, including Singapore, where we have tax incentive arrangements that are conditional, in part, upon meeting certain business operations and employment thresholds. Our domestic and international taxes are dependent upon the geographic mix of our earnings among these jurisdictions. Our provision for income taxes and cash tax liabilities in the future could be adversely affected by numerous factors, including challenges by tax

authorities to our tax positions and intercompany transfer pricing agreements, failure to meet performance obligations with respect to tax incentive agreements, and changes in tax laws and regulations. Additionally, we file income tax returns with the U.S. federal government, various U.S. states, and various other jurisdictions throughout the world and certain tax returns may remain open to examination for several years. The results of audits and examinations of previously filed tax returns and continuing assessments of our tax exposures may have an adverse effect on our provision for income taxes and cash tax liability. The foregoing items could have a material adverse effect on our business, results of operations, or financial condition.

**We may incur additional restructuring charges in future periods.**

From time to time, we have, and may in the future, enter into restructure initiatives in order to, among other items, streamline our operations, respond to changes in business conditions, our markets or product offerings, or to centralize certain key functions. We may not realize expected savings or other benefits from our restructure activities and may incur additional restructure charges or other losses in future periods associated with other initiatives. In connection with any restructure initiatives, we could incur restructure charges, loss of production output, loss of key personnel, disruptions in our operations, and difficulties in the timely delivery of products, which could have a material adverse effect on our business, results of operations, or financial condition.

**We face risks associated with our international sales and operations that could materially adversely affect our business, results of operations, or financial condition.**

A substantial majority of our consolidated revenue is from customers located outside the United States. In addition, a substantial portion of our manufacturing operations are located outside the United States. In particular, a significant portion of our manufacturing operations are concentrated in Singapore, Taiwan, Japan, and China. Our international sales and operations are subject to a variety of risks, including:

- export and import duties, changes to import and export regulations, customs regulations and processes, and restrictions on the transfer of funds;
- imposition of bans on sales of goods or services to one or more of our significant foreign customers;
- compliance with U.S. and international laws involving international operations, including the Foreign Corrupt Practices Act of 1977, as amended, export and import laws, and similar rules and regulations;
- theft of intellectual property;
- political and economic instability;
- problems with the transportation or delivery of products;
- issues arising from cultural or language differences and labor unrest;
- longer payment cycles and greater difficulty in collecting accounts receivable;
- compliance with trade, technical standards, and other laws in a variety of jurisdictions;
- contractual and regulatory limitations on the ability to maintain flexibility with staffing levels;
- disruptions to manufacturing operations as a result of actions imposed by foreign governments;
- changes in economic policies of foreign governments; and
- difficulties in staffing and managing international operations.

Many of our customers, suppliers, and vendors operate internationally and are also subject to the foregoing risks. For example, the United States government has in the past banned American firms from selling products and software to certain of our customers and may in the future impose similar bans or other restrictions on sales to one or more of our significant customers. If we or our customers, suppliers, or vendors are impacted by these risks, it could have a material adverse effect on our business, results of operations, or financial condition.

**Compliance with customer requirements and regulations regarding the use of conflict minerals could limit the supply and increase the cost of certain metals used in manufacturing our products.**

Increased focus on environmental protection and social responsibility initiatives led to the passage of Section 1502 of the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 (the "Dodd-Frank Act") and its implementing SEC regulations. The Dodd-Frank Act imposes supply chain diligence and disclosure requirements for certain manufacturers of products containing specific minerals that may originate in or near the Democratic Republic of the Congo (the "DRC") and finance or benefit local armed groups. These "conflict minerals" are commonly found in materials used in the manufacture of semiconductors. The implementation of these regulations may limit the sourcing and availability of some of these materials. This in turn may affect our ability to obtain materials necessary for the manufacture of our products in sufficient quantities and may affect related material pricing. Some of our customers may elect to disqualify us as a supplier or reduce purchases from us if we are unable to verify that our products are DRC conflict free. In addition, many of our customers have or are planning to

adopt responsible sourcing programs with requirements that our broader in terms of minerals and geographies than DRC conflict minerals programs. Our inability to comply with requirements regarding the use of conflict and other minerals could have a material adverse effect on our business, results of operations, or financial condition.

