

# **EXHIBIT 5**

**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 29, 2024

OR

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

For the transition period from to  
Commission file number 1-10658

**Micron Technology, Inc.**

(Exact name of registrant as specified in its charter)

**Delaware**

(State or other jurisdiction of incorporation or organization)

Address of principal executive offices, including zip code

Registrant's telephone number, including area code

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

**75-1618004**

(IRS Employer Identification No.)

**8000 S. Federal Way, Boise, Idaho 83716-9632**

**(208) 368-4000**

<b>Title of each class</b>	<b>Trading Symbol</b>	<b>Name of each exchange on which registered</b>
Common Stock, par value \$0.10 per share	MU	Nasdaq Global Select Market

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 Section 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 every Interactive Data File required to be submitted 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 such files). Yes  No

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

Large Accelerated Filer	Accelerated Filer	Non-Accelerated Filer	Smaller Reporting Company	Emerging Growth Company
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

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 has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report.

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements.

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b).

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 and non-voting common equity held by non-affiliates was \$83.6 billion based on the closing price reported on the Nasdaq Global Select Market on 2/29/2024. 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 were excluded as they 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 September 27, 2024 was 1,108,742,682.

**DOCUMENTS INCORPORATED BY REFERENCE**

Portions of the Proxy Statement for the registrant's Fiscal 2024 Annual Meeting of Shareholders to be held on January 16, 2025 are incorporated by reference into Part III of this Annual Report on Form 10-K.

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## Definitions of Commonly Used Terms

As used herein, “we,” “our,” “us,” and similar terms include Micron Technology, Inc. and its 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
2023 Notes	2.497% Senior Notes due April 2023, repaid November 2021	2033 B Notes	5.875% Senior Notes due September 2033
2024 Notes	4.640% Senior Notes due February 2024, repaid November 2021	2041 Notes	3.366% Senior Notes due November 2041
2024 Term Loan A	Senior Term Loan A due October 2024, repaid January 12, 2024	2051 Notes	3.477% Senior Notes due November 2051
2025 Term Loan A	Senior Term Loan A due November 2025, repaid May 29, 2024	AI	Artificial intelligence
2026 Term Loan A	Senior Term Loan A due November 2026	CAC	China’s Cyberspace Administration
2027 Term Loan A	Senior Term Loan A due November 2027	EBITDA	Earnings before interest, taxes, depreciation, and amortization
2026 Notes	4.975% Senior Notes due February 2026	EUV	Extreme ultraviolet lithography
2027 Notes	4.185% Senior Notes due February 2027	HBM	High-bandwidth memory
2028 Notes	5.375% Senior Notes due April 2028	Micron	Micron Technology, Inc. (Parent Company)
2029 A Notes	5.327% Senior Notes due February 2029	Multi-Tranche Term Loan Agreement	Borrowing agreement that governs the 2026 Term Loan A and 2027 Term Loan A
2029 B Notes	6.750% Senior Notes due November 2029	NRV	Net realizable value
2030 Notes	4.663% Senior Notes due February 2030	OEM	Original equipment manufacturer
2031 Notes	5.300% Senior Notes due January 2031	Revolving Credit Facility	\$2.5 billion Revolving Credit Facility due May 2026
2032 Green Bonds	2.703% Senior Notes due April 2032	SOFR	Secured Overnight Financing Rate
2033 A Notes	5.875% Senior Notes due February 2033	SSD	Solid state drive

Micron, Crucial, any associated logos, and all other Micron trademarks are the property of Micron. Other product names or trademarks that are not owned by Micron are for identification purposes only and may be the trademarks of their respective owners.

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. Fiscal 2024, 2023, and 2022 each contained 52 weeks.

## Forward-Looking Statements

This Form 10-K contains trend information and other forward-looking statements that involve a number of risks and uncertainties. Such forward-looking statements may be identified by words such as “anticipate,” “expect,” “intend,” “pledge,” “committed,” “plan,” “opportunities,” “future,” “believe,” “target,” “on track,” “estimate,” “continue,” “likely,” “may,” “will,” “would,” “should,” “could,” and variations of such words and similar expressions. However, the absence of these words or similar expressions does not mean that a statement is not forward-looking. Specific forward-looking statements include, but are not limited to, statements such as those made regarding expected production ramp of certain products; plans to invest in research and development, including the plans to implement EUV lithography; anticipated technological developments; potential change in our effective tax rate; the timing for construction and ramping of production for our facilities, including new memory manufacturing fabs in the United States; receipt and maintenance of government incentives; the payment of future cash dividends; market conditions and profitability in our industry; our DRAM and NAND market share; future demand for our products; the impact of the Cyberspace Administration of China decision; capital spending in 2025; and the sufficiency of our cash and investments. Our actual results could differ materially from our historical results and those discussed in the forward-looking statements. Factors that could cause actual results to differ materially include, but are not limited to, those identified in “Part I - Item 1A. Risk Factors.”

## PART I

### ITEM 1. BUSINESS

## Overview

We are an industry leader in innovative memory and storage solutions transforming how the world uses information to enrich life *for all*. With a relentless focus on our customers, technology leadership, and manufacturing and operational excellence, Micron delivers a rich portfolio of high-performance DRAM, NAND, and NOR memory and storage products through our Micron® and Crucial® brands. Every day, the innovations that our people create fuel the data economy, enabling advances in artificial intelligence (AI) and compute-intensive applications that unleash opportunities - from the data center to the intelligent edge and across the client and mobile user experience.

We manufacture our products at wholly-owned facilities and also utilize subcontractors for certain manufacturing processes. Our global network of manufacturing centers of excellence not only allows us to benefit from scale while streamlining processes and operations, but it also brings together some of the world's brightest talent to work on the most advanced memory technology. Centers of excellence bring expertise together in one location, providing an efficient support structure for end-to-end manufacturing, with quicker cycle times, in partnership with teams such as research and development ("R&D"), product development, human resources, procurement, and supply chain. For our locations in Singapore and Taiwan, this is also a combination of bringing fabrication and back-end manufacturing together. We make significant investments to develop proprietary product and process technology, which generally increases bit density per wafer and reduces per-bit manufacturing costs of each generation of product. We continue to introduce new generations of products that offer improved performance characteristics, including higher data transfer rates, advanced packaging solutions, lower power consumption, improved read/write reliability, and increased memory density.

We face intense competition in the semiconductor memory and storage markets. To remain competitive we must continuously develop and implement new products and technologies and decrease manufacturing costs in spite of inflationary pressures. Our success is largely dependent on obtaining returns on our R&D investments, efficient utilization of our manufacturing infrastructure, development and integration of advanced product and process technologies, market acceptance of our diversified portfolio of semiconductor-based memory and storage solutions, and efficient capital spending.

## Products, Market, and Sales

### Product Technologies

Our product portfolio of memory and storage solutions, advanced solutions, and storage platforms is based on our high-performance semiconductor memory and storage technologies, including DRAM, NAND, and NOR. We sell our products through our business units into various markets in numerous forms, including: components, modules, SSDs, managed NAND, multi-chip packages, and wafers. Many of our system-level solutions combine NAND, a controller, firmware, and in some cases DRAM.

**DRAM:** DRAM products are dynamic random access memory semiconductor devices with low latency that provide high-speed data retrieval with a variety of performance characteristics. DRAM products lose content when power is turned off ("volatile") and are most commonly used in the data center, client PC, graphics, industrial, and automotive markets.

In 2023, we began shipping the industry's first 1 $\beta$  (1-beta) production node, which offers further improvements in power efficiency and bit density. The majority of our DRAM bit production in 2024 was on leading-edge 1 $\alpha$  (1-alpha) and 1 $\beta$  nodes. We expect volume shipments in 2025 of our next generation of DRAM, the 1 $\gamma$  (1-gamma) node, which will employ EUV lithography production.

**Double Data Rate (“DDR”)**: DDR memory transfers data twice per clock cycle resulting in improved speeds, power efficiency, and storage density. DDR5 is the fifth generation of this technology and offers the critical improvements in bandwidth and power efficiency necessary to meet the growing needs of high-performance computing, AI, and data-intensive applications.

**High-Bandwidth Memory (“HBM”)**: A 3D stacked DRAM architecture that utilizes through-silicon via (“TSV”) connections for a more efficient communication between each stack giving it the ability to achieve a higher bandwidth while consuming less power compared to other memory types. This makes it ideal for applications that require high data throughput and energy efficiency, such as AI applications and high-performance computing.

**Graphics DRAM (“GDDR”)**: High performance memory solution designed for graphics cards, gaming consoles, and high-performance computing applications. GDDR memory is optimized for high-bandwidth workloads encountered by graphics processing units, offering faster data rates and efficient data processing capabilities.

**Low-Power DRAM (“LPDDR”)**: Engineered for mobile devices and applications requiring low power consumption. LPDDR products generally operate at a lower voltage than standard DRAM products and are beneficial to any power conscious application. The benefits of LPDDR memory are being realized by many market segments including mobile, PC, automotive, and data center.

Total reported DRAM revenue was \$17.60 billion in 2024, \$10.98 billion in 2023, and \$22.39 billion in 2022.

