

MICRON TECHNOLOGY INC  
Form 10-K  
October 15, 2018

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

(Mark  
One)

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

For the fiscal year ended August 30, 2018

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

8000 S. Federal Way, Boise, Idaho

(Address of principal executive offices)

Registrant's telephone number, including area code

Securities registered pursuant to Section 12(b) of the Act:

Title of each class

Common Stock, par value \$0.10 per share

Common Stock Purchase Rights

Securities registered pursuant to Section 12(g) of the Act: None

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.  
Yes  No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the  
Act. Yes  No

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 if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (§ 229.405 of this  
chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or  
information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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.

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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 aggregate market value of the voting stock held by non-affiliates of the registrant, based upon the closing price of such stock on March 1, 2018, as reported by the NASDAQ Global Select Market, was approximately \$45.0 billion. Shares of common stock held by each executive officer and director and by each person who owns 5% or more of the outstanding common stock have been excluded in that such persons may be deemed to be affiliates. This determination of affiliate status is not necessarily a conclusive determination for other purposes.

The number of outstanding shares of the registrant's common stock as of October 8, 2018 was 1,134,255,375.

DOCUMENTS INCORPORATED BY REFERENCE: Portions of the Proxy Statement for the registrant's Fiscal 2018 Annual Meeting of Shareholders to be held on January 16, 2019 are incorporated by reference into Part II and Part III of this Annual Report on Form 10-K.

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## Forward-Looking Statements

This Form 10-K 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 controller development; increasing sales of DDR4, 3D NAND, 3D XPoint™ memory, and client and cloud SSDs; growth in our production of, and the market for, NAND products; our production of DRAM products; our joint research and development arrangements with Intel; the need to obtain additional patent licenses or renew existing license agreements; the entry into additional sales or licenses of intellectual property and partnering agreements; debt incurred to finance our capital investments; and cash expenditures for property, plant, and equipment. 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 "Item 1A. Risk Factors." All period references are to our fiscal periods unless otherwise indicated.

## 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
2021 MSAC Term Loan	Variable Rate MSAC Senior Secured Term Loan due 2021	Micron	Micron Technology, Inc. (Parent Company)
2021 MSTW Term Loan	Variable Rate MSTW Senior Secured Term Loan due 2021	MLC	Multi-Level Cell (two bits per cell)
2022 Notes	5.88% Senior Notes due 2022	MMJ	Micron Memory Japan, Inc.
2022 Term Loan B	Senior Secured Term Loan B due 2022	MMJ Companies	MAI and MMJ
2023 Notes	5.25% Senior Notes due 2023	MMJ Group	MMJ and its subsidiaries
2023 Secured Notes	7.50% Senior Secured Notes due 2023	MMT	Micron Memory Taiwan Co., Ltd.
2024 Notes	5.25% Senior Notes due 2024	MSP	Micron Semiconductor Products, Inc.
2025 Notes	5.50% Senior Notes due 2025	MSTW	Micron Semiconductor Taiwan Co., Ltd.
2026 Notes	5.63% Senior Notes due 2026	MTTW	Micron Technology Taiwan, Inc.
2032C Notes	2.38% Convertible Senior Notes due 2032	Nanya	Nanya Technology Corporation
2032D Notes	3.13% Convertible Senior Notes due 2032	OEM	Original Equipment Manufacturer
2033 Notes	2033E and 2033F Notes	Qimonda	Qimonda AG
2033E Notes	1.63% Convertible Senior Notes due 2033	QLC	Quad-Level Cell (four bits per cell)
2033F Notes	2.13% Convertible Senior Notes due 2033	R&D	Research and Development
2043G Notes	3.00% Convertible Senior Notes due 2043	SG&A	Selling, General, and Administration
IMFT	IM Flash Technologies, LLC	SLC	Single-Level Cell (one bit per cell)
Inotera	Inotera Memories, Inc.	SSD	Solid-State Drive
Intel	Intel Corporation	Tera Probe	Tera Probe, Inc.
LPDRAM	Mobile Low-Power DRAM	TLC	Triple-Level Cell (three bits per cell)

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MAI	Micron Akita, Inc.	VIE	Variable Interest Entity
MCP	Multi-Chip Package		

Micron, Crucial, Ballistix, any associated logos, and all other Micron trademarks are the property of Micron. 3D XPoint is a trademark of Intel or its subsidiaries 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.

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## PART I

### ITEM 1. BUSINESS

#### Overview

Micron Technology, Inc., including its consolidated subsidiaries, is an industry leader in innovative memory and storage solutions. Through our global brands – Micro®<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, and mobile.

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 is 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 sales. We generally develop firmware and expect to introduce proprietary controllers into our SSDs in the first half of 2019. 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.

#### Products

Our product portfolio of memory and storage solutions, advanced solutions, and storage platforms are based on our high-performance semiconductor memory and storage technologies, including DRAM, NAND, 3D XPoint memory, and other technologies. We sell our products into various markets through our four business units (which are also our reportable segments) in various forms, including wafers, components, modules, SSDs and in MCPs that combine DRAM, NAND, and/or NOR with a controller and firmware. We are relentlessly focused on evolving our product portfolio to a richer mix of high-value solutions and cultivating deeper relationships with customers. Our position as a developer and manufacturer of DRAM, NAND, NOR and other emerging memory technologies uniquely enables us to collaborate with our customers to ensure our technology and engineering roadmaps deliver critical features. We

continuously introduce new products on our advanced technologies, delivering performance, quality, and cost advantages to our customers.

#### Compute and Networking Business Unit

CNBU includes memory products and solutions sold into cloud server, enterprise, client, graphics, and networking markets. CNBU reported revenue of \$15.25 billion in 2018, \$8.62 billion in 2017, and \$4.53 billion in 2016. In 2018, we significantly increased our production of DRAM using 1Xnm technology and continued to focus on developing our 1Ynm technology. In 2018, we achieved volume production of our 8Gb GDDR6 memory, which delivers significant performance improvements over our GDDR5 design, and enables bandwidth-intensive applications in our core CNBU markets in a variety of applications such as artificial intelligence and networking.

**Cloud Server:** The cloud server market was CNBU's fastest growing market in 2018, particularly in datacenters, with significant increases in DRAM content per server. The cloud server market has been driven, in part, by intelligent edge devices capable of artificial intelligence and augmented reality that store and access data in the cloud. Artificial intelligence servers require significantly increasing quantities of DRAM and as the number and capabilities of these intelligent edge devices increase, more data is stored, processed, and accessed in the cloud, creating a virtuous cycle between the cloud and edge devices. We anticipate continued growth of our 1Xnm portfolio with the continued ramp of our second-generation 1Xnm 8Gb DDR4 products, which were validated with key partners and customers in 2018.

**Enterprise:** Similar to the cloud server market, the enterprise market is experiencing strong demand growth from intelligent edge devices that require rapid data analysis and storage in enterprise and cloud servers to enable machine learning, training, and inferencing. Our enterprise RDIMM DRAM memory modules provide the high performance, reliability, and integrity requirements for such applications. In 2018, we qualified our 32GB non-volatile module ("NVDIMM") at key OEMs and also began shipping in volume our 128GB through-silicon via-based ("TSV") RDIMMS.

**Client:** In 2018, we achieved significant production and sales to the client market from our 1Xnm technology. Our products sold to the client market support both PC unit growth, driven primarily by corporate replacement cycles from upgraded operating systems, as well as increases in content per unit. Additionally, our products sold to the client market are incorporated into gaming and ultra-thin notebooks.

**Graphics:** Our GDDR5/5x DRAM graphics products are incorporated into applications providing virtual reality, augmented reality, and crypto-mining technology. In 2018, we benefitted from strong demand for graphics memory in gaming console applications, as well as a higher attach-rate of graphics DRAM products in performance and enthusiast graphics cards. In 2018, we migrated and scaled production of our 8Gb GDDR5 to our 1Xnm DRAM technology, which augmented production of our GDDR5/5x DRAM memory on our 20nm line-width technology. We remained focused on execution of technology transitions and achieved volume production of our 8Gb GDDR6 DRAM for the graphics and crypto-mining markets in 2018.

**Networking:** The networking memory market is characterized by long life-cycle DRAM products, and accordingly, a significant portion of our sales to the networking market consisted of products manufactured on our legacy 30nm and 25nm-series DRAM technology. In 2018, we accelerated a shift from DDR3 to DDR4 DRAM and began sales of 4Gb DDR4 DRAM into emerging 5G applications.

#### Mobile Business Unit

MBU includes memory products sold into smartphone and other mobile-device markets and includes discrete DRAM, discrete NAND, and managed NAND. MBU managed NAND includes eMMC and universal flash storage ("UFS") solutions, which each combine high-capacity NAND with a high-speed controller and firmware in a small ball-grid array, and eMCP products, which combine an eMMC/UFS solution with LPDRAM. MBU reported revenue of \$6.58 billion in 2018, \$4.42 billion in 2017, and \$2.57 billion in 2016. In 2018, we announced new 64-layer, second-generation 3D NAND storage products, which support the high-speed UFS 2.1 standard and eMMC 5.1 standard. These new mobile solutions are based on our industry-leading TLC 3D NAND technology, empowering smartphone makers to enhance the user experience with next-generation mobile features such as artificial intelligence, virtual reality, and facial recognition. Our 1Xnm LPDRAM solutions provide power efficiency, particularly critical to our mobile customers, and our 1Ynm 12Gb LPDDR4 solutions, the highest capacity LPDRAM monolithic die available in the industry, provide both power efficiency and higher capacity to our mobile customers.

Smartphone: In 2018, we achieved product qualification of our 1Xnm LPDDR4 DRAM with major mobile phone OEMs. Our LPDRAM offers low-power, high-performance solutions to perform in extreme environments demanded by high-end smartphones. High-end smartphones incorporate higher levels of NAND and LPDRAM that enable features such as larger 4K displays, multiple high-resolution cameras, and 4K high-dynamic range video recording. Additionally, our smartphone products are utilized by OEMs to enable artificial intelligence, augmented reality, and life-like virtual reality capabilities into high-end phones, including facial and voice recognition, real-time translation, fast image search, and scene detection. In 2018, our managed NAND products achieved strong growth, including our new 128GB NAND plus 4GB DRAM MCP and our first high-performance UFS managed NAND products introduced in the fourth quarter of 2018.



## Storage Business Unit

SBU includes SSDs and component-level solutions sold into enterprise and cloud, client, and consumer storage markets as well as other discrete storage products sold in component and wafer forms to the removable storage markets. SBU sales also include "non-trade" products consisting of products manufactured and sold to Intel through IMFT under a long-term supply agreement at prices approximating cost, which included 3D XPoint memory and NAND products. SBU reported revenue of \$5.02 billion in 2018, \$4.51 billion in 2017, and \$3.26 billion in 2016. In 2018, we continued to ramp our 64-layer 3D NAND technology and achieved bit output crossover relative to 32-layer in the second half of 2018. In 2018, we also extended our leadership position in 3D NAND technology by delivering the industry's first commercially available QLC 3D NAND technology. Leveraging our 64-layer structure, the new QLC NAND technology achieves 1 terabit ("Tb") density per die, which has a 33% higher array density as compared to TLC, enabling new operating points for density and cost in the enterprise, cloud, and client-storage markets. In 2018, we advanced development of our third-generation 96-tier 3D NAND structure, providing a 50 percent increase in layers. Both the 64-layer QLC and 96-layer TLC 3D NAND technologies utilize CMOS under the array ("CuA") technology to reduce die sizes and deliver improved performance when compared to competitive approaches. By leveraging four planes versus two, our new NAND flash memory can write and read more cells in parallel, which delivers faster throughput and higher bandwidth at the system level.

**SSDs:** SSD storage products incorporate NAND, a controller, and firmware and offer benefits over HDDs of a smaller form factor, faster read and write speeds, and solid-state architecture. SSDs offer significant performance and features, including speed, reliability, and lower power consumption. We offer SSD solutions utilizing our NAND technology to the enterprise and cloud, client, and consumer markets.

**Enterprise and Cloud SSDs:** SBU sales to the enterprise and cloud SSD markets in 2018 consisted primarily of our flagship SATA 5100 and 5200 series SSDs. In 2018, our SATA 5200 series SSD achieved qualification at enterprise server OEMs, cloud service providers, and enterprise customers. Similar to trends in the memory market, the enterprise and cloud storage markets have been driven by intelligent edge devices capable of artificial intelligence, augmented reality, and other features that store, access, and analyze data in the cloud. Artificial intelligence servers require significantly higher SSD capacity, and our 64-layer QLC NAND technology provides cost-optimized storage solutions, providing significantly lower total cost of ownership for read-intensive cloud workloads. Our 5200 series SATA SSDs, which deliver best-in-class performance and capacity, are based on the same proven architecture as our 5100 series. We shipped our first 5200 series SATA SSDs in the third quarter of 2018 and received broad acceptance in the enterprise and cloud SSD markets. By leveraging our advanced CuA NAND in enterprise and cloud SSDs, we deliver low cost, high density, high performance storage solutions.

**Client SSDs:** SBU sales to the client SSD market in 2018 consisted primarily of our 1100 series 3D NAND SATA Client SSD, which is targeted for leading personal computer OEMs as a replacement to HDDs. Our client SSDs, used in notebooks, desktops, workstations, and related consumer applications, deliver high performance, power efficiency, security, and capacity to our customers. In the first half of 2019, we expect to introduce our 2200 series 3D NAND PCIe client SSD incorporating our internally-developed controller, enabling us to offer additional differentiated storage solutions for our client customers.

**Consumer SSDs:** SBU sales to the consumer SSD market in 2018 consisted primarily of our Crucial-branded MX500 SATA SSD, utilizing our 64-layer TLC 3D NAND. Similar to the client SSD market, our consumer SSD solutions are replacing HDDs as end-users seek the higher performance, power savings, and reliability of our SSDs.

**Components and Wafers:** SBU sales of components and wafers in 2018 consisted primarily of our 32-layer TLC NAND technology and our 64-layer TLC and QLC NAND technology. We continue to transition our business from a

storage components supplier to a storage solutions provider with a richer mix of high-value solutions such as SSDs and mobile managed NAND. As a result, SBU sales of products in component and wafer form declined in 2018 as compared to 2017.

3D XPoint memory: 3D XPoint memory has 10 times the chip density of DRAM, 1,000 times the endurance capability of NAND, and is 1,000 times faster than NAND. These specifications create a significant value opportunity for 3D XPoint memory in solutions between DRAM and NAND in the memory and storage hierarchy. Trends in machine learning, big data analytics, and artificial intelligence are driving demand for the features offered by 3D XPoint memory. We are collaborating with our customers to develop 3D XPoint memory products and expect to sample such products in late calendar 2019.

## Embedded Business Unit

EBU includes memory and storage products sold into automotive, industrial, and consumer markets and includes discrete DRAM, discrete NAND, managed NAND, and NOR. EBU reported revenue of \$3.48 billion in 2018, \$2.70 billion in 2017, and \$1.94 billion in 2016. The embedded market is characterized by long life-cycle DRAM and NAND products manufactured on our mature process technologies. Our embedded products enable edge devices to store, connect, and share information in the growing internet of things ("IoT") and are utilized in a diverse set of applications in the automotive, industrial, and consumer markets.

**Automotive:** Our DDR3 DRAM and eMMC managed NAND automotive memory and storage products enable connected, large display infotainment systems and higher definition 4K displays and support improved voice and gesture control in automotive applications. Our comprehensive and expanding portfolio of DRAM, NAND, and NOR solutions to the automotive market, as well as our extensive customer support network, also support advancements in autonomous driving and automated driver assistance systems, which require high reliability and high performance memory and storage.

**Industrial:** Our industrial products, featuring SLC and MLC NAND, NOR, DDR3 DRAM, and MCP managed NAND, enable applications in the growing industrial IoT market, including factory automation, transportation, and surveillance. In 2018, we announced availability of our 128GB and 256GB density of edge storage microSD card solutions and collaboration with several leading video surveillance solution providers to promote surveillance-grade edge storage, utilizing our 64-layer TLC 3D NAND technology. This newly released solution enables greater capacity in a smaller space, delivering up to 30 days of surveillance video storage in the camera.

**Consumer:** Our DDR3 DRAM, SLC NAND, and eMCP managed NAND products sold into the consumer market are used in a diverse set of consumer products, including service provider and set-top boxes, digital still and video cameras, home networking, ultra-high definition televisions, and many more applications. Our embedded memory and storage solutions enable edge devices in the consumer products market to store, connect, and share information in the IoT.

## Manufacturing

We manufacture our products at our worldwide, wholly-owned and joint venture facilities located in Taiwan, Singapore, the United States, Japan, and China and also utilize subcontractors to perform certain manufacturing processes. Nearly all of our products are manufactured on 300mm wafers in facilities that generally operate 24 hours per day, seven days per week. Semiconductor manufacturing is extremely capital intensive, requiring large investments in sophisticated facilities and equipment. A significant portion of our semiconductor equipment is generally replaced every five to seven years with increasingly advanced equipment. Our DRAM, NAND, 3D XPoint memory, and NOR Flash products share a number of common manufacturing processes, enabling us to leverage much of our product and process technology and manufacturing infrastructure across these product lines.

Our process for manufacturing semiconductor products is complex and involves a number of precise steps, including wafer fabrication, assembly, and test. Efficient production of semiconductor products requires utilization of advanced semiconductor manufacturing techniques and effective deployment of these techniques across multiple facilities. The primary determinants of manufacturing cost are process line-width, 3D non-volatile layers, NAND cell levels, process complexity, including number of mask layers and fabrication steps, and manufacturing yield. Other factors that contribute to manufacturing costs are the cost and sophistication of manufacturing equipment, equipment utilization, process complexity, cost of raw materials, labor productivity, package type, cleanliness of our manufacturing

environment, and utilization of subcontractors to perform certain manufacturing processes. We continuously enhance our production processes, increasing bits per wafer and transitioning to higher density products. In 2018, we significantly increased our volume production of 1Xnm process node DRAM and expect to achieve bit crossover by the end of the first quarter of 2019. In 2018, we continued to ramp our 64-layer 3D NAND technology and achieved bit output crossover relative to 32-layer in the second half of 2018.

Wafer fabrication occurs in a highly-controlled clean environment to minimize dust and other yield and quality-limiting contaminants. Despite stringent manufacturing controls, individual circuits may be nonfunctional or wafers may need to be scrapped due to equipment errors, minute impurities in materials, defects in photomasks, circuit design marginalities or defects, and air particle defects. Success of our manufacturing operations depends largely on minimizing defects to maximize yield of high-quality circuits. In this regard, we employ rigorous quality controls throughout the manufacturing, screening, and testing processes. We are able to recover certain devices by testing and grading them to their highest level of functionality.

We sell semiconductor products in both packaged and unpackaged (i.e., "bare die") forms. Our packaged products include memory modules, SSDs, and managed NAND including MCPs and eMMCs. We assemble many products in-house and, in some cases, outsource assembly services for certain memory modules, SSDs, and MCPs.

We test our products at various stages in the manufacturing process, conduct numerous quality control inspections throughout the entire production flow, and perform high temperature burn-in on finished products. In addition, we use our proprietary AMBYX™ line of intelligent test and burn-in systems to perform simultaneous circuit tests of semiconductor die during the burn-in process, capturing quality and reliability data and reducing testing time and cost.

In recent years, we have produced an increasingly broad portfolio of products and system solutions, which enhances our ability to allocate resources to our most profitable products but also increases the complexity of our manufacturing and supply chain operations. Although our product lines generally use similar manufacturing processes, our cost efficiency can be affected by frequent conversions to new products, the allocation of manufacturing capacity to more complex, smaller-volume products, and the reallocation of manufacturing capacity across various product lines.

#### Arrangements with Intel

##### 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. IMFT sales to Intel were \$507 million, \$438 million, and \$457 million in 2018, 2017, and 2016, respectively.

The IMFT joint venture agreement extends through 2024 and includes certain buy-sell rights. At any time through December 2018, Intel can put to us, and from January 2019 through December 2021, we can call 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 put right, 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. If we exercise our call right, Intel can elect to set the closing date of the transaction to be any time between six months and one year following such election. Following the closing date resulting from exercise of either the put or the call, we will continue to supply to Intel for a period of one year between 50% and 100%, at Intel's choice, of Intel's immediately preceding six-month period pre-closing volumes of IMFT products for the first six-month period following the closing and between 0% and 100%, at Intel's choice, of Intel's first six-month period following the closing volumes of IMFT products for the second six-month period following the closing, at a margin that varies depending on whether the put or call was exercised.

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. In 2018, Intel provided debt financing of \$1.01 billion to IMFT pursuant to the terms of the IMFT joint venture agreement. 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.

#### R&D 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. As a result of the above actions, we expect reimbursements under our cost-sharing agreements to decrease in early fiscal 2019.

### Supply Chain, Materials, and Use of 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. We monitor and manage supply-chain activities to mitigate risks associated with raw materials and service providers.

### Marketing and Customers

We continue to transform how we interact with our customers from transactional opportunistic sales of standardized memory components to collaborative relationships where we work with our customers to understand their unique opportunities and challenges. We engage with our customers early in the product life-cycle to identify and design features and performance characteristics into our products that our customers need in their end products, and then manufacture products that better anticipate and fit their changing needs. By collaborating with our customers on their design needs in a changing end market, we differentiate our memory and storage solutions, which provides greater value to our customers.

Our semiconductor memory and storage products are offered under our Micron, Crucial, and Ballistix brand names and through private labels. We market our semiconductor memory and storage products primarily through our own direct sales force and maintain sales or representative offices in our primary markets around the world. We sell our Crucial-branded products through a web-based customer direct sales channel as well as through channel and distribution partners. Our products are also offered through independent sales representatives, distributors, and e-tailers. Our independent sales representatives obtain orders subject to final acceptance by us, and we make shipments against the orders directly to our customers. Our distributors carry our products in inventory and typically sell a variety of other semiconductor products, including competitors' products. We maintain inventory at locations in close proximity to certain key customers to facilitate rapid delivery of products. Many of our customers require a thorough review or qualification of semiconductor products, which may take several months.

In each of the last three years, approximately one-half of our total net sales were to our top ten customers. For other information regarding our concentrations and customers, see "Part II – Item 8. Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Certain Concentrations."



## Backlog

Because of volatile industry conditions, customers are generally reluctant to enter into long-term, fixed-price contracts. Accordingly, new order volumes for our memory and storage products may fluctuate significantly. We typically accept orders with acknowledgment that the terms may be adjusted to reflect market conditions at the date of shipment. For these reasons, we do not believe that our order backlog as of any particular date is a reliable indicator of actual sales for any succeeding period.

## Product Warranty

Because the design and manufacturing process for semiconductor products is highly complex, it is possible that we may produce products that do not comply with applicable specifications, contain defects, or are otherwise incompatible with end uses. In accordance with industry practice, we generally provide a limited warranty that our products are in compliance with applicable specifications existing at the time of delivery and will operate to those specifications during a stated warranty period. Under our standard terms and conditions of sale, liability for certain failures of product during a stated warranty period is usually limited to repair or replacement of defective items or return of, or a credit with respect to, amounts paid for such items. Under certain circumstances, we provide more extensive limited warranty coverage than that provided under our standard terms and conditions.

## Competition

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 declines in average selling prices for our products and would adversely affect our business, results of operations, and financial condition. If competitors are more successful at developing or implementing new product or process technology, their products could have cost or performance advantages.

Certain of our memory and storage products are manufactured to industry standard specifications and, as such, have similar performance characteristics to those of our competitors. For these products, the principal competitive factors are generally price and performance characteristics including: operating speed, power consumption, reliability, compatibility, size, and form factors.

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## Research and Development

Our process technology R&D efforts are focused primarily on development of process technology that enables continuous improvement to cost structures and performance enhancements for our future products. We are also focused on developing new fundamentally different memory structures, materials, and packages, which are designed to facilitate our transition to next generation products. Additional process technology R&D efforts focus on the enablement of advanced computing, storage, and mobile memory architectures, the investigation of new opportunities that leverage our core semiconductor expertise, and the development of new manufacturing materials. Product design and development efforts include our high density DDR4 and DDR5 DRAM and LPDRAM products as well as high density and mobile 3D NAND (including TLC and QLC technologies), 3D XPoint memory, SSDs (including firmware and controllers), managed NAND, specialty memory, and other memory technologies and systems.