**We and others are subject to a variety of laws and regulations that may result in additional costs and liabilities.**

The manufacturing of our products requires the use of facilities, equipment, and materials that are subject to a broad array of laws and regulations in numerous jurisdictions in which we operate. Additionally, we are subject to a variety of other laws and regulations relative to the construction, maintenance, and operations of our facilities. Any of these laws or regulations could cause us to incur additional direct costs, as well as increased indirect costs related to our relationships with our customers and suppliers, and otherwise harm our operations and financial condition. Any failure to comply with these laws or regulations could adversely impact our reputation and our financial results. Additionally, we engage various third parties to represent us or otherwise act on our behalf and we partner with other companies in our joint ventures, all of whom are also subject to a broad array of laws and regulations. Our engagement with these third parties and our ownership in these joint ventures may also expose us to risks associated with their respective compliance with these laws and regulations. As a result of these items, we could experience the following:

- suspension of production;
- remediation costs;
- alteration of our manufacturing processes;
- regulatory penalties, fines, and legal liabilities; and
- reputational challenges.

Our failure, or the failure of our third-party agents or joint ventures, to comply with these laws and regulations could have a material adverse effect on our business, results of operations, or financial condition.

**We are subject to counterparty default risks.**

We have numerous arrangements with financial institutions that subject us to counterparty default risks, including cash deposits, investments, capped call contracts on our common stock, and derivative instruments. As a result, we are subject to the risk that the counterparty to one or more of these arrangements will default on its performance obligations. A counterparty may not comply with their contractual commitments which could then lead to their defaulting on their obligations with little or no notice to us, which could limit our ability to take action to mitigate our exposure. Additionally, our ability to mitigate our exposures may be constrained by the terms of our contractual arrangements or because market conditions prevent us from taking effective action. If one of our counterparties becomes insolvent or files for bankruptcy, our ability to recover any losses suffered as a result of that counterparty's default may be limited by the liquidity of the counterparty or the applicable laws governing the bankruptcy proceedings. In the event of such default, we could incur significant losses, which could have a material adverse effect on our business, results of operations, or financial condition.

**The operations of MMJ are subject to continued oversight by the Tokyo District Court during the pendency of the corporate reorganization proceedings.**

Because MMJ's plan of reorganization provides for ongoing payments to creditors following the closing of our acquisition of MMJ, the reorganization proceedings in Japan (the "Japan Proceedings") are continuing and MMJ remains subject to the oversight of the Tokyo District Court and of the trustees (including a trustee designated by us, who we refer to as the business trustee, and a trustee designated by the Tokyo District Court, who we refer to as the legal trustee), pending completion of the reorganization proceedings. The business trustee is responsible for overseeing the operation of the business of MMJ, other than oversight in relation to acts that need to be carried out in connection with the Japan Proceedings, which are the responsibility of the legal trustee. MMJ's reorganization proceedings in Japan, and oversight of the Tokyo District Court, will continue until the final creditor payment is made under MMJ's plan of reorganization, which is scheduled to occur in December 2019, but may occur on a later date to the extent any claims of creditors remain unfixed on the final scheduled installment payment date. MMJ may petition the Tokyo District Court for an early termination of the reorganization proceedings once two-thirds of all payments under the plan of reorganization are made. Although such early terminations are customarily granted, there can be no assurance that the Tokyo District Court will grant any such petition in this particular case.