**NAND**: NAND products are non-volatile, re-writeable semiconductor storage devices that provide high-capacity, low-cost storage with a variety of performance characteristics. NAND is used in SSDs for the data center, client PC, consumer, and automotive markets and in removable storage markets. Managed NAND is used in smartphones and other mobile devices, and in consumer, automotive, and embedded markets. Low-density NAND is ideal for applications like automotive, surveillance, machine-to-machine, automation, printer, and home networking.

In 2022, we began volume production of 232-layer NAND (“Micron G8 NAND”), the industry’s first eighth-generation NAND. It features higher areal density and delivers higher capacity and improved energy efficiency over previous generations of our NAND. In 2024, we began volume production of Micron G9 NAND, representative of the industry’s ninth-generation 3D NAND node. Micron G8 and G9 NAND nodes are ramping in high volume and will become an increasing portion of our mix through 2025.

Our NAND Flash includes triple-level cell (“TLC”) and quad-level cell (“QLC”), each with varying levels of storage density, performance, and endurance. In 2024, we announced shipments of our densest OEM production QLC NAND, built on this technology, with improved storage density and access times.

In 2024, we also began shipping Micron G9 TLC based NAND in SSDs designed to deliver the transfer rates required to meet the low-latency and high-throughput needs of data-centric workloads from AI training and machine learning to unstructured databases, self-driving cars, and cloud computing.

**Solid State Drives (“SSDs”)**: SSD storage products incorporate NAND, a controller, and firmware to offer significant performance and features over hard disk drives, including smaller form factors, faster read and write speeds, higher reliability, and lower power consumption needed to address the growing demands of data-centric workloads, ever-increasing expectations of client users, and the stringent requirements of automotive and industrial applications.

**Managed NAND**: Managed NAND combines NAND flash with a sophisticated controller and firmware in a single package. This integration allows the memory to manage itself, handling tasks like wear leveling, bad block management, and error correction internally, freeing the host system from these tasks. Products such as embedded MultiMediaCards (“eMMC”) and universal flash storage (“UFS”) offer solutions that are compact and reliable making them widely used across the mobile, automotive, and industrial markets.

**Multi-Chip Packages (“MCPs”)**: Designed to provide high-performance, compact, and efficient memory solutions by integrating multiple types of memory, generally LPDRAM, into a single package. MCPs are used in embedded internet of things (“IoT”) applications, automotive systems, mobile devices, and industrial devices where space and power efficiency are critical.

Total reported NAND revenue was \$7.23 billion in 2024, \$4.21 billion in 2023, and \$7.81 billion in 2022.

## Available Information

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 on 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, Security Committee Charter, and Code of Business Conduct and Ethics. We intend to satisfy the disclosure requirement under Item 5.05 of Form 8-K regarding any amendments to, or waivers from, our Code of Business Conduct and Ethics by posting such information 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.

Investors and others should note that we announce material financial information about our business and products through a variety of means, including our investor relations website ([investors.micron.com](http://investors.micron.com)), filings with the U.S. Securities and Exchange Commission ("SEC"), press releases, public conference calls, blog posts ([micron.com/about/blog](http://micron.com/about/blog)), and webcasts. We use these channels to achieve broad, non-exclusionary distribution of information to the public and for complying with our disclosure obligations under Regulation FD. Therefore, we encourage investors, the media, and others interested in our company to review the information we post on such channels.

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 SEC, 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 SEC's 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. 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, this section discusses important factors which could cause actual results or events to differ materially from those contained in any forward-looking statements made by us. The order of presentation is not necessarily indicative of the level of risk that each factor poses to us. Any of these factors could have a material adverse effect on our business, results of operations, financial condition, or stock price. Our operations could also be affected by other factors that are presently unknown to us or not considered significant.

## Risk Factor Summary

### ***Risks Related to Our Business, Operations, and Industry***

- volatility in average selling prices of our products;
- a range of factors that may adversely affect our gross margins;
- our international operations, including geopolitical risks;
- the highly competitive nature of our industry;
- our ability to develop and produce new and competitive memory and storage technologies and products;
- realizing expected returns from capacity expansions;
- achieving or maintaining certain outcomes and the compliance requirements associated with incentives from various governments;
- availability and quality of materials, supplies, electrical power, water, and capital equipment, or dependency on third-party service providers;
- a downturn in regional or worldwide economies;
- disruptions to our manufacturing process from operational issues, natural disasters, or other events;
- dependency on a select number of key customers, including international customers;
- products that fail to meet specifications, are defective, or are incompatible with end uses;
- breaches of our security systems or products, systems failures, interruptions, delays in service, catastrophic events, and resulting interruptions of our systems or those of our customers, suppliers, or business partners;
- uncertainties and outcomes associated with the use and evolution of AI;
- attracting, retaining, and motivating highly skilled employees;
- responsible sourcing requirements and related regulations;
- environmental, social, and governance expectations or standards;
- acquisitions and/or alliances; and
- restructure plans may not realize expected savings or other benefits.

### ***Risks Related to Intellectual Property and Litigation***

- protecting our intellectual property and retaining key employees who are knowledgeable of and develop our intellectual property;
- legal, regulatory and administrative investigations, inquiries, proceedings, and claims; and
- 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.

### ***Risks Related to Laws and Regulations***

- impacts of government actions and compliance with tariffs, trade restrictions, and/or trade regulations;
- tax expense and tax laws in key jurisdictions; and
- compliance with laws, regulations, or industry standards, including environmental considerations.

### ***Risks Related to Capitalization and Financial Markets***

- our ability to generate sufficient cash flows or obtain access to external financing;
- our debt obligations;
- changes in foreign currency exchange rates;
- counterparty default risk;
- volatility in the trading price of our common stock; and
- fluctuations in the amount and frequency of our common stock repurchases and payment of cash dividends and resulting impacts.

# Risks Related to Our Business, Operations, and Industry

## **Volatility in average selling prices for our semiconductor memory and storage products may adversely affect our business.**

We have experienced significant volatility in our average selling prices and may continue to experience such volatility in the future. In the past five years, annual percentage changes in DRAM average selling prices have ranged from plus low-teen percentage range to a minus high-40% range. In the past five years, annual percentage changes in NAND average selling prices have ranged from plus low-30% to a minus low-50% range. In some prior periods, average selling prices for our products have been below our manufacturing costs and we may experience such circumstances in the future. Average selling prices for our products that decline faster than our costs have recently had an adverse effect on our business and results of operations, and in future periods could have a material adverse effect on our business, results of operations, or financial condition.

## **Our gross margins may be adversely affected by a range of factors.**

In addition to the impact of our average selling prices, 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. Factors that may limit our ability to reduce our per gigabit manufacturing costs at sufficient levels to prevent deterioration of or improve gross margins include, but are not limited to:

- strategic product diversification decisions affecting product mix;
- increasing complexity of our product portfolio, which may impact operational costs;
- increasing complexity of manufacturing processes;
- difficulties in transitioning to smaller line-width process technologies or additional 3D memory layers or NAND cell levels;
- process complexity including number of mask layers and fabrication steps;
- manufacturing yield;
- technological barriers;
- changes in process technologies;
- new products that may require relatively larger die sizes or advanced packaging technologies;
- start-up or other costs associated with capacity expansions;
- higher costs of goods and services due to inflationary pressures or market conditions; and
- higher manufacturing costs per gigabit due to fabrication facility underutilization, lower wafer output, and insufficient volume to run new technology nodes to achieve cost optimization.

Many factors may result in a reduction of our output or a delay in ramping production, which could lead to underutilization of our production assets. These factors may include, among others, a weak demand environment, industry oversupply, inventory surpluses, difficulties in ramping emerging technologies, supply chain disruptions, and delays from equipment suppliers. See "Part II - Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations - Overview - Industry Conditions" for information regarding recent underutilization charges. A significant portion of our manufacturing costs are fixed and do not vary proportionally with changes in production output. As a result, lower utilization, lower wafer output, and corresponding increases in our per gigabit manufacturing costs could result in higher inventory carrying costs, and have had, and may continue to have, an adverse effect on our gross margins, business, results of operations, or financial condition.

We have a broad portfolio of products to address our customers' needs, which span multiple market segments and are subject to rapid technological changes. Our manufacturing costs on a per gigabit basis vary across our portfolio as they are largely influenced by the technology node in which the solution was developed. We strive to balance our demand and supply for each technology node, but the dynamics of our markets and our customers can create periods of imbalance, which can lead us to carry elevated inventory levels. Consequently, we may incur charges in connection with obsolete or excess inventories, or we may not fully recover our costs, which would reduce our gross margins. For example, in 2023, we recorded aggregate charges of \$1.83 billion to write down the carrying value of our inventories to their estimated net realizable value. In addition, due to the customized nature of certain products we manufacture, we may be unable to sell certain finished goods inventories to alternative customers or manufacture in-process inventory to different specifications, which may result in excess and obsolescence charges in future periods.

In addition, if we are unable to supply products that meet customer design and performance specifications, we may be required to sell such products at lower average selling prices, which may reduce our gross margins. Our gross margins may also be impacted by shifts in product mix, driven by our strategy to optimize our portfolio to best respond to changing market dynamics.

We may not be able to predict or quickly respond to trends in the dynamics of our markets and our customers or changes in customer demand, which could negatively impact our gross margin. Our inability to prevent deterioration of or improve gross margins could have a material adverse effect on our business, results of operations, or financial condition.