To compete in the semiconductor memory and storage markets, we must continue to develop technologically advanced products and processes. We believe that expansion of our semiconductor product offerings is necessary to meet expected market demand for specific memory and storage products and solutions. Our process, design, and package development efforts occur at multiple locations across the world, with our largest R&D center located in Boise, Idaho and other R&D centers in Japan, China, Italy, Singapore, Taiwan, and other sites in the United States.

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.

Our R&D expenses were \$2.14 billion, \$1.82 billion, and \$1.62 billion for 2018, 2017, and 2016, respectively. 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. These R&D expenses reflect net reductions of \$201 million, \$213 million, and \$205 million for 2018, 2017, and 2016, respectively, as a result of reimbursements under our cost-sharing arrangements with development partners.

## Geographic Information

See "Part II – Item 8. Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Geographic Information."

## Patents and Licenses

We are a recognized leader in per capita and quality of patents issued. As of August 30, 2018, we owned approximately 13,750 active U.S. patents and 5,000 active foreign patents. In addition, we have thousands of U.S. and foreign patent applications pending. Our patents have various terms expiring through 2038.

From time to time, we sell and/or license our technology to other parties and continue to pursue opportunities to monetize our investment in our intellectual property through partnering and other arrangements. We have also jointly developed memory and storage product and process technology with third parties on a limited basis.

We have a number of patent and intellectual property license agreements and have, from time to time, licensed or sold our intellectual property to third parties. Some of these license agreements require us to make one-time or periodic payments while others have resulted in us receiving payments. We may need to obtain additional licenses or renew existing license agreements in the future, and we may enter into additional sales or licenses of intellectual property and partnering arrangements. We are unable to predict whether these license agreements can be obtained or renewed on terms acceptable to us.

## Employees

As of August 30, 2018, we had approximately 36,000 employees.

## Environmental Compliance

We approach environmental stewardship and sustainability proactively to ensure we meet all government regulations regarding raw materials, discharges, emissions, and solid wastes from our manufacturing processes. Our wafer fabrication facilities continued to conform to the requirements of the International Organization for Standardization ("ISO") 14001 environmental management systems standard to ensure we are continuously improving our performance. As part of the ISO 14001 framework, we meet requirements in environmental policy, compliance, planning, management, structure and responsibility, training, communication, document control, operational control, emergency preparedness and response, record keeping, and management review. While we have not experienced any material adverse effects to our operations from environmental regulations, changes in the regulations could necessitate additional capital expenditures, modification of our operations, or other compliance actions.

## Directors and Executive Officers of the Registrant

Our executive officers are appointed annually by our Board of Directors (the "Board") and our directors are elected annually by our shareholders. Any directors appointed by the Board to fill vacancies on the Board serve until the next election by our shareholders. All officers and directors serve until their successors are duly chosen or elected and qualified, except in the case of earlier death, resignation, or removal.

As of August 30, 2018, the following executive officers and directors were subject to the reporting requirements of Section 16(a) of the Securities Exchange Act of 1934, as amended.

Name	Age	Officer/ Director Since	Position
April S. Arnzen	47	2015	Senior Vice President, Human Resources
Manish Bhatia	46	2018	Executive Vice President, Global Operations
Scott J. DeBoer	52	2007	Executive Vice President, Technology Development
Sanjay Mehrotra	60	2017	President and Chief Executive Officer, Director
Joel L. Poppen	54	2013	Senior Vice President, Legal Affairs, General Counsel, and Corporate Secretary
Sumit Sadana	49	2017	Executive Vice President and Chief Business Officer
Steven L. Thorsen, Jr.	53	2012	Senior Vice President, Worldwide Sales
David A. Zinsner	49	2018	Senior Vice President and Chief Financial Officer
Robert L. Bailey	61	2007	Director
Richard M. Beyer	69	2013	Director
Patrick J. Byrne	57	2011	Director
Mercedes Johnson	64	2005	Director
Lawrence N. Mondry	58	2005	Director
Robert E. Switz	71	2006	Chairman of the Board of Directors

April S. Arnzen joined us in December 1996 and has served in various leadership positions since that time. Ms. Arnzen was named Senior Vice President, Human Resources in June 2017. Ms. Arnzen holds a BS in Human Resource Management and Marketing from the University of Idaho, and is a graduate of the Stanford Graduate School of Business Executive Program.

Manish Bhatia joined us in October 2017 as our Executive Vice President of Global Operations. From May 2016 to October 2017, Mr. Bhatia served as the Executive Vice President of Silicon Operations at Western Digital Corporation. From March 2010 to May 2016, Mr. Bhatia held several executive roles at SanDisk Corporation including Executive Vice President of Worldwide Operations when it was acquired by Western Digital in May 2016. Mr. Bhatia holds a BS and MS in Mechanical Engineering and an MBA, each from the Massachusetts Institute of Technology.

Scott J. DeBoer joined us in February 1995 and has served in various leadership positions since that time. Dr. DeBoer was named Executive Vice President, Technology Development in June 2017. Dr. DeBoer holds a PhD in Electrical Engineering and an MS in Physics from Iowa State University. He completed his undergraduate degree at Hastings College.

Sanjay Mehrotra joined us in May 2017 as our President, Chief Executive Officer, and Director. Mr. Mehrotra co-founded and led SanDisk Corporation as a start-up in 1988 until its eventual sale in May 2016, serving as its President and Chief Executive Officer from January 2011 to May 2016, and as a member of its Board of Directors from July 2010 to May 2016. Mr. Mehrotra served as a member of the Board of Directors for Cavium, Inc. from July 2009 until July 2018 and for Western Digital Corp. from May 2016 to February 2017. Mr. Mehrotra holds a BS and an MS in Electrical Engineering and Computer Science from the University of California, Berkeley and is a graduate of the Stanford Graduate School of Business Executive Program.

Joel L. Poppen joined us in October 1995 and has held various leadership positions since that time. Mr. Poppen was named Senior Vice President, Legal Affairs, General Counsel, and Corporate Secretary in June 2017. Mr. Poppen holds a BS in Electrical Engineering from the University of Illinois and a JD from the Duke University School of Law.

Sumit Sadana joined us in June 2017 as our Executive Vice President and Chief Business Officer. From April 2010 to May 2016, Mr. Sadana served in various roles at SanDisk Corporation, including Executive Vice President, Chief Strategy Officer, and General Manager, Enterprise Solutions when it was acquired by Western Digital in May 2016. Mr. Sadana currently serves on the Board of Directors of Silicon Laboratories, Inc. Mr. Sadana holds a B.Tech. in Electrical Engineering from the Indian Institute of Technology, Kharagpur, India and an MS in Electrical Engineering from Stanford University.

David A. Zinsner joined us in February 2018 as our Senior Vice President and Chief Financial Officer. From April 2017 to February 2018, Mr. Zinsner served as the President and Chief Operating Officer of Affirmed Networks. From January 2009 to April 2017, Mr. Zinsner served as the Senior Vice President of Finance and Chief Financial Officer of Analog Devices. From July 2005 to January 2009, Mr. Zinsner served as the Senior Vice President and Chief Financial Officer of Intersil Corporation. Mr. Zinsner holds an MBA, Finance and Accounting from Vanderbilt University and a BS in Industrial Management from Carnegie Mellon University.

Steven L. Thorsen, Jr. joined us in September 1988 and has served in various leadership positions since that time. Mr. Thorsen was named Senior Vice President, Worldwide Sales in June 2017. Mr. Thorsen holds a BA in Business Administration from Washington State University. On September 20, 2018, Mr. Thorsen announced his intention to retire from Micron in early November 2018. Mr. Thorsen served as our Senior Vice President, Worldwide Sales through September 30, 2018.

Robert L. Bailey was Chief Executive Officer of Blue Willow Systems, Inc. from August 2017 until August 2018. Blue Willow is a software as a service resident safety platform for senior living facilities. Mr. Bailey was the Chairman of the Board of Directors of PMC-Sierra, Inc. from 2005 until May 2011 and also served as PMC's Chairman from February 2000 until February 2003. Mr. Bailey served as a director of PMC from October 1996 to May 2011. He also served as the Chief Executive Officer of PMC from July 1997 until May 2008. Within the past five years, Mr. Bailey also served on the Board of Directors of Entropic Communications. Mr. Bailey holds a BS in Electrical Engineering from the University of Bridgeport and an MBA from the University of Dallas.

Richard M. Beyer was Chairman and Chief Executive Officer of Freescale Semiconductor, Inc. from 2008 through June 2012 and served as a director with Freescale until April 2013. Prior to Freescale, Mr. Beyer was President, Chief

Executive Officer and a director of Intersil Corporation from 2002 to 2008. He also has previously served in executive management roles at FVC.com, VLSI Technology, and National Semiconductor Corporation. Within the past five years, Mr. Beyer served on the Board of Directors of Microsemi Corporation, Analog Devices, Inc., and Freescale. He currently serves on the Board of Directors of Dialog Semiconductor. Mr. Beyer served three years as an officer in the United States Marine Corps. He holds a BA and an MA in Russian from Georgetown University and an MBA in Marketing and International Business from Columbia University Graduate School of Business. Mr. Beyer is the Chair of the Board of Directors' Governance and Sustainability Committee.

Patrick J. Byrne has served as Senior Vice President of Fortive Corporation since July 2016, when Danaher Corporation completed the separation of its Test & Measurement and Industrial Technologies segments. Mr. Byrne was President of Tektronix, a subsidiary of Danaher, from July 2014 to July 2016. Previously, he was Vice President of Strategy and Business Development and Chief Technical Officer of Danaher from November 2012 to July 2014. Danaher designs, manufactures, and markets innovative products and services to professional, medical, industrial, and commercial customers. Mr. Byrne served as Director, President and Chief Executive Officer of Intermec, Inc. from 2007 to May 2012. Within the past five years, Mr. Byrne



served on the Board of Directors of Flow International. Mr. Byrne holds a BS in Electrical Engineering from the University of California, Berkeley and an MS in Electrical Engineering from Stanford University.

Mercedes Johnson was the Senior Vice President and Chief Financial Officer of Avago Technologies Limited, a supplier of analog interface components for communications, industrial, and consumer applications, from December 2005 to August 2008. She also served as the Senior Vice President, Finance of Lam Research Corporation from June 2004 to January 2005 and as Lam's Chief Financial Officer from May 1997 to May 2004. Ms. Johnson holds a degree in Accounting from the University of Buenos Aires and currently serves on the Board of Directors for Juniper Networks, Inc., Teradyne, Inc., and Synopsys, Inc. She also served on the Board of Directors for Intersil Corporation from August 2005 to February 2017. Ms. Johnson is the Chair of the Board of Directors' Audit Committee and Finance Committee.

Lawrence N. Mondry has been the President and Chief Executive Officer of Stream Gas & Electric, Ltd., a provider of energy, mobile, and protective services, since February 2016. Mr. Mondry was the Chief Executive Officer of Apollo Brands, a consumer products portfolio company, from February 2014 to February 2015. Mr. Mondry was the Chief Executive Officer of Flexi Compras Corporation, a rent-to-own retailer, from June 2013 to February 2014. Mr. Mondry was the President and Chief Executive Officer of CSK Auto Corporation, a specialty retailer of automotive aftermarket parts, from August 2007 to July 2008. Prior to his appointment at CSK, Mr. Mondry served as the Chief Executive Officer of CompUSA Inc. from November 2003 to May 2006. Mr. Mondry is the Chair of the Board of Directors' Compensation Committee.

Robert E. Switz was the Chairman, President, and Chief Executive Officer of ADC Telecommunications, Inc., a supplier of network infrastructure products and services, from August 2003 until December 2010, when Tyco Electronics Ltd. acquired ADC. Mr. Switz joined ADC in 1994 and throughout his career there held numerous leadership positions. Within the past five years, Mr. Switz served on the Board of Directors of GT Advanced Technologies Inc., Broadcom Corporation, Cyan, Inc., Pulse Electronics Corporation, Leap Wireless International, Inc., and Gigamon, Inc. Mr. Switz currently serves on the Board of Directors for Marvell Technology Group Ltd. and FireEye, Inc. Mr. Switz holds an MBA from the University of Bridgeport and a BS in Business Administration from Quinnipiac University. Mr. Switz was appointed Chairman of the Board of Directors in 2012.

There are no family relationships between any of our directors or executive officers.

#### Available Information

Micron, a Delaware corporation, was incorporated in 1978. Our executive offices are located at 8000 South Federal Way, Boise, Idaho 83716-9632 and our telephone number is (208) 368-4000. Information about us is available at our website, [www.micron.com](http://www.micron.com). Also available on our website are our: Corporate Governance Guidelines, Governance and Sustainability Committee Charter, Compensation Committee Charter, Audit Committee Charter, Finance Committee Charter, and Code of Business Conduct and Ethics. Any amendments or waivers of our Code of Business Conduct and Ethics will also be posted on our website within four business days of the amendment or waiver. Copies of these documents are available to shareholders upon request. Information contained or referenced on our website is not incorporated by reference and does not form a part of this Annual Report on Form 10-K.

We use our investor relations website <http://investors.micron.com> as a routine channel for distribution of important information, including news releases, analyst presentations, and financial information. Our filings are available free of charge on our website as soon as reasonably practicable after they are electronically filed with, or furnished to, the U.S. Securities and Exchange Commission, including our annual and quarterly reports on Forms 10-K and 10-Q and

current reports on Form 8-K, our proxy statements, and any amendments to those reports or statements. The Securities and Exchange Commission's ("SEC") website, [www.sec.gov](http://www.sec.gov), contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC. Materials filed or furnished by us with the SEC are also available at the SEC's Public Reference Room at 100 F Street, NE, Washington, D.C. 20549. Information on the operation of the Public Reference Room is available by calling (800) SEC-0330. The content on any website referred to in this Form 10-K is not incorporated by reference in this Form 10-K unless expressly noted.

## ITEM 1A. RISK FACTORS

In addition to the factors discussed elsewhere in this Form 10-K, 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. Decreases in 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.

	DRAM	Trade NAND
	(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 net cash expenditures in 2019 for property, plant, and equipment will be approximately \$10.5 billion plus or minus 5%, which reflects the offset of amounts we expect to be funded by our partners. Investments in capital expenditures, net of amounts funded by our partners, were \$8.20 billion for 2018.

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.

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. These 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.

A significant concentration of our net sales is to a select number of customers.

In each of the last three years, approximately one-half of our total net sales were to 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 sales. 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.

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 sales 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. As a result, 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 August 30, 2018, we had debt with a carrying value of \$4.64 billion and may borrow up to an additional \$2.00 billion under an undrawn revolving credit facility. In addition, as of August 30, 2018, the conversion value in excess of principal of our convertible notes was \$1.85 billion, based on the trading price of our common stock of \$52.76 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 II – Item 8. Financial Statements and Supplementary Data – 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.

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 II – Item 8. Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Contingencies.")

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 products or equipment and supplies could have an adverse impact on our operations.

In 2018, 88% of our sales were to 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. 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. 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 August 30, 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 may increase to the low teens percentage in 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 net sales are to customers 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;
- 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. 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 are 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 1B. UNRESOLVED STAFF COMMENTS

None.

#### ITEM 2. PROPERTIES

Our corporate headquarters are located in Boise, Idaho. The following is a summary of our principal facilities as of August 30, 2018:

Location	Principal Operations
Taiwan	Wafer fabrication, component assembly and test, module assembly and test
Singapore	R&D, wafer fabrication, component assembly and test, module assembly and test
United States	R&D, wafer fabrication, reticle manufacturing
Japan	R&D and wafer fabrication
China	Component assembly and test, module assembly and test
Malaysia	Component assembly

We own or lease a number of other facilities in locations throughout the world that are used for design, R&D, and sales and marketing activities. Substantially all of our manufacturing capacity is fully utilized. Certain of our properties are collateral to secured borrowing arrangements. (See "Part II – Item 8. Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Debt.")

We believe that our existing facilities are suitable and adequate for our present purposes. We do not identify or allocate assets by operating segment, other than goodwill. (See "Part II – Item 8. Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Geographic Information.")

#### ITEM 3. LEGAL PROCEEDINGS

See "Part II – Financial Information – Item 8. Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Contingencies" and "Item 1A. Risk Factors" for a discussion of other legal proceedings.

##### Reorganization Proceedings of the MMJ Companies

In 2013, we completed the acquisition of Elpida Memory, Inc., now known as MMJ, a Japanese corporation, pursuant to the terms and conditions of an Agreement on Support for Reorganization Companies (as amended, the "Sponsor Agreement") that we entered into in 2012 with the trustees of the MMJ Companies' pending corporate reorganization proceedings under the Corporate Reorganization Act of Japan. Under the Sponsor Agreement, we agreed to provide certain support for the reorganization of the MMJ Companies and the trustees agreed to prepare and seek approval from the Tokyo District Court and the MMJ Companies' creditors of plan of reorganization consistent with such

support.

The plan of reorganization provides for payments by the MMJ Companies to their secured and unsecured creditors in an aggregate amount of 200 billion yen, less certain expenses of the reorganization proceedings and certain other items. The plan of reorganization also provided for the investment by us pursuant to the Sponsor Agreement of 60 billion yen paid at closing in cash into MMJ in exchange for 100% ownership of MMJ's equity and the use of such investment to fund the initial installment payment by the MMJ Companies to their creditors of 60 billion yen, subject to reduction for certain items specified in the Sponsor Agreement and plan of reorganization.

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Under MMJ's plan of reorganization, secured creditors will recover 100% of the amount of their fixed claims and unsecured creditors will recover at least 17.4% of the amount of their fixed claims. The actual recovery of unsecured creditors will be higher, however, based in part on events and circumstances occurring following the plan approval. The remaining portion of the unsecured claims will be discharged, without payment, over the period that payments are made pursuant to the plan of reorganization. The secured creditors will be paid in full on or before the sixth installment payment date, while the unsecured creditors will be paid in seven installments. The unsecured creditors of MAI were scheduled to be paid in seven installments; however, in connection with our sale of MAI in 2017, the remaining MAI creditor obligation was paid in full and MAI's reorganization proceedings were closed.

Because MMJ's plan of reorganization provides for ongoing payments to creditors following the closing of the MMJ acquisition, the reorganization proceedings in Japan 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 businesses of the MMJ Companies, 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 effectively integrate MMJ as part of our global operations or to cause MMJ to take certain actions that we deem advisable for its businesses 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.

#### ITEM 4. MINE SAFETY DISCLOSURES

Not Applicable.

## PART II

## ITEM 5. MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS, AND ISSUER PURCHASES OF EQUITY SECURITIES

## Market for Common Stock

Our common stock is listed on the NASDAQ Global Select Market and trades under the symbol "MU." The following table represents the high and low closing prices for our common stock as reported by NASDAQ for each quarter of 2018 and 2017:

	Fourth Quarter	Third Quarter	Second Quarter	First Quarter
2018				
High	\$ 61.39	\$ 62.62	\$ 48.81	\$ 49.68
Low	47.10	45.89	39.40	32.07
2017				
High	\$ 32.50	\$ 30.77	\$ 24.79	\$ 20.13
Low	27.49	25.15	18.61	16.62

## Holders of Record

As of October 8, 2018, there were 2,062 shareholders of record of our common stock.

## Dividends

We have not declared or paid cash dividends since 1996 and do not intend to pay cash dividends for the foreseeable future.

As a result of the Japan Proceedings, for so long as such proceedings continue, MMJ is subject to certain restrictions on dividends, loans, and advances. Our ability to access IMFT's cash and other assets through dividends, loans, or advances, including to finance our other operations, is subject to agreement by Intel.

## Equity Compensation Plan Information

The information required by this item is incorporated by reference from the information to be included in our 2018 Proxy Statement under the section entitled "Equity Compensation Plan Information," which will be filed with the Securities and Exchange Commission within 120 days after August 30, 2018.

## Issuer Purchase of Equity Securities

**Common Stock Repurchase Authorization:** 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, derivative transactions, and/or pursuant to a Rule 10b5-1 trading plan, 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.



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
June 1, 2018	—	\$ —	—	
July 6, 2018	—	—	—	
August 3, 2018	—	—	—	
				\$ 10,000,000,000

For information on repurchases of our common stock subsequent to August 30, 2018, see "Item 8. Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Equity – Micron Shareholders' Equity."

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.

#### Performance Graph

The following graph illustrates a five-year comparison of cumulative total returns for our common stock, the S&P 500 Composite Index, and the Philadelphia Semiconductor Index (SOX) from August 31, 2013, through August 31, 2018. We operate on a 52 or 53 week fiscal year which ends on the Thursday closest to August 31. Accordingly, the last day of our fiscal year varies. For consistent presentation and comparison to the industry indices shown herein, we have calculated our stock performance graph assuming an August 31 year end.

Note: Management cautions that the stock price performance information shown in the graph above may not be indicative of current stock price levels or future stock price performance.

The performance graph above assumes \$100 was invested on August 31, 2013 in common stock of Micron Technology, Inc., the S&P 500 Composite Index, and the Philadelphia Semiconductor Index (SOX). Any dividends paid during the period presented were assumed to be reinvested. The performance was plotted using the following data:

	2013	2014	2015	2016	2017	2018
Micron Technology, Inc.	\$100	\$240	\$121	\$122	\$236	\$387
S&P 500 Composite Index	100	125	126	142	165	197
Philadelphia Semiconductor Index (SOX)	100	143	139	186	263	336



## ITEM 6. SELECTED FINANCIAL DATA

	2018	2017	2016	2015	2014
	(in millions except per share amounts)				
Net sales	\$30,391	\$20,322	\$12,399	\$16,192	\$16,358
Gross margin	17,891	8,436	2,505	5,215	5,437
Operating income	14,994	5,868	168	2,998	3,087
Net income (loss)	14,138	5,090	(275)	2,899	3,079
Net income (loss) attributable to Micron	14,135	5,089	(276)	2,899	3,045
Diluted earnings (loss) per share	11.51	4.41	(0.27)	2.47	2.54
Cash and short-term investments	6,802	5,428	4,398	3,521	4,534
Total current assets	16,039	12,457	9,495	8,596	10,245
Property, plant, and equipment	23,672	19,431	14,686	10,554	8,682
Total assets	43,376	35,336	27,540	24,143	22,416
Total current liabilities	5,754	5,334	4,835	3,905	4,791
Long-term debt	3,777	9,872	9,154	6,252	4,893
Redeemable convertible notes	3	21	—	49	68
Redeemable noncontrolling interest	97	—	—	—	—
Total Micron shareholders' equity	32,294	18,621	12,080	12,302	10,760
Noncontrolling interests in subsidiaries	870	849	848	937	802
Total equity	33,164	19,470	12,928	13,239	11,562

In December 2016, we acquired the 67% remaining interest in Inotera and began consolidating Inotera's operating results. In the periods presented above through December 2016, Inotera sold DRAM products exclusively to us through supply agreements. The cash paid for the Inotera Acquisition was funded, in part, with a term loan of 80 billion New Taiwan dollars and \$986 million from the sale of 58 million shares of our common stock. (See Item 8. Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Acquisition of Inotera.)

## ITEM 7. 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 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 2018, 2017, and 2016 each contain 52 weeks. All production data includes the production of IMFT and Inotera. All tabular dollar amounts are in millions, except per share amounts.

For an overview of our business, see "Part I – Item 1. Business – Overview."