During the pendency of the reorganization proceedings in Japan, MMJ is obligated to provide periodic financial reports to the Tokyo District Court and may be required to obtain the consent of the Tokyo District Court prior to taking a number of significant actions relating to its businesses, including transferring or disposing of, or acquiring, certain material assets, incurring or guaranteeing material indebtedness, settling material disputes, or entering into certain material agreements. The

consent of the legal trustee may also be required for matters that would likely have a material impact on the operations or assets of MMJ or for transfers of material assets, to the extent the matters or transfers would reasonably be expected to materially and adversely affect execution of MMJ's plan of reorganization. Accordingly, during the pendency of the reorganization proceedings in Japan, our ability to operate MMJ as part of our global business or to cause MMJ to take certain actions that we deem advisable for its business could be adversely affected if the Tokyo District Court or the legal trustee is unwilling to consent to various actions that we may wish to take with respect to MMJ.

The operations of MMJ being subject to the continued oversight by the Tokyo District Court during the pendency of the corporate reorganization proceedings could have a material adverse effect on our business, results of operations, or financial condition.

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

In May 2018, we announced that our Board of Directors had authorized the discretionary repurchase of up to \$10 billion of our outstanding common stock beginning in 2019. We may purchase shares on a discretionary basis through open-market purchases, block trades, privately-negotiated transactions, and/or derivative transactions, subject to market conditions and our ongoing determination of the best use of available cash. The repurchase authorization does not obligate us to acquire any common stock. In the first quarter of 2019, we repurchased an aggregate of 42 million shares of our common stock for \$1.80 billion under an accelerated share repurchase agreement, Rule 10b5-1 plans, and through open market repurchases. The shares were recorded as treasury stock.

Period	(a) Total number of shares purchased	(b) Average price paid per share	(c) Total number of shares (or units) purchased as part of publicly announced plans or programs	(d) Maximum number (or approximate dollar value) of shares (or units) that may yet be purchased under publicly announced plans or programs
August 31, 2018 – October 4, 2018	25,691,192	\$ 43.39	25,691,192	
October 5, 2018 – November 1, 2018	11,494,319	41.42	11,494,319	
November 2, 2018 – November 29, 2018	5,220,139	40.78	5,220,139	
	<u>42,405,650</u>			\$ 8,196,303,572

Shares of common stock withheld as payment of withholding taxes and exercise prices in connection with the vesting or exercise of equity awards are also treated as common stock repurchases. Those withheld shares of common stock are not considered common stock repurchases under an authorized common stock repurchase plan and accordingly are excluded from the amounts in the table above.

## 6. Exhibits

Exhibit Number	Description of Exhibit	Filed Herewith	Form	Period Ending	Exhibit/Appendix	Filing Date
3.1	<a href="#">Restated Certificate of Incorporation of the Registrant</a>		8-K		99.2	1/26/15
3.2	<a href="#">Bylaws of the Registrant, Amended and Restated</a>		8-K		99.2	10/17/18
10.70	<a href="#">Incremental Amendment No. 1 to Credit Agreement dated July 3, 2018, by and among Micron Technology, Inc., as borrower, JPMorgan Chase Bank, N.A., as administrative agent and collateral agent, and the other agents party thereto and each financial institution party from time to time thereto</a>	✓				
31.1	<a href="#">Rule 13a-14(a) Certification of Chief Executive Officer</a>	✓				
31.2	<a href="#">Rule 13a-14(a) Certification of Chief Financial Officer</a>	✓				
32.1	<a href="#">Certification of Chief Executive Officer Pursuant to 18 U.S.C. 1350</a>	✓				
32.2	<a href="#">Certification of Chief Financial Officer Pursuant to 18 U.S.C. 1350</a>	✓				
101.INS	XBRL Instance Document	✓				
101.SCH	XBRL Taxonomy Extension Schema Document	✓				
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document	✓				
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document	✓				
101.LAB	XBRL Taxonomy Extension Label Linkbase Document	✓				
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document	✓				

## SIGNATURE

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.

Micron Technology, Inc.