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

In addition to our U.S. operations, a substantial portion of our operations are conducted in Taiwan, Singapore, Japan, Malaysia, China, and India, and many of our customers, suppliers, and vendors also operate internationally. In 2024, nearly half of our revenue was from sales to customers who have headquarters located outside the United States, while over 80% of our revenue in 2024 was from products shipped to customer locations outside the United States.

Our international operations are subject to a number of risks, including:

- restrictions on sales of goods or services to one or more of our significant foreign customers;
- export and import duties, changes to import and export regulations, customs regulations and processes, and restrictions on the transfer of funds, including currency controls in China, which could negatively affect the amount and timing of payments from certain of our customers and, as a result, our cash flows;
- compliance with U.S. and international laws involving international operations, including the Foreign Corrupt Practices Act of 1977, as amended, sanctions and anti-corruption laws, export and import laws, and similar rules and regulations;
- theft of intellectual property;
- political and economic instability, including instability resulting from domestic and international conflicts;
- government actions or civil unrest preventing the flow of products and materials, including delays in shipping and obtaining products and materials, cancellation of orders, or loss or damage of products;
- problems with the transportation or delivery of products and materials;
- 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 or R&D activities as a result of actions imposed by foreign governments;
- changes in economic policies of foreign governments;
- difficulties in staffing and managing international operations; and
- public health issues.

If we or our customers, suppliers, or vendors are impacted by any of these risks, it could have a material adverse effect on our business, results of operations, or financial condition.

Following the May 2023 decision of its cybersecurity review of our products sold in China, the CAC determined that critical information infrastructure operators in China may not purchase Micron products, impacting our revenue with companies headquartered in mainland China and Hong Kong, including direct sales as well as indirect sales through distributors. Further actions by the Chinese government, through CAC action or other means, could impact revenue inside or outside China, or our operations in China, or our ability to ship products to our customers, any of which could have a material adverse effect on our business, results of operations, or financial condition.

In addition, the U.S. government has in the past and continues to restrict American firms, including us, from selling products and software to certain of our customers and may in the future impose similar restrictions on one or more of our significant customers. These restrictions may not prohibit our competitors from selling similar products to our customers, which may result in our loss of sales and market share. Even as such restrictions are lifted, financial or other penalties or continuing export restrictions imposed with respect to our customers could have a continuing negative impact on our future revenue and results of operations, and we may not be able to recover any customers or market share we lose, or make such recoveries at acceptable average selling prices, while complying with such restrictions.

Political, economic, or other actions may adversely affect our operations in Taiwan. A majority of our DRAM production output in 2024 was from our fabrication facilities in Taiwan, and any loss of output could have a material adverse effect on us. Any political, economic, or other actions may also adversely affect our customers and the technology industry supply chain, for which Taiwan is a central hub, and as a result, could have a material adverse impact on us.

#### **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 Kioxia Holdings Corporation; Samsung Electronics Co., Ltd.; SK hynix Inc.; and Western Digital Corporation. Our competitors may use aggressive pricing to obtain market share. Some of our competitors are large corporations or conglomerates that may have a larger market share and 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 as our competitors may benefit from increased manufacturing scale and a stronger product portfolio. We operate in different jurisdictions than our competitors and may be impacted by unfavorable changes in currency exchange rates.

In addition, some governments may provide, or 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, in companies such as Yangtze Memory Technologies Co., Ltd. ("YMTC") and ChangXin Memory Technologies, Inc. ("CXMT"). In addition, the CAC's decision that critical information infrastructure operators in China may not purchase Micron products had an adverse impact on our ability to compete effectively in China and elsewhere.

We and our competitors generally seek to increase supply to address growing market demands, improve yields, and reduce die size, which could 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, could lead to declines in average selling prices for our products and could materially adversely affect our business, results of operations, or financial condition. Additionally, rapid technological change in markets we serve could contribute to shortened product life cycles and a decline in average selling prices of our products. 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.

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

Our key semiconductor memory and storage technologies face technological barriers to continue to meet long-term customer needs. These barriers include achieving acceptable yields and quality for HBM products with their multiple memory chip layers, potential limitations on stacking additional 3D memory layers, increasing bits per cell (i.e., cell levels), meeting higher density requirements, developing advanced packaging solutions, improving power consumption and reliability, and delivering advanced features and higher performance. We may face technological barriers to continue to shrink our products at our current or historical rate, which has generally reduced per gigabit cost. We have invested and expect to continue to invest in R&D for new and existing products and process technologies, such as EUV lithography, to continue to deliver advanced product requirements. Such new technologies can add complexity and risk to our schedule and may affect our costs and production output. 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.

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 invested and expect to continue to invest in new semiconductor product and system-level solution development. We are increasingly differentiating our products and solutions to meet the specific demands of our customers, which increases our reliance on our customers' ability to accurately forecast the needs and preferences of their customers. Recent technologies, such as generative AI models have emerged, and while they have driven increased demand for HBM and other advanced products in the data center and other markets, the long-term trajectory is unknown and associated demand may fluctuate. As a result, our product demand forecasts may be impacted significantly by the strategic actions of our customers. In addition, our ability to successfully introduce new products often requires us to make product specification decisions multiple years in advance of when new products enter the market.

It is important that we deliver products in a timely manner with increasingly advanced performance characteristics at the time our customers are designing and evaluating samples for their products. If we do not meet their product design schedules, our customers may exclude us from further consideration as a supplier for those products. The process to develop new products requires us to demonstrate advanced functionality, performance, and reliability, often well in advance of a planned ramp of production, in order to secure design wins with our customers. Many factors may negatively impact our ability to meet anticipated timelines and/or expected or required quality standards with respect to the development of certain of our products. In addition, some of our components have long lead-times, requiring us to place orders up to a year 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:

- we will be successful in developing competitive new semiconductor memory and storage technologies and products;
- we will be able to cost-effectively manufacture new products;
- we will be able to successfully market these technologies;
- margins generated from sales of these products will allow us to recover costs of development efforts;
- we will be able to establish or maintain key relationships with customers, or that we will not be prohibited from working with certain customers, for specific chip set or design requirements;
- we will accurately predict and design products that meet our customers' specifications; or
- we will be able to introduce new products into the market and qualify them with our customers on a timely basis.

Unsuccessful efforts to develop new memory and storage technologies and products could have a material adverse effect on our business, results of operations, or financial condition.

Our manufacturing processes are also dependent on our relationships with third-party manufacturers of controllers, analog integrated circuits, and other components used in some of our products and with outsourced semiconductor foundries, assembly and test providers, contract manufacturers, logistics carriers, and other service providers, including providers of maintenance for our advanced semiconductor manufacturing equipment and providers of electricity and other utilities. Although we have certain long-term contracts with some of our suppliers, many of these contracts do not provide for long-term capacity or pricing commitments. To the extent we do not have firm commitments from our third-party suppliers over a specific time period or for any specific capacity, quantity, and/or pricing, our suppliers may allocate capacity to their other customers and capacity and/or materials may not be available when needed or at reasonable prices. Inflationary pressures may continue to increase costs for materials, supplies, and services. Regardless of contract structure, large swings in demand may exceed our contracted supply and/or our suppliers' capacity to meet those demand changes resulting in a shortage of parts, materials, or capacity needed to manufacture our products. In addition, if any of our suppliers were to cease operations or become insolvent, this could impact their ability to provide us with necessary supplies, and we may not be able to obtain the needed supply in a timely way or at all from other providers.

Certain materials are primarily available in a limited number of countries, including rare earth elements, minerals, and metals. Trade disputes, geopolitical tensions, economic circumstances, political conditions, or public health issues may limit our ability to obtain such materials. Although these rare earth and other materials are generally available from multiple suppliers, China is the predominant producer of these materials. If China were to restrict or stop exporting these materials, our suppliers' ability to obtain such supply may be constrained, and we may be unable to obtain sufficient quantities, or obtain supply in a timely manner, or at a commercially reasonable cost. Constrained supply of rare earth elements, minerals, and metals may restrict our ability to manufacture certain of our products and make it difficult or impossible to compete with other semiconductor memory and storage manufacturers who are able to obtain sufficient quantities of these materials from China.

We and/or our suppliers and service providers could be affected by regional conflicts, civil unrest, labor disruptions, sanctions, tariffs, embargoes, or other trade restrictions, as well as laws and regulations enacted in response to concerns regarding climate change, conflict minerals, responsible sourcing practices, public health crises, or other matters, which could limit the supply of our materials and/or increase the cost. Environmental regulations could limit our ability to procure or use certain chemicals or materials in our operations or products. In addition, disruptions in transportation lines could delay our receipt of materials. Our ability to procure components to repair equipment essential for our manufacturing processes could also be negatively impacted by various restrictions or disruptions in supply chains, among other items. The disruption of our supply of materials, components, or 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 a reliable and uninterrupted supply of electrical power and water to our manufacturing facilities. Any power shortages, capacity constraints, prolonged outages, or significant or unexpected increases in the cost of power 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 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.

Our construction projects to expand production and R&D capacity are highly dependent on available sources of labor, materials, equipment, and services. Increasing demand, supply constraints, inflation, and other market conditions could result in increasing shortages and higher costs for these items. Difficulties in obtaining these resources could result in delays in completion of our construction projects and cost increases, which could have a material adverse effect on our business, results of operations, or financial condition.

Our inability to source materials, supplies, capital equipment, or third-party services could affect our overall production output and our ability to fulfill customer demand. Significant or prolonged shortages of our products could halt customer manufacturing and damage our relationships with these customers. Any damage to our customer relationships as a result of a shortage of our products could have a material adverse effect on our business, results of operations, or financial condition.