## Results of Operations

## Consolidated Results

For the year ended	2018		2017		2016	
Net sales	\$30,391	100 %	\$20,322	100 %	\$12,399	100 %
Cost of goods sold	12,500	41 %	11,886	58 %	9,894	80 %
Gross margin	17,891	59 %	8,436	42 %	2,505	20 %
Selling, general, and administrative	813	3 %	743	4 %	659	5 %
Research and development	2,141	7 %	1,824	9 %	1,617	13 %
Other operating (income) expense, net	(57 )	— %	1	— %	61	— %
Operating income	14,994	49 %	5,868	29 %	168	1 %
Interest income (expense), net	(222 )	(1 )%	(560 )	(3 )%	(395 )	(3 )%
Other non-operating income (expense), net	(465 )	(2 )%	(112 )	(1 )%	(54 )	— %
Income tax provision	(168 )	(1 )%	(114 )	(1 )%	(19 )	— %
Equity in net income (loss) of equity method investees	(1 )	— %	8	— %	25	— %
Net income attributable to noncontrolling interests	(3 )	— %	(1 )	— %	(1 )	— %
Net income (loss) attributable to Micron	\$14,135	47 %	\$5,089	25 %	\$(276 )	(2 )%

## Total Net Sales

Total net sales for 2018 increased 50% as compared to 2017. Higher sales in 2018 for both DRAM and NAND products as compared to 2017 were driven by strong execution in delivering high-value products featuring our 1Xnm DRAM and 64-layer 3D NAND technologies combined with strong demand for products across our primary markets. Sales of DRAM products for 2018 increased 64% from 2017 primarily due to an increase in average selling prices of approximately 35% and an increase in sales volumes of approximately 20% as a result of strong market conditions, particularly for cloud, enterprise, mobile, and graphics markets, combined with increased sales into high-value markets. Sales of trade NAND products for 2018 increased 26% from 2017 despite declines in average selling prices primarily due to an increase in sales volumes of approximately 40% driven by increases in sales of high-value SSD and mobile managed NAND products enabled by strong demand and our execution in delivering 3D NAND products.

Total net sales for 2017 increased 64% as compared to 2016 due to strong conditions across our primary markets, particularly for enterprise, mobile, client, and SSD storage. Sales of DRAM products for 2017 increased 80% from 2016 due to an increase in sales volumes of approximately 50% and an increase in average selling prices of approximately 20% as a result of the strong market conditions. Sales of trade NAND products for 2017 increased approximately 50% as compared to 2016 due to an increase in sales volumes of approximately 65% resulting from strong market demand for our 3D NAND products, which was partially offset by declines in average selling prices. Increases in DRAM and NAND sales volumes for 2017 as compared 2016 were enabled by higher manufacturing output due to improvements in product and process technology and solid execution. Increases in sales volumes for NAND products for 2017 were also enabled by key customer qualifications of new products.

## Overall Gross Margin

Our overall gross margin percentage increased to 59% for 2018 from 42% for 2017 primarily due to favorable market conditions across key markets combined with strong execution in delivering products featuring advanced technologies, including 1Xnm DRAM and 64-layer 3D NAND, enabling manufacturing cost reductions. For 2018 as

compared to 2017, pricing for DRAM products increased while manufacturing costs declined and, for NAND products, manufacturing cost reductions outpaced declines in average selling prices.

Our overall gross margin percentage increased to 42% for 2017 from 20% for 2016 primarily due to strong markets that drove favorable pricing conditions and solid execution in manufacturing cost reductions from improvements in product and process technology. For 2017 as compared to 2016, pricing for DRAM products increased while manufacturing costs declined

and, for NAND products, manufacturing cost reductions outpaced declines in selling prices. We periodically assess the estimated useful lives of our property, plant, and equipment. In the fourth quarter of 2016, we identified factors such as the lengthening period of time between DRAM product technology node transitions, an increased re-use rate of equipment, and industry trends. As a result, we revised the estimated useful lives of equipment in our DRAM wafer fabrication facilities from five to seven years in the fourth quarter of 2016. The effect of the revision was not material for 2016 and reduced depreciation expense at the time by approximately \$100 million per quarter.

From January 2013 through December 2015, we purchased all of Inotera's DRAM output under supply agreements at prices reflecting discounts from market prices for our comparable components. After December 2015 through December 6, 2016, the date we acquired the remaining interest in Inotera, the price for DRAM products we purchased from Inotera was based on a formula that equally shared margin between Inotera and us. Under these agreements, we purchased \$504 million and \$1.43 billion of DRAM products from Inotera in 2017 and 2016, respectively, which represented 9% of our aggregate DRAM gigabit production for 2017 and 30% for 2016.

#### Net Sales by Business Unit

For the year ended	2018		2017		2016	
CNBU	\$15,252	50%	\$8,624	42%	\$4,529	37%
MBU	6,579	22%	4,424	22%	2,569	21%
SBU	5,022	17%	4,514	22%	3,262	26%
EBU	3,479	11%	2,695	13%	1,939	16%
All Other	59	—%	65	—%	100	1%
	\$30,391		\$20,322		\$12,399	

Percentages are of total net sales but may not total 100% due to rounding.

CNBU sales for 2018 increased 77% as compared to 2017 due to strong market conditions and demand in key markets, including cloud server, client, enterprise server markets, and graphics markets, which drove increases in pricing and sales volumes. Sales into cloud and graphics markets more than doubled in 2018 as compared to 2017. MBU sales for 2018, which were comprised primarily of mobile LPDRAM and managed NAND products, increased 49% as compared to 2017 primarily due to customer qualifications for LPDRAM and managed NAND products, which combined with higher memory content in smartphones to drive improvements in DRAM pricing and increases in sales volumes. SBU sales of trade NAND products for 2018 increased 13% as compared to 2017 driven by higher sales of SSD storage products, which increased by 72%, partially offset by declines in SBU NAND component sales from a strategic reallocation of supply from component sales to SSD and mobile managed NAND products. Increases in SBU sales volumes for 2018 resulting from strong demand for cloud and enterprise SSD markets more than offset declines in selling prices. SBU sales also include "non-trade" products consisting of products manufactured and sold to Intel through IMFT under a long-term supply agreement at prices approximating cost, which included 3D XPoint memory and NAND products, aggregating \$541 million, \$553 million, and \$501 million, for 2018, 2017, and 2016, respectively. EBU sales for 2018 increased 29% as compared to 2017 primarily due to strong demand across EBU's primary markets including consumer, industrial multimarkets, and automotive. EBU sales were comprised of products incorporating DRAM, NAND, and NOR Flash in decreasing order of revenue.

CNBU sales for 2017 increased 90% as compared to 2016 due to increases in average selling prices due to strong demand across key markets, growth in the cloud market driven by significant increases in DRAM content per server, and increases in sales of our GDDR5 and GDDR5X products into the graphics market driven by strong demand from the gaming industry. MBU sales for 2017 increased 72% as compared to 2016 primarily due to significant increases in sales volumes, driven by customer qualifications for LPDRAM and managed NAND products, combined with higher memory content in smartphones and growth in sales of eMCP products. MBU sales growth in 2017 was partially offset by declines in average selling prices for trade NAND products. SBU sales of trade NAND products for 2017

increased 41% as compared to 2016 primarily due to increases in sales volumes from strong demand, particularly for component NAND and client and cloud SSD storage products, partially offset by declines in average selling prices. SBU sales of SSD storage products increased by 137% for 2017 as compared to 2016 primarily as a result of the launch of new SSD products incorporating our TLC 3D NAND technology. EBU sales for 2017 increased 39% as compared to 2016 primarily due to strong demand and higher sales volumes for DRAM and eMCP in consumer markets and DRAM and eMMC products in the automotive markets.

## Operating Income (Loss) by Business Unit

For the year ended	2018		2017		2016	
CNBU	\$9,773	64%	\$3,755	44%	\$(25)	(1)%
MBU	3,033	46%	927	21%	97	4%
SBU	964	19%	552	12%	(123)	(4)%
EBU	1,473	42%	975	36%	473	24%
All Other	—	—%	23	35%	28	28%
	\$15,243		\$6,232		\$450	

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

CNBU operating income for 2018 improved from 2017 primarily due to improved pricing and higher sales volumes resulting from strong demand for our products combined with manufacturing cost reductions. MBU operating income for 2018 improved from 2017 primarily due to increases in pricing and sales volumes for LPDRAM products, higher sales of high-value managed NAND products, and manufacturing cost reductions. SBU operating income for 2018 improved from 2017 primarily due to manufacturing cost reductions enabled by our execution in transitioning to 64-layer TLC 3D NAND products and improvements in product mix. SBU operating income for 2018 was adversely impacted by higher costs associated with IMFT's production of 3D XPoint memory products at less than full capacity. EBU operating income for 2018 increased as compared to 2017 as a result of increases in average selling prices, manufacturing cost reductions, and increases in sales volumes, partially offset by higher R&D costs.

CNBU operating margin for 2017 improved from 2016 primarily due to improved pricing from strong market conditions, manufacturing cost reductions, and product mix. MBU operating income for 2017 improved from 2016 primarily due to manufacturing cost reductions and higher sales volumes, partially offset by higher R&D costs and declines in average selling prices for trade NAND products. SBU operating margin for 2017 improved from 2016 primarily due to manufacturing cost reductions, partially offset by declines in average selling prices. EBU operating income for 2017 increased as compared to 2016 as a result of manufacturing cost reductions, which outpaced declines in average selling prices, and increases in sales volumes.

## Operating Expenses and Other

## Selling, General, and Administrative

SG&A expenses for 2018 were 9% higher than 2017 primarily due to increases in legal costs, technical and consulting fees, and employee compensation. SG&A expenses for 2017 were 13% higher than 2016 primarily due to increases in employee compensation as well as transaction costs related to the Inotera Acquisition.

## 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 2018 were 17% higher than 2017 primarily due to increases in employee compensation, volumes of development and pre-qualification wafers, and depreciation expense as a result of increases in capital spending. R&D expenses for 2017 were 13% higher than 2016 primarily due to higher volumes of development and pre-qualification wafers and increases in employee compensation, partially offset by lower engineering and other

professional services costs.

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. 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

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subsequent generations of 3D XPoint technology. As a result of the above actions, we expect reimbursements under our cost-sharing agreements to decrease in early fiscal 2019. Our R&D expenses were reduced by reimbursements under these development partner arrangements by \$201 million, \$213 million, and \$205 million for 2018, 2017, and 2016, respectively.

## 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 lowered the U.S. corporate income tax rate from 35% to 21% and significantly affects how income from foreign operations is taxed in the United States. Our U.S. statutory federal rate was 25.7% for 2018 (based on the 35% corporate rate through December 31, 2017 and 21% from that date through the end of fiscal year 2018) and will be 21% beginning in 2019. The Tax Act imposed a one-time transition tax in 2018 on accumulated foreign income (the "Repatriation Tax"); provided a U.S. federal tax exemption on foreign earnings distributed to the United States after January 1, 2018; and beginning in 2019, created a new minimum tax on certain foreign earnings in excess of a deemed return on tangible assets (the "Foreign Minimum Tax"). The Tax Act allows us to elect to pay any Repatriation Tax due in eight annual, interest-free payments in increasing amounts beginning in December 2018. In connection with the provisions of the Tax Act, we made an accounting policy election to treat the Foreign Minimum Tax provision as a period cost in the period the tax is incurred.

SEC Staff Accounting Bulletin No. 118 ("SAB 118") allows the use of provisional amounts (reasonable estimates) if our analyses of the impacts of the Tax Act have not been completed when our financial statements are issued. The provisional amounts below for 2018 represent reasonable estimates of the effects of the Tax Act for which our analysis is not yet complete. As we complete our analysis of the Tax Act, including collecting, preparing, and analyzing necessary information, performing and refining calculations, and obtaining additional guidance from the IRS, U.S. Treasury Department, FASB, or other standard setting and regulatory bodies on the Tax Act, we may record adjustments to the provisional amounts, which may be material. In accordance with SAB 118, our accounting for the tax effects of the Tax Act will be completed during the measurement period, which should not extend beyond one year from the enactment date. At August 30, 2018, there were no provisions for which we were unable to record a reasonable estimate of the impact.

Our income tax (provision) benefit consisted of the following:

For the year ended	2018	2017	2016
Provisional estimate for the Repatriation Tax, net of adjustments related to uncertain tax positions	\$(1,030)	\$—	\$—
Remeasurement of deferred tax assets and liabilities reflecting lower U.S. corporate tax rates	(133 )	—	—
Provisional estimate for the release of the valuation allowance on the net deferred tax assets of our U.S. operations	1,337	—	—
Utilization of and other changes in net deferred tax assets of MMJ, MMT, and MTTW	(68 )	54	(114)
U.S. valuation allowance release resulting from business acquisition	—	—	41
Other income tax (provision) benefit	(274 )	(168 )	54
	\$(168 )	\$(114)	\$(19)
Effective tax rate	1.2	% 2.2	% (6.8 )%

Our income taxes reflect various impacts of the Tax Act, including the remeasurement of deferred tax assets and liabilities at the lower U.S. corporate rate of 25.7% for 2018 and 21% for subsequent years and provisional estimates for the Repatriation Tax and the release of a substantial portion of the valuation allowance on the net deferred tax



assets of our U.S. operations. Our income tax rates also include operations outside the United States, including Singapore, where we have tax incentive arrangements that further decrease our effective tax rates. Beginning in 2019, our effective tax rate may increase to the low teens percentage depending on the amount and geographic mix of taxable income. Income taxes for 2018, 2017, and 2016 included tax benefits of \$1 million, \$28 million, and \$58 million, respectively, related to the favorable resolution of certain tax matters, which were previously reserved as uncertain tax positions.

During 2018, we reassessed our capital structure, including our Board of Directors' authorization to repurchase up to \$10 billion of our outstanding common stock beginning in 2019, the future cash needs of our global operations, and the effects of the Tax Act. As a result of this reassessment, we deemed a portion of our foreign earnings to be no longer indefinitely reinvested. As a result of the Repatriation Tax, substantially all of our accumulated foreign earnings prior to December 31, 2017

were subject to U.S. federal taxation. Although these earnings have been subject to U.S. federal income tax under the Repatriation Tax, the repatriation to the United States of all or a portion of these earnings would potentially be subject to foreign withholding and state income tax. As of August 30, 2018, we had a deferred tax liability of \$82 million associated with our undistributed earnings.

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 \$1.96 billion (benefiting our diluted earnings per share by \$1.59) for 2018, by \$742 million (\$0.64 per diluted share) for 2017, and were not material in 2016.

(See "Item 8. Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Income Taxes.")

#### Other

Net interest expense decreased 60% for 2018 as compared to 2017 due to decreases in debt obligations and increases in interest income. Net interest expense increased 42% for 2017 as compared to 2016 primarily due to increases in debt obligations, including our borrowings of 80 billion New Taiwan dollars in December 2016 in connection with our acquisition of Inotera and \$1.25 billion from the issuance of our 2023 Secured Notes in April 2016.

Further discussion of other operating and non-operating income and expenses can be found in the following notes contained in "Item 8. Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements":

#### Equity Plans

#### Research and Development

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

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

#### 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 \$2.00 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 \$10.5 billion plus or minus 5%, focused on technology transitions and product enablement. The actual amounts for 2019 will vary depending on market conditions. As of August 30, 2018, we had commitments of approximately \$1.8 billion for the acquisition of property, plant, and equipment, substantially all of which is expected to be paid within one year.

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, derivative transactions, and/or pursuant to a Rule 10b5-1 trading plan, 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.

From August 31, 2018 through October 12, 2018, we repurchased an aggregate of \$1.65 billion of our common stock under an accelerated share repurchase ("ASR") agreement, a Rule 10b5-1 plan, and through open market repurchases. Pursuant to the ASR, we entered into an agreement with a financial institution to purchase \$1.00 billion of our common stock in the first quarter of fiscal 2019. The number of shares ultimately purchased will be calculated by dividing \$1.00 billion by a volume-weighted average price of our common stock from September 5, 2018 through as late as November 29, 2018 (the

"Measurement Period"), subject to an agreed-upon discount. On September 5, 2018, we paid \$1.00 billion to the financial institution and received an initial installment of 14 million shares, with the final share amount to be determined as of the end of the Measurement Period.

See "Item 8. Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Equity."

Cash and marketable investments totaled \$7.28 billion and \$6.05 billion as of August 30, 2018 and August 31, 2017, 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. As of August 30, 2018, \$3.08 billion of our cash and marketable investments was held by our foreign subsidiaries.

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

MMJ Group: Cash and marketable investments as of August 30, 2018 included \$1.67 billion 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 \$91 million held by IMFT as of August 30, 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 August 30, 2018, \$1.71 billion of cash and marketable investments, including substantially all of the amounts held by MMJ, was held by foreign subsidiaries whose earnings were considered to be indefinitely reinvested. Determination of the amount of unrecognized deferred tax liabilities related to investments in these foreign subsidiaries is not practicable.

#### Cash Flows

For the year ended	2018	2017	2016
Net cash provided by operating activities	\$17,400	\$8,153	\$3,168
Net cash provided by (used for) investing activities	(8,216 )	(7,537 )	(3,044 )
Net cash provided by (used for) financing activities	(7,776 )	349	1,745
Effect of changes in currency exchange rates on cash, cash equivalents, and restricted cash	(37 )	(12 )	19
Net increase (decrease) in cash, cash equivalents, and restricted cash	\$1,371	\$953	\$1,888

Operating Activities: For 2018, cash provided by operating activities was due primarily to cash generated by our operations and the effect of working capital adjustments, which included a \$1.73 billion increase in receivables due to a higher level of net sales.

For 2017, cash provided by operating activities was due primarily to cash generated by our operations and the effect of working capital adjustments, which included a \$1.65 billion increase in receivables due to a higher level of net sales, \$361 million of payments attributed to intercompany balances in connection with the Inotera Acquisition, and a \$564 million increase in accounts payable and accrued expenses.

For 2016, cash provided by operating activities was due primarily to cash generated by our operations and the effect of working capital adjustments, which included a \$465 million decrease in receivables due to a lower level of net sales, offset by an increase of \$549 million in inventories.

**Investing Activities:** For 2018, net cash used for investing activities consisted primarily of \$7.99 billion of expenditures for property, plant, and equipment (net of partner contributions), partially offset by \$164 million of net inflows from sales, maturities, and purchases of available-for-sale securities.

For 2017, net cash used for investing activities consisted primarily of \$4.73 billion of expenditures for property, plant, and equipment (net of partner contributions), \$2.63 billion of net cash paid for the Inotera Acquisition (net of \$361 million of payments attributed to intercompany balances with Inotera included in operating activities), and \$269 million of net outflows from sales, maturities, and purchases of available-for-sale securities.

For 2016, net cash used for investing activities consisted primarily of \$5.75 billion of expenditures for property, plant, and equipment (net of partner contributions) and \$148 million for the acquisition of Tidal Systems, Ltd., partially offset by \$2.66 billion of net inflows from sales, maturities, and purchases of available-for-sale securities.

**Financing Activities:** For 2018, net cash used for financing activities consisted primarily of cash payments to reduce our debt, including \$9.42 billion to prepay or repurchase debt and settle conversions of notes and \$774 million for scheduled repayment of other notes and capital leases. Cash used for financing activities 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 and \$1.01 billion of proceeds from IMFT Member Debt.

For 2017, net cash provided by financing activities consisted primarily of \$2.48 billion of net proceeds from the 2021 MSTW Term Loan, and \$795 million of net proceeds from the 2021 MSAC Term Loan, partially offset by \$1.63 billion to repurchase notes, repayments of \$381 million of capital lease obligations, repayments of \$550 million of other debt and convertible notes, and payments of \$519 million on equipment purchase contracts.

For 2016, net cash provided by financing activities consisted primarily of \$2.20 billion of proceeds from issuance of notes and \$765 million from equipment sale-leaseback financing transactions, partially offset by repurchase of \$870 million of debt and \$125 million for the open-market repurchase of 7 million shares of our common stock.

See "Item 8. Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Debt."

#### 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 these notes through the calendar quarter ended December 31, 2018. 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 \$52.76 as of August 30, 2018.

	Settlement Option		Underlying Shares	If Settled With Minimum Cash Required		If Settled Entirely With Cash
	Principal Amount	Amount in Excess of Principal		Cash	Remainder in Shares	
2032D Notes	Cash and/or shares	Cash and/or shares	14	\$ —	14	\$ 758
2033F Notes	Cash	Cash and/or shares	10	239	5	515
2043G Notes	Cash and/or shares	Cash and/or shares	35	—	35	1,843
			59	\$ 239	54	\$ 3,116

As of August 30, 2018, convertible notes in the table above included an aggregate of \$165 million for the settlement obligation (including principal and amounts in excess of principal) for conversions of 2033F Notes that will settle in cash in the first quarter of 2019.

## Contractual Obligations

As of August 30, 2018	Payments Due by Period				
	Total	Less than 1 year	1-3 years	3-5 years	More than 5 years
Notes payable <sup>(1)(2)</sup>	\$4,705	\$592	\$609	\$853	\$2,651
Capital lease obligations <sup>(2)</sup>	965	339	331	108	187
Operating leases <sup>(3)</sup>	616	37	93	95	391
Purchase obligations <sup>(4)</sup>	3,350	2,892	385	17	56
Other long-term liabilities <sup>(5)</sup>	596	375	192	10	19
Total	\$10,232	\$4,235	\$1,610	\$1,083	\$3,304

(1) Amounts include MMJ Creditor Payments, convertible notes, and other notes.

(2) Amounts include principal and interest.

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

Purchase obligations include all commitments to purchase goods or services of either a fixed or minimum quantity that meet any of the following criteria: (1) they are noncancelable, (2) we would incur a penalty if the agreement was canceled, or (3) we must make specified minimum payments even if we do not take delivery of the contracted products or services. If the obligation to purchase goods or services is noncancelable, the entire value of the contract was included in the above table. If the obligation is cancelable, but we would incur a penalty if canceled, only the dollar amount of the penalty was included as a purchase obligation. Contracted minimum amounts specified in any take-or-pay contracts were included in the above table as they represent the portion of each contract that is a firm commitment.

Amounts represent future cash payments to satisfy other long-term liabilities recorded on our consolidated balance sheet, including \$375 million for the current portion of these long-term liabilities. We are unable to reliably

(5) estimate the timing of future certain payments related to uncertain tax positions and deferred tax liabilities; therefore, the amount has been excluded from the preceding table. However, other noncurrent liabilities recorded on our consolidated balance sheet included these uncertain tax positions and deferred tax liabilities.

The timing of payment amounts of the obligations discussed above is based on current information. Any redemptions, repurchases, or conversions of debt could impact the amount and timing of our cash payments.

## Off-Balance Sheet Arrangements

We have capped calls which are intended to reduce the effect of potential dilution, see "Item 8. Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Equity – Micron Shareholders' Equity – Outstanding Capped Calls."

We have an ASR agreement with a financial institution to purchase \$1.00 billion of our common stock in the first quarter of fiscal 2019. See "Item 8. Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Equity – Micron Shareholders' Equity – Common Stock Repurchase Authorization – Accelerated Share Repurchase."

## Critical Accounting Estimates



The preparation of financial statements and related disclosures in conformity with U.S. GAAP requires management to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues, expenses, and related disclosures. Estimates and judgments are based on historical experience, forecasted events, and various other assumptions that we believe to be reasonable under the circumstances. Estimates and judgments may vary under different assumptions or conditions. We evaluate our estimates and judgments on an ongoing basis. Our management believes the accounting policies below are critical in the portrayal of our financial condition and results of operations and require management's most difficult, subjective, or complex judgments.

Business acquisitions: Accounting for acquisitions requires us to estimate the fair value of consideration paid and the individual assets and liabilities acquired, which involves a number of judgments, assumptions, and estimates that could materially affect the amount and timing of costs recognized in subsequent periods. Accounting for acquisitions can also involve significant judgment to determine when control of the acquired entity is transferred. We typically obtain independent third party

valuation studies to assist in determining fair values, including assistance in determining future cash flows, discount rates, and comparable market values. Items involving significant assumptions, estimates, and judgments include the following:

• Debt, including discount rate and timing of payments;

• Deferred tax assets, including projections of future taxable income and tax rates;

• Fair value of consideration paid or transferred;

• Intangible assets, including valuation methodology, estimations of future revenue and costs, profit allocation rates attributable to the acquired technology, and discount rates;

• Inventory, including estimated future selling prices, timing of product sales, and completion costs for work in process; and

• Property, plant, and equipment, including determination of values in a continued-use model.

**Consolidation:** We have interests in entities that are VIEs. Determining whether to consolidate a VIE requires judgment in assessing whether an entity is a VIE and if we are the entity's primary beneficiary. 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.

**Contingencies:** We are subject to the possibility of losses from various contingencies. Significant judgment is necessary to estimate the probability and amount of a loss, if any, from such contingencies. An accrual is made when it is probable that a liability has been incurred or an asset has been impaired and the amount of loss can be reasonably estimated. We accrue a liability and charge operations for the estimated costs of adjudication or settlement of asserted and unasserted claims existing as of the balance sheet date. In accounting for the resolution of contingencies, significant judgment may be necessary to estimate amounts pertaining to periods prior to the resolution that are charged to operations in the period of resolution and amounts related to future periods.