(Registrant)

Date: December 19, 2018

/s/ David A. Zinsner

David A. Zinsner  
Senior Vice President and Chief Financial Officer  
(Principal Financial and Accounting Officer)

INCREMENTAL AMENDMENT NO. 1,  
dated as of November 27, 2018

to the

CREDIT AGREEMENT,  
dated as of July 3, 2018

among

MICRON TECHNOLOGY, INC.,  
as Borrower,

THE LENDERS PARTY HERETO,

and

JPMORGAN CHASE BANK, N.A.,  
as Administrative Agent and as Collateral Agent

JPMORGAN CHASE BANK, N.A.,  
as Lead Arranger and Bookrunner



## INCREMENTAL AMENDMENT NO. 1

INCREMENTAL AMENDMENT NO. 1 TO THE CREDIT AGREEMENT, dated as of November 27, 2018 (this "Amendment"), among Micron Technology, Inc., a Delaware corporation (the "Company" or "Borrower"), the other Loan Parties, the lenders party hereto (the "2018 Incremental Revolving Lenders"), JPMorgan Chase Bank, N.A., as administrative agent and as collateral agent under the Credit Agreement (the "Administrative Agent").

### W I T N E S S E T H :

WHEREAS, reference is hereby made to the Credit Agreement, dated as of July 3, 2018 (as amended, restated, supplemented or otherwise modified from time to time heretofore, the "Existing Credit Agreement" and as amended by this Amendment, the "Amended Credit Agreement");

WHEREAS, the Company desires to increase the aggregate amount of Revolving Commitments by an aggregate amount of \$500,000,000 (the "2018 Incremental Revolving Commitments"); and

WHEREAS, subject to the terms and conditions set forth herein and with the consent of the 2018 Incremental Revolving Lenders, the 2018 Incremental Revolving Lenders have agreed to provide 2018 Incremental Revolving Commitments in the amounts set forth in Exhibit A hereto.

NOW, THEREFORE, the parties hereto hereby agree as follows:

SECTION 1. Defined Terms. Unless otherwise defined herein, terms defined in the Amended Credit Agreement and used herein shall have the meanings given to them in the Amended Credit Agreement.

#### SECTION 2. Incremental Revolving Facility.

(a) Subject to the satisfaction of the conditions set forth in Section 4 below, each 2018 Incremental Revolving Lender with a 2018 Incremental Revolving Commitment set forth opposite its name on Exhibit A hereto agrees to provide Revolving Commitments or increase the amount of its existing Revolving Commitments, as applicable, in such amount as forth on Exhibit A and agrees, from time to time during the period from and including the 2018 Incremental Amendment Effective Date (as defined below) to the Revolving Maturity Date, to make Revolving Loans to the Borrower in an aggregate principal amount at any one time outstanding not to exceed the amount of such Lender's Revolving Commitment (after giving effect to such 2018 Incremental Revolving Commitment) in accordance with Sections 2.1, 2.2 and 2.3 of the Amended Credit Agreement. For the avoidance of doubt, the notice requirements set forth in Section 2.25(b) are hereby satisfied. From and after the 2018 Incremental Amendment Effective Date, except where the context otherwise requires, the 2018 Incremental Revolving Commitments shall constitute "Revolving Commitments" for all purposes of the Amended Credit Agreement, and all provisions of the Amended Credit Agreement applicable to Revolving Commitments shall be applicable to the 2018 Incremental Revolving Commitments, and each 2018 Incremental Revolving Lender shall have all of the rights and obligations of a "Lender" and a "Revolving Lender" under the Amended Credit Agreement and the other Loan Documents.

(b) Each Lender's Revolving Credit Exposure shall automatically be reallocated in accordance with such Lender's Revolving Loan Percentage after giving effect to this Amendment and the 2018 Incremental Revolving Commitments made hereunder.

#### SECTION 3. Amendments.

(a) Section 1.1 of the Existing Credit Agreement is hereby amended by adding the following definitions in proper alphabetical order:

"2018 Incremental Amendment": means that certain Incremental Amendment No. 1 to the Credit Agreement, dated as of November 27, 2018, among the Loan Parties, the Lenders party thereto and the Administrative Agent.

