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

FORM 10-Q

(Mark One)

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

For the quarterly period ended June 2, 2022

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

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

Delaware	**75-1618004**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)
8000 S. Federal Way, Boise, Idaho	**83716-9632**
(Address of principal executive offices)	(Zip Code)
(Registrant's telephone number, including area code)	**(208) 368-4000**

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

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

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
☒	☐	☐	☐	☐

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

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

The number of outstanding shares of the registrant's common stock as of June 24, 2022 was 1,103,145,108.

Micron Corporate Profile

Founded on October 5, 1978

Headquartered in
Boise, Idaho, USA

4th
Largest semiconductor company in the world, excluding IP/software revenue*

127
On the 2022 Fortune 500

50,000+
Patents granted and growing**

17
Countries**

11
Manufacturing sites** and 18 customer labs**

~45,000
Team members**

*Gartner Market Share: Semiconductors by End Market, Worldwide, 2021 (April 2022)
**Micron data as of June 2, 2022

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Government Inquiries
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Investor Inquiries
investorrelations@micron.com

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It's All About Data

Data is today's new business currency, and memory and storage are a critical foundation for the data economy. Memory and storage innovations will help transform society and enable significant value *for all*.

Who We Are

Micron designs, develops and manufactures industry-leading memory and storage products. By providing foundational capability for AI and 5G across data center, the intelligent edge, and consumer devices, we unlock innovation across industries including healthcare, automotive and communications. Our technology and expertise are central to maximizing value from cutting-edge computing applications and new business models which disrupt and advance the industry.

Our Vision

As a global leader in memory and storage solutions, we are transforming how the world uses information to enrich life *for all*. By advancing technologies to collect, store and manage data with unprecedented speed and efficiency, we lead the transformation of data to intelligence. In a world of change, we remain nimble, delivering products that help inspire the world to learn, communicate and advance faster than ever.

Our Commitment

Our customers depend on our innovative solutions every day. We dedicate ourselves to demonstrating our environmental conscience, an inclusive team culture where all voices are heard and respected, and engaging in our communities to enrich life *for all*.

Global Product Portfolio

DRAM | NAND | NOR | Solid-State Drives | Graphics and High Bandwidth Memory (HBM) | Managed NAND and Multichip Packages

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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	IMFT	IM Flash Technologies, LLC
2024 Notes	4.640% Senior Notes due February 2024	Inotera	Inotera Memories, Inc.
2024 Term Loan A	Senior Term Loan A due October 2024	Intel	Intel Corporation
2026 Notes	4.975% Senior Notes due February 2026	LIBOR	London Interbank Offered Rate
2027 Notes	4.185% Senior Notes due February 2027	LPDRAM	Low-power DRAM
2029 Notes	5.327% Senior Notes due February 2029	MCP	Multichip packaged solutions with managed NAND and LPDRAM
2030 Notes	4.663% Senior Notes due February 2030	Micron	Micron Technology, Inc. (Parent Company)
2032 Green Bonds	2.703% Senior Notes due April 2032	NVMe	Hardware interface for SSDs that connect via a PCIe bus
2041 Notes	3.366% Senior Notes due November 2041	Qimonda	Qimonda AG
2051 Notes	3.477% Senior Notes due November 2051	Revolving Credit Facility	$2.5 billion revolving credit facility due May 2026
DDR	Double Data Rate DRAM	SOFR	Secured Overnight Financing Rate
ESG	Environmental, Social, and Governance	SSD	Solid State Drive
EUV	Extreme ultraviolet lithography	TI	Texas Instruments Incorporated
Extinguished 2024 Term Loan A	Senior Term Loan A due 2024 repaid on May 14, 2021		

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 and 5G applications that unleash opportunities — from the data center to the intelligent edge and across the client and mobile user experience.

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

Available Information

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), filings with the U.S. Securities and Exchange Commission (the “SEC”), press releases, public conference calls, blog posts (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.

Forward-Looking Statements

This Form 10-Q 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 potential increases in our effective tax rate; the impact of coronavirus disease 2019, including variant strains (“COVID-19”) to our business; the sufficiency of our cash and investments; the payment of future cash dividends; capital spending in 2022; and funding of sustainability-focused projects. Our actual results could differ materially from our historical results and those discussed in the forward-looking statements. Factors that could cause actual results to differ materially include, but are not limited to, those identified in “Part II. Other Information – Item 1A. Risk Factors.”

PART I. FINANCIAL INFORMATION
ITEM 1. FINANCIAL STATEMENTS

Micron Technology, Inc.
Consolidated Statements of Operations
(In millions, except per share amounts)
(Unaudited)

	Quarter ended		Nine months ended	
	June 2, 2022	June 3, 2021	June 2, 2022	June 3, 2021
Revenue	$ 8,642	$ 7,422	$ 24,115	$ 19,431
Cost of goods sold	4,607	4,296	12,839	12,920
Gross margin	4,035	3,126	11,276	6,511
Research and development	773	670	2,277	1,958
Selling, general, and administrative	264	230	786	658
Restructure and asset impairments	—	453	43	466
Other operating (income) expense, net	(6)	(26)	(11)	101
Operating income	3,004	1,799	8,181	3,328
Interest income	20	8	42	28
Interest expense	(44)	(46)	(144)	(136)
Other non-operating income (expense), net	8	45	(61)	62
	2,988	1,806	8,018	3,282
Income tax (provision) benefit	(358)	(65)	(832)	(164)
Equity in net income (loss) of equity method investees	(4)	(6)	9	23
Net income	$ 2,626	$ 1,735	$ 7,195	$ 3,141
Earnings per share				
Basic	$ 2.36	$ 1.55	$ 6.44	$ 2.81
Diluted	2.34	1.52	6.38	2.75
Number of shares used in per share calculations				
Basic	1,112	1,121	1,117	1,119
Diluted	1,121	1,145	1,127	1,141

See accompanying notes to consolidated financial statements.

Micron Technology, Inc.
Consolidated Statements of Comprehensive Income

(In millions)
(Unaudited)

	Quarter ended		Nine months ended	
	June 2, 2022	June 3, 2021	June 2, 2022	June 3, 2021
Net income	$ 2,626	$ 1,735	$ 7,195	$ 3,141
Other comprehensive income (loss), net of tax				
Gains (losses) on derivative instruments	(210)	(32)	(330)	(20)
Gains (losses) on investments	(18)	(2)	(38)	(6)
Pension liability adjustments	2	—	1	1
Cumulative translation adjustments	—	—	1	1
Other comprehensive income (loss)	(226)	(34)	(366)	(24)
Total comprehensive income	$ 2,400	$ 1,701	$ 6,829	$ 3,117

See accompanying notes to consolidated financial statements.

Micron Technology, Inc.
Consolidated Balance Sheets

(In millions, except par value amounts)
(Unaudited)

As of	June 2, 2022	September 2, 2021
Assets		
Cash and equivalents	$ 9,157	$ 7,763
Short-term investments	1,070	870
Receivables	6,229	5,311
Inventories	5,629	4,487
Assets held for sale	15	974
Other current assets	608	502
Total current assets	22,708	19,907
Long-term marketable investments	1,646	1,765
Property, plant, and equipment	36,665	33,213
Operating lease right-of-use assets	690	551
Intangible assets	415	349
Deferred tax assets	682	782
Goodwill	1,228	1,228
Other noncurrent assets	1,262	1,054
Total assets	$ 65,296	$ 58,849
Liabilities and equity		
Accounts payable and accrued expenses	$ 5,788	$ 5,325
Current debt	107	155
Other current liabilities	1,114	944
Total current liabilities	7,009	6,424
Long-term debt	6,856	6,621
Noncurrent operating lease liabilities	629	504
Noncurrent unearned government incentives	663	808
Other noncurrent liabilities	858	559
Total liabilities	16,015	14,916
Commitments and contingencies		
Shareholders' equity		
Common stock, $0.10 par value, 3,000 shares authorized, 1,223 shares issued and 1,105 outstanding (1,216 shares issued and 1,119 outstanding as of September 2, 2021)	122	122
Additional capital	9,950	9,453
Retained earnings	45,916	39,051
Treasury stock, 118 shares held (97 shares as of September 2, 2021)	(6,343)	(4,695)
Accumulated other comprehensive income (loss)	(364)	2
Total equity	49,281	43,933
Total liabilities and equity	$ 65,296	$ 58,849

See accompanying notes to consolidated financial statements.