**Goodwill and intangible assets:** We test goodwill for impairment in the fourth quarter of our fiscal year, or more frequently if indicators of an impairment exist, to determine whether it is more likely than not that the fair value of the reporting unit with goodwill is less than its carrying value. For reporting units for which this assessment concludes that it is more likely than not that the fair value is more than its carrying value, goodwill is considered not impaired and we are not required to perform the goodwill impairment test. Qualitative factors considered in this assessment include industry and market considerations, overall financial performance, and other relevant events and factors affecting the fair value of the reporting unit. For reporting units for which this assessment concludes that it is more likely than not that the fair value is below the carrying value, goodwill is tested for impairment by determining the fair value of each reporting unit and comparing it to the carrying value of the net assets assigned to the reporting unit. If the fair value of the reporting unit exceeds its carrying value, goodwill is considered not impaired. If the carrying value of the reporting unit exceeds its fair value, then we would record an impairment loss up to the difference between the carrying value and implied fair value.

Determining when to test for impairment, the reporting units, the assets and liabilities of the reporting unit, and the fair value of the reporting unit requires significant judgment and involves the use of significant estimates and assumptions. These estimates and assumptions include revenue growth rates, forecasted manufacturing costs, and

other expenses and are developed as part of our long-range planning process. The same estimates are used in business planning, forecasting, and capital budgeting as part of our long-term manufacturing capacity analysis. We test the reasonableness of the output of our long-range planning process by calculating an implied value per share and comparing that to current stock prices, analysts' consensus pricing, and management's expectations. These estimates and assumptions are used to calculate projected future cash flows for the reporting unit, which are discounted using a risk-adjusted rate to estimate a fair value. The discount rate requires determination of appropriate market comparables. We base fair value estimates on assumptions we believe to be reasonable but that are unpredictable and inherently uncertain. Actual future results may differ from those estimates.

We test other identified intangible assets with definite useful lives when events and circumstances indicate the carrying value may not be recoverable by comparing the carrying amount to the sum of undiscounted cash flows expected to be generated by the asset. We test intangible assets with indefinite lives annually for impairment using a fair value method such as discounted cash flows. Estimating fair values involves significant assumptions, including future sales prices, sales volumes, costs, and discount rates.

**Income taxes:** We are required to estimate our provision for income taxes and amounts ultimately payable or recoverable in numerous tax jurisdictions around the world. These estimates involve significant judgment and interpretations of regulations and are inherently complex. Resolution of income tax treatments in individual jurisdictions may not be known for many years after completion of the applicable fiscal year. We are also required to evaluate the realizability of our deferred tax assets on an ongoing basis in accordance with U.S. GAAP, which requires the assessment of our performance and other relevant factors. Realization of deferred tax assets is dependent on our ability to generate future taxable income. In recent periods, our results of operations have benefitted from increases in the amount of deferred taxes we expect to realize, primarily from the levels of capital spending and increases in the amount of taxable income we expect to realize in Japan and the United States. Our income tax provision or benefit is dependent, in part, on our ability to forecast future taxable income in these and other jurisdictions. Such forecasts are inherently difficult and involve significant judgments including, among others, projecting future average selling prices and sales volumes, manufacturing and overhead costs, levels of capital spending, and other factors that significantly impact our analyses of the amount of net deferred tax assets that are more likely than not to be realized.

**Inventories:** Inventories are stated at the lower of average cost or net realizable value. Cost includes depreciation, labor, material, and overhead costs, including product and process technology costs. Determining net realizable value of inventories involves significant judgments, including projecting future average selling prices, sales volumes, and costs to complete products in work in process inventories. To project average selling prices and sales volumes, we review recent sales volumes, existing customer orders, current contract prices, industry analyses of supply and demand, seasonal factors, general economic trends, and other information. When these analyses reflect estimated net realizable values below our manufacturing costs, we record a charge to cost of goods sold in advance of when inventories are actually sold. Differences in forecasted average selling prices used in calculating lower of cost or net realizable value adjustments can result in significant changes in the estimated net realizable value of product inventories and accordingly the amount of write-down recorded. For example, a 5% variance in the estimated selling prices would have changed the estimated net realizable value of our inventory by approximately \$577 million as of August 30, 2018. Due to the volatile nature of the semiconductor memory and storage markets, actual selling prices and volumes often vary significantly from projected prices and volumes; as a result, the timing of when product costs are charged to operations can vary significantly.

U.S. GAAP provides for products to be grouped into categories in order to compare costs to net realizable values. The amount of any inventory write-down can vary significantly depending on the determination of inventory categories. We review the major characteristics of product type and markets in determining the unit of account for which we perform the lower of average cost or net realizable value analysis and categorize inventories primarily as memory (including DRAM, NAND, and other memory).

**Property, plant, and equipment:** We review the carrying value of property, plant, and equipment for impairment when events and circumstances indicate that the carrying value of an asset or group of assets may not be recoverable from the estimated future cash flows expected to result from its use and/or disposition. In cases where undiscounted expected future cash flows are less than the carrying value, an impairment loss is recognized equal to the amount by which the carrying value exceeds the estimated fair value of the assets. The estimate of future cash flows involves numerous assumptions which require significant judgment by us, including, but not limited to, future use of the assets for our operations versus sale or disposal of the assets, future selling prices for our products and future production and sales volumes. In addition, significant judgment is required in determining the groups of assets for which impairment tests are separately performed.

We periodically assess the estimated useful lives of our property, plant, and equipment. We revised the estimated useful lives of equipment in our DRAM wafer fabrication facilities from five to seven years in the fourth quarter of 2016. The effect of the revision was not material for 2016 and reduced depreciation expense at the time by approximately \$100 million per quarter. (See "Item 8. Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Significant Accounting Policies.")

Research and development: Costs related to the conceptual formulation and design of products and processes are expensed as R&D as incurred. Determining when product development is complete requires significant judgment by us. We deem development of a product complete once the product has been thoroughly reviewed and tested for performance and reliability. Subsequent to product qualification, product costs are included in cost of goods sold.

Stock-based compensation: Stock-based compensation is estimated at the grant date based on the fair value of the award and is recognized as expense using the straight-line amortization method over the requisite service period. For performance-based stock awards, the expense recognized is dependent on our assessment of the likelihood of the performance measure being

achieved. We utilize forecasts of future performance to assess these probabilities and this assessment requires significant judgment.

Determining the appropriate fair-value model and calculating the fair value of stock-based awards at the grant date requires significant judgment, including estimating stock price volatility and expected option life. We develop these estimates based on historical data and market information which can change significantly over time. A small change in the estimates used can result in a relatively large change in the estimated valuation. We use the Black-Scholes option valuation model to value employee stock options and awards granted under our employee stock purchase plan ("ESPP"). We estimate stock price volatility based on an average of historical volatility and the implied volatility derived from traded options on our stock.

#### Recently Issued Accounting Standards

See "Item 8. Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Recently Issued Accounting Standards."

### ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

#### Interest Rate Risk

We are exposed to interest rate risk related to our indebtedness and our investment portfolio. As of August 30, 2018 and August 31, 2017, we had fixed-rate debt of \$3.1 billion and \$5.7 billion, respectively, and as a result, the fair value of our debt fluctuates with changes in market interest rates. We estimate that, as of August 30, 2018 and August 31, 2017, a decrease in market interest rates of 1% would increase the fair value of our fixed-rate debt by approximately \$79 million and \$273 million, respectively. As of August 30, 2018 and August 31, 2017, we had variable-rate debt of \$725 million and \$4.2 billion, respectively. As of August 30, 2018 and August 31, 2017, a 1% increase in the interest rates of our variable-rate debt would result in an increase in annual interest expense of approximately \$7 million and \$43 million, respectively.

#### Foreign Currency Exchange Rate Risk

The information in this section should be read in conjunction with the information related to changes in the currency exchange rates in "Part I – Item 1A. Risk Factors." Changes in currency exchange rates could materially adversely affect our results of operations or financial condition.

The functional currency for all of our operations is the U.S. dollar. The substantial majority of our sales are transacted in the U.S. dollar; however, significant amounts of our debt, operating expenditures, and capital purchases are incurred in or exposed to other currencies, primarily the euro, New Taiwan dollar, Singapore dollar, and yen. We have established currency risk management programs for our monetary assets and liabilities denominated in foreign currencies to hedge against fluctuations in the fair value and volatility of future cash flows caused by changes in currency exchange rates. We generally utilize currency forward contracts in these hedging programs, which reduce, but do not always entirely eliminate, the impact of currency exchange rate movements. We do not use derivative financial instruments for trading or speculative purposes.

Based on monetary assets and liabilities denominated in foreign currencies, we estimate that a 10% adverse change in exchange rates versus the U.S. dollar would result in losses of approximately \$78 million as of August 30, 2018 and

\$391 million as of August 31, 2017. We hedge our exposure to changes in currency exchange rates by utilizing a rolling hedge strategy for our primary currency exposures with currency forward contracts that generally mature within nine months. The effectiveness of our hedges is dependent, among other factors, upon our ability to accurately forecast our monetary assets and liabilities. To hedge the exposure of changes in cash flows from changes in currency exchange rates for certain capital expenditures, we may utilize currency forward contracts that generally mature within 12 months. (See "Item 8. Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Derivative Instruments.")

ITEM 8. FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

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## MICRON TECHNOLOGY, INC.

## CONSOLIDATED STATEMENTS OF OPERATIONS

(in millions except per share amounts)

For the year ended	August 30, 2018	August 31, 2017	September 1, 2016
Net sales	\$ 30,391	\$ 20,322	\$ 12,399
Cost of goods sold	12,500	11,886	9,894
Gross margin	17,891	8,436	2,505
Selling, general, and administrative	813	743	659
Research and development	2,141	1,824	1,617
Other operating (income) expense, net	(57)	) 1	61
Operating income	14,994	5,868	168
Interest income	120	41	42
Interest expense	(342)	) (601)	) (437)
Other non-operating income (expense), net	(465)	) (112)	) (54)
	14,307	5,196	(281)
Income tax provision	(168)	) (114)	) (19)
Equity in net income (loss) of equity method investees	(1)	) 8	25
Net income (loss)	14,138	5,090	(275)
Net income attributable to noncontrolling interests	(3)	) (1)	) (1)
Net income (loss) attributable to Micron	\$ 14,135	\$ 5,089	\$ (276)
Earnings (loss) per share			
Basic	\$ 12.27	\$ 4.67	\$ (0.27)
Diluted	11.51	4.41	(0.27)
Number of shares used in per share calculations			
Basic	1,152	1,089	1,036
Diluted	1,229	1,154	1,036

See accompanying notes to consolidated financial statements.

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## MICRON TECHNOLOGY, INC.

## CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME (LOSS)

(in millions)

For the year ended	August 30, 2018	August 31, 2017	September 1, 2016
Net income (loss)	\$ 14,138	\$ 5,090	\$ (275 )
Other comprehensive income (loss), net of tax			
Gains (losses) on derivative instruments	(15 )	15	7
Pension liability adjustments	(3 )	1	(9 )
Unrealized gains (losses) on investments	(2 )	—	3
Foreign currency translation adjustments	1	48	(49 )
Other comprehensive income (loss)	(19 )	64	(48 )
Total comprehensive income (loss)	14,119	5,154	(323 )
Comprehensive (income) attributable to noncontrolling interests	(3 )	(1 )	(1 )
Comprehensive income (loss) attributable to Micron	\$ 14,116	\$ 5,153	\$ (324 )

See accompanying notes to consolidated financial statements.

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## MICRON TECHNOLOGY, INC.

## CONSOLIDATED BALANCE SHEETS

(in millions except par value amounts)

As of	August 30, 2018	August 31, 2017
Assets		
Cash and equivalents	\$ 6,506	\$ 5,109
Short-term investments	296	319
Receivables	5,478	3,759
Inventories	3,595	3,123
Other current assets	164	147
Total current assets	16,039	12,457
Long-term marketable investments	473	617
Property, plant, and equipment	23,672	19,431
Intangible assets	331	387
Deferred tax assets	1,022	766
Goodwill	1,228	1,228
Other noncurrent assets	611	450
Total assets	\$ 43,376	\$ 35,336
Liabilities and equity		
Accounts payable and accrued expenses	\$ 4,611	\$ 3,664
Deferred income	284	408
Current debt	859	1,262
Total current liabilities	5,754	5,334
Long-term debt	3,777	9,872
Other noncurrent liabilities	581	639
Total liabilities	10,112	15,845
Commitments and contingencies		
Redeemable convertible notes	3	21
Redeemable noncontrolling interest	97	—
Micron shareholders' equity		
Common stock, \$0.10 par value, 3,000 shares authorized, 1,170 shares	117	112

issued and 1,161 outstanding (1,116 shares issued and 1,112 outstanding as of August 31, 2017)		
Additional capital	8,201	8,287
Retained earnings	24,395	10,260
Treasury stock, 9 shares held (4 shares as of August 31, 2017)	(429 )	(67 )
Accumulated other comprehensive income	10	29
Total Micron shareholders' equity	32,294	18,621
Noncontrolling interests in subsidiaries	870	849
Total equity	33,164	19,470
Total liabilities and equity	\$ 43,376	\$ 35,336

See accompanying notes to consolidated financial statements.

## MICRON TECHNOLOGY, INC.

## CONSOLIDATED STATEMENTS OF CHANGES IN EQUITY

(in millions)

	Micron Shareholders				Accumulated		Total	Noncontrolling	
	Common	Additional	Retained	Treasury	Other	Total	Micron	Interests	Total
	Stock	Capital	Earnings	Stock	Comprehensive	Micron	Shareholders'	in	Equity
	Number	Amount			Income	Equity	Subsidiaries		
	of				(Loss)				
	Shares								
Balance at September 3, 2015	1,084	\$ 108	\$ 7,474	\$ 5,588	\$(881)	\$ 13	\$ 12,302	\$ 937	\$ 13,239
Net income (loss)				(276)			(276)	1	(275)
Other comprehensive income (loss), net					(48)		(48)	—	(48)
Stock issued under stock plans	11	1	47				48		48
Stock-based compensation expense			191				191		191
Contributions from noncontrolling interests							—	37	37
Distributions to noncontrolling interests							—	(34)	(34)
Acquisitions of noncontrolling interests							—	(93)	(93)
Repurchase and retirement of stock	(1)	—	(10)	(13)			(23)		(23)
Repurchase of treasury stock					(125)		(125)		(125)
Settlement of capped calls			23		(23)		—		—
Reclassification of redeemable convertible notes, net			49				49		49
Conversion and repurchase of convertible notes			(38)				(38)		(38)
Balance at September 1, 2016	1,094	\$ 109	\$ 7,736	\$ 5,299	\$(1,029)	\$ (35)	\$ 12,080	\$ 848	\$ 12,928
Net income				5,089			5,089	1	5,090
Other comprehensive income (loss), net					64		64	—	64
Stock issued under stock plans	20	3	139				142		142
Stock-based compensation expense			217	(2)			215		215
Repurchase and retirement of stock	(2)	—	(13)	(22)			(35)		(35)

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Stock issued to Nanya for Inotera Acquisition	4	—	70	(104	)	1,029	995		995		
Settlement of capped calls			192			(67	)	125	125		
Reclassification of redeemable convertible notes, net			(21	)			(21	)	(21	)	
Conversion and repurchase of convertible notes			(33	)			(33	)	(33	)	
Balance at August 31, 2017	1,116	\$ 112	\$ 8,287	\$ 10,260	\$(67	)	\$ 29	\$ 18,621	\$ 849	\$ 19,470	
Net income				14,135				14,135	3	14,138	
Other comprehensive income (loss), net						(19	)	(19	)	—	
Stock issued in public offering	34	3	1,363					1,366		1,366	
Stock issued under stock plans	22	2	287					289		289	
Stock-based compensation expense			198					198		198	
Contributions from noncontrolling interests								—	18	18	
Repurchase and retirement of stock	(2	)	—	(71	)			(71	)	(71	)
Settlement of capped calls			429			(429	)	—		—	
Reclassification of redeemable convertible notes, net			18					18		18	
Conversion and repurchase of convertible notes			(2,310	)		67		(2,243	)	(2,243	)
Balance at August 30, 2018	1,170	\$ 117	\$ 8,201	\$ 24,395	\$(429	)	\$ 10	\$ 32,294	\$ 870	\$ 33,164	

See accompanying notes to consolidated financial statements.



MICRON TECHNOLOGY, INC.  
CONSOLIDATED STATEMENTS OF CASH FLOWS  
(in millions)

For the year ended	August 30, 2018	August 31, 2017	September 1, 2016
Cash flows from operating activities			
Net income (loss)	\$ 14,138	\$ 5,090	\$ (275 )
Adjustments to reconcile net income (loss) to net cash provided by operating activities			
Depreciation expense and amortization of intangible assets	4,759	3,861	2,980
Amortization of debt discount and other costs	101	125	126
Loss on debt prepayments, repurchases, and conversions	385	99	4
Stock-based compensation	198	215	191
Gain on remeasurement of previously-held equity interest in Inotera	—	(71 )	—
Change in operating assets and liabilities			
Receivables	(1,734 )	(1,651 )	465
Inventories	(472 )	50	(549 )
Accounts payable and accrued expenses	549	564	272
Payments attributed to intercompany balances with Inotera	—	(361 )	—
Deferred income taxes, net	(265 )	(22 )	(15 )
Other	(259 )	254	(31 )
Net cash provided by operating activities	17,400	8,153	3,168
Cash flows from investing activities			
Expenditures for property, plant, and equipment	(8,879 )	(4,734 )	(5,817 )
Purchases of available-for-sale securities	(760 )	(1,239 )	(1,026 )
Payments to settle hedging activities	(185 )	(274 )	(152 )
Acquisition of Inotera	—	(2,634 )	—
Proceeds from sales of available-for-sale securities	604	776	2,314
Proceeds from government incentives	355	21	16
Proceeds from maturities of available-for-sale securities	320	194	1,376
Proceeds from settlement of hedging activities	163	184	335
Other	166	169	(90 )
Net cash provided by (used for) investing activities	(8,216 )	(7,537 )	(3,044 )
Cash flows from financing activities			
Repayments of debt	(10,194 )	(2,558 )	(870 )
Payments on equipment purchase contracts	(206 )	(519 )	(46 )
Proceeds from issuance of stock	1,655	142	48
Proceeds from issuance of debt	1,009	3,311	2,199
Proceeds from equipment sale-leaseback transactions	—	—	765
Other	(40 )	(27 )	(351 )
Net cash provided by (used for) financing activities	(7,776 )	349	1,745
Effect of changes in currency exchange rates on cash, cash equivalents, and restricted cash	(37 )	(12 )	19
Net increase in cash, cash equivalents, and restricted cash	1,371	953	1,888

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Cash, cash equivalents, and restricted cash at beginning of period	5,216	4,263	2,375
Cash, cash equivalents, and restricted cash at end of period	\$ 6,587	\$ 5,216	\$ 4,263
Supplemental disclosures			
Income taxes paid, net	\$ (226 )	\$ (99 )	\$ (90 )
Interest paid, net of amounts capitalized	(312 )	(468 )	(267 )
Noncash investing and financing activity			
Equipment acquisitions on contracts payable and capital leases	84	813	993

See accompanying notes to consolidated financial statements.

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MICRON TECHNOLOGY, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(All tabular amounts in millions except per share amounts)

Significant Accounting Policies

**Basis of Presentation:** Micron Technology, Inc., including its consolidated subsidiaries, is an industry leader in innovative memory and storage solutions. Through our global brands – Micron, Crucial, and Ballistix – 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, and mobile. 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. 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 2018, 2017, and 2016 each contained 52 weeks. All period references are to our fiscal periods unless otherwise indicated.

**Derivative and Hedging Instruments:** We use derivative instruments to manage our exposure to changes in currency exchange rates from (1) our monetary assets and liabilities denominated in currencies other than the U.S. dollar and (2) forecasted cash flows for certain capital expenditures. Derivative instruments are measured at their fair values and recognized as either assets or liabilities. The accounting for changes in the fair value of derivative instruments is based on the intended use of the derivative and the resulting designation. For derivative instruments that are not designated for hedge accounting, gains or losses from changes in fair values are recognized in other non-operating income (expense).

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 Accounting Standards Update ("ASU") 2017-12, beginning in the second quarter of 2018, such amounts are included in the same line item in which the underlying transactions affect earnings.

For derivative forward contracts designated as fair value hedges, hedge effectiveness is determined by the change in the fair value of the undiscounted spot rate of the forward contract. The changes in fair values of hedge instruments attributed to changes in undiscounted spot rates are recognized in other non-operating income (expense). The time value associated with hedge instruments is excluded from the assessment of the effectiveness of hedges and is recognized on a straight-line basis over the life of hedges to other non-operating income (expense).

We enter into master netting arrangements with our counterparties to mitigate credit risk in derivative hedge transactions. These master netting arrangements allow us and our counterparties to net settle amounts owed to each other. Derivative assets and liabilities that can be net settled with each counterparty have been presented in our consolidated balance sheet on a net basis.

Financial Instruments: Cash equivalents include highly liquid short-term investments with original maturities to us of three months or less that are readily convertible to known amounts of cash. Other investments with remaining maturities of less than one year are included in short-term investments. Investments with remaining maturities greater than one year are included in long-term marketable investments. The carrying value of investment securities sold is determined using the specific identification method.

Functional Currency: The U.S. dollar is the functional currency for us and all of our consolidated subsidiaries.

Goodwill and Non-Amortizing Intangible Assets: We perform an annual impairment assessment for goodwill and non-amortizing intangible assets in the fourth quarter of our fiscal year.

**Government Incentives:** We receive incentives from governmental entities related to expenses, assets, and other activities. Our government incentives may require that we meet or maintain specified spending levels and other operational metrics and may be subject to reimbursement if such conditions are not met or maintained. Government incentives are recorded in the financial statements in accordance with their purpose: as a reduction of expenses, a reduction of asset costs, or other income. Incentives related to specific operating activities are offset against the related expense in the period the expense is incurred. Incentives related to the acquisition or construction of fixed assets are recognized as a reduction in the carrying amounts of the related assets and reduce depreciation expense over the useful lives of the assets. Other incentives are recognized as other operating income. Government incentives received prior to being earned are recognized in current or noncurrent deferred income, whereas government incentives earned prior to being received are recognized in current or noncurrent receivables. Cash received from government incentives related to operating expenses are included as an operating activity in the statement of cash flows, whereas cash received from incentives related to the acquisition of property, plant, and equipment are included as an investing activity.

**Inventories:** Inventories are stated at the lower of average cost or net realizable value. Cost includes depreciation, labor, material, and overhead costs, including product and process technology costs. Determining net realizable value of inventories involves numerous judgments, including projecting future average selling prices, sales volumes, and costs to complete products in work in process inventories. When net realizable value is below cost, we record a charge to cost of goods sold to write down inventories to their estimated net realizable value in advance of when inventories are actually sold. We review the major characteristics of product type and markets in determining the unit of account for which we perform the lower of average cost or net realizable value analysis and categorize inventories primarily as memory (including DRAM, NAND, and other memory). We remove amounts from inventory and charge such amounts to cost of goods sold on an average cost basis.

**Product and Process Technology:** Costs incurred to (1) acquire product and process technology, (2) patent technology, and (3) maintain patent technology, are capitalized and amortized on a straight-line basis over periods ranging up to 12.5 years. We capitalize a portion of the costs incurred to patent technology based on historical data of patents issued as a percent of patents we file. Capitalized product and process technology costs are amortized over the shorter of (1) the estimated useful life of the technology, (2) the patent term, or (3) the term of the technology agreement. Fully-amortized assets are removed from product and process technology and accumulated amortization.

**Product Warranty:** We generally provide a limited warranty that our products are in compliance with applicable specifications existing at the time of delivery. Under our standard terms and conditions of sale, liability for certain failures of product during a stated warranty period is usually limited to repair or replacement of defective items or return of, or a credit with respect to, amounts paid for such items. Under certain circumstances, we provide more extensive limited warranty coverage than that provided under our standard terms and conditions. Our warranty obligations are not material.