Similarly, if our customers experience disruptions to their supplies, materials, components, or services, or the extension of their lead times, they may reduce, cancel, or alter the timing of their purchases with us, which could have a material adverse effect on our business, results of operations, or financial condition.

**Downturns in regional or worldwide economies may harm our business.**

Downturns in regional or worldwide economies, due to inflation, geopolitics, major central bank policy actions including interest rate increases, public health crises, or other factors, have harmed our business in the past and current and future downturns could also adversely affect our business. Adverse economic conditions affect demand for devices that incorporate our products, such as personal computers, smartphones, automobiles, and servers. Reduced demand for these or other products could result in significant decreases in our average selling prices and product sales. In addition, to the extent our customers or distributors have elevated inventory levels or are impacted by a deterioration in credit markets, we may experience a decrease in short-term and/or long-term demand resulting in industry oversupply and declines in pricing for our products.

A deterioration of conditions in regional or 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 receivable due to credit defaults. Additionally, our current or potential future customers may experience cash flow problems and as a result may modify, delay, or cancel plans to purchase our products. Any inability of our current or potential future customers to pay us for our products may adversely affect our earnings and cash flow. As a result, downturns in regional or worldwide economies could have a material adverse effect on our business, results of operations, or financial condition.

**If our manufacturing process is disrupted by operational issues, natural disasters, or other events, 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. As a result of the necessary interdependence within our network of manufacturing facilities, an operational disruption at one of our or a subcontractor's facilities may have a disproportionate impact on our ability to produce many of our products.

From time to time, there have been disruptions in our manufacturing operations as a result of power outages, improperly functioning equipment, disruptions in supply of raw materials or components, or equipment failures. We have manufacturing and other operations in locations subject to natural occurrences and possible climate changes, such as severe and variable weather and geological events resulting in increased costs, or disruptions to our manufacturing operations or those of our suppliers or customers. In addition, climate change may pose physical risks to our manufacturing facilities or our suppliers' facilities, including increased extreme weather events that could result in supply delays or disruptions. Other events, including political or public health crises, such as an outbreak of contagious diseases, may also affect our production capabilities or that of our suppliers, including as a result of quarantines, closures of production facilities, lack of supplies, or delays caused by restrictions on travel or shipping. Events of the types noted above have occurred from time to time and, because these risks are a characteristic of our business, they may occur in the future. As a result, in addition to disruptions to operations, our insurance premiums may increase or we may not be able to fully recover any sustained losses through insurance.

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 revenue, or damage to customer relationships, any of which could have a material adverse effect on our business, results of operations, or financial condition.

**A significant portion of our revenue is concentrated with a select number of customers.**

Approximately one-half of our total revenue comes from our top ten customers. A disruption in our relationship with any of these customers could adversely affect our business. We could experience fluctuations in our customer base or the mix of revenue by customer as markets and strategies evolve. Our customers' demand for our products may fluctuate due to factors beyond our control. In addition, any consolidation of our customers could reduce the number of customers to whom our products may be sold. Our inability to meet our customers' requirements or to qualify our products with them could adversely impact our revenue. A meaningful change in the inventory strategy of our customers could impact our industry bit demand growth outlook. The loss of, or restrictions on our ability to sell to, one or more of our major customers, or any significant reduction in orders from, or a shift in product mix by, 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, qualify, and manufacture 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 at sufficient volumes and prices in a timely manner. 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.

Manufacturing system-level solutions, such as SSDs, managed NAND, and HBM, typically results in higher per-unit manufacturing costs as compared to other products. 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 are not offset by higher 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. 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 controller and hardware design as well as 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 controller, hardware design, and 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 are otherwise incompatible with end uses could impose significant costs on us.**

Products that do not meet specifications or that contain, or are perceived by our customers to contain, defects or that are otherwise incompatible with end uses could impose significant costs on us or otherwise materially adversely affect our business, results of operations, or financial condition. From time to time, we experience problems with nonconforming, defective, or incompatible products after we have shipped such products. In recent periods, we have further diversified and expanded our product offerings, which could potentially increase the chance that one or more of our products could fail to meet specifications in a particular application. Our products and solutions may be deemed fully or partially responsible for functionality in our customers' products and may result in sharing or shifting of product or financial liability from our customers to us for costs incurred by the end user as a result of our customers' products failing to perform as specified. In addition, if our products and solutions perform critical functions in our customers' products or are used in high-risk consumer end products, such as autonomous driver assistance programs, home and enterprise security, smoke and noxious gas detectors, medical monitoring equipment, or wearables for child and elderly safety, our potential liability may increase. 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 reputation or 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.

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

### Market Information

Our common stock is listed on The Nasdaq Global Select Market under the trading symbol "MU."

### Holder of Record

As of September 27, 2024, there were approximately 1,636 shareholders of record of our common stock. A substantially greater number of holders of our common stock are "street name" or beneficial holders, whose shares are held of record by banks, brokers, and other financial institutions.

### Dividends

On September 25, 2024, our Board of Directors declared a quarterly dividend of \$0.115 per share, payable in cash on October 23, 2024, to shareholders of record as of the close of business on October 7, 2024.

We currently expect quarterly dividends to continue in future periods and aim to grow our dividend payments over time. However, the declaration and payment of any future cash dividends are at the discretion and subject to the approval of our Board of Directors. Our Board of Directors' decisions regarding the amount and payment of dividends will depend on many factors, such as our financial condition, results of operations, capital requirements, business conditions, debt service obligations, contractual restrictions, industry practice, legal requirements, regulatory constraints, and other factors that our Board of Directors may deem relevant. We cannot guarantee that we will continue to pay a dividend in any future period.

## Issuer Purchase of Equity Securities

### Common Stock Repurchase Authorization

In 2018, we announced that our Board of Directors authorized the discretionary repurchase of up to \$10 billion of our outstanding common stock through open-market purchases, block trades, privately-negotiated transactions, derivative transactions, and/or pursuant to Rule 10b5-1 trading plans. The repurchase authorization has no expiration date, does not obligate us to acquire any common stock, and is subject to market conditions and our ongoing determination of the best use of available cash. As of August 29, 2024, \$2.81 billion of the authorization remained available for the repurchase of our common stock.

Shares of common stock withheld as payment of withholding taxes upon the vesting of restricted stock are also treated as common stock repurchases. Shares withheld as payment of withholding taxes upon the vesting of restricted stock units are not considered repurchases for purposes of this Item and are not required to be reported.

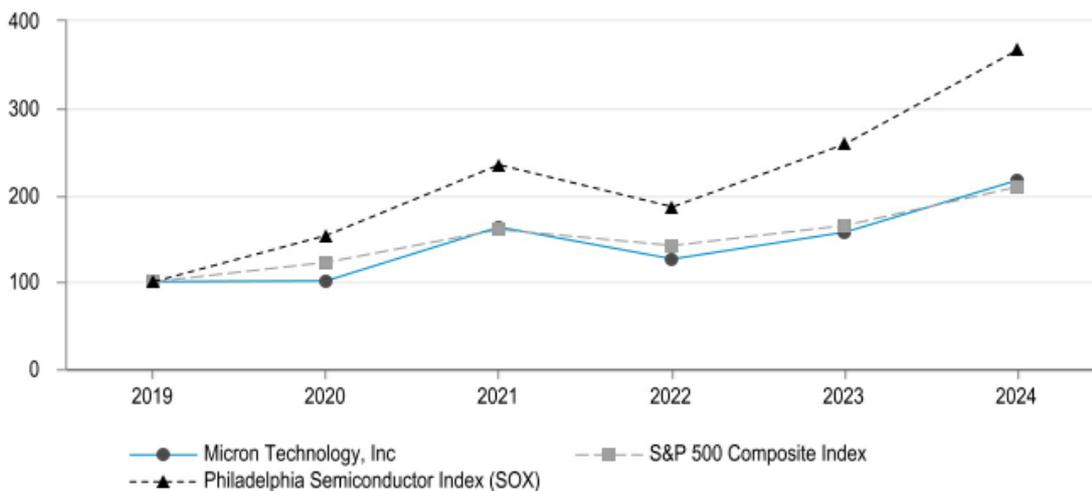
In the fourth quarter of 2024, shares purchased under the authorization and shares withheld as payment upon the vesting of restricted stock consisted of the following:

Period	Total number of shares purchased <sup>(1)</sup>	Average price paid per share	Total number of shares purchased as part of publicly announced plans or programs	Approximate dollar value of shares that may yet be purchased under publicly announced plans or programs (in millions)
May 31, 2024 - June 27, 2024	-	\$ -	-	-
June 28, 2024 - July 25, 2024	25,931	133.55	-	-
July 26, 2024 - August 29, 2024	3,223,518	93.07	3,223,518	-
	<u>3,249,449</u>	<u>\$ 93.39</u>	<u>3,223,518</u>	<u>\$2,806</u>

<sup>(1)</sup> Includes 25,931 shares withheld as payment of withholding taxes upon the vesting of restricted stock awards.