Micron Technology, Inc.
Consolidated Statements of Changes in Equity

(In millions, except per share amounts)
(Unaudited)

	Common Stock						
	Number of Shares	Amount	Additional Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Income (Loss)	Total Shareholders' Equity
Balance at September 2, 2021	1,216	$ 122	$ 9,453	$ 39,051	$ (4,695)	$ 2	$ 43,933
Net income	—	—	—	2,306	—	—	2,306
Other comprehensive income (loss), net	—	—	—	—	—	(93)	(93)
Stock issued under stock plans	5	—	5	—	—	—	5
Stock-based compensation expense	—	—	118	—	—	—	118
Repurchase of stock - repurchase program	—	—	—	—	(259)	—	(259)
Repurchase of stock - withholdings on employee equity awards	(1)	—	(12)	(90)	—	—	(102)
Balance at December 2, 2021	1,220	$ 122	$ 9,564	$ 41,267	$ (4,954)	$ (91)	$ 45,908
Net income	—	—	—	2,263	—	—	2,263
Other comprehensive income (loss), net	—	—	—	—	—	(47)	(47)
Stock issued under stock plans	4	—	124	—	—	—	124
Stock-based compensation expense	—	—	129	—	—	—	129
Repurchase of stock - repurchase program	—	—	—	—	(408)	—	(408)
Repurchase of stock - withholdings on employee equity awards	(1)	—	(1)	(10)	—	—	(11)
Dividends and dividend equivalents declared ($0.10 per share)	—	—	—	(113)	—	—	(113)
Balance at March 3, 2022	1,223	$ 122	$ 9,816	$ 43,407	$ (5,362)	$ (138)	$ 47,845
Net income	—	—	—	2,626	—	—	2,626
Other comprehensive income (loss), net	—	—	—	—	—	(226)	(226)
Stock issued under stock plans	—	—	3	—	—	—	3
Stock-based compensation expense	—	—	131	—	—	—	131
Repurchase of stock - repurchase program	—	—	—	—	(981)	—	(981)
Repurchase of stock - withholdings on employee equity awards	—	—	—	(5)	—	—	(5)
Dividends and dividend equivalents declared ($0.10 per share)	—	—	—	(112)	—	—	(112)
Balance at June 2, 2022	1,223	$ 122	$ 9,950	$ 45,916	$ (6,343)	$ (364)	$ 49,281

See accompanying notes to consolidated financial statements.

Micron Technology, Inc.
Consolidated Statements of Changes in Equity

(In millions, except per share amounts)
(Unaudited)

	Common Stock						
	Number of Shares	Amount	Additional Capital	Retained Earnings	Treasury Stock	Accumulated Other Comprehensive Income (Loss)	Total Shareholders' Equity
Balance at September 3, 2020	1,194	$ 119	$ 8,917	$ 33,384	$ (3,495)	$ 71	$ 38,996
Net income	—	—	—	803	—	—	803
Other comprehensive income (loss), net	—	—	—	—	—	39	39
Stock issued under stock plans	5	1	33	—	—	—	34
Stock-based compensation expense	—	—	92	—	—	—	92
Repurchase of stock - withholdings on employee equity awards	(1)	—	(8)	(49)	—	—	(57)
Balance at December 3, 2020	1,198	$ 120	$ 9,034	$ 34,138	$ (3,495)	$ 110	$ 39,907
Net income	—	—	—	603	—	—	603
Other comprehensive income (loss), net	—	—	—	—	—	(29)	(29)
Stock issued under stock plans	4	—	105	—	—	—	105
Stock-based compensation expense	—	—	97	—	—	—	97
Repurchase of stock - withholdings on employee equity awards	—	—	(2)	(18)	—	—	(20)
Balance at March 4, 2021	1,202	$ 120	$ 9,234	$ 34,723	$ (3,495)	$ 81	$ 40,663
Net income	—	—	—	1,735	—	—	1,735
Other comprehensive income (loss), net	—	—	—	—	—	(34)	(34)
Stock issued under stock plans	1	—	8	—	—	—	8
Stock-based compensation expense	—	—	96	—	—	—	96
Repurchase of stock - repurchase program	—	—	—	—	(150)	—	(150)
Repurchase of stock - withholdings on employee equity awards	—	—	(1)	(6)	—	—	(7)
Cash settlement of convertible notes	—	—	(52)	—	—	—	(52)
Balance at June 3, 2021	1,203	$ 120	$ 9,285	$ 36,452	$ (3,645)	$ 47	$ 42,259

See accompanying notes to consolidated financial statements.

Micron Technology, Inc.
Consolidated Statements of Cash Flows

(In millions)
(Unaudited)

Nine months ended	June 2, 2022	June 3, 2021
Cash flows from operating activities		
Net income	$ 7,195	$ 3,141
Adjustments to reconcile net income to net cash provided by operating activities		
Depreciation expense and amortization of intangible assets	5,234	4,593
Stock-based compensation	378	285
(Gain) loss on debt repurchases and conversions	83	1
Restructure and asset impairments	43	446
Change in operating assets and liabilities		
Receivables	(906)	(340)
Inventories	(1,146)	814
Accounts payable and accrued expenses	382	(309)
Other	141	(47)
Net cash provided by operating activities	11,404	8,584
Cash flows from investing activities		
Expenditures for property, plant, and equipment	(8,454)	(8,015)
Purchases of available-for-sale securities	(1,359)	(1,919)
Proceeds from sale of Lehi, Utah fab	888	—
Proceeds from maturities of available-for-sale securities	964	1,024
Proceeds from sales of available-for-sale securities	258	473
Proceeds from government incentives	104	335
Other	(162)	47
Net cash provided by (used for) investing activities	(7,761)	(8,055)
Cash flows from financing activities		
Repayments of debt	(2,008)	(1,344)
Repurchases of common stock - repurchase program	(1,648)	(150)
Payments of dividends to shareholders	(335)	—
Payments on equipment purchase contracts	(132)	(139)
Repurchases of common stock - withholdings on employee equity awards	(116)	(84)
Proceeds from issuance of debt	2,000	1,188
Other	99	92
Net cash provided by (used for) financing activities	(2,140)	(437)
Effect of changes in currency exchange rates on cash, cash equivalents, and restricted cash	(71)	44
Net increase (decrease) in cash, cash equivalents, and restricted cash	1,432	136
Cash, cash equivalents, and restricted cash at beginning of period	7,829	7,690
Cash, cash equivalents, and restricted cash at end of period	$ 9,261	$ 7,826

See accompanying notes to consolidated financial statements.

Micron Technology, Inc.
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(All tabular amounts in millions, except per share amounts)
(Unaudited)

Significant Accounting Policies

For a discussion of our significant accounting policies, see "Part II – Item 8. Financial Statements and Supplementary Data – Notes to Consolidated Financial Statements – Significant Accounting Policies" of our Annual Report on Form 10-K for the year ended September 2, 2021. There have been no changes to our significant accounting policies since our Annual Report on Form 10-K for the year ended September 2, 2021.

Basis of Presentation

The accompanying consolidated financial statements include the accounts of Micron and our consolidated subsidiaries and have been prepared in accordance with accounting principles generally accepted in the United States of America ("U.S. GAAP") consistent in all material respects with those applied in our Annual Report on Form 10-K for the year ended September 2, 2021.

In the opinion of our management, the accompanying unaudited consolidated financial statements contain all necessary adjustments, consisting of a normal recurring nature, to fairly state the financial information set forth herein. Certain reclassifications have been made to prior period amounts to conform to current period presentation.

Our fiscal year is the 52 or 53-week period ending on the Thursday closest to August 31. Fiscal years 2022 and 2021 each contain 52 weeks. All period references are to our fiscal periods unless otherwise indicated. These interim financial statements should be read in conjunction with the consolidated financial statements and accompanying notes included in our Annual Report on Form 10-K for the year ended September 2, 2021.

Lehi, Utah Fab and 3D XPoint

In the second quarter of 2021, we updated our portfolio strategy to further strengthen our focus on memory and storage innovations for the data center market. In connection therewith, we determined that there was insufficient market validation to justify the ongoing investments required to commercialize 3D XPoint at scale. Accordingly, we ceased development of 3D XPoint technology and engaged in discussions with potential buyers for the sale of our facility located in Lehi, Utah that was dedicated to 3D XPoint production. As a result, we classified the property, plant, and equipment as held for sale as of the second quarter of 2021 and ceased depreciating the assets. On June 30, 2021, we announced a definitive agreement to sell our Lehi facility to TI and closed the sale on October 22, 2021.