**Property, Plant, and Equipment:** Property, plant, and equipment is stated at cost and depreciated using the straight-line method over estimated useful lives of generally 10 to 30 years for buildings, 5 to 7 years for equipment, and 3 to 5 years for software. Assets held for sale are carried at the lower of cost or estimated fair value and are included in other noncurrent assets. When property, plant, or equipment is retired or otherwise disposed, the net book value is removed and we recognize any gain or loss in results of operations.

We capitalize interest on borrowings during the period of time we carry out the activities necessary to bring assets to the condition of their intended use and location. Capitalized interest becomes part of the cost of assets.

We periodically assess the estimated useful lives of our property, plant, and equipment. In the fourth quarter of 2016, we revised the estimated useful lives of equipment in our DRAM wafer fabrication facilities from five to seven years

as a result of the lengthening period of time between DRAM product technology node transitions, an increased re-use rate of equipment, and industry trends. The effect of the revision reduced depreciation expense at the time by approximately \$100 million per quarter.

**Research and Development:** Costs related to the conceptual formulation and design of products and processes are charged to R&D expense as incurred. Development of a product is deemed complete when it is qualified through reviews and tests for performance and reliability. Subsequent to product qualification, product costs are included in cost of goods sold. Product design and other R&D costs for certain technologies may be shared with a development partner. Amounts receivable from cost-sharing arrangements are reflected as a reduction of R&D expense.

**Revenue Recognition:** We recognize product or license revenue when persuasive evidence that a sales arrangement exists, delivery has occurred, the price is fixed or determinable, and collectibility is reasonably assured, which is generally at the time

of shipment to our customers. If we are unable to reasonably estimate returns or the price is not fixed or determinable, sales made under agreements allowing rights of return or price protection are deferred until customers have resold the product.

**Stock-based Compensation:** Stock-based compensation is measured at the grant date, based on the fair value of the award, and recognized as expense under the straight-line attribution method over the requisite service period. We account for forfeitures as they occur. We issue new shares upon the exercise of stock options or conversion of share units.

**Treasury Stock:** Treasury stock is carried at cost. When we retire our treasury stock, any excess of the repurchase price paid over par value is allocated between additional capital and retained earnings.

**Use of Estimates:** The preparation of financial statements and related disclosures in conformity with accounting principles generally accepted in the United States of America requires our management to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues, expenses, and related disclosures. Estimates and judgments are based on historical experience, forecasted events, and various other assumptions that we believe to be reasonable under the circumstances. Estimates and judgments may differ under different assumptions or conditions. We evaluate our estimates and judgments on an ongoing basis. Actual results could differ from estimates.

#### 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 \$63 million and \$63 million, respectively, as of August 30, 2018 and \$80 million and \$76 million, respectively, as of August 31, 2017.

#### 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. (See "Equity – Noncontrolling Interests in Subsidiaries – IMFT" note.)

#### Recently Issued Accounting Standards

In October 2016, the Financial Accounting Standards Board ("FASB") issued ASU 2016-16 – Intra-Entity Transfers Other Than Inventory, 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. This ASU will be effective for us in the first quarter of 2019 and requires modified retrospective adoption. We do not anticipate the adoption of this ASU will have a material impact to 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 expected 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 the 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.

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. This ASU will be effective for us in the first quarter of 2019 and requires modified retrospective adoption, with prospective adoption for amendments related to equity securities without readily determinable fair values. Our assets and liabilities subject to this standard are not material.

In May 2014, the FASB issued ASU 2014-09 – Revenue from Contracts with Customers, which supersedes nearly all existing revenue recognition guidance under generally accepted accounting principles in the United States. The core principal of this ASU, as amended, 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. This ASU 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. This ASU is effective for us in the first quarter of 2019 and we expect to elect the modified retrospective adoption method.

As a result of the adoption of this ASU, we will recognize revenue from sales of products to our distributors (which generally have agreements allowing rights of return or price protection) at the time control transfers to our distributors, which is generally earlier than recognizing revenue only upon resale by our distributors under existing revenue recognition guidance. Revenue recognized upon resale by our distributors under these arrangements was 19%, 20%, and 25% of our consolidated revenue for the 2018, 2017, and 2016, respectively. As of August 30, 2018, deferred income related to our distributor sales was \$232 million. Upon adoption of this ASU, amounts deferred related to our sales to distributors, net of estimated price adjustments, will be recognized as an increase to retained earnings, net of taxes. We will also reclassify certain allowances from accounts receivable to accounts payable and accrued expenses in connection with new presentation requirements of this ASU. The tax effects of the adoption of this ASU will be recorded primarily as a reduction of net deferred tax assets.

Acquisition of Inotera

Through December 6, 2016, we held a 33% ownership interest in Inotera, now known as MTTW, Nanya and certain of its affiliates held a 32% ownership interest, and the remaining ownership interest was publicly held. On December 6, 2016, we acquired the 67% remaining interest in Inotera not owned by us (the "Inotera Acquisition") and began consolidating Inotera's operating results. The cash paid for the Inotera Acquisition was funded, in part, with proceeds from the 2021 MSTW Term Loan and the sale of the Micron Shares (as defined below) to Nanya. Inotera manufactures DRAM products at its 300mm wafer fabrication facility in Taoyuan City, Taiwan, and previously sold such products exclusively to us through supply agreements. SG&A expenses for 2017 and 2016 included transaction costs of \$13 million and \$3 million, respectively, incurred in connection with the Inotera Acquisition.

In connection with the Inotera Acquisition, we revalued our previously-held 33% equity interest to its fair value. In determining the fair value, we used various valuation techniques, including the share price of Inotera prior to the announcement of the Inotera Acquisition and discounted cash flow projections using inputs including discount rate and terminal growth rate (Level 3). As a result, we recognized a non-operating gain of \$71 million in 2017.

In connection with the Inotera Acquisition, we sold 58 million shares of our common stock to Nanya (the "Micron Shares") and received cash proceeds of \$986 million. Because the sale of the Micron Shares to Nanya was contemporaneous with, and contingent upon, the closing of the Inotera Acquisition, the issuance of the Micron Shares was treated in purchase accounting as a non-cash exchange for a portion of the shares of Inotera held by Nanya. The Micron Shares were issued in a transaction exempt from the registration requirements of the Securities Act of 1933, as amended, and were subject to certain restrictions on transfers at the time of sale. To reflect the lack of transferability, the fair value of the Micron Shares (based on the trading price of our common stock on the acquisition date) was reduced by a discount of \$81 million, based on the implied volatility derived from traded options on our stock and on the duration of the lack of transferability (Level 2).

The allocation of purchase price to assets acquired and liabilities assumed of Inotera was as follows:

Consideration	
Cash paid for Inotera Acquisition	\$4,099
Less cash received from sale of Micron Shares	(986 )
Net cash paid for Inotera Acquisition	3,113
Fair value of our previously-held equity interest in Inotera	1,441
Fair value of Micron Shares exchanged for Inotera shares	995
Other	3
Payments attributed to intercompany balances with Inotera	(361 )
	\$5,191
Assets acquired and liabilities assumed	
Cash and equivalents	\$118
Inventories	285
Other current assets	27
Property, plant, and equipment	3,722
Deferred tax assets	82
Goodwill	1,124
Other noncurrent assets	130
Accounts payable and accrued expenses	(232 )
Debt	(56 )
Other noncurrent liabilities	(9 )
	\$5,191

The Inotera Acquisition enhances our flexibility to drive new technology, optimize the deployment of capital, and adapt our product offerings to changes in market conditions. As a result of these synergies, we allocated goodwill of \$829 million, \$198 million, and \$97 million to CNBU, MBU, and EBU, respectively. Goodwill resulting from the Inotera Acquisition is not deductible for Taiwan corporate income tax purposes; however, it is deductible for Taiwan surtax purposes.

## Unaudited Pro Forma Financial Information

The following unaudited pro forma financial information presents the combined results of operations as if the Inotera Acquisition had occurred on September 4, 2015. The pro forma financial information includes the accounting effects of the business combination, including adjustments for depreciation of property, plant, and equipment, interest expense, elimination of intercompany activities, and revaluation of inventories. The unaudited pro forma financial information below is not necessarily indicative of either future results of operations or results that might have been achieved had the Inotera Acquisition occurred on September 4, 2015.

	Year ended	
	August 31, 2017	September 1, 2016
Net sales	\$20,317	\$ 12,341
Net income (loss)	5,172	(543 )
Net income (loss) attributable to Micron	5,171	(544 )
Earnings (loss) per share		
Basic	4.68	(0.50 )
Diluted	4.42	(0.50 )

The unaudited pro forma financial information for 2017 includes our results for the year ended August 31, 2017 (which includes the results of Inotera since our acquisition of Inotera on December 6, 2016), the results of Inotera for the three months ended November 30, 2016, and the adjustments described above. The pro forma information for 2016 includes our results for the year ended September 1, 2016, the results of Inotera for the twelve months ended August 31, 2016, and the adjustments described above.

## Technology Transfer and License Agreements with Nanya

Effective December 6, 2016, the terms of technology transfer and license agreements provided Nanya with options to require us to transfer to Nanya certain technology for Nanya's use and deliverables related to the next DRAM process node generation after our 20nm process node (the "1X Process Node") and the next DRAM process node generation after the 1X Process Node (the "1Y Process Node"). Nanya's option for the 1X Process Node expired unexercised. If Nanya exercises its right for the 1Y Process Node, Nanya would pay us royalties for a license to the transferred 1Y Process Node technology based on revenues from products utilizing the technology, subject to specified caps, and we would also receive an equity interest in Nanya upon the achievement of certain milestones.

## 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	2018				2017			
	Cash and Equivalents	Short-term Investments	Long-term Marketable Investments	Total Fair Value	Cash and Equivalents	Short-term Investments	Long-term Marketable Investments	Total Fair Value
Cash	\$3,223	\$ —	\$ —	\$3,223	\$2,237	\$ —	\$ —	\$2,237
Level 1 <sup>(2)</sup>								
Money market funds	2,443	—	—	2,443	2,332	—	—	2,332
Level 2 <sup>(3)</sup>								
Corporate bonds	3	172	272	447	—	193	315	508
Certificates of deposit	806	11	2	819	483	24	3	510
Government securities	5	63	103	171	1	90	126	217
Asset-backed securities	—	34	96	130	—	2	173	175
Commercial paper	26	16	—	42	56	10	—	66
	6,506	\$ 296	\$ 473	\$7,275	5,109	\$ 319	\$ 617	\$6,045
Restricted cash <sup>(4)</sup>	81				107			
Cash, cash equivalents, and restricted cash	\$6,587				\$5,216			

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

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

(3) observable market data, or various other methodologies, to determine the appropriate value at the measurement date. We perform supplemental analysis to validate information obtained from these pricing services. No adjustments were made to the fair values indicated by such pricing information as of August 30, 2018 or August 31, 2017.

Restricted cash is included in other noncurrent assets and included 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.

(4) Restricted cash as of August 31, 2017 also included interest reserve balances related to our 2021 MSTW Term Loan, which were released in 2018 in connection with our prepayment of the 2021 MSTW Term Loan. (See "Debt" note.)

Gross realized gains and losses from sales of available-for-sale securities were not material for any period presented. As of August 30, 2018, there were no available-for-sale securities that had been in a loss position for longer than 12 months.

## Receivables

As of	2018	2017
Trade receivables	\$5,056	\$3,490
Income and other taxes	161	100
Other	261	169
	\$5,478	\$3,759



## Inventories

As of	2018	2017
Finished goods	\$815	\$856
Work in process	2,357	1,968
Raw materials and supplies	423	299
	\$3,595	\$3,123

## Property, Plant, and Equipment

As of	2018	2017
Land	\$ 345	\$ 345
Buildings (includes \$483 and \$475, respectively, under capital leases)	8,680	7,958
Equipment <sup>(1)</sup> (includes \$1,336 and \$1,331, respectively, under capital leases)	38,249	32,187
Construction in progress <sup>(2)</sup>	1,162	499
Software	655	544
	49,091	41,533
Accumulated depreciation (includes \$868 and \$626, respectively, under capital leases)	(25,419 )	(22,102 )
	\$ 23,672	\$ 19,431

(1) Included costs related to equipment not placed into service of \$1.73 billion and \$994 million, as of August 30, 2018 and August 31, 2017, respectively.

(2) Included building-related construction and tool installation costs for assets not placed into service.

Depreciation expense was \$4.66 billion, \$3.76 billion, and \$2.86 billion for 2018, 2017, and 2016, respectively. As of August 30, 2018, production equipment, buildings, and land with an aggregate carrying value of \$2.33 billion were pledged as collateral under various notes payable. Interest capitalized as part of the cost of property, plant, and equipment was \$44 million, \$7 million, and \$43 million for 2018, 2017, and 2016, respectively.

## Equity Method Investments

Equity in net income (loss) of equity method investees, net of tax, included the following:

For the year ended	2018	2017	2016
Inotera	\$—	\$ 9	\$32
Tera Probe	—	(3 )	(11 )
Other	(1 )	2	4

\$(1) \$ 8 \$25

#### Inotera

We held a 33% interest in Inotera, a Taiwan DRAM memory company, through December 6, 2016, at which time we acquired the remaining 67% interest in Inotera. From January 2013 through December 2015, we purchased all of Inotera's DRAM output under supply agreements at prices reflecting discounts from market prices for our comparable components. After December 2015 and until our acquisition of the remaining interest in Inotera, the price for DRAM products purchased by us was based on a formula that equally shared margin between Inotera and us. Under these agreements, we purchased \$504 million and \$1.43 billion of DRAM products in 2017 through the date of our acquisition and 2016, respectively. In 2016, we manufactured and sold specialized equipment to Inotera and recognized net sales of \$55 million and margin of \$16 million.

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## Tera Probe

In 2017, we sold our 40% interest in Tera Probe, which provided semiconductor wafer testing and probe services to us, in a transaction that included the sale of our assembly and test facility located in Akita, Japan. In 2017 and 2016, we recorded impairment charges of \$16 million and \$25 million, respectively, within equity in net income (loss) of equity method investees to write down the carrying value of our investment in Tera Probe to its fair value based on its trading price (Level 1). We incurred manufacturing costs for services performed by Tera Probe of \$47 million and \$70 million in 2017 through the date of sale and 2016, respectively.

## Intangible Assets and Goodwill

As of	2018		2017	
	Gross Amount	Accumulated Amortization	Gross Amount	Accumulated Amortization
Amortizing assets				
Product and process technology	\$567	\$ (344 )	\$756	\$ (477 )
Non-amortizing assets				
In-process R&D	108	—	108	—
Total intangible assets	\$675	\$ (344 )	\$864	\$ (477 )
Goodwill	\$1,228		\$1,228	

In 2018, 2017, and 2016, we capitalized \$48 million, \$29 million, and \$30 million, respectively, for product and process technology with weighted-average useful lives of 10 years, 11 years, and 10 years, respectively. Expected amortization expense is \$55 million for 2019, \$38 million for 2020, \$33 million for 2021, \$23 million for 2022, and \$17 million for 2023.

In 2016, we acquired Tidal Systems, Ltd., a developer of PCIe NAND Flash storage controllers, to enhance our NAND Flash controller technology for \$148 million. In connection therewith, we recognized \$108 million of in-process R&D; \$81 million of goodwill, which was derived from expected cost reductions and other synergies and was assigned to SBU; and \$41 million of deferred tax liabilities; which, in aggregate, represented substantially all of the purchase price. The in-process R&D was valued using a replacement cost approach, which included inputs of reproduction cost, including developer's profit, and opportunity cost. We expect to begin amortizing the in-process R&D in 2019 and will amortize it over its estimated useful life. The goodwill is not deductible for tax purposes.

## Accounts Payable and Accrued Expenses

As of	2018	2017
Accounts payable	\$1,692	\$1,333
Property, plant, and equipment payables	1,238	1,018
Salaries, wages, and benefits	841	603
Income and other taxes	402	163
Customer advances	207	197
Other	231	350
	\$4,611	\$3,664



Debt

As of	2018			Net Carrying Amount				2017				Net Carrying Amount			
	Instrument	Stated Rate	Effective Rate	Principal	Current	Long-Term	Total <sup>(1)</sup>	Principal	Current	Long-Term	Total <sup>(1)</sup>				
IMFT Member Debt	N/A	N/A		\$ 1,009	\$—	\$ 1,009	\$ 1,009	\$—	\$—	\$ —	\$—				
Capital lease obligations	N/A	3.86 %		845	310	535	845	1,190	357	833	1,190				
MMJ Creditor Payments	N/A	9.76 %		520	309	183	492	695	\$ 157	474	631				
2022 Term Loan B	3.83 %	4.24 %		735	5	720	725	743	5	725	730				
2025 Notes	5.50 %	5.56 %		519	—	515	515	519	—	515	515				
2032D Notes <sup>(2)</sup>	3.13 %	6.33 %		143	—	132	132	177	—	159	159				
2033F Notes <sup>(2)(3)</sup>	2.13 %	4.93 %		107	235	—	235	297	278	—	278				
2043G Notes <sup>(2)(4)</sup>	3.00 %	6.76 %		1,019	—	682	682	1,025	—	671	671				
2021 MSAC Term Loan	4.42 %	4.65 %		—	—	—	—	800	99	697	796				
2021 MSTW Term Loan	2.85 %	3.01 %		—	—	—	—	2,652	—	2,640	2,640				
2023 Notes	5.25 %	5.43 %		—	—	—	—	1,000	—	991	991				
2023 Secured Notes	7.50 %	7.69 %		—	—	—	—	1,250	—	1,238	1,238				
2024 Notes	5.25 %	5.38 %		—	—	—	—	550	—	546	546				
2026 Notes	5.63 %	5.73 %		—	—	—	—	129	—	128	128				
2032C Notes	2.38 %	5.95 %		—	—	—	—	223	—	211	211				
2033E Notes	1.63 %	1.63 %		—	—	—	—	173	202	—	202				
Other notes	2.50 %	2.50 %		1	—	1	1	216	164	44	208				
				\$ 4,898	\$ 859	\$ 3,777	\$ 4,636	\$ 11,639	\$ 1,262	\$ 9,872	\$ 11,134				

Net carrying amount is the principal amount less unamortized debt discount and issuance costs. In addition, the net carrying amount as of August 30, 2018 and August 31, 2017 included \$132 million and \$31 million, respectively, of derivative debt liabilities recognized as a result of our election to settle entirely in cash converted notes with an aggregate principal amount of \$35 million and \$16 million, respectively.

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 June 30, 2018, these notes are convertible by the holders through the calendar quarter ended September 30, 2018. Additionally, the closing price of our common stock also exceeded the thresholds for the calendar quarter ended September 30, 2018; therefore, these notes are convertible by the holders at any time through December 31, 2018.

Current debt as of August 30, 2018 included an aggregate of \$165 million for the settlement obligation (including principal and amounts in excess of principal) for conversions of our 2033F Notes that will settle in cash in the first quarter of 2019. The remainder of the 2033F Notes were classified as current as of August 30, 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.

The 2043G Notes outstanding as of August 30, 2018 have an original principal amount of \$815 million that accretes up to \$911 million through the expected term in November 2028 and \$1.02 billion at maturity in 2043.

Our convertible and other senior notes are unsecured obligations that rank equally in right of payment with all of our other existing and future unsecured indebtedness, and are effectively subordinated to all of our other existing and future secured indebtedness, to the extent of the value of the assets securing such indebtedness. As of August 30, 2018, Micron had \$1.56 billion of unsecured debt (net of unamortized discount and debt issuance costs), including all of its convertible notes and the 2025 Notes, that was structurally subordinated to all liabilities of its subsidiaries,

including trade payables. The terms of our indebtedness generally contain cross payment default and cross acceleration provisions. Micron guarantees certain debt obligations of its subsidiaries, but does not guarantee the MMJ Creditor Payments. Micron's guarantees of its subsidiary debt

obligations are unsecured obligations ranking equally in right of payment with all of Micron's other existing and future unsecured indebtedness.

#### IMFT Member Debt

In 2018, Intel provided debt financing ("IMFT Member Debt") of \$1.01 billion to IMFT pursuant to the terms of the IMFT joint venture agreement. IMFT Member Debt is non-interest bearing, matures upon the completion of an auction and sale of assets of IMFT prior to the dissolution, liquidation, or other wind-up of IMFT, and is convertible, at the election of Intel, in whole or in part, into a capital contribution to IMFT. Additionally, to the extent IMFT distributes cash to its members under the terms of the IMFT joint venture agreement, Intel may, at its option, designate any portion of the distribution to be a repayment of the IMFT Member Debt. In the event Intel exercises its right to put its interest in IMFT to us, or if we exercise our right to call from Intel its interest in IMFT, any IMFT Member Debt outstanding at the time of the closing of the put or call transaction will transfer to Micron. (See "Equity – Noncontrolling Interest in Subsidiaries – IMFT" note.)

#### Capital Lease Obligations

In 2018, we recorded capital lease obligations aggregating \$20 million at a weighted-average effective interest rate of 4.6%, with a weighted-average expected term of five years. In 2017, we recorded capital lease obligations aggregating \$220 million.

#### MMJ Creditor Payments

Under the MMJ Companies' corporate reorganization proceedings, which set forth the treatment of the MMJ Companies' pre-petition creditors and their claims, the MMJ Companies were required to pay 200 billion yen, less certain expenses of the reorganization proceedings and other items, to their secured and unsecured creditors in seven annual installment payments (the "MMJ Creditor Payments"). The MMJ Creditor Payments do not provide for interest and, as a result of our acquisition of the MMJ Companies in 2013, we recorded the MMJ Creditor Payments at fair value. The fair-value discount is accreted to interest expense over the term of the installment payments.

Under the MMJ Companies' corporate reorganization proceedings, the secured creditors of MMJ will recover 100% of the amount of their fixed claims in six annual installment payments through October 2018 and the unsecured creditors will recover at least 17.4% of the amount of their fixed claims in seven annual installment payments through December 2019. The remaining portion of the unsecured claims of the creditors of MMJ not recovered pursuant to the corporate reorganization proceedings will be discharged, without payment, through December 2019. The following table presents the remaining amounts of MMJ Creditor Payments (stated in Japanese yen and U.S. dollars) and the amount of unamortized discount as of August 30, 2018:

2019	¥36,392	\$326
2020	21,720	194
	58,112	520
Less unamortized discount	(3,186 )	(28 )
	¥54,926	\$492

Pursuant to the terms of an Agreement on Support for Reorganization Companies that we executed in 2012 with the trustees of the MMJ Companies' pending corporate reorganization proceedings, we entered into a series of agreements with the MMJ Companies, including supply agreements, research and development services agreements, and general services agreements, which are intended to generate operating cash flows to meet the requirements of the MMJ Companies' businesses, including the funding of the MMJ Creditor Payments.

2022 Senior Secured Term Loan B

In April 2016, we issued \$750 million in principal amount of 2022 Term Loan B notes due April 2022. The 2022 Term Loan B provides for periodic repricing of the interest rates and, as of August 30, 2018, the 2022 Term Loan B generally bears interest at LIBOR plus 1.75%. We may elect to convert outstanding term loan interest to other variable-rate indexes. Principal payments are due quarterly in an amount equal to 0.25% of the initial aggregate principal amount with the balance due at maturity and may be prepaid without penalty. Interest is payable at least quarterly.

The 2022 Term Loan B is collateralized by substantially all of the assets of Micron and MSP, a subsidiary of Micron, subject to certain permitted liens on such assets. Included in our consolidated balance sheet as of August 30, 2018 were \$8.32 billion of assets which collateralize these notes. The 2022 Term Loan B is structurally subordinated to the indebtedness and other liabilities of all of Micron's subsidiaries that do not guarantee these debt obligations and is guaranteed by MSP.

The 2022 Term Loan B contains covenants that, among other things, limit, in certain circumstances, the ability of Micron and/or its domestic restricted subsidiaries to (1) create or incur certain liens and enter into sale-leaseback financing transactions; (2) in the case of domestic restricted subsidiaries, create, assume, incur, or guarantee additional indebtedness; and (3) in the case of Micron, consolidate or merge with or into, or sell, assign, convey, transfer, lease, or otherwise dispose of all or substantially all of its assets to another entity. These covenants are subject to a number of limitations, exceptions, and qualifications.