## 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, 2019, through August 31, 2024. 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, 2019 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:

	2019	2020	2021	2022	2023	2024
Micron Technology, Inc.	\$ 100	\$ 101	\$ 163	\$ 126	\$ 157	\$ 217
S&P 500 Composite Index	100	122	160	142	165	209
Philadelphia Semiconductor Index (SOX)	100	153	234	186	258	367

## ITEM 6. [RESERVED]

## 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 29, 2024. 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. Fiscal 2024, 2023, and 2022 each contained 52 weeks. All tabular dollar amounts are in millions, except per share amounts.*

### Overview

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

#### Industry Conditions

Throughout 2024, we experienced substantial improvements in pricing and margins. Increasing demand growth, driven in part by deployment of AI and mostly normal customer inventories, combined with industry-wide supply discipline, resulted in an industry supply and demand balance that substantially improved from 2023 conditions. We executed well on pricing and improved our financial performance significantly from the start of the year. We are exiting the year with excellent momentum and an industry-leading product portfolio.

In contrast, 2023 was a year of weak memory and storage industry demand in many end markets, stemming from global macroeconomic challenges and customer actions to reduce inventory levels. These conditions, which began in the fourth quarter of 2022 and persisted into early 2024, led to significant reductions in average selling prices for both DRAM and NAND and reductions in bit shipments for DRAM. We experienced declines in revenue across all our business segments and nearly all our end markets throughout 2023. Also in 2023, China's Cyberspace Administration (the "CAC") conducted a cybersecurity review of our products sold in China and decided that our products presented a cybersecurity risk. The CAC determined that critical information infrastructure operators in China may not purchase Micron products. The CAC decision has impacted our business, particularly in the domestic data center and networking markets in China, and we have been working to mitigate that impact. Our goal is to retain our worldwide DRAM and NAND market share.

In manufacturing, we have been fully utilized throughout most of 2024 on our high-volume manufacturing nodes where we are maximizing output against our current capacity, which we have proactively, structurally lowered. Beginning in the latter part of 2022, we reduced capital expenditures and wafer starts for both DRAM and NAND in response to challenging market conditions and increased levels of our inventories. In addition, to improve capital efficiency, we redeployed equipment from older technology nodes to support conversions to leading-edge nodes. Since the number of wafer processing steps is higher for leading-edge nodes, this approach has resulted in a meaningful structural reduction in DRAM and NAND wafer capacity. We believe this approach to node migration and consequent wafer capacity reduction was adopted across the industry. We recognized period costs from fabrication facility underutilization of \$382 million in 2023 and \$165 million in the first quarter of 2024 due to wafer start reductions. Subsequently, fabrication facility underutilization was reduced and principally related to legacy manufacturing capacity. Accordingly, 2024 period costs beyond the first quarter were not significant.

In connection with improved 2024 market conditions, we reinstated our bonuses and phased out certain other temporary cost-saving measures that were implemented in 2023. We took significant steps in 2023 to reduce our costs and operating expenses, both on a temporary and ongoing structural basis. These measures included the 2023 Restructure Plan, as well as implementing productivity programs, suspension of our 2023 bonus, reductions in select product programs, lower discretionary spending, and cuts to 2023 executive salaries. Under the 2023 Restructure Plan, we reduced our headcount by approximately 15% by the end of calendar 2023, through a combination of voluntary attrition and personnel reductions. We incurred restructure charges of \$171 million in 2023 primarily related to employee severance costs. The 2023 Restructure Plan, which was substantially completed in 2023, yielded estimated cost savings of approximately \$130 million per quarter (approximately 60% in cost of goods sold, 30% in R&D, and 10% in SG&A) subsequent to 2023.

# Results of Operations

## Consolidated Results

For the year ended	2024		2023		2022	
Revenue	\$ 25,111	100%	\$ 15,540	100%	\$ 30,758	100%
Cost of goods sold	19,498	78%	16,956	109%	16,860	55%
Gross margin	5,613	22%	(1,416)	(9)%	13,898	45%
Research and development	3,430	14%	3,114	20%	3,116	10%
Selling, general, and administrative	1,129	4%	920	6%	1,066	3%
Restructure and asset impairments	1	-%	171	1%	48	-%
Other operating (income) expense, net	(251)	(1)%	124	1%	(34)	-%
Operating income (loss)	1,304	5%	(5,745)	(37)%	9,702	32%
Interest income (expense), net	(33)	-%	80	1%	(93)	-%
Other non-operating income (expense), net	(31)	-%	7	-%	(38)	-%
Income tax (provision) benefit	(451)	(2)%	(177)	(1)%	(888)	(3)%
Equity in net income (loss) of equity method investees	(11)	-%	2	-%	4	-%
Net income (loss)	\$ 778	3%	\$ (5,833)	(38)%	\$ 8,687	28%

**Total Revenue:** Total revenue for 2024 and 2023 was impacted by the factors described in the section titled “Industry Conditions” above. These conditions drove a recovery of average selling prices throughout 2024 after significant declines in average selling prices throughout 2023.

Total revenue for 2024 increased 62% as compared to 2023 primarily due to increases in sales of both DRAM and NAND products.

- Sales of DRAM products increased 60% primarily due to a mid-40% range increase in bit shipments and a low-teen percentage range increase in average selling prices.
- Sales of NAND products increased 72% primarily due to a low-30% range increase in bit shipments and a low-30% percentage range increase in average selling prices.

Total revenue for 2023 decreased 49% as compared to 2022 primarily due to decreases in sales of both DRAM and NAND products.

- Sales of DRAM products decreased 51% primarily due to a high-40% range decline in average selling prices and decreases in bit shipments in the high-single-digit percent range.
- Sales of NAND products decreased 46% primarily due to a low-50% range decline in average selling prices partially offset by increases in bit shipments in the high-single-digit percent range.

**Consolidated Gross Margin:** Our consolidated gross margin has been impacted by the factors described in the section titled “Industry Conditions” above and inventory write-downs in 2023 as detailed in the table below. Our consolidated gross margin percentage improved to 22% for 2024 from negative 9% for 2023, as a result of improvements in margins for both DRAM and NAND products, primarily due to increases in average selling prices, and manufacturing cost reductions, the effects of charges to write down inventories to their NRV in 2023 and lower costs in 2024 from the sale of inventories written down in 2023 (as detailed in “Inventory NRV write-downs” below).

Our consolidated gross margin percentage decreased to negative 9% for 2023 from 45% for 2022 primarily due to declines in average selling prices for both DRAM and NAND, charges to write down inventories, and \$382 million of facility underutilization costs in 2023.

**Inventory NRV write-downs:** Our consolidated gross margin was impacted by charges in 2023 to write down inventories to their estimated NRV as a result of declines in average selling prices for both DRAM and NAND. As charges to write down inventories are recorded in advance of when inventories are sold, costs of goods sold in subsequent periods were lower than they otherwise would be. The impact of inventory NRV write-downs for each period reflects (1) inventory write-downs in that period, offset by (2) lower costs in that period on the sale of inventory written down in prior periods. The impacts of inventory NRV write-downs are summarized below:

For the year ended	2024	2023	2022
Provision to write down inventory to NRV	\$ -	-\$ (1,831)	\$ -
Lower costs from sale of inventory written down in prior periods	987	844	-
	<u>\$ 987</u>	<u>\$ (987)</u>	<u>\$ -</u>

## Revenue by Business Unit

For the year ended	2024		2023		2022	
CNBU	\$ 9,513	38%	\$ 5,710	37%	\$ 13,693	45%
MBU	6,354	25%	3,630	23%	7,260	24%
EBU	4,614	18%	3,637	23%	5,235	17%
SBU	4,592	18%	2,553	16%	4,553	15%
All Other	38	-%	10	-%	17	-%
	<u>\$ 25,111</u>		<u>\$ 15,540</u>		<u>\$ 30,758</u>	

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

Changes in revenue for each business unit for 2024 as compared to 2023 were as follows:

- CNBU revenue increased 67% driven by increases in bit shipments and DRAM average selling prices.
- MBU revenue increased 75% primarily due to increases in average selling prices and bit shipments for both mobile DRAM and NAND.
- EBU revenue increased 27% primarily due to increases in bit shipments, partially offset by declines in average selling prices.
- SBU revenue increased 80% primarily due to increases in average selling prices and bit shipments.

Changes in revenue for each business unit for 2023 as compared to 2022 were as follows:

- CNBU revenue decreased 58% primarily due to declines in average selling prices for DRAM and decreases in bit shipments.
- MBU revenue decreased 50% primarily due to declines in average selling prices for both DRAM and NAND and decreases in NAND bit shipments.
- EBU revenue decreased 31% primarily due to declines in average selling prices for both DRAM and NAND and decreases in bit shipments.
- SBU revenue decreased 44% primarily due to declines in average selling prices for NAND partially offset by increases in bit shipments.

For 2022, net cash used for investing activities consisted primarily of \$12.07 billion of expenditures for property, plant, and equipment; partially offset by contributions of \$115 million received from government incentives to offset capital expenditures; \$888 million of net inflows from the sale of the Lehi, Utah fab; and \$155 million of net outflows from purchases, maturities, and sales of available-for-sale securities.

**Financing Activities:** For 2024, net cash used for financing activities consisted primarily of \$1.90 billion of repayments of debt, which included the prepayment of the 2024 Term Loan A and the 2025 Term Loan A borrowings; \$513 million for payments of dividends to shareholders; \$300 million for the acquisition of 3.2 million shares of our common stock under our share repurchase authorization; and \$149 million of payments on equipment purchase contracts, partially offset by approximately \$1.00 billion of proceeds from the issuance of the 2031 Notes.