In the first quarter of 2022, we received $893 million from TI for the sale of the Lehi facility and disposed of $918 million of net assets, consisting primarily of property, plant, and equipment of $921 million; $55 million of other assets, consisting primarily of a receivable for reimbursement of property taxes, equipment spare parts, and raw materials; and $58 million of liabilities, consisting primarily of a finance lease obligation. As a result of the disposition of the Lehi facility and other related adjustments, we recognized a loss of $23 million included in restructure and asset impairments in the first quarter of 2022.

In the third quarter of 2021, we recognized a charge of $435 million included in restructure and asset impairments in connection with the definitive agreement with TI (and a tax benefit of $104 million included in income tax (provision) benefit) to write down the assets held for sale to the expected consideration, net of estimated selling costs. In the second quarter of 2021, we also recognized a charge of $49 million in cost of goods sold to write down 3D XPoint inventory in connection with our decision to cease further development of this technology.

Cash and Investments

Substantially all of our marketable debt 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:

	June 2, 2022				September 2, 2021			
As of	Cash and Equivalents	Short-term Investments	Long-term Marketable Investments[1]	Total Fair Value	Cash and Equivalents	Short-term Investments	Long-term Marketable Investments[1]	Total Fair Value
Cash	$ 7,348	$ —	$ —	$ 7,348	$ 5,796	$ —	$ —	$ 5,796
Level 1[2]								
Money market funds	105	—	—	105	38	—	—	38
Level 2[3]								
Corporate bonds	7	706	1,025	1,738	9	429	1,134	1,572
Certificates of deposits	1,661	45	—	1,706	1,907	69	—	1,976
Asset-backed securities	—	69	558	627	8	95	509	612
Government securities	2	170	63	235	1	190	122	313
Commercial paper	34	80	—	114	4	87	—	91
	9,157	$ 1,070	$ 1,646	$ 11,873	7,763	$ 870	$ 1,765	$ 10,398
Restricted cash[4]	104				66			
Cash, cash equivalents, and restricted cash	$ 9,261				$ 7,829			

[1] The maturities of long-term marketable securities primarily range from one to four years.
[2] The fair value of Level 1 securities is measured based on quoted prices in active markets for identical assets.
[3] 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 June 2, 2022 or September 2, 2021.
[4] 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.

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

In addition to the amounts included in the table above, we had $210 million and $153 million of non-marketable equity investments without a readily determinable fair value that were included in other noncurrent assets as of June 2, 2022 and September 2, 2021, respectively.

Receivables

As of	June 2, 2022	September 2, 2021
Trade receivables	$ 5,896	$ 4,920
Income and other taxes	218	264
Other	115	127
	$ 6,229	$ 5,311

Inventories

As of	June 2, 2022	September 2, 2021
Finished goods	$ 620	$ 513
Work in process	4,325	3,469
Raw materials and supplies	684	505
	$ 5,629	$ 4,487

Effective as of the beginning of the second quarter of 2021, we changed our method of inventory costing from average cost to FIFO. The change to FIFO was not material to any prior periods, and as such, prior periods were not retrospectively adjusted.

Property, Plant, and Equipment

As of	June 2, 2022	September 2, 2021
Land	$ 280	$ 280
Buildings	16,181	14,776
Equipment[1]	58,365	51,902
Construction in progress[2]	1,664	1,517
Software	1,099	987
	77,589	69,462
Accumulated depreciation	(40,924)	(36,249)
	$ 36,665	$ 33,213

[1] *Includes costs related to equipment not placed into service of $2.40 billion as of June 2, 2022 and $1.99 billion as of September 2, 2021.*
[2] *Includes building-related construction, tool installation, and software costs for assets not placed into service.*

Intangible Assets and Goodwill

	June 2, 2022		September 2, 2021	
As of	Gross Amount	Accumulated Amortization	Gross Amount	Accumulated Amortization
Product and process technology	$ 727	$ (312)	$ 633	$ (284)
Goodwill	1,228		1,228	

In the first nine months of 2022 and 2021, we capitalized $130 million and $82 million, respectively, for product and process technology with weighted-average useful lives of 9 years. Amortization expense was $63 million and $62 million for the first nine months of 2022 and 2021, respectively. Expected amortization expense is $22 million for the remainder of 2022, $78 million for 2023, $70 million for 2024, $49 million for 2025, and $40 million for 2026.

Leases

The components of lease expense are presented below:

	Quarter ended		Nine months ended	
	June 2, 2022	June 3, 2021	June 2, 2022	June 3, 2021
Finance lease cost				
Amortization of right-of-use asset	$ 23	$ 16	$ 75	$ 49
Interest on lease liability	6	5	18	15
Operating lease cost	32	28	91	82
	$ 61	$ 49	$ 184	$ 146

Supplemental cash flow information related to leases was as follows:

Nine months ended	June 2, 2022	June 3, 2021
Cash flows used for operating activities		
Finance leases	$ 18	$ 16
Operating leases	81	80
Cash flows used for financing activities from financing leases	79	61
Noncash acquisitions of right-of-use assets		
Finance leases	304	164
Operating leases	190	19

Supplemental balance sheet information related to leases was as follows:

As of	June 2, 2022	September 2, 2021
Finance lease right-of-use assets (included in property, plant, and equipment and assets held for sale)	$ 924	$ 766
Current operating lease liabilities (included in accounts payable and accrued expenses)	58	55
Weighted-average remaining lease term (in years)		
Finance leases	12	11
Operating leases	12	12
Weighted-average discount rate		
Finance leases	2.64 %	3.14 %
Operating leases	2.87 %	2.63 %

As of June 2, 2022, maturities of lease liabilities were as follows:

For the year ending	Finance Leases	Operating Leases
Remainder of 2022	$ 30	$ 19
2023	126	65
2024	102	80
2025	88	70
2026	88	68
2027 and thereafter	632	531
Less imputed interest	(137)	(146)
	$ 929	$ 687

The table above excludes obligations for leases that have been executed but have not yet commenced. As of June 2, 2022, excluded obligations consisted of $223 million for finance leases over a weighted-average period of 14 years for gas supply arrangements deemed to contain embedded leases. We will recognize right-of-use assets and associated lease liabilities at the time such assets become available for our use.

Accounts Payable and Accrued Expenses

As of	June 2, 2022	September 2, 2021
Accounts payable	$ 2,019	$ 1,744
Property, plant, and equipment	2,020	1,887
Salaries, wages, and benefits	875	984
Income and other taxes	382	364
Other	492	346
	$ 5,788	$ 5,325

Debt

	June 2, 2022					September 2, 2021		
			Net Carrying Amount			Net Carrying Amount		
As of	Stated Rate	Effective Rate	Current	Long-Term	Total	Current	Long-Term	Total
2024 Term Loan A	1.720 %	1.76 %	$ —	$ 1,186	$ 1,186	$ —	$ 1,186	$ 1,186
2026 Notes	4.975 %	5.07 %	—	498	498	—	498	498
2027 Notes[(1)]	4.185 %	4.27 %	—	821	821	—	901	901
2029 Notes	5.327 %	5.40 %	—	697	697	—	696	696
2030 Notes	4.663 %	4.73 %	—	846	846	—	846	846
2032 Green Bonds	2.703 %	2.77 %	—	994	994	—	—	—
2041 Notes	3.366 %	3.41 %	—	496	496	—	—	—
2051 Notes	3.477 %	3.52 %	—	496	496	—	—	—
Finance lease obligations	N/A	2.64 %	107	822	929	155	649	804
2023 Notes	N/A	N/A	—	—	—	—	1,247	1,247
2024 Notes	N/A	N/A	—	—	—	—	598	598
			$ 107	$ 6,856	$ 6,963	$ 155	$ 6,621	$ 6,776

(1) *In 2021, we entered into fixed-to-floating interest rate swaps on the 2027 Notes with an aggregate $900 million notional amount equal to the principal amount of the 2027 Notes. The resulting variable interest paid is at a rate equal to SOFR plus approximately 3.33%. The fixed-to-floating interest rate swaps are accounted for as fair value hedges, as a result, the carrying value of our 2027 Notes reflects adjustments in fair value.*

Debt Activity

The table below presents the effects of issuances and prepayments of debt in the first quarter of 2022:

	Increase (Decrease) in Principal	Increase (Decrease) in Carrying Value	Increase (Decrease) in Cash	Gain (Loss)
Issuances				
2032 Green Bonds	$ 1,000	$ 994	$ 994	$ —
2041 Notes	500	496	496	—
2051 Notes	500	496	496	—
Prepayments				
2023 Notes	(1,250)	(1,247)	(1,281)	(34)
2024 Notes	(600)	(598)	(647)	(49)
	$ 150	$ 141	$ 58	$ (83)

Senior Unsecured Notes

On November 1, 2021, we issued $2.00 billion aggregate principal amount of unsecured 2032 Green Bonds, 2041 Notes, and 2051 Notes in a public offering. Issuance costs for these notes were $14 million. Over time, we plan to allocate an amount equal to the net proceeds of the 2032 Green Bonds to fund eligible sustainability-focused projects involving renewable energy, green buildings, energy efficiency, water management, waste abatement, and a circular economy.