"2018 Incremental Amendment Effective Date": as defined in the 2018 Incremental Amendment.

"2018 Incremental Revolving Commitments": as defined in the 2018 Incremental Amendment.

"2018 Incremental Revolving Lenders": as defined in the 2018 Incremental Amendment.

(b) Section 1.1 of the Existing Credit Agreement is hereby amended by amending and restating the last sentence of the definition of “Revolving Commitments” as follows:

“As of the 2018 Incremental Amendment Effective Date, the aggregate amount of the Lenders’ Revolving Commitments is \$2,500,000,000.”

(c) Section 2.1 of the Existing Credit Agreement is hereby amended by adding the following sentence to the end of the paragraph:

“For the avoidance of doubt, with effect from the 2018 Incremental Amendment Effective Date, unless the context otherwise requires, the 2018 Incremental Revolving Commitments shall constitute “Revolving Commitments” for all purposes of this Agreement, and all provisions of this Agreement applicable to the Revolving Commitments shall be applicable to the 2018 Incremental Revolving Commitments.”

SECTION 4. Conditions to Effectiveness. This Amendment and the obligation of the 2018 Incremental Revolving Lenders to make the 2018 Incremental Revolving Commitments to be made by it pursuant to Section 2(a) of this Amendment shall become effective on the date (the “2018 Incremental Amendment Effective Date”) that each of the following conditions shall have been satisfied or waived:

(a) This Amendment shall have been executed and delivered by (i) a duly authorized officer of each Loan Party, (ii) the 2018 Incremental Revolving Lenders, (iii) the Administrative Agent and (iv) the Issuing Banks.

(b) The Administrative Agent shall have received (i) a certificate of each Loan Party, dated the 2018 Incremental Amendment Effective Date, in the case of the Borrower, substantially in the form of Exhibit A-1 to the Credit Agreement, and, in the case of the Guarantors substantially in the form of Exhibit A-2 to the Credit Agreement, each with appropriate insertions and attachments, including the certificate of incorporation of each Loan Party that is a corporation certified by the relevant authority of the jurisdiction of organization of such Loan Party, and (ii) a long form good standing certificate for each Loan Party from its jurisdiction of organization.

(c) No Default or Event of Default shall have occurred and be continuing, or would result from the effectiveness of this Amendment on the 2018 Incremental Amendment Effective Date.

(d) All representations and warranties contained in the Loan Documents shall be true and correct in all material respects on and as of the 2018 Incremental Amendment Effective Date, with the same effect as if made on and as of such date (unless stated to relate to a specific earlier date, in which case, such representations and warranties shall be true and correct in all material respects as of such earlier date) (it being understood that any representation or warranty that is qualified as to materiality or Material Adverse Effect shall be correct in all respects).

(e) the Borrower shall be in compliance, on a pro forma basis (assuming the 2018 Incremental Revolving Commitments were drawn in full), with the financial covenants set forth in Section 6.6 of the Amended Credit Agreement recomputed as of the last day of the most recently ended fiscal quarter for which financial statements have been or were required to be delivered pursuant to Section 5.1 of the Amended Credit Agreement.

(f) The Administrative Agent shall have received a certificate of a Financial Officer certifying compliance with Sections 4(c), (d) and (e) above, together with reasonably detailed calculations demonstrating compliance with Section 4(e) above (which calculations shall, if made as of the last day of any fiscal quarter of the Borrower for which the Borrower has not delivered to the Administrative Agent the financial statements and Compliance Certificate required to be delivered by Section 5.2 of the Amended Credit Agreement, be accompanied by a reasonably detailed calculation of Consolidated EBITDA and Consolidated Interest Expense of the Borrower for the relevant period).

(g) The Administrative Agent shall have received from the Company payment of all fees and expenses required to be paid to the Administrative Agent and 2018 Incremental Revolving Lenders on or before the 2018 Incremental Amendment Effective Date for which written invoices in reasonable detail have been submitted at least two Business Days prior to the 2018 Incremental Amendment Effective Date.