#### 2025 Notes

The 2025 unsecured notes contain covenants that, among other things, limit, in certain circumstances, our ability and/or the ability of our domestic restricted subsidiaries (which are generally subsidiaries in the U.S. in which we own at least 80% of the voting stock) to (1) create or incur certain liens and enter into sale and lease-back transactions, (2) create, assume, incur, or guarantee certain additional secured indebtedness and unsecured indebtedness of our domestic restricted subsidiaries, and (3) consolidate with or merge with or into, or convey, transfer or lease all or substantially all of our assets, to another entity. These covenants are subject to a number of limitations, exceptions, and qualifications.

**Cash Redemption at Our Option:** Prior to August 1, 2019, we may redeem the 2025 Notes, in whole or in part, at a price equal to the principal amount of the 2025 Notes to be redeemed plus a make-whole premium as described in the indenture governing the 2025 Notes, together with accrued and unpaid interest. On or after August 1, 2019, we may redeem the 2025 Notes, in whole or in part, at prices above the principal amount that decline over time, as specified in the indenture, together with accrued and unpaid interest.

#### Convertible Senior Notes

	Holder Put Date <sup>(1)</sup>	Maturity Date	Conversion Price Per Share	Conversion Price Per Share Threshold <sup>(2)</sup>	Underlying Shares of Common Stock	Conversion Value in Excess of Principal <sup>(3)</sup>	Principal Settlement Option <sup>(4)</sup>
2032D Notes	May 2021	May 2032	\$ 9.98	\$ 12.97	14	\$ 615	Cash and/or shares
2033F Notes <sup>(5)</sup>	Feb 2020	Feb 2033	10.93	14.21	10	408	Cash
2043G Notes	Nov 2028	Nov 2043	29.16	37.91	35	824	Cash and/or shares
					59	\$ 1,847	

(1) Debt discount and debt issuance costs are amortized through the earliest holder put date.

Represents 130% of the conversion price per share. If the trading price of our common stock exceeds such

(2) threshold for a specified period, holders may convert such notes during a specified period. See "Conversion Rights" below.

(3) Based on the trading price of our common stock of \$52.76 as of August 30, 2018.

(4) It is our current intent to settle in cash the principal amount of our convertible notes upon conversion. As a result, only the amounts payable in excess of the principal amounts upon conversion of our convertible notes are considered in diluted earnings per share under the treasury stock method. For each of our convertible notes, we may elect to settle any amounts in excess of the principal in cash, shares of our common stock, or a combination

thereof.

(5) Holders may put their notes to us on February 15, 2023.

Conversion Rights: Holders of our convertible notes may convert their notes under the following circumstances: (1) if the notes are called for redemption; (2) during any calendar quarter if the closing price of our common stock for at least 20 trading days in the 30 consecutive trading days ending on the last trading day of the preceding calendar quarter is more than 130% of the conversion price (see "Conversion Price Per Share Threshold" in the table above); (3) if the trading price of the notes is less than 98% of the product of the closing price of our common stock and the conversion rate of the notes during the periods specified in the indentures; (4) if specified distributions or corporate events occur, as set forth in the indenture for the notes; or (5) during the last three months prior to the maturity date of the notes. For the calendar quarter ended September 30, 2018, the closing price of our common stock exceeded 130% of the conversion price for each series of our convertible notes; therefore, those notes are convertible by the holders through December 31, 2018.



In August 2018, holders of our 2033F Notes with an aggregate principal amount of \$35 million converted their notes, which were settled in cash the first quarter of 2019. As a result of our election to settle all amounts due upon conversion in cash for these notes, such settlement obligations became derivative debt liabilities in 2018 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 dates of our elections to settle the conversions in cash, we reclassified the fair values of the equity components of each of the converted notes from additional capital to derivative debt liabilities within current debt in our consolidated balance sheet. The net carrying amount for 2018 included \$132 million for the fair values of the derivative debt liabilities as of August 30, 2018. The 20 consecutive trading day period ended in the first quarter of 2019, and we settled the conversion for \$153 million in cash.

**Cash Redemption at Our Option:** We may redeem our convertible notes under the circumstances listed in the table below. The redemption price for the notes will equal the principal amount at maturity, or the accreted principal amount in the case of the 2043G Notes redeemed on or after November 20, 2018, plus accrued and unpaid interest.

	Conditional Redemption Period at Our Option <sup>(1)</sup>	Unconditional Redemption Period at Our Option	Redemption Period Requiring Make-Whole
2032D Notes	On or after May 1, 2017	On or after May 4, 2021	Prior to May 4, 2021 <sup>(2)</sup>
2033F Notes	N/A	On or after Feb 20, 2020	N/A
2043G Notes	Prior to Nov 20, 2018	On or after Nov 20, 2018	Prior to Nov 20, 2018 <sup>(3)</sup>

We may redeem for cash on or after the applicable dates if the volume weighted average price of our common stock has been at least 130% of the conversion price for at least 20 trading days during any 30 consecutive trading day period.

(2) If we redeem prior to the applicable date, we will pay a make-whole premium in cash equal to the present value of the remaining scheduled interest payments from the redemption date to May 4, 2021.

(3) If we redeem prior to the applicable date, we will be required to pay a make-whole premium only if, as a result of our redemption notice, holders convert their notes. The make-whole premium will be based on the price of our common stock and the conversion date, as set forth in the indenture, and is payable at our election in cash and/or shares.

**Cash Repurchase at the Option of the Holders:** We may be required by the holders of our convertible notes to repurchase for cash all or a portion of the notes on the "Holder Put Date" listed in the table above. The repurchase price would equal the principal amount, or the accreted principal amount in the case of the 2043G Notes, plus accrued and unpaid interest. Also, upon a change in control or a termination of trading, as defined in the respective indentures, holders of our convertible notes may require us to repurchase for cash all or a portion of their notes.

**Other:** Interest expense for our convertible notes consisted of contractual interest of \$44 million, \$51 million, and \$51 million for 2018, 2017, and 2016, respectively, and amortization of discount and issuance costs of \$32 million, \$37 million, and \$36 million for 2018, 2017, and 2016, respectively. As of August 30, 2018 and August 31, 2017, the carrying amounts of the equity components of our convertible notes, which are included in additional capital in the accompanying consolidated balance sheets, were \$208 million and \$287 million, respectively.

#### Available Revolving Credit Facility

On August 9, 2018, we terminated our undrawn revolving credit facility scheduled to expire in February 2020, under which we were able draw up to the lesser of \$750 million or 80% of the net outstanding balance of certain trade receivables.

On July 3, 2018, we entered into a revolving credit facility that expires in July 2023, under which we can draw up to \$2.00 billion. Borrowings under the facility will generally bear interest, at a rate equal to LIBOR plus 1.25% to

2.00%, depending on our corporate credit ratings or leverage ratio. Any amounts drawn are collateralized by substantially all of the assets of Micron and MSP, a subsidiary of Micron, subject to certain permitted liens. Additionally, any amounts drawn are pari passu with the 2022 Term Loan B and are structurally subordinated to the indebtedness and other liabilities of all of Micron's subsidiaries that do not guarantee these debt obligations, and is guaranteed by MSP. As of August 30, 2018, there were no outstanding amounts drawn under this facility. We may suspend the security interest in the collateral under the facility upon achieving specified credit ratings and repayment of the 2022 Term Loan B; however, the security interest will be automatically reinstated upon a decline in our corporate credit rating.

Under the terms of the revolving credit agreement, we must maintain a ratio calculated as of the last day of each fiscal quarter of total indebtedness to adjusted EBITDA not to exceed 2.75 to 1.00. We must also maintain a ratio of adjusted EBITDA to net interest expense of not less than 3.50 to 1.00. The facility contains other covenants that, among other things,

limit, in certain circumstances, our ability and/or the ability of our restricted subsidiaries to (1) create or incur certain liens and enter into sale and lease-back transactions, (2) create, assume, incur, or guarantee certain additional secured indebtedness and unsecured indebtedness of our restricted subsidiaries, and (3) consolidate with or merge with or into, or convey, transfer, lease, or otherwise dispose of all or substantially all of our assets, to another entity. These covenants are subject to a number of limitations, exceptions, and qualifications.

#### Debt Prepayments, Repurchases, and Conversions

During 2018, we prepaid, repurchased, and settled conversions of debt with an aggregate principal amount of \$6.96 billion. 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 prepayments, repurchases, and conversions of debt in 2018:

	Decrease in Principal	Increase (Decrease) in Carrying Value	Decrease in Cash	Decrease in Equity	Gain (Loss)
Prepayments and repurchases					
2021 MSAC Term Loan	\$(730 )	\$(727 )	\$(730 )	\$—	\$(3 )
2021 MSTW Term Loan	(2,625 )	(2,616 )	(2,625 )	—	(10 )
2023 Notes	(1,000 )	(991 )	(1,046 )	—	(55 )
2023 Secured Notes	(1,250 )	(1,238 )	(1,373 )	—	(135 )
2024 Notes	(550 )	(546 )	(572 )	—	(25 )
2026 Notes	(129 )	(129 )	(139 )	—	(11 )
2033F Notes	(66 )	(63 )	(316 )	(252 )	(1 )
Other Notes	(46 )	(44 )	(46 )	—	(2 )
Settled conversions					
2032C Notes	(223 )	(216 )	(1,230 )	(965 )	(50 )
2032D Notes	(34 )	(31 )	(182 )	(145 )	(6 )
2033E Notes <sup>(1)</sup>	(173 )	(203 )	(552 )	(297 )	(52 )
2033F Notes	(124 )	(118 )	(596 )	(462 )	(16 )
2043G Notes	(6 )	(4 )	(13 )	(5 )	(4 )
Conversions not settled					
2033F Notes <sup>(2)</sup>	—	132	—	(117 )	(15 )
	\$(6,956 )	\$(6,794 )	\$(9,420 )	\$(2,243 )	\$(385 )

<sup>(1)</sup> Settlement included issuance of 4 million shares of our treasury stock in addition to payment of cash.

As of August 30, 2018, an aggregate of \$35 million principal amount of our 2033F Notes (with a carrying value of

<sup>(2)</sup> \$165 million) had converted but not settled. These notes settled in the first quarter of 2019 for \$153 million in cash.

In 2017, we repurchased \$631 million of principal amount of our 2025 Notes (carrying value of \$625 million), repurchased \$321 million of principal amount of our 2026 Notes (carrying value of \$318 million), and redeemed \$600 million principal amount of our 2022 Notes (carrying value of \$592 million) for an aggregate of \$1.63 billion in cash. In connection with the transactions, we recognized aggregate non-operating losses of \$94 million in 2017.

In 2016, we repurchased \$57 million of principal amount of our 2033E Notes (carrying value of \$54 million) for \$94 million in cash. The liability and equity components of the repurchased notes had previously been stated separately within debt and equity in our consolidated balance sheet. As a result, the repurchase decreased the carrying value of debt by \$54 million and equity by \$38 million.

### Maturities of Notes Payable and Future Minimum Lease Payments

As of August 30, 2018, maturities of notes payable (including the MMJ Creditor Payments) and future minimum lease payments under capital lease obligations were as follows:

	Notes Payable	Capital Lease Obligations
2019	\$501	\$ 339
2020	274	231
2021	151	100
2022	713	66
2023	—	42
2024 and thereafter	2,439	187
Unamortized discounts and interest, respectively	(287 )	(120 )
	\$3,791	\$ 845

### Commitments

As of August 30, 2018, we had commitments of approximately \$1.8 billion for the acquisition of property, plant, and equipment. We lease certain facilities and equipment under operating leases, for which expense was \$63 million, \$52 million, and \$46 million for 2018, 2017, and 2016, respectively. Minimum future operating lease commitments as of August 30, 2018 were as follows:

2019	\$37
2020	43
2021	50
2022	50
2023	45
2024 and thereafter	391
	\$616

### 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, MSP, 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,

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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 June 24, 2016, the President and Fellows of Harvard University filed a patent infringement action against Micron in the U.S. District Court for the District of Massachusetts. The complaint alleged that a variety of our DRAM products infringed two U.S. patents and sought damages, injunctive relief, and other unspecified relief. On March 1, 2018, we executed a settlement agreement resolving this litigation. The settlement amount did not have a material effect on our business, results of operations, or financial condition.

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 net sales.

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 August 30, 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 among 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.

#### Redeemable Convertible Notes

Under the terms of the indentures governing our 2033 Notes, upon conversion, we would be required to pay cash equal to the lesser of (1) the aggregate principal amount or (2) the conversion value of the notes being converted. To the extent the conversion value exceeds the principal amount, we could pay cash, shares of common stock, or a combination thereof, at our option, for the amount of such excess. The closing price of our common stock met the threshold for conversion and our 2033 Notes were convertible by their holders as of August 30, 2018 and August 31, 2017. As a result, the balance of these notes was classified as current debt and the difference between the principal amount and the carrying value was classified as redeemable convertible notes in the accompanying consolidated balance sheet.

#### Redeemable Noncontrolling Interest

Redeemable noncontrolling interest reflects 100,000 preferred shares authorized and issued by Micron Semiconductor Asia Operations Pte. Ltd., a subsidiary of Micron, in August 2018 for proceeds, net of issuance related costs, of \$97 million, which are redeemable by the holders after August 29, 2028. The preferred shareholders are entitled to a cumulative fixed dividend of 7.75% per annum, which is reflected in net income attributable to noncontrolling interests, and a liquidation preference senior to the entity's common shares. We have the right to reacquire the preferred shares during the period beginning August 31, 2020 through August 29, 2026.

#### Equity

##### Micron Shareholders' Equity

**Common Stock Repurchase Authorization:** 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, derivative transactions, and/or pursuant to a Rule 10b5-1 trading plan, 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.

**Accelerated Share Repurchase:** On August 10, 2018, we entered into an accelerated share repurchase ("ASR") agreement with a financial institution to purchase \$1.00 billion of our common stock under our common stock repurchase authorization. The number of shares purchased will be calculated by dividing \$1.00 billion by a volume-weighted average price of our common stock from September 5, 2018 through as late as November 29, 2018 (the "Measurement Period"), subject to an agreed-upon discount. On September 5, 2018, we paid \$1.00 billion to the financial institution and received an initial installment of 14 million shares, equal to \$750 million divided by the closing price of our common stock on September 4, 2018. Based on the final number of shares purchased at the end of the Measurement Period, we will either receive an incremental number of shares, or settle any amount owed to the

financial institution in either cash or shares, at our option. In the first quarter of 2019, we recorded the initial shares as treasury stock. The second installment is treated as an equity-linked contract indexed to our stock and therefore qualifies for equity accounting.

Other Repurchases: From August 31, 2018 through October 12, 2018, we repurchased an aggregate of 15 million shares of our common stock for an aggregate of \$653 million under a Rule 10b5-1 plan and through open market repurchases.

Common Stock Issuance: In October 2017, we issued 34 million shares of our common stock for \$41.00 per share in a public offering, for net proceeds of \$1.36 billion, net of underwriting fees and other offering costs.

**Treasury Stock:** In connection with the Inotera Acquisition, we sold 58 million shares of our common stock to Nanya for \$986 million in cash, of which 54 million shares were issued from treasury stock. As a result, in 2017, treasury stock decreased by \$1.03 billion while retained earnings decreased by \$104 million for the difference between the carrying value of the treasury stock and its \$925 million fair value.

**Outstanding Capped Calls:** In connection with our 2033F Notes, we entered into the 2033F Capped Calls, which cover, subject to anti-dilution adjustments similar to those contained in the 2033F Notes, 27 million shares of common stock and are intended to reduce the effect of potential dilution. The 2033F Capped Calls have an initial strike price of \$10.93, subject to certain adjustments, which equals the conversion price of the 2033 Notes, a cap price of \$14.51, and provide for our receipt of cash or shares, at our election, from our counterparties if the trading price of our stock is above the strike prices on the expiration dates. The 2033F Capped Calls expire on various dates between January 2020 and February 2020. As of August 30, 2018, the dollar value of cash or shares that we would receive from our 2033F Capped Calls upon their expiration dates range from \$0, if the trading price of our stock is below the strike prices at expiration, to \$98 million, if the trading price of our stock is at or above the cap prices. Settlement of the capped calls prior to the expiration dates may be for an amount less than the maximum value at expiration.

**Expiration of Capped Calls:** In 2018, we share-settled certain capped calls upon their expirations, and received 9 million shares, equal to a value of \$429 million. In 2017, we cash-settled and share-settled certain capped calls upon their expirations, and received \$125 million in cash and 4 million shares, equal to a value of \$67 million and in 2016, we share-settled certain capped calls upon their expirations and received 2 million shares of our stock, equal to a value of \$23 million. The amounts received upon settlement were based on volume-weighted-average trading prices of our stock at the expiration dates. The shares received in all periods were recorded as treasury stock.

**Accumulated Other Comprehensive Income:** Changes in accumulated other comprehensive by component for the year ended August 30, 2018 were as follows:

	Cumulative Gains Foreign Currency Translation Adjustments	Gains (Losses) on Derivative Instruments	Pension Liability Adjustments	Unrealized Gains (Losses) on Investments	Total
As of August 31, 2017	\$ (1 )	\$ 17	\$ 13	\$ —	\$29
Other comprehensive income	1	(17 )	(3 )	(3 )	(22 )
Amount reclassified out of accumulated other comprehensive income	—	(1 )	(1 )	—	(2 )
Tax effects	—	3	1	1	5
Other comprehensive income	1	(15 )	(3 )	(2 )	(19 )
As of August 30, 2018	\$ —	\$ 2	\$ 10	\$ (2 )	\$10

#### Noncontrolling Interests in Subsidiaries

As of	2018		2017	
	Balance	Percentage	Balance	Percentage
IMFT	\$853	49 %	\$832	49 %
Other	17	Various	17	Various
	\$870		\$849	



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 \$507 million, \$438 million, and \$457 million for 2018, 2017, and 2016, respectively.

The IMFT joint venture agreement extends through 2024 and includes certain buy-sell rights. At any time through December 2018, Intel can put to us, and from January 2019 through December 2021, we can call 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 put right, 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. If we exercise our call right, Intel can elect to set the closing date of the transaction to be any time between six months and one year following such election. Following the closing date resulting from exercise of either the put or the call, we will continue to supply to Intel for a period of one year between 50% and 100%, at Intel's choice, of Intel's immediately preceding six-month period pre-closing volumes of IMFT products for the first six-month period following the closing and between 0% and 100%, at Intel's choice, of Intel's first six-month period following the closing volumes of IMFT products for the second six-month period following the closing, at a margin that varies depending on whether the put or call was exercised.

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:

As of	2018	2017
Assets		
Cash and equivalents	\$91	\$87
Receivables	126	81
Inventories	114	128
Other current assets	8	7
Total current assets	339	303
Property, plant, and equipment	2,641	1,852
Other noncurrent assets	45	49
Total assets	\$3,025	\$2,204

## Liabilities

Accounts payable and accrued expenses	\$138	\$299
Deferred income	9	6
Current debt	20	19
Total current liabilities	167	324
Long-term debt	1,064	75
Other noncurrent liabilities	74	88
Total liabilities	\$1,305	\$487

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

In 2016, IMFT distributed \$36 million and \$34 million to us and Intel, respectively, and we and Intel contributed \$38 million and \$37 million, respectively, to IMFT.

## Fair Value Measurements

All of our marketable debt and equity investments were classified as available-for-sale and carried at fair value. Amounts reported as cash and equivalents, receivables, and accounts payable and accrued expenses approximate fair value. The estimated fair value and carrying value of our outstanding debt instruments (excluding the carrying value of equity and mezzanine equity components of our convertible notes) were as follows:

As of	2018		2017	
	Fair Value	Carrying Value	Fair Value	Carrying Value
Convertible notes	\$3,124	\$1,049	\$3,901	\$1,521
Notes and MMJ Creditor Payments	2,798	2,742	8,793	8,423

The fair values of our convertible notes were determined based on Level 2 inputs, including the trading price of our convertible notes when available, our stock price, and interest rates based on similar debt issued by parties with credit ratings similar to ours. The fair values of our other debt instruments were estimated based on Level 2 inputs, including discounted cash flows, the trading price of our notes, when available, and interest rates based on similar debt issued by parties with credit ratings similar to ours.



## Derivative Instruments

	Gross Notional Amount <sup>(1)</sup>	Fair Value of Current Assets <sup>(2)</sup>	Fair Value of Current Liabilities <sup>(3)</sup>	Noncurrent Assets <sup>(4)</sup>
As of August 30, 2018				
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>(5)</sup>		—	(167 )	—
		14	(177 )	—
		\$14	\$ (190 )	\$ —
As of August 31, 2017				
Derivative instruments with hedge accounting designation				
Cash flow currency hedges	\$ 456	\$17	\$ —	\$ —
Derivative instruments without hedge accounting designation				
Non-designated currency hedges	4,847	34	(5 )	1
Convertible notes settlement obligation <sup>(5)</sup>		—	(47 )	—
		34	(52 )	1
		\$51	\$ (52 )	\$ 1

(1) Notional amounts of currency hedge contracts in U.S. dollars.

(2) Included in receivables – other.

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

(4) Included in other noncurrent assets.

(5) Notional amounts of convertible notes settlement obligations as of August 30, 2018 and August 31, 2017 were 3 million and 2 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 \$17 million and gains of \$15 million and \$10 million for 2018, 2017, and 2016, 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 2018,

2017, or 2016. 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.

**Fair Value Hedges:** We utilize fair value hedges for our exposure from changes in currency exchange rates for certain monetary assets and liabilities. For derivative forward contracts designated as fair value hedges, hedge effectiveness is determined by the change in the fair value of the undiscounted spot rate of the forward contract. The changes in fair values of hedge instruments attributed to changes in undiscounted spot rates are recognized in other non-operating income (expense). The time value associated with hedge instruments is excluded from the assessment of the effectiveness of hedges and is recognized on a straight-line basis over the life of hedges to other non-operating income (expense). Amounts recorded to other comprehensive income (loss) for 2018 were not material. The effects of fair value hedges on our consolidated statements of operations were as follows:

	Other Non-Operating Income (Expense)
For the year ended	2018
Gain (loss) on remeasurement of hedged assets and liabilities	\$ (25 )
Gain (loss) on derivatives designated as hedging instruments	25
Amortization of amounts excluded from hedge effectiveness	(32 )
	\$ (32 )

#### Derivative Instruments without Hedge Accounting Designation

**Currency Derivatives:** Except for certain assets and liabilities hedged using fair value hedges, we generally utilize a rolling hedge strategy with currency forward contracts that mature within nine 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 \$38 million and \$45 million, and gains of \$185 million for 2018, 2017, and 2016, respectively.

**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 losses of \$124 million for 2018 in other non-operating income (expense), net for the changes in fair value of the derivative settlement obligations. Recognized gains and losses for 2017 and 2016 were not material.

#### Derivative Counterparty Credit Risk and Master Netting Arrangements

Our derivative instruments expose us to credit risk to the extent counterparties may be unable to meet the terms of the contracts. Our maximum exposure to loss due to credit risk if counterparties fail completely to perform according to the terms of the contracts would generally equal the fair value of assets for these contracts as listed in the tables above. We seek to mitigate such risk by limiting our counterparties to major financial institutions and by spreading

risk across multiple financial institutions. As of August 30, 2018 and August 31, 2017, amounts netted under our master netting arrangements were not material.

#### Equity Plans

As of August 30, 2018, 125 million shares of our common stock were available for future awards under our equity plans, including 33 million shares approved for issuance under our employee stock purchase plan ("ESPP").

## Stock Options

Our stock options are generally exercisable in increments of either one-fourth or one-third per year beginning one year from the date of grant. Stock options issued after February 2014 expire eight years from the date of grant. Options issued prior to February 2014 expire six years from the date of grant. Option activity for 2018 is summarized as follows:

	Number of Shares	Weighted-Average Exercise Price Per Share	Weighted-Average Remaining Contractual Life (In Years)	Aggregate Intrinsic Value
Outstanding as of August 31, 2017	33	\$ 19.32		
Granted	2	43.30		
Exercised	(16 )	17.82		
Canceled or expired	(1 )	22.67		
Outstanding as of August 30, 2018	18	23.38	4.8	\$ 527
Exercisable as of August 30, 2018	8	\$ 21.66	3.2	\$ 233
Unvested as of August 30, 2018	10	24.61	6.0	294

The total intrinsic value was \$446 million, \$198 million, and \$52 million for options exercised in 2018, 2017, and 2016, respectively.