We may redeem our 2026 Notes, 2027 Notes, 2029 Notes, 2030 Notes, 2032 Green Bonds, 2041 Notes, and 2051 Notes (the “Senior Unsecured Notes”), in whole or in part, at our option prior to their respective maturity date at a redemption price equal to the greater of (i) 100% of the principal amount of the notes to be redeemed and (ii) the present value of the remaining scheduled payments of principal, in each case plus accrued interest. We may also redeem any series of our Senior Unsecured Notes, in whole or in part, at a price equal to par between two and six months prior to maturity in accordance with the respective terms of such series.

Each series of Senior Unsecured Notes contains covenants that, among other things, limit, in certain circumstances, our ability and/or the ability of our restricted subsidiaries (which are generally domestic subsidiaries in which we own at least 80% of the voting stock and which own principal property, as defined in the indenture governing such notes) to (1) create or incur certain liens; (2) enter into certain sale and lease-back transactions; and (3) consolidate with or merge with or into, or convey, transfer, or lease all or substantially all of our properties and assets, to another entity. These covenants are subject to a number of limitations and exceptions. Additionally, if a change of control triggering event occurs, as defined in the indentures governing our Senior Unsecured Notes, we will be required to offer to purchase such notes at 101% of the outstanding aggregate principal amount plus accrued interest up to the purchase date.

Revolving Credit Facility

As of June 2, 2022, $2.50 billion was available to us under the Revolving Credit Facility and no amounts were outstanding. Any amounts outstanding under the Revolving Credit Facility would mature in May 2026 and amounts borrowed may be prepaid any time without penalty. Any amounts drawn under the Revolving Credit Facility would generally bear interest at a rate equal to LIBOR plus 1.00% to 1.75%, depending on our corporate credit ratings.

Maturities of Notes Payable

As of June 2, 2022, maturities of notes payable by fiscal year were as follows:

Remainder of 2022	$	—
2023		—
2024		—
2025		1,188
2026		500
2027 and thereafter		4,450
Unamortized discounts		(28)
Hedge accounting fair value adjustment		(76)
	$	6,034

Contingencies

Patent Matters

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

On December 15, 2014, Innovative Memory Solutions, Inc. filed a patent infringement action against Micron in the U.S. District Court for the District of Delaware. The complaint alleges that a variety of our NAND products infringe eight U.S. patents and seeks damages, attorneys' fees, and costs. Subsequently, six patents were invalidated or withdrawn, leaving two asserted patents in the District Court.

On March 19, 2018, Micron Semiconductor (Xi'an) Co., Ltd. ("MXA") was served with a patent infringement complaint filed by Fujian Jinhua Integrated Circuit Co., Ltd. ("Jinhua") in the Fuzhou Intermediate People's Court in Fujian Province, China (the "Fuzhou Court"). On April 3, 2018, Micron Semiconductor (Shanghai) Co. Ltd. ("MSS") was served with the same complaint. The complaint alleges that MXA and MSS infringe a Chinese patent by manufacturing and selling certain Crucial DDR4 DRAM modules. The complaint seeks an order requiring MXA and MSS to destroy inventory of the accused products and equipment for manufacturing the accused products in China; to stop manufacturing, using, selling, and offering for sale the accused products in China; and to pay damages of 98 million Chinese yuan plus court fees incurred.

On March 21, 2018, MXA was served with a patent infringement complaint filed by United Microelectronics Corporation ("UMC") in the Fuzhou Court. On April 3, 2018, MSS was served with the same complaint. The complaint alleges that MXA and MSS infringe a Chinese patent by manufacturing and selling certain Crucial DDR4 DRAM modules. The complaint seeks an order requiring MXA and MSS to destroy inventory of the accused products and equipment for manufacturing the accused products in China; to stop manufacturing, using, selling, and offering for sale the accused products in China; and to pay damages of 90 million Chinese yuan plus court fees incurred. On November 26, 2021, pursuant to a settlement agreement between UMC and Micron, UMC filed an application to the Fuzhou Court to withdraw its complaints against MXA and MSS.

On April 3, 2018, MSS was served with another patent infringement complaint filed by Jinhua and an additional complaint filed by UMC in the Fuzhou Court. The additional complaints allege that MSS infringes two Chinese patents by manufacturing and selling certain Crucial MX300 SSDs. The complaint filed by UMC seeks an order requiring MSS to destroy inventory of the accused products and equipment for manufacturing the accused products in China; to stop manufacturing, using, selling, and offering for sale the accused products in China; and to pay damages of 90 million Chinese yuan plus court fees incurred. The complaint filed by Jinhua seeks an order requiring MSS to destroy inventory of the accused products and equipment for manufacturing the accused products in China; to stop manufacturing, using, selling, and offering for sale the accused products in China; and to pay damages of 98 million Chinese yuan plus court fees incurred. On November 26, 2021, pursuant to a settlement agreement between UMC and Micron, UMC filed an application to the Fuzhou Court to withdraw its complaint against MSS.

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

On May 4, 2020, Flash-Control, LLC filed a patent infringement action against Micron in the U.S. District Court for the Western District of Texas. The complaint alleges that four U.S. patents are infringed by unspecified DDR4 SDRAM, NVRDIMM, NVDIMM, 3D XPoint, and/or SSD products that incorporate memory controllers and flash memory. The complaint seeks damages, attorneys' fees, and costs. On July 21, 2020, in a separate matter, the District Court ruled that two of the four asserted patents are invalid, and on July 14, 2021, the U.S. Court of Appeals for the Federal Circuit affirmed the ruling of invalidity.

On April 28, 2021, Netlist, Inc. ("Netlist") filed two patent infringement actions against Micron, Micron Semiconductor Products, Inc. and Micron Technology Texas, LLC in the U.S. District Court for the Western District of Texas. The first complaint alleges that a single U.S. patent is infringed by certain of our non-volatile dual in-line memory modules. The second complaint alleges that three U.S. patents are infringed by certain of our load-reduced dual in-line memory modules. Each complaint seeks injunctive relief, damages, attorneys' fees, and costs. On March 31, 2022, Netlist filed a patent infringement complaint against Micron in Dusseldorf Regional Court alleging that two German patents are infringed by certain of our load-reduced dual in-line memory modules. The complaint seeks damages and costs. On June 10, 2022, Netlist filed a patent infringement complaint against Micron in the U.S. District Court for the Eastern District of Texas alleging that six U.S. patents are infringed by certain of our memory modules and high-bandwidth memory products. The complaint seeks injunctive relief, damages, and attorneys' fees.

On May 10, 2021, Vervain, LLC filed a patent infringement action against Micron, Micron Semiconductor Products, Inc., and Micron Technology Texas, LLC in the U.S. District Court for the Western District of Texas. The complaint alleges that four U.S. patents are infringed by certain SSD products. The complaint seeks injunctive relief, damages, attorneys' fees, and costs.

On April 27, 2022, Bell Semiconductor, LLC ("Bell") filed a patent infringement action against Micron in the U.S. District Court for the District of Idaho. The complaint alleges that a single U.S. patent is infringed by a certain SSD controller. On April 28, 2022, Bell filed a complaint with the U.S. International Trade Commission ("ITC") alleging violations of Section 337 of the Tariff Act of 1930 based on alleged importation of articles and components that infringe the same U.S. patent that Bell asserts in the complaint it filed in the District of Idaho. The ITC complaint seeks institution of an investigation, a limited exclusion order forbidding entry into the United States of products that infringe the asserted patent, and cease and desist orders prohibiting Micron from importing, selling, offering for sale, or marketing infringing products in the United States.