(h) The Administrative Agent shall have received executed legal opinions from (i) Wilson Sonsini Goodrich & Rosati P.C., counsel to the Borrower and the Guarantors, (ii) the general counsel of the Borrower and (iii) Stoel Rives LLP, Idaho counsel to the Loan Parties, each in form and substance satisfactory to the Administrative Agent

(i) (i) The Administrative Agent shall have received all documentation and information as is reasonably requested in writing at least five days prior to the 2018 Incremental Amendment Effective Date by any 2018 Incremental Revolving Lender about the Borrower and its Subsidiaries that is required by U.S. Governmental Authorities under applicable “know your customer” and anti-money laundering rules and regulations, including without limitation, the Patriot Act and (ii) to the extent the Borrower qualifies as a “legal entity customer” under the Beneficial Ownership Regulation, at least five days prior to the 2018 Incremental Amendment Effective Date, any 2018 Incremental Revolving Lender that has requested, in a written notice to the Borrower at least 10 days prior to the 2018 Incremental Amendment Effective Date, a Beneficial Ownership Certification in relation to the Borrower shall have received such Beneficial Ownership Certification (provided that, upon the execution and delivery by such Lender of its signature page to this Amendment, the condition set forth in this clause (ii) shall be deemed to be satisfied).

(j) With respect to each Mortgaged Property, the Administrative Agent shall have received a completed “life-of-loan” Federal Emergency Management Agency standard flood hazard determination, and, to the extent a Mortgaged Property is located in an area identified by the Federal Emergency Management Agency (or any successor agency) as a special flood hazard area with respect to which flood insurance has been made available under the Flood Insurance Laws, together with a notice about special flood hazard area status and flood disaster assistance duly executed by the Borrower and the applicable Loan Party relating thereto and evidence of flood insurance, as required by Section 5.4(b) of the Existing Credit Agreement.

SECTION 5. Representations of the Loan Parties. On and as of the 2018 Incremental Amendment Effective Date, after giving effect to this Amendment, each Loan Party hereby represents and warrants to the Administrative Agent and each Lender that this Amendment has been duly authorized by all necessary corporate or other organizational action. This Amendment has been duly executed and delivered by each Loan Party party hereto and constitutes a legal, valid and binding obligation of each Loan Party party hereto, enforceable against such Person in accordance with its terms, subject to applicable bankruptcy, insolvency, reorganization, moratorium or other laws affecting creditors’ rights generally and subject to general principles of equity, regardless of whether considered in a proceeding in equity or at law.

SECTION 6. No Other Amendment or Waivers; Confirmation; Reaffirmation.

(a) Except as expressly provided hereby, all of the terms and provisions of the Existing Credit Agreement and the other Loan Documents are and shall remain in full force and effect. The amendments contained herein shall not be construed as an amendment of any other provision of the Existing Credit Agreement or the other Loan Documents or for any purpose except as expressly set forth herein or a consent to any further or future action on the part of any Loan Party that would require the waiver or consent of the Administrative Agent or the Lenders. This Amendment shall constitute a Loan Document for purposes of the Amended Credit Agreement and from and after the 2018 Incremental Amendment Effective Date, all references to the Credit Agreement in any Loan Document and all references to “this Agreement”, “hereunder”, “hereof” or words of like import referring to the Credit Agreement in the Amended Credit Agreement shall, unless expressly provided otherwise, refer to the Amended Credit Agreement.

(b) Each Loan Party hereby (i) expressly acknowledges the terms of the Amended Credit Agreement, (ii) ratifies and affirms its obligations under the Loan Documents (including guarantees and security agreements) to which it is a party, (iii) acknowledges, renews and extends its continued liability under all such Loan Documents and agrees such Loan Documents remain in full force and effect, (iv) agrees that each Security Document secures all Obligations of the Loan Parties in accordance with the terms thereof and (v) further confirms that each Loan Document to which it is a party is and shall continue to be in full force and effect and the same are hereby ratified and confirmed in all respects.