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

For the year ended	2018	2017	2016
Stock options granted	2	8	8
Weighted-average grant-date fair value per share	\$18.65	\$8.68	\$6.94
Average expected life in years	5.5	5.5	5.5
Weighted-average expected volatility	44	% 46	% 47
Weighted-average risk-free interest rate	2.2	% 1.8	% 1.7
Expected dividend yield	0.0	% 0.0	% 0.0

Stock price volatility was based on an average of historical volatility and the implied volatility derived from traded options on our stock. The expected lives of options granted were based, in part, on historical experience and on the terms and conditions of the options. The risk-free interest rates utilized were based on the U.S. Treasury yield in effect at each grant date.

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

As of August 30, 2018, there were 15 million shares of Restricted Stock Awards outstanding, of which 13 million contained only service conditions. For service-based Restricted Stock Awards, restrictions generally lapse in one-fourth or one-third increments during each year of employment after the grant date. Restrictions lapse on Restricted Stock granted in 2018 with performance or market conditions over a three year period if conditions are met. At the end of the performance period, the number of actual shares to be awarded will vary between 0% and 200% of target amounts, depending upon the achievement level. Restricted Stock Awards activity for 2018 is summarized as follows:

Number of Shares	Weighted-Average Grant Date Fair Value Per Share
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Outstanding as of August 31, 2017	19	\$	19.78
Granted	4		42.48
Restrictions lapsed	(6 )		21.70
Canceled	(2 )		21.93
Outstanding as of August 30, 2018	15		25.18

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For the year ended	2018	2017	2016
Restricted stock award shares granted	4	8	10
Weighted-average grant-date fair value per share	\$42.48	\$18.77	\$15.40
Aggregate vesting-date fair value of shares vested	\$259	\$115	\$71

#### Employee Stock Purchase Plan

Our ESPP permits eligible employees to purchase shares of our common stock through payroll deductions of up to 10% of their eligible compensation, subject to certain limitations. The purchase price of the shares under the ESPP equals 85% of the lower of the fair market value of our common stock on either the first or last day of each six-month offering period. Our ESPP was offered to substantially all employees beginning in August 2018. Compensation expense is calculated as of the beginning of the offering period as the fair value of the employees' purchase rights utilizing the Black-Scholes option valuation model and is recognized over the offering period. Assumptions used in the Black-Scholes option valuation model for the offering period beginning August 1, 2018 were as follows:

Weighted-average grant-date fair value per share	\$14.55		
Average expected life in years	0.5		
Weighted-average expected volatility	43	%	
Weighted-average risk-free interest rate	2.2	%	
Expected dividend yield	0.0	%	

#### Stock-based Compensation Expense

For the year ended	2018	2017	2016
Stock-based compensation expense by caption			
Cost of goods sold	\$83	\$88	\$76
Selling, general, and administrative	61	75	66
Research and development	54	52	49
	\$198	\$215	\$191

#### Stock-based compensation expense by type of award

Stock options	\$55	\$71	\$79
Restricted stock awards	140	144	112
ESPP	3	—	—
	\$198	\$215	\$191

The income tax benefit related to share-based compensation was \$158 million, \$97 million and \$41 million for 2018, 2017 and 2016, respectively. The income tax benefits related to share-based compensation for the periods presented prior to the second quarter of 2018 were offset by an increase in the U.S. valuation allowance. Stock-based compensation expense of \$19 million and \$20 million was capitalized and remained in inventory as of August 30, 2018 and August 31, 2017, respectively. As of August 30, 2018, \$316 million of total unrecognized compensation costs for unvested awards, before the effect of any future forfeitures, was expected to be recognized through the fourth quarter of 2022, resulting in a weighted-average period of 1.3 years.

## Employee Benefit Plans

We have employee retirement plans at our U.S. and international sites. Details of the more significant plans are discussed as follows:

### Employee Savings Plan for U.S. Employees

We have a 401(k) retirement plan under which U.S. employees may contribute up to 75% of their eligible pay (subject to Internal Revenue Service ("IRS") annual contribution limits) to various savings alternatives, none of which include direct investment in our stock. We match in cash eligible contributions from employees up to 5% of the employee's annual eligible earnings. Contribution expense for the 401(k) plan was \$61 million, \$52 million, and \$54 million in 2018, 2017, and 2016, respectively.

### Retirement Plans

We have pension plans in various countries available to local employees which are generally government mandated. As of August 30, 2018, the projected benefit obligations of our plans were \$190 million and plan assets were \$171 million. As of August 31, 2017, the projected benefit obligations of our plans were \$175 million and plan assets were \$150 million. Pension expense was not material for 2018, 2017, or 2016.

## Research and Development

We share the cost of certain product and process development activities with development partners. Our R&D expenses were reduced by reimbursements under these arrangements by \$201 million, \$213 million, and \$205 million for 2018, 2017, and 2016, respectively.

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

For the year ended	2018	2017	2016
(Gain) loss on disposition of property, plant, and equipment	\$(96)	\$(22)	\$(4)
Restructure and asset impairments	28	18	67
Other	11	5	(2)
	\$(57)	\$1	\$61

Restructure and asset impairments in 2018 primarily consisted of costs incurred as a result of our continued emphasis to centralize certain key functions. In 2017, we recognized gains of \$15 million related to our sale of assembly and test facility located in Akita, Japan and our 40% ownership interest in Tera Probe; assets associated with our 200mm



fabrication facility in Singapore; and assets related to Lexar and also expect to recognize an additional gain of approximately \$100 million in 2019 upon the completion of the sale of the Singapore facility. We also incurred charges of \$33 million and \$58 million in 2017 and 2016, respectively, related to the elimination of certain projects and programs, workforce reductions in certain areas of our business, and other non-headcount related spending reductions.

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

For the year ended	2018	2017	2016
Loss on debt prepayments, repurchases, and conversions	\$(385)	\$(100)	\$(4 )
Loss from changes in currency exchange rates	(75 )	(74 )	(24 )
Gain on remeasurement of previously-held equity interest in Inotera	—	71	—
Other	(5 )	(9 )	(26 )
	\$(465)	\$(112)	\$(54)

In 2016, we recognized other non-operating expense of \$30 million to write off indemnification receivables upon the resolution of uncertain tax positions.

## Income Taxes

On December 22, 2017, the United States enacted tax legislation commonly referred to as the Tax Cuts and Jobs Act (the "Tax Act") which lowered the U.S. corporate income tax rate from 35% to 21% and significantly affects how income from foreign operations is taxed in the United States. Our U.S. statutory federal rate was 25.7% for 2018 (based on the 35% corporate rate through December 31, 2017 and 21% from that date through the end of fiscal year 2018) and will be 21% beginning in 2019. The Tax Act imposed a one-time transition tax in 2018 on accumulated foreign income (the "Repatriation Tax"); provided a U.S. federal tax exemption on foreign earnings distributed to the United States after January 1, 2018; and beginning in 2019, created a new minimum tax on certain foreign earnings in excess of a deemed return on tangible assets (the "Foreign Minimum Tax"). The Tax Act allows us to elect to pay any Repatriation Tax due in eight annual, interest-free payments in increasing amounts beginning in December 2018. In connection with the provisions of the Tax Act, we made an accounting policy election to treat the Foreign Minimum Tax provision as a period cost in the period the tax is incurred.

SEC Staff Accounting Bulletin No. 118 ("SAB 118") allows the use of provisional amounts (reasonable estimates) if our analyses of the impacts of the Tax Act have not been completed when our financial statements are issued. The provisional amounts below for 2018 represent reasonable estimates of the effects of the Tax Act for which our analysis is not yet complete. As we complete our analysis of the Tax Act, including collecting, preparing, and analyzing necessary information, performing and refining calculations, and obtaining additional guidance from the IRS, U.S. Treasury Department, FASB, or other standard setting and regulatory bodies on the Tax Act, we may record adjustments to the provisional amounts, which may be material. In accordance with SAB 118, our accounting for the tax effects of the Tax Act will be completed during the measurement period, which should not extend beyond one year from the enactment date. At August 30, 2018, there were no provisions for which we were unable to record a reasonable estimate of the impact.

Our income tax (provision) benefit consisted of the following:

For the year ended	2018	2017	2016
Income (loss) before income taxes, net income (loss) attributable to noncontrolling interests, and equity in net income (loss) of equity method investees			
U.S.	\$141	\$(56 )	\$72
Foreign	14,166	5,252	(353 )
	\$14,307	\$5,196	\$(281)
<b>Income tax (provision) benefit</b>			
<b>Current</b>			
U.S. federal	\$(54 )	\$—	\$—
State	1	(1 )	(1 )
Foreign	(374 )	(152 )	(27 )
	(427 )	(153 )	(28 )
<b>Deferred</b>			
U.S. federal	232	—	39
State	101	—	2
Foreign	(74 )	39	(32 )
	259	\$39	9
<b>Income tax (provision) benefit</b>	<b>\$(168 )</b>	<b>\$(114 )</b>	<b>\$(19 )</b>

The table below reconciles our tax (provision) benefit based on the U.S. federal statutory rate to our effective rate:

For the year ended	2018		2017		2016	
U.S. federal income tax (provision) benefit at statutory rate	\$(3,677)	25.7 %	\$(1,819)	35.0 %	\$98	35.0 %
Foreign tax rate differential	2,572	(18.0)%	1,571	(30.2)%	(300)	(106.8)%
Repatriation Tax related to the Tax Act	(1,049 )	7.3 %	—	— %	—	— %
Remeasurement of deferred tax assets and liabilities related to the Tax Act	(179 )	1.3 %	—	— %	—	— %
Change in valuation allowance	2,079	(14.5)%	64	(1.2 )%	63	22.4 %
Change in unrecognized tax benefits	60	(0.4 )%	12	(0.2 )%	52	18.5 %
Tax credits	90	(0.6 )%	66	(1.3 )%	48	17.1 %
Other	(64 )	0.4 %	(8 )	0.1 %	20	7.0 %
<b>Income tax (provision) benefit</b>	<b>\$(168 )</b>	<b>1.2 %</b>	<b>\$(114 )</b>	<b>2.2 %</b>	<b>\$(19)</b>	<b>(6.8 )%</b>

Provisional estimates for 2018 in the table above included \$1.34 billion of benefit for the release of the valuation allowance on the net deferred tax assets of our U.S. operations and \$1.03 billion of provision for the Repatriation Tax, net of adjustments related to uncertain tax positions.

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 \$1.96 billion (benefiting our diluted earnings per share by \$1.59) for 2018, by \$742 million (\$0.64 per diluted share) for 2017, and were not material in 2016.

Provision has been recognized for deferred taxes on undistributed earnings of non-U.S. subsidiaries to the extent that dividend payments from such companies are expected to result in additional tax liabilities. As a result of the Repatriation Tax, substantially all of our accumulated foreign earnings prior to December 31, 2017 were subject to

U.S. federal taxation. Although these earnings have been subject to U.S. federal income tax under the Repatriation Tax, the repatriation to the United States of all or a portion of these earnings would potentially be subject to foreign withholding and state income tax. As of August 30, 2018, we had a deferred tax liability of \$82 million associated with our undistributed earnings. As of August 30,

2018, certain non-U.S. subsidiaries had cumulative undistributed earnings of \$2.35 billion that were deemed to be indefinitely reinvested. Determination of the amount of unrecognized deferred tax liabilities related to investments in these foreign subsidiaries is not practicable.

Deferred income taxes reflect the net tax effects of temporary differences between the bases of assets and liabilities for financial reporting and income tax purposes as well as carryforwards. Deferred tax assets and liabilities consist of the following:

As of	2018	2017
Deferred tax assets		
Net operating loss and tax credit carryforwards	\$1,417	\$3,426
Accrued salaries, wages, and benefits	163	211
Other accrued liabilities	35	59
Other	80	86
Gross deferred tax assets	1,695	3,782
Less valuation allowance	(228 )	(2,321 )
Deferred tax assets, net of valuation allowance	1,467	1,461
Deferred tax liabilities		
Debt discount	(77 )	(145 )
Property, plant, and equipment	(173 )	(300 )
Unremitted earnings on certain subsidiaries	(82 )	(123 )
Product and process technology	(62 )	(85 )
Other	(54 )	(59 )
Deferred tax liabilities	(448 )	(712 )
Net deferred tax assets	\$1,019	\$749
Reported as		
Deferred tax assets	\$1,022	\$766
Deferred tax liabilities (included in other noncurrent liabilities)	(3 )	(17 )
Net deferred tax assets	\$1,019	\$749

We assess positive and negative evidence for each jurisdiction to determine whether it is more likely than not that existing deferred tax assets will be realized. As of August 30, 2018 and August 31, 2017, we had a valuation allowance of \$28 million and \$1.52 billion, respectively, against U.S. net deferred tax assets, primarily related to net operating loss and tax credit carryforwards. Income taxes on U.S. operations for 2017 and 2016 were substantially offset by changes in the valuation allowance. We had valuation allowances against net deferred tax assets, primarily related to net operating loss carryforwards, for our subsidiaries in Japan and for our other foreign subsidiaries, of \$192 million and \$8 million, respectively, as of August 30, 2018, and \$627 million and \$172 million, respectively, as of August 31, 2017. Changes in 2018 in the valuation allowance were due to the provisional estimate for the release of the valuation allowance in the U.S. as a result of the Tax Act, adjustments based on management's assessment of foreign net operating losses that are more likely than not to be realized, and changes in foreign currency. As a result of internal restructuring during the year, we have concluded that the possibility of utilizing certain of our net operating loss carryovers are now remote. As such, we have removed \$119 million of deferred tax assets that were previously fully reserved with a valuation allowance.



As of August 30, 2018, our federal, state, and foreign net operating loss carryforward amounts and expiration periods, as reported to tax authorities, were as follows:

Year of Expiration	U.S. Federal	State	Japan	Taiwan	Other Foreign	Total
2019 - 2023	\$ —	\$28	\$1,782	\$711	\$ 2	\$2,523
2024 - 2028	—	136	536	3	—	675
2029 - 2033	—	407	—	—	—	407
2034 - 2038	10	84	—	—	—	94
Indefinite	—	1	—	622	38	661
	\$ 10	\$656	\$2,318	\$1,336	\$ 40	\$4,360

As of August 30, 2018, our federal and state tax credit carryforward amounts and expiration periods, as reported to tax authorities, were as follows:

Year of Tax Credit Expiration	U.S. Federal	State	Total
2019 - 2023	\$ 122	\$63	\$185
2024 - 2028	44	46	90
2029 - 2033	69	90	159
2034 - 2038	275	3	278
Indefinite	—	62	62
	\$ 510	\$264	\$774

Below is a reconciliation of the beginning and ending amount of our unrecognized tax benefits:

For the year ended	2018	2017	2016
Beginning unrecognized tax benefits	\$327	\$304	\$351
Increases due to the Inotera Acquisition	—	54	—
Increases related to tax positions taken in current year	68	15	5
Foreign currency translation increases (decreases) to tax positions	—	2	—
Settlements with tax authorities	(8 )	(47 )	(47 )
Expiration of statute of limitations	—	(1 )	(5 )
Decreases related to tax positions from prior years	(126 )	—	—
Ending unrecognized tax benefits	\$261	\$327	\$304

The changes in uncertain tax positions in 2018 are primarily related to the Tax Act and transfer pricing. In connection with the Inotera Acquisition in 2017, we assumed \$54 million of uncertain tax positions. The decreases to unrecognized tax benefits in 2017 and 2016 from settlements with tax authorities were primarily related to the favorable resolution of certain tax matters.

As of August 30, 2018, we had \$256 million of unrecognized tax benefits that would, if recognized, affect our effective tax rate. The amount accrued for interest and penalties related to uncertain tax positions was not material for any period presented. The resolution of tax audits or expiration of statute of limitations could also reduce our unrecognized tax benefits. Although the timing of final resolution is uncertain, the estimated potential reduction in our unrecognized tax benefits in the next 12 months would not be material.

We and our subsidiaries file income tax returns with the U.S. federal government, various U.S. states, and various foreign jurisdictions throughout the world. Our U.S. federal and state tax returns remain open to examination for 2014 through 2018. In addition, tax returns that remain open to examination in Japan range from the years 2012 to 2018 and in Singapore and Taiwan from 2013 to 2018. We believe that adequate amounts of taxes and related interest and

penalties have been provided, and any adjustments as a result of examinations are not expected to materially adversely affect our business, results of operations, or financial condition.



## Earnings Per Share

For the year ended	2018	2017	2016
Net income (loss) attributable to Micron – Basic and Diluted	\$ 14,135	\$ 5,089	\$(276 )
Weighted-average common shares outstanding – Basic	1,152	1,089	1,036
Dilutive effect of equity plans and convertible notes	77	65	—
Weighted-average common shares outstanding – Diluted	1,229	1,154	1,036
Earnings (loss) per share			
Basic	\$ 12.27	\$ 4.67	\$(0.27)
Diluted	11.51	4.41	(0.27 )

Listed below are the potential common shares, as of the end of the periods shown, that could dilute basic earnings per share in the future that were not included in the computation of diluted earnings per share because to do so would have been antidilutive:

For the year ended	2018	2017	2016
Equity plans	3	21	60
Convertible notes	—	26	119

## Segment 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 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, 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. As of August 30, 2018 and August 31, 2017, CNBU, MBU, SBU, and EBU had goodwill of \$832 million, \$198 million, \$101 million, and \$97 million, respectively.

For the year ended	2018	2017	2016
Net sales			
CNBU	\$15,252	\$8,624	\$4,529
MBU	6,579	4,424	2,569
SBU	5,022	4,514	3,262
EBU	3,479	2,695	1,939
All Other	59	65	100
	\$30,391	\$20,322	\$12,399
Operating income (loss)			
CNBU	\$9,773	\$3,755	\$(25 )
MBU	3,033	927	97
SBU	964	552	(123 )
EBU	1,473	975	473
All Other	—	23	28
	\$15,243	\$6,232	\$450
Unallocated			
Stock-based compensation	\$(198 )	\$(215 )	\$(191 )
Restructure and asset impairments	(28 )	(18 )	(67 )
Flow-through of Inotera inventory step up	—	(107 )	—
Other	(23 )	(24 )	(24 )
	\$(249 )	\$(364 )	\$(282 )
Operating income	\$14,994	\$5,868	\$168

Depreciation and amortization expense included in operating income was as follows:

For the year ended	2018	2017	2016
CNBU	\$1,755	\$1,344	\$1,141
MBU	1,077	926	580
SBU	1,295	1,083	844
EBU	603	484	379
All Other	18	13	20
Unallocated	11	11	16
	\$4,759	\$3,861	\$2,980

#### Product Sales

For the year ended	2018	2017	2016
DRAM	\$21,232	\$12,963	\$7,207
Trade NAND	7,843	6,228	4,138
Non-Trade	554	553	501
Other	762	578	553
	\$30,391	\$20,322	\$12,399

Non-Trade consists primarily of NAND and 3D XPoint memory products manufactured and sold to Intel through IMFT under a long-term supply agreement at prices approximating cost. Information regarding products that combine

both NAND and DRAM components is reported within Trade NAND. Other includes sales of NOR and trade 3D XPoint memory products.

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### Certain Concentrations

Markets with concentrations of net sales were approximately as follows:

For the year ended	2018	2017	2016
Compute and graphics	25 %	20 %	20 %
Server	25 %	15 %	10 %
Mobile	20 %	20 %	20 %
SSDs and other storage	15 %	20 %	20 %
Automotive, industrial, medical, and other embedded	10 %	15 %	15 %

Sales to Kingston Technology Company, Inc. ("Kingston"), as a percentage of total net sales, were 10% for 2018 and 2017. Sales to Intel, including Non-Trade sales through IMFT, as a percentage of total net sales, were 14% for 2016 and no other customer exceeded 10% of our total net sales. Our sales to Kingston were included in our CNBU, SBU, and MBU segments and substantially all of our sales to Intel were included in our SBU and CNBU segments.

We generally have multiple sources of supply for our raw materials and production equipment; however, only a limited number of suppliers are capable of delivering certain raw materials and production equipment that meet our standards and, in some cases, materials or production equipment are provided by a single supplier.

Financial instruments that potentially subject us to concentrations of credit risk consist principally of cash, money market accounts, certificates of deposit, fixed-rate debt securities, trade receivables, share repurchase, capped call, and derivative contracts. We invest through high-credit-quality financial institutions and, by policy, generally limit the concentration of credit exposure by restricting investments with any single obligor and monitoring credit risk of bank counterparties on an ongoing basis. A concentration of credit risk may exist with respect to receivables of certain customers. We perform ongoing credit evaluations of customers worldwide and generally do not require collateral from our customers. Historically, we have not experienced material losses on receivables. A concentration of risk may also exist with respect to our foreign currency hedges as the number of counterparties to our hedges is limited and the notional amounts are relatively large. We seek to mitigate such risk by limiting our counterparties to major financial institutions and through entering into master netting arrangements. Share repurchase and capped call agreements expose us to credit risk to the extent the counterparties may be unable to meet the terms of the agreements. We seek to mitigate such risk by limiting our counterparties to major financial institutions and by spreading the risk across several major financial institutions. In addition, the potential risk of loss with any one counterparty resulting from this type of credit risk is monitored on an ongoing basis.

### Geographic Information

Geographic net sales based on customer ship-to location were as follows:

For the year ended	2018	2017	2016
China	\$17,357	\$10,388	\$5,301
United States	3,624	2,763	1,925
Taiwan	2,798	2,544	1,521
Other Asia Pacific	2,559	1,808	1,610
Europe	2,128	1,360	937
Japan	1,254	1,025	831
Other	671	434	274

\$30,391 \$20,322 \$12,399

Net property, plant, and equipment by geographic area was as follows:

As of	2018	2017
Taiwan	\$7,640	\$6,519
Singapore	6,933	5,261
United States	5,113	4,253
Japan	3,451	2,827
China	398	453
Other	137	118
	\$23,672	\$19,431

#### Quarterly Financial Information (Unaudited)

(in millions except per share amounts)

2018	Fourth Quarter	Third Quarter	Second Quarter	First Quarter
Net sales	\$ 8,440	\$ 7,797	\$ 7,351	\$ 6,803
Gross margin	5,151	4,723	4,270	3,747
Operating income	4,377	3,953	3,567	3,097
Net income	4,326	3,823	3,311	2,678
Net income attributable to Micron	4,325	3,823	3,309	2,678

#### Earnings per share

Basic	\$ 3.73	\$ 3.30	\$ 2.86	\$ 2.36
Diluted	3.56	3.10	2.67	2.19

2017	Fourth Quarter	Third Quarter	Second Quarter	First Quarter
Net sales	\$ 6,138	\$ 5,566	\$ 4,648	\$ 3,970
Gross margin	3,112	2,609	1,704	1,011
Operating income	2,502	1,963	1,044	359
Net income	2,369	1,647	894	180
Net income attributable to Micron	2,368	1,647	894	180

#### Earnings per share

Basic	\$ 2.13	\$ 1.49	\$ 0.81	\$ 0.17
Diluted	1.99	1.40	0.77	0.16

Report of Independent Registered Public Accounting Firm

To the Shareholders and Board of Directors of Micron Technology, Inc.:

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of Micron Technology, Inc. and its subsidiaries as of August 30, 2018 and August 31, 2017, and the related consolidated statements of operations, comprehensive income (loss), changes in equity and cash flows for each of the three years in the period ended August 30, 2018, including the related notes and schedule of valuation and qualifying accounts for each of the three years in the period ended August 30, 2018 appearing under Item 15(a)(2) (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of August 30, 2018, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of August 30, 2018 and August 31, 2017, and the results of their operations and their cash flows for each of the three years in the period ended August 30, 2018 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of August 30, 2018, based on criteria established in Internal Control - Integrated Framework (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) ("PCAOB") and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

### Definition and Limitations of Internal Control over Financial Reporting

A company's internal control over financial reporting is a process designed 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. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.



Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ PricewaterhouseCoopers LLP

San Jose, California  
October 15, 2018

We have served as the Company's auditor since 1984.