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

Qimonda

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

Following a series of hearings with pleadings, arguments, and witnesses on behalf of the Qimonda estate, on March 13, 2014, the court issued judgments: (1) ordering Micron B.V. to pay approximately $1 million in respect of certain Inotera Shares sold in connection with the original share purchase; (2) ordering Micron B.V. to disclose certain information with respect to any Inotera Shares sold by it to third parties; (3) ordering Micron B.V. to disclose the benefits derived by it from ownership of the Inotera Shares, including in particular, any profits distributed on the Inotera Shares and all other benefits; (4) denying Qimonda's claims against Micron for any damages relating to the joint venture relationship with Inotera; and (5) determining that Qimonda's obligations under the patent cross-license agreement are canceled. In addition, the court issued interlocutory judgments ordering, among other things: (1) that Micron B.V. transfer to the Qimonda estate the Inotera Shares still owned by Micron B.V. and pay to the Qimonda estate compensation in an amount to be specified for any Inotera Shares sold to third parties; and (2) that Micron B.V. pay the Qimonda estate as compensation an amount to be specified for benefits derived by Micron B.V. from ownership of the Inotera Shares. The interlocutory judgments had no immediate, enforceable effect and Micron, accordingly, has been able to continue to operate with full control of the Inotera Shares subject to further developments in the case. On April 17, 2014, Micron and Micron B.V. filed a notice of appeal with the German Appeals Court challenging the District Court's decision. After opening briefs, the Appeals Court held a hearing on the matter on July 9, 2015, and thereafter appointed an independent expert to perform an evaluation of Dr. Jaffé's claims that the amount Micron paid for Qimonda was less than fair market value. On January 25, 2018, the court-appointed expert issued a report concluding that the amount paid by Micron was within an acceptable fair-value range. The Appeals Court held a subsequent hearing on April 30, 2019, and on May 28, 2019, the Appeals Court remanded the case to the expert for supplemental expert opinion. On March 31, 2020, the expert presented a revised opinion to the Appeals Court which reaffirmed the earlier view that the amount paid by Micron was still within an acceptable range of fair value. On March 4, 2021, the Appeals Court issued an order setting forth a new legal view that whether the 2008 sale of Inotera Shares is voidable depends on the question whether, in October 2008, Qimonda had a restructuring plan in place, and whether Micron was aware of and reasonably relied on that restructuring plan sufficient to form a belief that Qimonda was not imminently illiquid.

Antitrust Matters

On April 27, 2018, a complaint was filed against Micron and other DRAM suppliers in the U.S. District Court for the Northern District of California. Subsequently, two substantially identical cases were filed in the same court. The lawsuits purported to be on behalf of a nationwide class of indirect purchasers of DRAM products. On September 3, 2019, the District Court granted Micron's motion to dismiss and allowed the plaintiffs the opportunity to file a consolidated, amended complaint. On October 28, 2019, the plaintiffs filed a consolidated, amended complaint that purported to be on behalf of a nationwide class of indirect purchasers of DRAM products. The amended complaint asserted claims based on alleged price-fixing of DRAM products under federal and state law during the period from June 1, 2016 to at least February 1, 2018, and sought treble monetary damages, costs, interest, attorneys' fees, and other injunctive and equitable relief. On December 21, 2020, the District Court dismissed the plaintiffs' claims and entered judgment against them. On January 19, 2021, the plaintiffs filed a notice of appeal to the U.S. Court of Appeals for the Ninth Circuit. On March 7, 2022, the Court of Appeals affirmed the District Court's ruling dismissing plaintiffs' claims. On May 16, 2022, the Court of Appeals denied the plaintiffs' request for rehearing.

On June 26, 2018, a complaint was filed against Micron and other DRAM suppliers in the U.S. District Court for the Northern District of California. Subsequently, four substantially identical cases were filed in the same court. On October 28, 2019, the plaintiffs filed a consolidated, amended complaint. The consolidated complaint purported to be on behalf of a nationwide class of direct purchasers of DRAM products. The consolidated complaint asserted claims based on alleged price-fixing of DRAM products under federal and state law during the period from June 1, 2016 through at least February 1, 2018, and sought treble monetary damages, costs, interest, attorneys' fees, and other injunctive and equitable relief. On December 21, 2020, the District Court granted Micron's motion to dismiss and granted the plaintiffs permission to file a further amended complaint. On January 11, 2021, the plaintiffs filed a further amended complaint asserting substantially the same claims and seeking the same relief. On September 3, 2021, the District Court granted Micron's motion to dismiss the further amended complaint with prejudice. On October 1, 2021, the plaintiffs filed a notice of appeal to the U.S. Court of Appeals for the Ninth Circuit.

Additionally, six cases have been filed in the following Canadian courts on the dates indicated: Superior Court of Quebec (April 30, 2018 and May 3, 2018), the Federal Court of Canada (May 2, 2018), the Ontario Superior Court of Justice (May 15, 2018), and the Supreme Court of British Columbia (May 10, 2018). The plaintiffs in these cases are individuals seeking certification of class actions on behalf of direct and indirect purchasers of DRAM in Canada (or regions of Canada) between June 1, 2016 and February 1, 2018. The substantive allegations in these cases are similar to those asserted in the cases filed in the United States.

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

Securities Matters

On March 5, 2019, a derivative complaint was filed by a shareholder against certain current and former officers and directors of Micron, allegedly on behalf of and for the benefit of Micron, in the U.S. District Court for the District of Delaware alleging securities fraud, breaches of fiduciary duties, and other violations of law involving misrepresentations about purported anticompetitive behavior in the DRAM industry. The complaint seeks damages, fees, interest, costs, and other appropriate relief.

On February 9, 2021, a derivative complaint was filed by a shareholder against Sanjay Mehrotra and other current and former directors of Micron, allegedly on behalf of and for the benefit of Micron, in the U.S. District Court for the District of Delaware alleging violations of securities laws, breaches of fiduciary duties, and other violations of law involving allegedly false and misleading statements about Micron's commitment to diversity and progress in diversifying its workforce, executive leadership, and Board of Directors. The complaint seeks damages, fees, interest, costs, and an order requiring Micron to take various actions to allegedly improve its corporate governance and internal procedures.

Other Matters

On July 31, 2020, Micron and Intel entered into a binding arbitration agreement under which the parties agreed to present to an arbitral panel various financial disputes related to the former IMFT joint venture between Micron and Intel, which ended October 31, 2019, and to other agreements related to the joint development, production, and sale of non-volatile memory products. On April 15, 2022, the arbitration panel issued a final order and concluded the arbitration proceeding.

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

Contingency Assessment

We are unable to predict the outcome of the matters noted above and cannot make a reasonable estimate of the potential loss or range of possible losses. A determination that our products or manufacturing processes infringe the intellectual property rights of others or entering into a license agreement covering such intellectual property could result in significant liability and/or require us to make material changes to our products and/or manufacturing processes. Any of the foregoing, as well as the resolution of any other legal matter noted above, could have a material adverse effect on our business, results of operations, or financial condition.

We are currently a party to legal actions other than those described in this note arising from the normal course of business, none of which are expected to have a material adverse effect on our business, results of operations, or financial condition.

Equity

***Common Stock Repurchases*:** Our Board of Directors has 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. In the third quarter and first nine months of 2022, we repurchased 13.8 million shares of our common stock for $981 million, and 22.2 million shares of our common stock for $1.65 billion, respectively. Through June 2, 2022, we had repurchased an aggregate of $5.68 billion under the authorization. The shares repurchased were recorded as treasury stock.

***Dividends*:** In the third quarter of 2022, we declared and paid dividends of $111 million ($0.10 per share) to shareholders of record as of April 11, 2022. In the second quarter of 2022, we declared and paid dividends of $112 million ($0.10 per share) to shareholders of record as of January 3, 2022. In the first quarter of 2022, we paid dividends of $112 million ($0.10 per share) that were declared in the fourth quarter of 2021. On June 30, 2022, our Board of Directors declared a quarterly dividend of $0.115 per share, payable in cash on July 26, 2022, to shareholders of record as of the close of business on July 11, 2022.