(c) Each Loan Party hereby reaffirms, as of the 2018 Incremental Amendment Effective Date, (i) the covenants and agreements contained in each Loan Document to which it is a party, including, in each case, such covenants and agreements as in effect immediately after giving effect to this Amendment and the transactions contemplated thereby, and (ii) its guarantee of payment of the Obligations pursuant to the Guarantee and Collateral Agreement and its grant of Liens on the Collateral to secure the Obligations.

SECTION 7. APPLICABLE LAW; WAIVER OF JURY TRIAL. THIS AMENDMENT SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAW OF THE STATE OF NEW YORK. EACH PARTY HERETO HEREBY AGREES AS SET FORTH IN SECTION 9.16 OF THE EXISTING CREDIT AGREEMENT AS IF SUCH SECTION WERE SET FORTH IN FULL HEREIN.

SECTION 8. Miscellaneous. (a) This Amendment may be executed in counterparts (and by different parties hereto in different counterparts), each of which shall constitute an original, but all of which when taken together shall

constitute a single contract. Delivery of an executed counterpart of a signature page of this Amendment by telecopy or other electronic imaging means shall be effective as delivery of a manually executed counterpart of this Amendment.

(b) The provisions of this Amendment shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns permitted hereby (including permitted assignees of its Revolving Loans in whole or in part prior to effectiveness hereof).

SECTION 9. Headings. Section headings herein are included herein for convenience of reference only and shall not constitute a part hereof for any other purpose or be given any substantive effect.

SECTION 10. Post-Closing Obligations. Within 90 days after the 2018 Incremental Amendment Effective Date (which period may be extended in the reasonable discretion of the Administrative Agent upon the request of the Borrower), the Borrower or relevant Loan Party shall deliver to the Administrative Agent either:

(a) written confirmation (which confirmation may be provided in the form of an electronic mail acknowledgment in form and substance reasonably satisfactory to the Collateral Agent, and which may include assumptions, exclusions and limitations which are consistent with local opinion practice) from local counsel in the jurisdiction in which the Mortgaged Property is located substantially to the effect that: (x) the recording of the existing Mortgage is the only filing or recording necessary to give constructive notice to third parties of the lien created by such Mortgage as security for the Secured Obligations, including the Secured Obligations evidenced by the Existing Credit Agreement, as amended pursuant to this Amendment, for the benefit of the Secured Parties; and (y) no other documents, instruments, filings, recordings, re-recordings, re-filings or other actions, including, without limitation, the payment of any mortgage recording taxes or similar taxes, are necessary or appropriate under applicable law in order to maintain the continued enforceability, validity or priority of the lien created by such Mortgage as security for the Secured Obligations, including the Secured Obligations evidenced by the Existing Credit Agreement, as amended pursuant to this Amendment, for the benefit of the Secured Parties; or

(b) the following documents:

(i) with respect to each Mortgage encumbering a Mortgaged Property, an amendment thereof (a "Mortgage Amendment") duly executed and acknowledged by Borrower or the relevant Loan Party, in form for recording in the recording office where the Mortgage was recorded and in form approved by local counsel in the jurisdiction in which the Mortgaged Property is located, together with such certificates or affidavits as shall be required in connection with the recording or filing thereof under applicable law, in each case in form and substance reasonably satisfactory to the Collateral Agent;

(ii) with respect to each Mortgage Amendment, a mortgage modification endorsement or other similar title product and at the reasonable request of the Agent, a recent title search or report (which shall not be required to "date-down" or otherwise extend the date of the policy) to the existing title policy relating to the Mortgage encumbering the applicable Mortgaged Property (a "Title Policy Endorsement") and each such Title Policy Endorsement shall otherwise be in form and substance reasonably satisfactory to the Collateral Agent which provide insurance to the effect that the validity and enforceability of the Mortgage, as amended by such Mortgage Amendment is not affected thereby; and

(iii) evidence acceptable to the Collateral Agent of payment by the Borrower or relevant Loan Party of all applicable title insurance premiums, search and examination charges, and related charges, mortgage recording taxes, and expenses required for the recording of the Mortgage Amendments and issuance of the Title Policy Endorsements.