For 2023, net cash provided by financing activities consisted primarily of \$3.20 billion of proceeds from our 2025, 2026, and 2027 Term Loan A borrowings; \$1.27 billion from the issuance of the 2029 B Notes; \$896 million from the issuance of the 2033 B Notes; \$749 million from the issuance of the 2033 A Notes; and \$599 million from the issuance of the 2028 Notes. Cash used for financing activities included \$761 million for repayments of debt; \$504 million for payments of dividends to shareholders; \$425 million for the acquisition of 8.6 million shares of our common stock under our share repurchase authorization; and \$138 million of payments on equipment purchase contracts.

For 2022, net cash used for financing activities included \$2.43 billion for the acquisition of 35.4 million shares of our common stock under our share repurchase authorization; \$2.03 billion of repayments of debt primarily to redeem the 2023 Notes and 2024 Notes; \$461 million of cash payments of dividends to shareholders; and \$141 million of payments on equipment purchase contracts. Cash used for financing activities was partially offset by aggregate proceeds of \$2.00 billion from the issuance of the unsecured 2032 Green Bonds, 2041 Notes, and 2051 Notes.

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

## 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 and involve a significant level of uncertainty. 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.

**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. 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:** We test goodwill for impairment in our fourth quarter each 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 quantitative 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, we recognize an impairment loss up to the difference between the carrying value and implied fair value. We recognized a charge of \$101 million in 2023 to impair all of the goodwill assigned to our SBU reporting unit based on our quantitative assessment for impairment. We performed a qualitative assessment for the current year and have not identified any impairment indicators for our reporting units.

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. 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 assess the reasonableness of our methodology, forecasts, and assumptions by comparing the aggregate calculated fair value for our reporting units to our market capitalization.

**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 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. Our income tax provision or benefit is dependent, in part, on our ability to forecast future taxable income in Japan, the United States, Malaysia, Taiwan, 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 cost or net realizable value, with cost being determined on a first-in, first-out ("FIFO") basis. Cost includes depreciation, labor, material, and overhead costs, including product and process technology costs. Determining net realizable value of finished goods and work in process inventories involves significant judgments, including projecting future average selling prices, future sales volumes, and future cost per part. 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, and general economic trends. To project cost per part, we review trends with historical results and consider known changes in our cost structure as applicable. Actual selling prices may vary significantly from projected prices due to the volatile nature of the semiconductor memory and storage markets. 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. As a result, the timing of when product costs are charged to costs of goods sold can vary significantly. Differences in future 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 finished goods and work in process inventories and accordingly the amount of write-down recorded. For example, a 5% decrease in future average selling prices would have changed the estimated net realizable value of our finished goods and work in process inventories by approximately \$700 million as of August 29, 2024.

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 cost or net realizable value analysis and categorize all inventories (including DRAM, NAND, and other memory) as a single group.

**Property, plant, and equipment:** We periodically assess the estimated useful lives of our property, plant, and equipment based on technology node transitions, capital spending, and equipment re-use rates. We also 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.

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

## 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 29, 2024 and August 31, 2023, we had fixed-rate debt with an aggregate carrying value of \$8.52 billion and \$7.52 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 29, 2024 and August 31, 2023, a hypothetical 1% decrease in market interest rates would increase the fair value of our fixed-rate debt by approximately \$520 million and \$475 million, respectively.

Interest rate risk related to our investment portfolio is managed by primarily investing in shorter term securities. We estimate that, as of August 29, 2024 and August 31, 2023, a hypothetical 1% increase in interest rates would decrease the fair value of our portfolio by approximately \$20 million. Such impact would only be realized if investments were sold prior to maturity.

As of August 29, 2024 and August 31, 2023, we had floating-rate debt, including fixed-rate debt that is swapped to floating-rate debt, with an aggregate principal amount of \$2.89 billion and \$4.63 billion, respectively. A hypothetical 1% increase in the interest rates of this floating-rate debt would result in an increase in annual interest expense of \$29 million and \$46 million as of August 29, 2024 and August 31, 2023, respectively.

# Micron Technology, Inc.

## Consolidated Balance Sheets

(In millions, except par value amounts)

As of	August 29, 2024	August 31, 2023
<b>Assets</b>		
Cash and equivalents	\$ 7,041	\$ 8,577
Short-term investments	1,065	1,017
Receivables	6,615	2,443
Inventories	8,875	8,387
Other current assets	776	820
Total current assets	24,372	21,244
Long-term marketable investments	1,046	844
Property, plant, and equipment	39,749	37,928
Operating lease right-of-use assets	645	666
Intangible assets	416	404
Deferred tax assets	520	756
Goodwill	1,150	1,150
Other noncurrent assets	1,518	1,262
Total assets	\$ 69,416	\$ 64,254
<b>Liabilities and equity</b>		
Accounts payable and accrued expenses	\$ 7,299	\$ 3,958
Current debt	431	278
Other current liabilities	1,518	529
Total current liabilities	9,248	4,765
Long-term debt	12,966	13,052
Noncurrent operating lease liabilities	610	603
Noncurrent unearned government incentives	550	727
Other noncurrent liabilities	911	987
Total liabilities	24,285	20,134
Commitments and contingencies		
Shareholders' equity		
Common stock, \$0.10 par value, 3,000 shares authorized, 1,253 shares issued and 1,109 outstanding (1,239 shares issued and 1,098 outstanding as of August 31, 2023)	125	124
Additional capital	12,115	11,036
Retained earnings	40,877	40,824
Treasury stock, 144 shares held (141 shares as of August 31, 2023)	(7,852)	(7,552)
Accumulated other comprehensive income (loss)	(134)	(312)
Total equity	45,131	44,120
Total liabilities and equity	\$ 69,416	\$ 64,254

*See accompanying notes to consolidated financial statements.*

# Micron Technology, Inc.

## Consolidated Statements of Changes in Equity

(In millions, except per share amounts)

	Common Stock				Treasury Stock	Accumulated Other Comprehensive Income (Loss)	Total Shareholders' Equity
	Number of Shares	Amount	Additional Capital	Retained Earnings			
<b>Balance at September 2, 2021</b>	1,216	\$ 122	\$ 9,453	\$ 39,051	\$ (4,695)	\$ 2	43,933
Net income (loss)	-	-	-	8,687	-	-	8,687
Other comprehensive income (loss), net	-	-	-	-	-	(562)	(562)
Stock issued under equity compensation plans	12	1	244	-	-	-	245
Stock-based compensation expense	-	-	514	-	-	-	514
Repurchase of stock - repurchase program	-	-	-	-	(2,432)	-	(2,432)
Repurchase of stock - withholdings on employee equity awards	(2)	-	(14)	(112)	-	-	(126)
Dividends and dividend equivalents declared (\$0.315 per share)	-	-	-	(352)	-	-	(352)
<b>Balance at September 1, 2022</b>	1,226	\$ 123	\$ 10,197	\$ 47,274	\$ (7,127)	\$ (560)	49,907
Net income (loss)	-	-	-	(5,833)	-	-	(5,833)
Other comprehensive income (loss), net	-	-	-	-	-	248	248
Stock issued under equity compensation plans	15	1	262	-	-	-	263
Stock-based compensation expense	-	-	596	-	-	-	596
Repurchase of stock - repurchase program	-	-	-	-	(425)	-	(425)
Repurchase of stock - withholdings on employee equity awards	(2)	-	(19)	(108)	-	-	(127)
Dividends and dividend equivalents declared (\$0.460 per share)	-	-	-	(509)	-	-	(509)
<b>Balance at August 31, 2023</b>	1,239	\$ 124	\$ 11,036	\$ 40,824	\$ (7,552)	\$ (312)	44,120
Net income (loss)	-	-	-	778	-	-	778
Other comprehensive income (loss), net	-	-	-	-	-	178	178
Stock issued under equity compensation plans	17	1	271	-	-	-	272
Stock-based compensation expense	-	-	833	-	-	-	833
Repurchase of stock - repurchase program	-	-	-	-	(300)	-	(300)
Repurchase of stock - withholdings on employee equity awards	(3)	-	(25)	(207)	-	-	(232)
Dividends and dividend equivalents declared (\$0.460 per share)	-	-	-	(518)	-	-	(518)
<b>Balance at August 29, 2024</b>	1,253	\$ 125	\$ 12,115	\$ 40,877	\$ (7,852)	\$ (134)	45,131

See accompanying notes to consolidated financial statements.