***Accumulated Other Comprehensive Income (Loss)*:** Changes in accumulated other comprehensive income (loss) by component for the nine months ended June 2, 2022 were as follows:

	Gains (Losses) on Derivative Instruments	Pension Liability Adjustments	Unrealized Gains (Losses) on Investments	Cumulative Foreign Currency Translation Adjustment	Total
As of September 2, 2021	$ (22)	$ 22	$ 1	$ 1	$ 2
Other comprehensive income (loss) before reclassifications	(453)	—	(49)	1	(501)
Amount reclassified out of accumulated other comprehensive income (loss)	22	1	1	—	24
Tax effects	101	—	10	—	111
Other comprehensive income (loss)	(330)	1	(38)	1	(366)
As of June 2, 2022	$ (352)	$ 23	$ (37)	$ 2	$ (364)

Fair Value Measurements

The estimated fair values and carrying values of our outstanding debt instruments were as follows:

	June 2, 2022		September 2, 2021	
As of	**Fair Value**	**Carrying Value**	**Fair Value**	**Carrying Value**
Notes	$ 5,771	$ 6,034	$ 6,584	$ 5,973

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

Derivative Instruments

	Notional or Contractual Amount	Fair Value of Assets(1)	Fair Value of Liabilities(2)
As of June 2, 2022			
Derivative instruments with hedge accounting designation			
Cash flow currency hedges	$ 5,295	$ 2	$ (297)
Cash flow commodity hedges	62	5	—
Fair value interest rate hedges	900	—	(76)
Derivative instruments without hedge accounting designation			
Non-designated currency hedges	1,603	6	(9)
		$ 13	$ (382)
As of September 2, 2021			
Derivative instruments with hedge accounting designation			
Cash flow currency hedges	$ 3,601	$ 10	$ (66)
Cash flow commodity hedges	45	2	—
Fair value interest rate hedges	900	5	—
Derivative instruments without hedge accounting designation			
Non-designated currency hedges	996	3	(2)
		$ 20	$ (68)

(1) *Included in receivables and other noncurrent assets.*
(2) *Included in accounts payable and accrued expenses and other noncurrent liabilities.*

Derivative Instruments with Hedge Accounting Designation

***Cash Flow Hedges*:** We utilize forward and swap contracts that generally mature within two years designated as cash flow hedges to minimize our exposure to changes in currency exchange rates or commodity prices for certain capital expenditures and manufacturing costs. Forward and swap contracts are measured at fair value based on market-based observable inputs including market spot and forward rates, interest rates, and credit-risk spreads (Level 2). We do not use derivative instruments for speculative purposes. We recognized losses of $299 million and $469 million for the third quarter and first nine months of 2022, respectively, and losses of $25 million for the third quarter of 2021 in accumulated other comprehensive income from cash flow hedges. The amounts recognized for the first nine months of 2021 were not significant. As of June 2, 2022, we expect to reclassify $169 million of pre-tax losses related to cash flow hedges from accumulated other comprehensive income into earnings in the next 12 months.

***Fair Value Hedges*:** We utilize fixed-to-floating interest rate swaps designated as fair value hedges to minimize certain exposures to changes in the fair value of fixed-rate debt that result from fluctuations in benchmark interest rates. Interest rate swaps are measured at fair value based on market-based observable inputs including interest rates and credit-risk spreads (Level 2). The changes in the fair values of derivatives designated as fair value hedges and the offsetting changes in the underlying fair values of the hedged items are both recognized in earnings. When a derivative is no longer designated as a fair value hedge for any reason, including termination and maturity, the remaining unamortized difference between the carrying value of the hedged item at that time and the face value of the hedged item is amortized to earnings over the remaining life of the hedged item, or immediately if the hedged item has matured or been extinguished. We recognized interest expense of $47 million and $81 million, respectively, for changes in the fair value of our interest rate swaps in the third quarter and first nine months of 2022. We also recognized offsetting interest expense of the same amounts related to the changes in the fair value of the hedged portion of the underlying debt for these periods. The amounts recognized for the third quarter and first nine months of 2021 were not significant.

Derivative Instruments without Hedge Accounting Designation

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

Equity Plans

As of June 2, 2022, 94 million shares of our common stock were available for future awards under our equity plans.

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

Restricted Stock Awards activity is summarized as follows:

	Quarter ended		Nine months ended	
	June 2, 2022	June 3, 2021	June 2, 2022	June 3, 2021
Restricted stock award shares granted	2	1	12	11
Weighted-average grant-date fair value per share	$ 71.58	$ 84.73	$ 71.31	$ 53.00

In the first quarter of 2022, our Board of Directors approved dividend equivalent rights for unvested restricted stock units awarded on or after October 13, 2021.

Employee Stock Purchase Plan ("ESPP")

For each nine month period ended June 2, 2022 and June 3, 2021, we issued 2 million shares at a per share price of $65.94 and $42.55, respectively.

Stock-based Compensation Expense

Stock based compensation expense recognized in our statements of operations is presented below. Stock-based compensation expense of $43 million and $30 million was capitalized and remained in inventory as of June 2, 2022 and September 2, 2021, respectively.

	Quarter ended		Nine months ended	
	June 2, 2022	June 3, 2021	June 2, 2022	June 3, 2021
Stock-based compensation expense by caption				
Cost of goods sold	$ 57	$ 45	$ 145	$ 143
Research and development	45	29	128	82
Selling, general, and administrative	33	24	98	77
Restructure	—	—	(5)	—
	$ 135	$ 98	$ 366	$ 302
Stock-based compensation expense by type of award				
Restricted stock awards	$ 116	$ 84	$ 316	$ 255
ESPP	19	12	49	39
Stock options	—	2	1	8
	$ 135	$ 98	$ 366	$ 302

As of June 2, 2022, $1.09 billion of total unrecognized compensation costs for unvested awards, before the effect of any future forfeitures, was expected to be recognized through the third quarter of 2026, resulting in a weighted-average period of 1.4 years.

Revenue and Customer Contract Liabilities

Revenue by Technology

	Quarter ended		Nine months ended	
	June 2, 2022	June 3, 2021	June 2, 2022	June 3, 2021
DRAM	$ 6,271	$ 5,448	$ 17,577	$ 13,948
NAND	2,288	1,812	6,123	5,036
Other (primarily 3D XPoint memory and NOR)	83	162	415	447
	$ 8,642	$ 7,422	$ 24,115	$ 19,431

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

Customer Contract Liabilities

As of June 2, 2022 and September 2, 2021, other current liabilities included $1.03 billion and $846 million, respectively, for estimates of consideration payable to customers, including estimates for pricing adjustments and returns.

As of June 2, 2022 and September 2, 2021, other current liabilities included $57 million and $74 million, respectively, of advance payments received from our customers to secure product in future periods. Revenue for the first nine months of 2022 included $74 million recognized as a result of satisfying our performance obligation to ship product against customer advances that existed as of September 2, 2021.

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 June 2, 2022, our future performance obligations beyond one year were not significant.

Restructure and Asset Impairments

	Quarter ended		Nine months ended	
	June 2, 2022	June 3, 2021	June 2, 2022	June 3, 2021
Restructure and asset impairments	$ —	$ 453	$ 43	$ 466

Restructure and asset impairments for the first nine months of 2022 primarily related to the sale of our Lehi, Utah facility. See “Lehi, Utah Fab and 3D XPoint.”

Other Operating (Income) Expense, Net

	Quarter ended		Nine months ended	
	June 2, 2022	June 3, 2021	June 2, 2022	June 3, 2021
Patent license charges	$ —	$ —	$ —	$ 128
Other	(6)	(26)	(11)	(27)
	$ (6)	$ (26)	$ (11)	$ 101

Other Non-Operating Income (Expense), Net

	Quarter ended		Nine months ended	
	June 2, 2022	June 3, 2021	June 2, 2022	June 3, 2021
Gain (loss) on investments	$ 12	$ 46	$ 25	$ 61
Gain (loss) on debt repurchases and conversions	—	(1)	(83)	(1)
Other	(4)	—	(3)	2
	$ 8	$ 45	$ (61)	$ 62

Income Taxes

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

	Quarter ended		Nine months ended	
	June 2, 2022	June 3, 2021	June 2, 2022	June 3, 2021
Income before taxes	$ 2,988	$ 1,806	$ 8,018	$ 3,282
Income tax (provision) benefit	(358)	(65)	(832)	(164)
Effective tax rate	12.0 %	3.6 %	10.4 %	5.0 %

On March 16, 2022, the Idaho governor signed a new law that changed the way corporations calculate Idaho taxable income. This new law is expected to reduce our Idaho taxable income, and consequently, we do not expect to utilize our tax credits in Idaho for the foreseeable future. As a result, we recorded a discrete valuation allowance against our Idaho deferred tax assets and an increase to tax expense of $189 million in the third quarter of 2022.