*[Signature Pages Follow]*

IN WITNESS WHEREOF, the parties hereto have caused this Amendment to be duly executed and delivered by their proper and duly authorized officers as of the day and year first above written.

**MICRON TECHNOLOGY, INC.**

By: \_\_\_\_\_  
Name:  
Title:

**MICRON SEMICONDUCTOR PRODUCTS,  
INC.**

By: \_\_\_\_\_  
Name:  
Title:

**JPMORGAN CHASE BANK, N.A.,**  
as Administrative Agent and an Issuing Bank

By: \_\_\_\_\_  
Name:  
Title:

**HSBC Bank USA, National Association**, as an  
Issuing Bank

By: \_\_\_\_\_  
Name:  
Title:

[ ], as a 2018 Incremental Revolving Lender

By: \_\_\_\_\_  
Name:  
Title:



## 2018 Incremental Revolving Commitments

2018 Incremental Revolving Lender	2018 Incremental Revolving Commitment
JPMorgan Chase Bank, N.A.	\$22,500,000
HSBC Bank USA, National Association	\$22,500,000
BNP Paribas	\$16,000,000
Credit Agricole Corporate and Investment Bank	\$16,000,000
Mizuho Bank, Ltd.	\$16,000,000
DBS Bank Ltd.	\$16,000,000
Oversea-Chinese Banking Corporation Limited	\$16,000,000
Wells Fargo Bank, National Association	\$176,000,000
Citibank N.A.	\$15,000,000
Industrial and Commercial Bank of China Ltd., New York Branch	\$15,000,000
MUFG Bank, Ltd	\$15,000,000
Australia and New Zealand Banking Group Limited	\$11,000,000
Credit Suisse AG, Cayman Islands	\$11,000,000
Morgan Stanley Bank, N.A.	\$11,000,000
Goldman Sachs Bank USA	\$121,000,000
	Total: \$500,000,000

**RULE 13a-14(a) CERTIFICATION OF  
CHIEF EXECUTIVE OFFICER**

I, Sanjay Mehrotra, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Micron Technology, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations, and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize, and report financial information; and
  - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: December 19, 2018

/s/ Sanjay Mehrotra

Sanjay Mehrotra  
President and Chief Executive Officer and Director

**RULE 13a-14(a) CERTIFICATION OF  
CHIEF FINANCIAL OFFICER**

I, David A. Zinsner, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Micron Technology, Inc.;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations, and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
  - a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
  - b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
  - c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
  - d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):
  - a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize, and report financial information; and
  - b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: December 19, 2018

/s/ David A. Zinsner

David A. Zinsner

Senior Vice President and Chief Financial Officer

**CERTIFICATION OF CHIEF EXECUTIVE OFFICER  
PURSUANT TO 18 U.S.C. 1350**

I, Sanjay Mehrotra, certify, pursuant to 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Quarterly Report of Micron Technology, Inc. on Form 10-Q for the period ended November 29, 2018, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in the Quarterly Report on Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of Micron Technology, Inc.

Date: December 19, 2018

/s/ Sanjay Mehrotra

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Sanjay Mehrotra

President and Chief Executive Officer and Director

**CERTIFICATION OF CHIEF FINANCIAL OFFICER  
PURSUANT TO 18 U.S.C. 1350**

I, David A. Zinsner, certify, pursuant to 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Quarterly Report of Micron Technology, Inc. on Form 10-Q for the period ended November 29, 2018, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in the Quarterly Report on Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of Micron Technology, Inc.

Date: December 19, 2018

/s/ David A. Zinsner

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David A. Zinsner

Senior Vice President and Chief Financial Officer