# Micron Technology, Inc.

## Consolidated Statements of Cash Flows

(In millions)

For the year ended	August 29, 2024	August 31, 2023	September 1, 2022
<b>Cash flows from operating activities</b>			
Net income (loss)	\$ 778	\$ (5,833)	\$ 8,687
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Depreciation expense and amortization of intangible assets	7,780	7,756	7,116
Stock-based compensation	833	596	514
Provision to write down inventories to net realizable value	-	1,831	-
Goodwill impairment	-	101	-
Change in operating assets and liabilities:			
Receivables	(3,581)	2,763	190
Inventories	(488)	(3,555)	(2,179)
Accounts payable and accrued expenses	1,915	(1,302)	334
Other current liabilities	989	(817)	400
Other	281	19	119
Net cash provided by operating activities	8,507	1,559	15,181
<b>Cash flows from investing activities</b>			
Expenditures for property, plant, and equipment	(8,386)	(7,676)	(12,067)
Purchases of available-for-sale securities	(1,999)	(723)	(1,770)
Proceeds from maturities and sales of available-for-sale securities	1,794	1,591	1,615
Proceeds from government incentives	315	710	115
Proceeds from sale of Lehi, Utah fab	-	-	888
Other	(33)	(93)	(366)
Net cash provided by (used for) investing activities	(8,309)	(6,191)	(11,585)
<b>Cash flows from financing activities</b>			
Repayments of debt	(1,897)	(761)	(2,032)
Payments of dividends to shareholders	(513)	(504)	(461)
Repurchases of common stock - repurchase program	(300)	(425)	(2,432)
Payments on equipment purchase contracts	(149)	(138)	(141)
Proceeds from issuance of debt	999	6,716	2,000
Other	18	95	86
Net cash provided by (used for) financing activities	(1,842)	4,983	(2,980)
Effect of changes in currency exchange rates on cash, cash equivalents, and restricted cash			
	40	(34)	(106)
Net increase (decrease) in cash, cash equivalents, and restricted cash	(1,604)	317	510
Cash, cash equivalents, and restricted cash at beginning of period	8,656	8,339	7,829
Cash, cash equivalents, and restricted cash at end of period	\$ 7,052	\$ 8,656	\$ 8,339
<b>Supplemental disclosures</b>			
Income taxes paid, net	\$ (338)	\$ (532)	\$ (493)
Interest paid, net of amounts capitalized	(503)	(323)	(154)
Noncash equipment acquisitions on contracts payable	118	165	157

*See accompanying notes to consolidated financial statements.*

# Micron Technology, Inc.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(All tabular amounts in millions, except per share amounts)

## Significant Accounting Policies

### Basis of Presentation

We are an industry leader in innovative memory and storage solutions transforming how the world uses information to enrich life *for all*. With a relentless focus on our customers, technology leadership, and manufacturing and operational excellence, Micron delivers a rich portfolio of high-performance DRAM, NAND, and NOR memory and storage products through our Micron® and Crucial® brands. Every day, the innovations that our people create fuel the data economy, enabling advances in artificial intelligence (AI) and compute-intensive applications that unleash opportunities - from the data center to the intelligent edge and across the client and mobile user experience.

The accompanying consolidated financial statements include the accounts of Micron Technology, Inc. and our consolidated subsidiaries and have been prepared in accordance with accounting principles generally accepted in the United States of America. Intercompany balances and transactions have been eliminated in consolidation. 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 2024, 2023, and 2022 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, (2) non-U.S.-dollar-denominated investments in debt instruments, and (3) forecasted cash flows for certain capital expenditures and manufacturing costs. We also use derivative instruments to manage our exposure to changes in commodity prices for manufacturing supplies and to minimize certain exposures to changes in the fair value of fixed-rate debt that result from fluctuations in benchmark interest rates. 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) and cash flows are classified as investing activities in the statement of cash flows. For derivative instruments designated as cash flow hedges, gains or losses are included as a component of accumulated other comprehensive income and reclassified into earnings in the same line items and in the same periods in which the underlying transactions affect earnings. For derivative instruments designated as fair value hedges, changes in the fair values of the derivative instruments and the offsetting changes in the fair values of the underlying hedged items are both recognized in earnings. For foreign currency and commodity derivative instruments designated as cash flow hedges or fair value hedges, time value is excluded from the assessment of effectiveness and the gains and losses attributable to time value are recognized in earnings through an amortization approach. Cash flows from derivative instruments designated as cash flow hedges or fair value hedges are classified in the same category as the items being hedged.

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 at the time of purchase 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

We perform an annual impairment assessment for goodwill in our fourth quarter each year.

## Government Incentives

We receive incentives from governmental entities related to capital expenditures, expenses, 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 asset costs or a reduction of expenses. Incentives related to the acquisition or construction of fixed assets are recognized as a reduction in the carrying amounts of the related assets and as a reduction to depreciation expense over the useful lives of the assets. Incentives related to specific operating activities are offset against the related expense in the period the expense is incurred. 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 is 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 is included as an investing activity.

## Inventories

Inventories are stated at the lower of cost or net realizable value, with cost being determined on a FIFO basis. Cost includes depreciation, labor, material, and overhead costs, including product and process technology costs. Determining net realizable value of finished goods and work in process inventories requires projecting future average selling prices, sales volumes, and costs per part. 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 cost or net realizable value analysis and categorize all inventories (including DRAM, NAND, and other memory) as a single group.

## Leases

We determine if an arrangement is a lease, or contains a lease, at the inception of the arrangement and evaluate whether the lease is an operating lease or a finance lease at the commencement date. We recognize right-of-use assets and lease liabilities for operating and finance leases with terms greater than 12 months. Right-of-use assets represent our right to use an asset for the lease term, while lease liabilities represent our obligation to make lease payments. We do not separate lease and non-lease components for real-estate and gas plant leases. Sublease income is included within lease expense.

## Product and Process Technology

Costs incurred to (1) acquire product and process technology, (2) patent technology, and (3) keep patents in force, are capitalized and amortized on a straight-line basis over periods ranging up to 12.5 years. We capitalize a portion of costs incurred to patent technology based on historical data of patents issued as a percent of patents we file. 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, 7 years for production equipment, up to 7 years for other equipment, and 3 to 5 years for software. Assets held for sale are carried at the lower of estimated fair value or carrying value and are included in current 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. We utilize a weighted average capitalization rate that is based on our consolidated debt portfolio. Capitalized interest becomes part of the cost of assets.

## 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.

## Revenue Recognition

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

## 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, conversion of share units, or issuance of shares under our ESPP.

## 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.

## Cash and Investments

All of our short-term investments and long-term marketable investments were classified as available-for-sale as of the dates noted below. Cash and equivalents and the fair values of our available-for-sale investments, which approximated amortized costs, were as follows:

	As of August 29, 2024				As of August 31, 2023			
	Cash and Equivalents	Short-term Investments	Long-term Marketable Investments <sup>(1)</sup>	Total Fair Value	Cash and Equivalents	Short-term Investments	Long-term Marketable Investments <sup>(1)</sup>	Total Fair Value
Cash	\$ 6,654	\$ -	\$ -	\$ 6,654	\$ 5,771	\$ -	\$ -	\$ 5,771
Level 1 <sup>(2)</sup>								
Money market funds	20	-	-	20	1,629	-	-	1,629
Level 2 <sup>(3)</sup>								
Certificates of deposit	316	6	-	322	1,172	25	-	1,197
Corporate bonds	-	771	571	1,342	-	737	437	1,174
Asset-backed securities	-	46	433	479	-	15	387	402
Commercial paper	16	160	-	176	-	109	-	109
Government securities	35	82	42	159	5	131	20	156
	7,041	\$ 1,065	\$ 1,046	\$ 9,152	8,577	\$ 1,017	\$ 844	\$ 10,438
Restricted cash <sup>(4)</sup>	11				79			
Cash, cash equivalents, and restricted cash	\$ 7,052				\$ 8,656			

<sup>(1)</sup> The maturities of long-term marketable investments primarily range from one to five years, except for asset-backed securities which are not due at a single maturity date.

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

<sup>(3)</sup> The fair value of Level 2 securities is measured using information obtained from pricing services, which obtain quoted market prices for similar instruments, non-binding market consensus prices that are corroborated by observable market data, or various other methodologies, to determine the appropriate value at the measurement date. We perform supplemental 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 29, 2024 or August 31, 2023.

<sup>(4)</sup> Restricted cash is included in other current assets and other noncurrent assets and primarily relates to certain government incentives received prior to being earned and for which restrictions lapse upon achieving certain performance conditions or which will be returned if performance conditions are not met.

Gross realized gains and losses from sales of available-for-sale securities were not significant for any period presented.

### Non-marketable Equity Investments

In addition to the amounts included in the table above, we had \$190 million and \$218 million of non-marketable equity investments without a readily determinable fair value that were included in other noncurrent assets as of August 29, 2024 and August 31, 2023, respectively. For non-marketable investments, we recognized in other non-operating income (expense) a net loss of \$32 million for 2024 and \$7 million for 2023 and a net gain of \$36 million for 2022. Our non-marketable equity investments are recorded at fair value on a non-recurring basis and classified as Level 3.

## Receivables

As of	August 29, 2024	August 31, 2023
Trade receivables	\$ 5,419	\$ 2,048
Government incentives	834	105
Income and other taxes	268	194
Other	94	96
	<u>\$ 6,615</u>	<u>\$ 2,443</u>

## Inventories

As of	August 29, 2024	August 31, 2023
Finished goods	\$ 1,308	\$ 1,616
Work in process	6,774	6,111
Raw materials and supplies	793	660
	<u>\$ 8,875</u>	<u>\$ 8,387</u>

In 2023, we recorded charges of \$1.83 billion to cost of goods sold to write down the carrying value of work in process and finished goods inventories to their estimated net realizable value.

## Property, Plant, and Equipment

As of	August 29, 2024	August 31, 2023
Land	\$ 284	\$ 283
Buildings	20,141	17,967
Equipment <sup>(1)</sup>	70,813	65,555
Construction in progress <sup>(2)</sup>	3,444	2,464
Software	1,365	1,316
	<u>96,047</u>	<u>87,585</u>
Accumulated depreciation	(56,298)	(49,657)
	<u>\$ 39,749</u>	<u>\$ 37,928</u>

<sup>(1)</sup> Includes costs related to equipment not placed into service of \$3.10 billion as of August 29, 2024 and \$2.91 billion as of August 31, 2023.