We operate in a number of jurisdictions outside the United States, including Singapore, where we have tax incentive arrangements. These incentives expire, in whole or in part, at various dates through 2034 and are conditional, in part, upon meeting certain business operations and employment thresholds. The effect of tax incentive arrangements reduced our tax provision by $361 million (benefiting our diluted earnings per share by $0.32) and $955 million ($0.85 per diluted share) for the third quarter and first nine months of 2022, respectively, and by $276 million ($0.24 per diluted share) and $377 million ($0.33 per diluted share) for the third quarter and first nine months of 2021, respectively.

As of June 2, 2022, gross unrecognized tax benefits were $730 million, which would have an impact of approximately $560 million on our effective tax rate in the future, if recognized. Amounts accrued for interest and penalties related to uncertain tax positions were not significant for any period presented. We are currently under audit by the U.S. Internal Revenue Service for our 2018 and 2019 tax years. We believe that adequate amounts of taxes and related interest and penalties have been provided.

Earnings Per Share

	Quarter ended		Nine months ended	
	June 2, 2022	June 3, 2021	June 2, 2022	June 3, 2021
Net income – Basic and Diluted	$ 2,626	$ 1,735	$ 7,195	$ 3,141
Weighted-average common shares outstanding – Basic	1,112	1,121	1,117	1,119
Dilutive effect of equity plans and convertible notes	9	24	10	22
Weighted-average common shares outstanding – Diluted	1,121	1,145	1,127	1,141
Earnings per share				
Basic	$ 2.36	$ 1.55	$ 6.44	$ 2.81
Diluted	2.34	1.52	6.38	2.75

Antidilutive potential common stock shares that could dilute basic earnings per share in the future were 4 million and 3 million for the third quarter and first nine months of 2022, respectively, and were 1 million for the third quarter and first nine months of 2021.

Segment and Other Information

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

Compute and Networking Business Unit ("CNBU"): Includes memory products sold into client, cloud server, enterprise, graphics, and networking markets.
Mobile Business Unit ("MBU"): Includes memory and storage products sold into smartphone and other mobile-device markets.
Storage Business Unit ("SBU"): Includes SSDs and component-level solutions sold into enterprise and cloud, client, and consumer storage markets, and other discrete storage products sold in component and wafer form.
Embedded Business Unit ("EBU"): Includes memory and storage products sold into automotive, industrial, and consumer markets.

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

	Quarter ended		Nine months ended	
	June 2, 2022	June 3, 2021	June 2, 2022	June 3, 2021
Revenue				
CNBU	$ 3,895	$ 3,304	$ 10,762	$ 8,486
MBU	1,967	1,999	5,749	5,311
SBU	1,341	1,009	3,662	2,770
EBU	1,435	1,105	3,932	2,849
All Other	4	5	10	15
	$ 8,642	$ 7,422	$ 24,115	$ 19,431
Operating income (loss)				
CNBU	$ 1,778	$ 1,342	$ 4,864	$ 2,534
MBU	640	683	1,852	1,517
SBU	221	53	551	(2)
EBU	504	282	1,347	539
All Other	1	4	5	6
	3,144	2,364	8,619	4,594
Unallocated				
Stock-based compensation	(135)	(98)	(370)	(302)
Inventory accounting policy change to FIFO	—	—	—	(133)
Change in inventory cost absorption	—	—	—	(160)
3D XPoint inventory write-down	—	—	—	(49)
Patent license charges	—	—	—	(128)
Restructure and asset impairments	—	(453)	(43)	(466)
Other	(5)	(14)	(25)	(28)
	(140)	(565)	(438)	(1,266)
Operating income	$ 3,004	$ 1,799	$ 8,181	$ 3,328

Certain Concentrations

For the first nine months of 2022, revenues from WPG Holdings Limited and Kingston Technology Company, Inc. were each 11% of total revenue.

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

This discussion should be read in conjunction with the consolidated financial statements and accompanying notes included in our Annual Report on Form 10-K for the year ended September 2, 2021. 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 years 2022 and 2021 each contain 52 weeks. All tabular dollar amounts are in millions, except per share amounts.

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 and 5G 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 R&D, product engineering, 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.

The ramp of 176-layer NAND and 1α (1-alpha) DRAM across our product portfolio delivers major technology breakthroughs to customers across markets. For the first time in our history, we achieved industry leadership across these two flagship technologies. We delivered initial products based on these process technologies to the market in 2021. In the second quarter of 2022, we expanded our 176-layer NAND-based SSD portfolio with the introduction of the Micron 7450 SSD with NVMe, the world's first vertically-integrated 176-layer NAND SSD for the data center. This new SSD joins our full portfolio of new product entries across memory and storage which have been well received by the market. An increasing portion of our SSDs incorporate our industry leading NAND with vertically integrated controllers and firmware that we have developed. In the second quarter of 2022, we achieved the first qualification of our 1α LPDDR5 DRAM, which delivers more than a 15% power improvement over the previous generation. We are leading the industry's client DDR5 transition and are well positioned as the industry's data center platforms come to market later this year. We have partnered with customers to provide value-added innovation, and speed market adoption of our new solutions. Development of advanced technologies enables us to diversify our product portfolio toward a richer mix of differentiated, high-value solutions and to target high-growth markets and specific customer requirements across data center, intelligent edge, client, and mobile environments.

We face intense competition in the semiconductor memory and storage markets and to remain competitive we must continuously develop and implement new products and technologies and decrease manufacturing costs in spite of ongoing inflationary cost pressures. Our success is largely dependent on obtaining returns on our research and development ("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.

Lehi, Utah Fab and 3D XPoint

In the second quarter of 2021, we updated our portfolio strategy to further strengthen our focus on memory and storage innovations for the data center market. In connection therewith, we determined that there was insufficient market validation to justify the ongoing investments required to commercialize 3D XPoint at scale. Accordingly, we ceased development of 3D XPoint technology and engaged in discussions with potential buyers for the sale of our facility located in Lehi, Utah that was dedicated to 3D XPoint production. As a result, we classified the property, plant, and equipment as held for sale as of the second quarter of 2021 and ceased depreciating the assets. On June 30, 2021, we announced a definitive agreement to sell our Lehi facility to TI and closed the sale on October 22, 2021.

In the first quarter of 2022, we received $893 million from TI for the sale of the Lehi facility and disposed of $918 million of net assets, consisting primarily of property, plant, and equipment of $921 million; $55 million of other assets, consisting primarily of a receivable for reimbursement of property taxes, equipment spare parts, and raw materials; and $58 million of liabilities, consisting primarily of a finance lease obligation. As a result of the disposition of the Lehi facility and other related adjustments, we recognized a loss of $23 million included in restructure and asset impairments in the first quarter of 2022.

In the third quarter of 2021, we recognized a charge of $435 million included in restructure and asset impairments in connection with the definitive agreement with TI (and a tax benefit of $104 million included in income tax (provision) benefit) to write down the assets held for sale to the expected consideration, net of estimated selling costs. In the second quarter of 2021, we also recognized a charge of $49 million in cost of goods sold to write down 3D XPoint inventory in connection with our decision to cease further development of this technology.

Impact of COVID-19 on Our Business

Events surrounding the COVID-19 pandemic and their impact on economic activity have been unpredictable. As a result, we have experienced volatility in the markets in which we sell our products. The ultimate extent to which COVID-19 will impact our business depends on future developments, which are highly uncertain and very difficult to predict, including the effectiveness and utilization of vaccines for COVID-19 and its variants, the severity of COVID-19 and its variants, and the effectiveness of the actions to contain or limit their spread.