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## ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND FINANCIAL DISCLOSURE

None.

## ITEM 9A. 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 fourth quarter of 2018, 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.

### Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with accounting principles generally accepted in the United States of America. Our internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that in reasonable detail accurately reflect the transactions and dispositions of our assets; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that our receipts and expenditures are being made only in accordance with authorizations of our management and directors; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of our assets that could have a material effect on our financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions or that the degree of compliance with the policies or procedures may deteriorate.

Management conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in Internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on this evaluation, management concluded that our internal control over financial reporting was effective as of August 30, 2018. The effectiveness of our internal control over financial reporting as of August 30, 2018 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report, which is included in Part II, Item 8, of this Form 10-K.

## ITEM 9B. OTHER INFORMATION

None.

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PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS, AND CORPORATE GOVERNANCE

ITEM 11. EXECUTIVE COMPENSATION

ITEM 12. SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

Certain information concerning our executive officers is included under the caption, "Directors and Executive Officers of the Registrant," in Part I, Item 1 of this report. Other information required by Items 10, 11, 12, 13, and 14 will be contained in our Proxy Statement which will be filed with the Securities and Exchange Commission within 120 days after August 30, 2018 and is incorporated herein by reference.

PART IV

ITEM 15. EXHIBITS, FINANCIAL STATEMENT SCHEDULES

(a) The following documents are filed as part of this report:

1. Financial Statements: See Index to Consolidated Financial Statements under Item 8.

Financial Statement Schedule:

Schedule II – Valuation and Qualifying Accounts

2.

Certain Financial Statement Schedules have been omitted since they are either not required, not applicable, or the information is otherwise included.

3. Exhibits.

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SCHEDULE II  
VALUATION AND QUALIFYING ACCOUNTS  
(in millions)

MICRON TECHNOLOGY, INC.

	Balance at Beginning of Year	Business Acquisitions	Charged (Credited) to Income Tax Provision	Currency Translation and Charges to Other Accounts	Balance at End of Year
Deferred Tax Asset Valuation Allowance					
Year ended August 30, 2018	\$ 2,321	\$	—\$(2,079 )	\$ (14 )	\$ 228
Year ended August 31, 2017	2,107	—	(64 )	278	2,321
Year ended September 1, 2016	2,051	10	(63 )	109	2,107

Amounts charged to other accounts for the year ended August 31, 2017 includes \$325 million as a result of the adoption of ASU 2016-09 – Improvements to Employee Share-Based Payment Accounting.

## 3. Exhibits.

Exhibit Number	Description of Exhibit	Filed Herewith	Form	Period Ending	Exhibit/ Appendix	Filing Date
2.1*	<u>English Translation of Agreement on Support for Reorganization Companies with Nobuaki Kobayashi and Yukio Sakamoto, the trustees of Elpida Memory, Inc. and its wholly-owned subsidiary, Akita Elpida Memory, Inc. dated July 2, 2012</u>		8-K/A		2.1	10/31/12
2.2*	<u>English Translation of Agreement Amending Agreement on Support for Reorganization Companies, dated October 29, 2012, by and among Micron Technology, Inc. and Nobuaki Kobayashi and Yukio Sakamoto, the trustees of Elpida Memory, Inc. and Akita Elpida Memory, Inc.</u>		8-K		2.3	10/31/12
2.3*	<u>English Translation of Agreement Amending Agreement on Support for Reorganization Companies, dated July 31, 2013, by and among Micron Technology, Inc. and Nobuaki Kobayashi and Yukio Sakamoto, the trustees of Elpida Memory, Inc. and Akita Elpida Memory, Inc.</u>		8-K		2.4	8/6/13
2.4	<u>English Translation of the Reorganization Plan of Elpida Memory, Inc.</u>		8-K		2.5	8/6/13
2.5	<u>2016 Share Swap Agreement, dated February 3, 2016 by and among Micron Technology B.V., Micron Semiconductor Taiwan Co. Ltd. and Inotera Memories, Inc.</u>		10-Q	3/3/16	2.6	4/8/16
3.1	<u>Restated Certificate of Incorporation of the Registrant</u>		8-K		99.2	1/26/15
3.2	<u>Bylaws of the Registrant, Amended and Restated</u>		8-K		99.1	4/15/14
4.1	<u>Indenture dated as of April 18, 2012, by and between Micron Technology, Inc. and U.S. Bank National Association, as Trustee for 2.375% Convertible Senior Notes due 2032</u>		8-K		4.1	4/18/12
4.2	<u>Indenture dated as of April 18, 2012, by and between Micron Technology, Inc. and U.S. Bank National Association, as Trustee for 3.125% Convertible Senior Notes due 2032</u>		8-K		4.3	4/18/12
4.3	<u>Form of 2032C Note (included in Exhibit 4.1)</u>		8-K		4.1	4/18/12
4.4	<u>Form of 2032D Note (included in Exhibit 4.2)</u>		8-K		4.3	4/18/12
4.5	<u>Indenture, dated as of February 12, 2013, by and between Micron Technology, Inc. and U.S. Bank National Association, as trustee</u>		8-K		4.1	2/12/13
4.6	<u>Indenture, dated as of February 12, 2013, by and between Micron Technology, Inc. and U.S. Bank National Association, as trustee</u>		8-K		4.3	2/12/13
4.7	<u>Form of 2033E Note (included in Exhibit 4.5)</u>		8-K		4.1	2/12/13
4.8	<u>Form of 2033F Note (included in Exhibit 4.6)</u>		8-K		4.3	2/12/13
4.9	<u>Indenture, dated as of November 12, 2013, by and between Micron Technology, Inc. &amp; U.S. Bank National Association</u>		8-K		4.1	11/18/13
4.10	<u>Form of New Note (included in Exhibit 4.9)</u>		8-K		4.1	11/18/13
4.11			10-Q	2/27/14	4.3	4/7/14

Indenture dated as of December 16, 2013, by and among Micron Semiconductor Asia Pte., Ltd., Wells Fargo Bank, National Association, and Export-Import Bank of the United States

4.12	<u>Indenture, dated as of July 28, 2014, by and between Micron Technology, Inc. and U.S. Bank National Association, as Trustee</u>	8-K	4.1	7/29/14
4.13	<u>Form of Note (included in Exhibit 4.12)</u>	8-K	4.1	7/29/14
4.14	<u>Section 382 Rights Agreement, dated as of July 20, 2016 by and between Micron Technology, Inc. and Wells Fargo Bank, National Association, as rights agent</u>	8-K	4.1	7/22/16

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Exhibit Number	Description of Exhibit	Filed Herewith	Form	Period Ending	Exhibit/ Appendix	Filing Date
10.1	<u>Micron Technology, Inc. Executive Officer Performance Incentive Plan</u>		DEF 14A		B	12/7/17
10.2	<u>2004 Equity Incentive Plan, as Amended and Restated</u>		10-K	9/1/16	10.6	10/28/16
10.3	<u>2004 Equity Incentive Plan Forms of Agreement and Terms and Conditions</u>		10-K	9/1/16	10.7	10/28/16
10.4	<u>Amended and Restated 2007 Equity Incentive Plan</u>		10-K	9/1/16	10.8	10/28/16
10.5	<u>2007 Equity Incentive Plan Forms of Agreement</u>		10-K	9/1/16	10.9	10/28/16
10.6	<u>Nonstatutory Stock Option Plan, as Amended</u>		10-K	9/1/16	10.10	10/28/16
10.7	<u>Nonstatutory Stock Option Plan Form of Agreement and Terms and Conditions</u>		10-K	9/1/16	10.11	10/28/16
10.8	<u>Numonyx Holdings B.V. Equity Incentive Plan</u>		S-8		4.1	6/16/10
10.9	<u>Numonyx Holdings B.V. Equity Incentive Plan Forms of Agreement</u>		S-8		4.2	6/16/10
10.10*	<u>Patent License Agreement dated September 15, 2006, by and among Toshiba Corporation, Acclaim Innovations, LLC and Micron Technology, Inc.</u>		10-Q	11/30/06	10.66	1/16/07
10.11	<u>Form of Indemnification Agreement between the Registrant and its officers and directors</u>		10-Q	2/27/14	10.3	4/7/14
10.12*	<u>Master Agreement dated as of November 18, 2005, between Micron Technology, Inc. and Intel Corporation</u>		10-Q	12/1/05	10.155	1/10/06
10.13	<u>Form of Severance Agreement</u>		8-K		99.2	11/1/07
10.14	<u>Share Purchase Agreement by and among Micron Technology, Inc. as the Buyer Parent, Micron Semiconductor B.V., as the Buyer, Qimonda Ag as the Seller Parent and Qimonda Holding B.V., as the Seller Sub dated as of October 11, 2008</u>		10-Q	12/4/08	10.70	1/13/09
10.15*	<u>2012 Master Agreement by and among Intel Corporation, Intel Technology Asia PTE LTD, Micron Technology, Inc., Micron Semiconductor Asia PTE LTD, IM Flash Technologies, LLC and IM Flash Singapore, LLP dated February 27, 2012</u>		10-Q	3/1/12	10.104	4/9/12
10.16*	<u>Second Amended and Restated Limited Liability Company Operating Agreement of IM Flash Technologies, LLC dated April 6, 2012, between Micron Technology, Inc. and Intel Corporation</u>		10-Q	5/31/12	10.108	7/9/12
10.17*	<u>Amendment to the Master Agreement dated April 6, 2012, between Intel Corporation and Micron Technology, Inc.</u>		10-Q	5/31/12	10.109	7/9/12
10.18*	<u>Amended and Restated Supply Agreement dated April 6, 2012, between Intel Corporation and IM Flash Technologies, LLC</u>		10-Q	5/31/12	10.110	7/9/12
10.19*	<u>Amended and Restated Supply Agreement dated April 6, 2012, between Micron Technology, Inc. and IM Flash Technologies, LLC</u>		10-Q	5/31/12	10.111	7/9/12
10.20*	<u>Product Supply Agreement dated April 6, 2012, among Micron Technology, Inc., Intel Corporation and Micron Semiconductor Asia Pte. Ltd.</u>		10-Q	5/31/12	10.112	7/9/12

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10.21*	<u>Wafer Supply Agreement dated April 6, 2012, among Micron Technology, Inc., Intel Corporation and Micron Semiconductor Asia Pte. Ltd.</u>	10-Q 5/31/12	10.113	7/9/12
10.22	<u>Form of Capped Call Confirmation dated April 2012 Supply Agreement, dated January 17, 2013, by and among</u>	8-K	10.1	4/18/12
10.23*	<u>Micron Technology, Inc., Micron Semiconductor Asia Pte. Ltd. and Inotera Memories, Inc.</u>	10-Q 2/28/13	10.122	4/8/13

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Exhibit Number	Description of Exhibit	Filed Herewith	Form	Period Ending	Exhibit/ Appendix	Filing Date
10.24*	<u>Facilitation Agreement, dated January 17, 2013, by and among Micron Semiconductor B.V., Numonyx Holdings B.V., Micron Technology Asia Pacific, Inc., Nanya Technology Corporation and Inotera Memories, Inc.</u>		10-Q	2/28/13	10.124	4/8/13
10.25	<u>Micron Guaranty Agreement, dated January 17, 2013, by Micron Technology, Inc. in favor of Nanya Technology Corporation</u>		10-Q	2/28/13	10.125	4/8/13
10.26*	<u>Technology Transfer and License Option Agreement for 20NM Process Node, dated January 17, 2013, by and between Micron Technology, Inc. and Nanya Technology Corporation</u>		10-Q/A	2/28/13	10.126	8/7/13
10.27*	<u>Omnibus IP Agreement, dated January 17, 2013, by and between Nanya Technology Corporation and Micron Technology, Inc.</u>		10-Q	2/28/13	10.127	4/8/13
10.28*	<u>Second Amended and Restated Technology Transfer and License Agreement for 68-50NM Process Nodes, dated January 17, 2013, by and between Micron Technology, Inc. and Nanya Technology Corporation</u>		10-Q/A	2/28/13	10.128	8/7/13
10.29*	<u>Third Amended and Restated Technology Transfer and License Agreement, dated January 17, 2013, by and between Micron Technology, Inc. and Nanya Technology Corporation</u>		10-Q	2/28/13	10.129	4/8/13
10.30*	<u>Omnibus IP Agreement, dated January 17, 2013, by and between Micron Technology, Inc. and Inotera Memories, Inc.</u>		10-Q	2/28/13	10.130	4/8/13
10.31*	<u>English Translation of Front-End Manufacturing Supply Agreement, dated July 31, 2013, by and between Micron Semiconductor Asia Pte. Ltd. and Elpida Memory, Inc.</u>		8-K/A		10.139	10/2/13
10.32*	<u>English Translation of Research and Development Engineering Services Agreement, dated July 31, 2013, by and between Micron Technology, Inc. and Elpida Memory, Inc.</u>		8-K		10.140	8/6/13
10.33*	<u>English Translation of General Services Agreement, dated July 31, 2013, by and between Micron Semiconductor Asia Pte. Ltd. and Elpida Memory, Inc.</u>		8-K/A		10.141	10/2/13
10.34	<u>Form of Capped Call Confirmation dated February 2013 Purchase Agreement, dated as of February 5, 2014, by and among Micron Technology, Inc. and Morgan Stanley &amp;</u>		8-K		10.1	2/12/13
10.35	<u>Co. LLC, Goldman, Sachs &amp; Co. and Credit Suisse Securities (USA) LLC, as representatives of the initial purchasers</u>		8-K		10.1	2/7/14
10.36	<u>Purchase Agreement, dated as of July 23, 2014, by and among Micron Technology, Inc. and Morgan Stanley &amp; Co LLC, Goldman, Sachs &amp; Co. and Credit Suisse Securities (USA) LLC, as representatives of the initial purchasers</u>		8-K		10.1	7/24/14
10.37			8-K		10.1	7/29/14

	<u>Registration Rights Agreement dated as of July 28, 2014, by and among Micron Technology, Inc. and Morgan Stanley &amp; Co. LLC, Goldman, Sachs &amp; Co. and Credit Suisse Securities (USA) LLC, as representatives of the initial purchasers</u>				
10.38	<u>Facility Agreement, dated February 12, 2015, among Micron Semiconductor Asia Pte. Ltd., as borrower, certain financial institutions party thereto, and The Hongkong and Shanghai Banking Corporation Limited, as facility agent, security agent and account bank</u>	10-Q	3/5/15	10.88	4/10/15
10.39*	<u>2015 Supply Agreement, dated February 10, 2015, by and among Micron Technology, Inc., Micron Semiconductor Asia Pte. Ltd. and Inotera Memories, Inc.</u>	10-Q	3/5/15	10.90	4/10/15
10.40*	<u>2016 Supply Agreement, dated February 10, 2015, by and among Micron Technology, Inc., Micron Semiconductor Asia Pte. Ltd. and Inotera Memories, Inc.</u>	10-Q	3/5/15	10.91	4/10/15
10.41*	<u>Second Amended and Restated Supply Agreement, dated February 10, 2017, by and among Micron Technology, Inc., Intel Corporation and Micron Semiconductor Asia Pte. Ltd.</u>	10-Q	3/2/17	10.49	3/28/17

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Exhibit Number	Description of Exhibit	Filed Herewith	Form	Period Ending	Exhibit/ Appendix	Filing Date
10.42*	<u>Amended and Restated Supplemental Wafer Supply Agreement, dated February 10, 2017, by and among Micron Technology, Inc., Intel Corporation and Micron Semiconductor Asia Pte. Ltd.</u>		10-Q	3/2/17	10.50	3/28/17
10.43*	<u>Amended and Restated Wafer Supply Agreement No. 3 dated, February 10, 2017, by and among Micron Technology, Intel Corporation and Micron Semiconductor Asia Pte. Ltd.</u>		10-Q	3/2/17	10.51	3/28/17
10.44*	<u>First Amendment to the Wafer Supply Agreement, dated September 1, 2015, by and among Micron Technology, Inc., Intel Corporation and Micron Semiconductor Asia Pte. Ltd.</u>		10-K	9/3/15	10.54	10/27/15
10.45	<u>Purchase Agreement, dated as of April 27, 2015, by and among Micron Technology, Inc. and Morgan Stanley &amp; Co. LLC, Goldman, Sachs &amp; Co. and Credit Suisse Securities (USA) LLC, as representatives of the initial purchasers</u>		8-K		10.1	4/30/15
10.46*	<u>2016 Technology Transfer and License Option Agreement for 1X Process Node dated as of February 3, 2016 by and between Micron Technology, Inc. and Nanya Technology Corporation</u>		10-Q/A	3/3/16	10.56	9/8/16
10.47*	<u>2016 Technology Transfer and License Option Agreement for 1Y Process Node dated as of February 3, 2016 by and between Micron Technology, Inc. and Nanya Technology Corporation</u>		10-Q/A	3/3/16	10.57	9/8/16
10.48	<u>Form of Voting and Support Agreement by and among Micron Technology B.V., Micron Semiconductor Taiwan Co. Ltd., and Nanya Technology Corporation and certain of its affiliates</u>		10-Q	3/3/16	10.58	4/8/16
10.49	<u>2016 First Amendment to the Second Amended and Restated Operating Agreement dated January 5, 2016 by and among Micron Technology, Inc. and Intel Corporation</u>		10-Q	3/3/16	10.59	4/8/16
10.50*	<u>Amendment to Technology Transfer and License Option Agreement for 1X Process Node dated as of May 17, 2016 by and between Micron Technology Inc. and Nanya Technology Corporation</u>		10-Q	6/2/16	10.60	7/6/16
10.51*	<u>Amendment to Technology Transfer and License Option Agreement for 1Y Process Node dated as of May 17, 2016 by and between Micron Technology Inc. and Nanya Technology Corporation</u>		10-Q	6/2/16	10.61	7/6/16
10.52	<u>Credit Agreement, dated as of April 26, 2016, by and among Micron Technology, Inc., as borrower, Morgan Stanley Senior Funding, Inc. as administrative agent and collateral agent, and the other agents party thereto and each financial institution party from time to time thereto</u>		8-K		10.2	4/26/16
10.53			8-K		10.3	4/26/16

	<u>Guarantee and Collateral Agreement, dated as of April 26, 2016, made by Micron Technology, Inc. and certain of its subsidiaries in favor of Morgan Stanley Senior Funding, Inc., as collateral agent</u>				
10.54	<u>Deferred Compensation Plan</u>	10-Q	5/31/18	10.64	6/22/18
	<u>First Amendment to the Credit Agreement, dated April 26, 2016, by and among Micron Technology, Inc., as borrower, Morgan Stanley Senior Funding, Inc. as administrative agent and collateral agent, and the other agents party thereto and each financial institution party from time to time thereto</u>				
10.55	<u>English translation of Facility Agreement dated November 18, 2016, by and among Micron Semiconductor Asia Capital II Pte. Ltd., certain financial institutions party thereto and DBS Bank Ltd., as Facility Agent, Security Agent and Account Bank</u>	10-Q	12/1/16	10.65	1/9/17
	<u>English translation of Facility Agreement dated November 18, 2016, by and among Micron Semiconductor Asia Capital II Pte. Ltd., certain financial institutions party thereto and DBS Bank Ltd., as Facility Agent, Security Agent and Account Bank</u>				
10.56	<u>Capital II Pte. Ltd., certain financial institutions party thereto and DBS Bank Ltd., as Facility Agent, Security Agent and Account Bank</u>	10-Q	12/1/16	10.66	1/9/17
	<u>Executive Agreement dated April 26, 2017 by and between Micron Technology, Inc. and Sanjay Mehrotra</u>				
10.57	<u>Executive Agreement dated April 26, 2017 by and between Micron Technology, Inc. and Sanjay Mehrotra</u>	10-Q	6/1/17	10.67	6/30/17

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Exhibit Number	Description of Exhibit	Filed Herewith	Form	Period Ending	Exhibit/ Appendix	Filing Date
10.58	<u>Second Amendment to the Credit Agreement, dated April 26, 2016, by and among Micron Technology, Inc., as borrower, Morgan Stanley Senior Funding, Inc. as administrative agent and collateral agent, and the other agents party thereto and each financial institution party from time to time thereto</u>		10-Q	6/1/17	10.68	6/30/17
10.59	<u>Severance Benefits for Sumit Sadana</u>		10-Q	11/30/17	10.70	12/20/17
10.60	<u>Second Amendment to the Amended and Restated Severance Agreement effective July 24, 2017 by and between Micron Technology, Inc. and D. Mark Durcan</u>		10-K	8/31/17	10.71	10/26/17
10.61	<u>Form of Amendment to Executive/Severance Agreement</u>		8-K		99.1	11/13/17
10.62	<u>Third Amendment to the Credit Agreement, dated April 26, 2016, by and among Micron Technology, Inc., as borrower, Morgan Stanley Senior Funding, Inc., as administrative agent and collateral agent, and the other agents party thereto and each financial institution party from time to time thereto</u>		10-Q	11/30/17	10.73	12/20/17
10.63	<u>Severance Benefits for Manish Bhatia</u>		10-Q	11/30/17	10.74	12/20/17
10.64	<u>Underwriting Agreement, dated as of October 11, 2017, by and between Micron Technology, Inc. and J.P. Morgan Securities LLC</u>		8-K		1.1	10/16/17
10.65	<u>Micron Technology, Inc. Employee Stock Purchase Plan</u>		DEF 14A		A	12/7/17
10.66	<u>Severance Benefits for David A. Zinsner</u>		10-Q	3/1/18	10.76	3/23/18
10.67	<u>Fourth Amendment to the Credit Agreement, dated April 26, 2016, by and among Micron Technology, Inc., as borrower, Morgan Stanley Senior Funding, Inc., as administrative agent and collateral agent, and the other agents party thereto and each financial institution party from time to time thereto</u>		10-Q	5/31/18	10.77	6/22/18
10.68	<u>Credit Agreement, dated as of 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</u>	X				
10.69	<u>Guarantee and Collateral Agreement, dated as of July 3, 2018, made by Micron Technology, Inc. and certain of its subsidiaries in favor of JPMorgan Chase Bank, N.A., as collateral agent</u>	X				
21.1	<u>Subsidiaries of the Registrant</u>	X				
23.1	<u>Consent of Independent Registered Public Accounting Firm</u>	X				
31.1	<u>Rule 13a-14(a) Certification of Chief Executive Officer</u>	X				
31.2	<u>Rule 13a-14(a) Certification of Chief Financial Officer</u>	X				
32.1	<u>Certification of Chief Executive Officer Pursuant to 18 U.S.C. 1350</u>	X				
32.2		X				

Certification of Chief Financial Officer Pursuant to 18

U.S.C. 1350

101.INS	XBRL Instance Document	X
101.SCH	XBRL Taxonomy Extension Schema Document	X
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document	X
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document	X
101.LAB	XBRL Taxonomy Extension Label Linkbase Document	X
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document	X

\* Portions of this exhibit have been omitted pursuant to a request for confidential treatment filed with the Commission.



ITEM 16. 10-K SUMMARY

None.

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## SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Boise, State of Idaho, on the 15<sup>th</sup> day of October 2018.

Micron Technology, Inc.

By: /s/ David A. Zinsner

David A. Zinsner

Senior Vice President and Chief Financial Officer

(Principal Financial and Accounting Officer)

Pursuant to the requirements of the Securities Exchange Act of 1934, this Annual Report has been signed below by the following persons on behalf of the Registrant and in the capacities and on the dates indicated.

Signature	Title	Date
/s/ Sanjay Mehrotra (Sanjay Mehrotra)	President and Chief Executive Officer and Director (Principal Executive Officer)	October 15, 2018
/s/ David A. Zinsner (David A. Zinsner)	Senior Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)	October 15, 2018
/s/ Robert L. Bailey (Robert L. Bailey)	Director	October 15, 2018
/s/ Richard M. Beyer (Richard M. Beyer)	Director	October 15, 2018
/s/ Patrick J. Byrne (Patrick J. Byrne)	Director	October 15, 2018
/s/ Mercedes Johnson (Mercedes Johnson)	Director	October 15, 2018
/s/ Lawrence N. Mondry (Lawrence N. Mondry)	Director	October 15, 2018
/s/ Robert E. Switz (Robert E. Switz)	Chairman of the Board Director	October 15, 2018