<sup>(2)</sup> Primarily includes building-related construction and tool installation.

Depreciation expense was \$7.70 billion, \$7.67 billion, and \$7.03 billion for 2024, 2023, and 2022, respectively. Interest capitalized as part of the cost of property, plant, and equipment was \$225 million, \$208 million, and \$77 million for 2024, 2023, and 2022, respectively.

## Leases

We have finance and operating leases through which we obtain the right to use facilities, land, and equipment that support our business operations. Our finance leases consist primarily of (i) gas and other supply agreements that are deemed to contain embedded leases and (ii) equipment leases. Our operating leases consist primarily of offices, laboratories, other facilities, and land. Certain of our operating leases include one or more options to extend the lease term for periods from one year to 10 years for real estate and one year to 99 years for land.

Certain supply or service agreements require us to exercise significant judgment to determine whether the agreement contains a lease. Our assessment includes determining whether we or the supplier control the assets used to fulfill the agreements by identifying whether we or the supplier have the right to change the type, quantity, timing, or location of the output of the assets. Our gas supply arrangements generally are deemed to contain a lease because we have the right to substantially all of the output of the assets used to produce the supply and we have the right to change the quantity and timing of the output of those assets. In determining the lease term, we assess whether we are reasonably certain to exercise any options to renew or terminate a lease or to purchase the right-of-use asset. Measuring the present value of the initial lease liability requires judgment to determine the discount rate, which we base on interest rates for borrowings with similar terms and collateral issued by entities with credit ratings similar to ours.

The components of lease cost are presented below:

<b>For the year ended</b>	<b>2024</b>	<b>2023</b>	<b>2022</b>
<b>Finance lease cost</b>			
Amortization of right-of-use asset	\$ 176	\$ 105	\$ 99
Interest on lease liability	70	24	24
Operating lease cost <sup>(1)</sup>	140	137	125
	<u>\$ 386</u>	<u>\$ 266</u>	<u>\$ 248</u>

<sup>(1)</sup> Operating lease cost includes short-term and variable lease expenses, which were not material for the periods presented.

Supplemental cash flow information related to leases was as follows:

<b>For the year ended</b>	<b>2024</b>	<b>2023</b>	<b>2022</b>
<b>Cash flows used for operating activities</b>			
Finance leases	\$ 61	\$ 24	\$ 23
Operating leases	132	139	110
Cash flows used for financing activities - Finance leases	155	109	103
<b>Noncash acquisitions of right-of-use assets</b>			
Finance leases	905	508	309
Operating leases	54	57	197

## Government Incentives

We receive incentives from governmental entities primarily in India, Japan, Singapore, Taiwan, and the United States principally in the form of cash grants and tax credits. These incentives primarily relate to capital expenditures, have initial terms ranging from one year to 15 years, and may be subject to reimbursement if certain conditions are not met or maintained. The conditions attached to these incentives require us to incur expenditures related to the construction of new manufacturing facilities, the purchase and installation of specialized tools and equipment, R&D expenditures, and/or maintain certain levels of fixed asset investment or employee headcount during the incentive terms.

The line items on the balance sheet affected by government incentives were as follows:

As of	August 29, 2024
Receivables	\$ 834
Other noncurrent assets	188
Noncurrent unearned government incentives	550

Beginning in 2023, we receive a 25% investment tax credit on qualified investments in U.S. semiconductor manufacturing under the CHIPS Act. As qualified investments are made, we recognize investment tax credits in receivables or other noncurrent assets.

We have signed a non-binding preliminary memorandum of terms with the U.S. Department of Commerce for up to \$6.1 billion in direct funding under the CHIPS Act for our planned fab in Boise, Idaho and the first two planned fabs in Clay, New York. We are also eligible for federal loans up to \$7.5 billion. We have also signed a non-binding term sheet with the state of New York that provides up to \$5.5 billion in funding for the planned four-fab facility over the next 20-plus years through a combination of tax credits for qualified capital investments and incentives for eligible new job wages.

In addition to the receivables and other noncurrent assets in the table above, as of August 29, 2024, we had aggregate commitments from various governmental entities of up to \$3.4 billion to be received through 2033, subject to achievement of certain performance conditions. The commitment amount includes \$1.8 billion (150 billion Indian rupees) for the construction of a new assembly and test facility in Gujarat, India. We will receive incentives representing 50% of the total project cost from the Indian central government and 20% of the total project cost from the state of Gujarat. The commitment amount also includes up to \$1.3 billion (188 billion Japanese yen) from the Japanese Ministry of Economy, Trade and Industry to support the production of DRAM using EUV lithography in Hiroshima, Japan.

Government incentives related to capital expenditures have reduced property, plant and equipment by \$2.34 billion as of August 29, 2024, of which \$1.10 billion pertained to 2024 expenditures.

In 2024, operating income (loss) benefited by \$588 million (approximately 85% in COGS and 15% in R&D) from government incentives recognized as a reduction of expense.

## Revenue and Customer Contract Liabilities

### Revenue by Technology

For the year ended	2024	2023	2022
DRAM	\$ 17,603	\$ 10,978	\$ 22,386
NAND	7,227	4,206	7,811
Other (primarily NOR)	281	356	561
	<u>\$ 25,111</u>	<u>\$ 15,540</u>	<u>\$ 30,758</u>

See “Segment and Other Information” for disclosure of disaggregated revenue by market segment.

Revenue is primarily recognized at a point in time when control of the promised goods is transferred to our customers in an amount that reflects the consideration we expect to be entitled to in exchange for those goods. Substantially all contracts with our customers are short-term in duration at fixed, negotiated prices with payment generally due shortly after delivery. From time to time, we have contracts with initial terms that include performance obligations that extend beyond one year. As of August 29, 2024, our future performance obligations beyond one year were \$141 million, which included customer prepayments and other contract liabilities. Customer prepayments made to secure product supply in future periods and other contract liabilities were \$907 million as of August 29, 2024, of which \$766 million was reported in other current liabilities and the remainder in other noncurrent liabilities.

As of August 29, 2024 and August 31, 2023, other current liabilities included \$718 million and \$453 million, respectively, for estimates of consideration payable to customers including estimates for pricing adjustments and returns.

In 2023, we received an aggregate of \$228 million from settlements of insurance claims involving a power disruption in 2022 and an operational disruption in 2017, of which \$186 million was for business interruption and recognized in revenue.

## Restructure and Asset Impairments

For the year ended	2024	2023	2022
Employee severance	\$ 1	\$ 163	\$ -
Asset impairments and other asset-related costs	-	14	63
Other	-	(6)	(15)
	<u>\$ 1</u>	<u>\$ 171</u>	<u>\$ 48</u>

In 2023, we initiated a restructure plan in response to challenging industry conditions (the “2023 Restructure Plan”). Under the 2023 Restructure Plan, we reduced our headcount by approximately 15% by the end of calendar 2023, through a combination of voluntary attrition and personnel reductions. The plan was substantially completed in 2023.

Restructure and asset impairments for 2022 primarily related to the sale of our Lehi, Utah facility to Texas Instruments Incorporated.

## Other Operating (Income) Expense, Net

For the year ended	2024	2023	2022
Patent cross-license agreement gain	\$ (200)	\$ -	\$ -
(Gain) loss on disposition of property, plant, and equipment	(59)	(54)	(41)
Goodwill impairment	-	101	-
Litigation settlement	-	68	-
Other	8	9	7
	<u>\$ (251)</u>	<u>\$ 124</u>	<u>\$ (34)</u>

We performed a qualitative assessment for goodwill impairment in 2024 and did not identify any impairment indicators for our reporting units.

Due to 2023 global and macroeconomic challenges, as well as lower expected demand resulting from customer actions to reduce elevated inventory levels, we performed a 2023 quantitative assessment for goodwill impairment for each of our reporting units. We evaluated the fair value of our reporting units based on an income approach, using a discounted cash flow methodology. We recognized a \$101 million charge in 2023, included in other operating income (loss) to impair all of the goodwill assigned to our SBU reporting unit based on our best estimates of projected future cash flows at that time. The 2023 quantitative assessment for all of our other reporting units yielded fair values that substantially exceeded their carrying values.

## Income Taxes

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

For the year ended	2024	2023	2022
Income (loss) before income taxes and equity in net income (loss) of equity method investees			
U.S.	\$ 544	\$ 235	\$ 112
Foreign	696	(5,893)	9,459
	<u>\$ 1,240</u>	<u>\$ (5,658)</u>	<u>\$ 9,571</u>
Income tax (provision) benefit			
Current			
U.S. federal	\$ (82)	\$ (5)	\$ (65)
State	(1)	(1)	(1)
Foreign	(333)	(178)	(528)
	<u>(416)</u>	<u>(184)</u>	<u>(594)</u>
Deferred			
U.S. federal	18	(84)	(166)
State	-	-	(225)
Foreign	(53)	91	97
	<u>(35)</u>	<u>7</u>	<u>(294)</u>
Income tax (provision) benefit	<u>\$ (451)</u>	<u>\$ (177)</u>	<u>\$ (888)</u>