From the start of the COVID-19 pandemic, we proactively implemented preventative protocols, which we continuously assess and update for changes in conditions and emerging trends. These preventative protocols are intended to safeguard our team members, contractors, suppliers, customers, distributors, and communities, and to ensure business continuity. Government restrictions, including zero-COVID policies, or severe outbreaks can impact our operations at certain sites. For example, some of our facilities and some of our subcontractors' facilities at times have been required to operate at reduced staffing and capacity levels due to COVID-19 quarantines and other public health protocols. While our global manufacturing sites are currently operating with close to full staff and at normal capacity levels, our facilities or those of our subcontractors could be required, with little or no advance notice, to temporarily curtail production levels or temporarily cease operations based on government mandates or our health and safety protocols. We may be required, or deem it to be in the best interest of our employees, customers, partners, suppliers, and stakeholders, to alter our business operations in order to maintain a healthy and safe environment. It is not clear what potential effects any such alterations or modifications may have on our business, including effects on our customers, employees, or on our financial results. We are following government policies and recommendations designed to slow the spread of COVID-19 and remain committed to the health and safety of our team members, contractors, suppliers, customers, distributors, and communities.

We continuously assess our efforts to respond to the COVID-19 pandemic, which have included the following:

- In each of our locations, we implement health and safety protocols based on applicable regulations and local conditions and, where possible, make testing and vaccination available and implement health and safety enhancements.
- We require that all U.S. employees and, in addition, contractors that enter our U.S. buildings and certain other locations, be vaccinated against COVID-19, subject to disability and religious exemptions.
- We continue to work closely with our customer base to best match our supply to changing market conditions.
- We evaluate our supply chain and communicate with our suppliers to identify supply gaps and have taken steps to provide continuity, to the extent possible. In some cases, we have added alternative suppliers, executed long-term supply agreements, and increased our on-hand inventory of raw materials needed in our operations.
- We have added assembly and test capacity to provide redundant manufacturing capability through our network of captive operations and external partners.
- We have developed contingency plans and procedures to address the risk of unexpected shutdowns, supply shortages, or other business disruptions.
- We have evaluated all our construction projects across our global manufacturing operations and enacted protocols to enhance the safety of our team members, suppliers, and contractors.
- We are working with government authorities in the jurisdictions where we operate and continuing to monitor our operations in an effort to ensure we follow government requirements, relevant regulations, industry standards, and best practices to help safeguard our team members, while safely continuing operations at our sites across the globe.

We believe these actions are appropriate and prudent to safeguard our team members, contractors, suppliers, customers, and communities, while allowing us to safely continue operations. We cannot predict how the steps we, our team members, government entities, suppliers, or customers take in response to the COVID-19 pandemic will ultimately impact our business, outlook, or results of operations.

Product Technologies

Our product portfolio of memory and storage solutions, is based on our high-performance semiconductor memory and storage technologies, including DRAM, NAND, and NOR. We sell our products into various markets through our business units in numerous forms, including wafers, components, modules, SSDs, managed NAND, and MCP products. Our system-level solutions, including SSDs and managed NAND, 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 client, cloud server, enterprise, networking, graphics, industrial, and automotive markets. LPDRAM products, which are engineered to meet standards for performance and power consumption, are sold into smartphone and other mobile-device markets (including client markets for Chromebooks and notebook PCs), as well as into the automotive, industrial, and consumer markets.

***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 enterprise and cloud, client, and consumer 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.

***NOR*:** NOR products are non-volatile re-writable semiconductor memory devices that provide fast read speeds. NOR is most commonly used for reliable code storage (e.g., boot, application, operating system, and execute-in-place code in an embedded system) and for frequently changing small data storage and is ideal for automotive, industrial, and consumer applications.

Results of Operations

Consolidated Results

	Third Quarter 2022		Second Quarter 2022		Third Quarter 2021		Nine months ended 2022		Nine months ended 2021	
Revenue	$ 8,642	100%	$ 7,786	100%	$ 7,422	100%	$ 24,115	100%	$ 19,431	100%
Cost of goods sold	4,607	53%	4,110	53%	4,296	58%	12,839	53%	12,920	66%
Gross margin	4,035	47%	3,676	47%	3,126	42%	11,276	47%	6,511	34%
Research and development	773	9%	792	10%	670	9%	2,277	9%	1,958	10%
Selling, general, and administrative	264	3%	263	3%	230	3%	786	3%	658	3%
Restructure and asset impairments	—	—%	5	—%	453	6%	43	—%	466	2%
Other operating (income) expense, net	(6)	—%	70	1%	(26)	—%	(11)	—%	101	1%
Operating income	3,004	35%	2,546	33%	1,799	24%	8,181	34%	3,328	17%
Interest income (expense), net	(24)	—%	(43)	(1)%	(38)	(1)%	(102)	—%	(108)	(1)%
Other non-operating income (expense), net	8	—%	6	—%	45	1%	(61)	—%	62	—%
Income tax (provision) benefit	(358)	(4)%	(255)	(3)%	(65)	(1)%	(832)	(3)%	(164)	(1)%
Equity in net income (loss) of equity method investees	(4)	—%	9	—%	(6)	—%	9	—%	23	—%
Net income	$ 2,626	30%	$ 2,263	29%	$ 1,735	23%	$ 7,195	30%	$ 3,141	16%

***Total Revenue*:** Total revenue for the third quarter of 2022 increased 11% as compared to the second quarter of 2022 primarily due to increases in both DRAM and NAND sales.

- Sales of DRAM products increased 10% primarily due to an increase in bit shipments of slightly over 10%, partially offset by a slight decline in average selling prices.
- Sales of NAND products increased 17% primarily due to a high-teens percent increase in bit shipments, partially offset by a slight decline in average selling prices.

Total revenue for the third quarter of 2022 increased 16% as compared to the third quarter of 2021 primarily due to increases in both DRAM and NAND sales.

- Sales of DRAM products increased 15% primarily due to a high-teens percent increase in bit shipments, partially offset by a slight decline in average selling prices.
- Sales of NAND products increased 26% primarily due to an increase in bit shipments of slightly over 20% and a slight increase in average selling prices.

Total revenue for the first nine months of 2022 increased 24% as compared to the first nine months of 2021 primarily due to increases in both DRAM and NAND sales.

- Sales of DRAM products increased 26% primarily due to a low-teens percent increase in bit shipments and an increase in average selling prices of slightly over 10%.
- Sales of NAND products increased 22% primarily due to a low-teens percent increase in bit shipments and a mid-single-digit percent increase in average selling prices.

***Overall Gross Margin*:** Our overall gross margin percentage of 47% for the third quarter of 2022 was relatively unchanged from the second quarter of 2022 as slight declines in average selling prices were offset by manufacturing cost reductions. Our overall gross margin percentage for the third quarter of 2022 was also impacted by a greater mix of NAND products, which have lower margins than DRAM products.

Our overall gross margin percentage increased to 47% for the third quarter of 2022 from 42% for the third quarter of 2021, primarily due to manufacturing cost reductions resulting from strong execution in delivering products featuring advanced technologies, partially offset by declines in DRAM average selling prices. Our overall gross margin percentage increased to 47% for the first nine months of 2022 from 34% for the first nine months of 2021, primarily due to increases in average selling prices and manufacturing cost reductions.

Revenue by Business Unit

	Third Quarter 2022		Second Quarter 2022		Third Quarter 2021		Nine months ended 2022		Nine months ended 2021	
CNBU	$ 3,895	45%	$ 3,461	44%	$ 3,304	45%	$ 10,762	45%	$ 8,486	44%
MBU	1,967	23%	1,875	24%	1,999	27%	5,749	24%	5,311	27%
SBU	1,341	16%	1,171	15%	1,009	14%	3,662	15%	2,770	14%
EBU	1,435	17%	1,277	16%	1,105	15%	3,932	16%	2,849	15%
All Other	4	—%	2	—%	5	—%	10	—%	15	—%
	$ 8,642		$ 7,786		$ 7,422		$ 24,115		$ 19,431	

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

Changes in revenue for each business unit for the third quarter of 2022 as compared to the second quarter of 2022 were as follows:

- CNBU revenue increased 13% primarily due to increases in bit shipments to enterprise, client, graphics, and networking markets.
- MBU revenue increased 5% primarily due to increases in bit shipments partially offset by declines in average selling prices.
- SBU revenue increased 15% primarily due to increases in bit shipments of SSDs and NAND components.
- EBU revenue increased 12% primarily due to increases in bit shipments to industrial and automotive markets combined with increases in average selling prices for NAND products.

Changes in revenue for each business unit for the third quarter and first nine months of 2022 as compared to the corresponding periods of 2021 were as follows:

- CNBU revenue increased 18% and 27%, respectively, primarily due to increases in bit shipments to cloud, enterprise, networking, and graphics markets.
- MBU revenue decreased 2% for the third quarter of 2022 as compared to the third quarter of 2021, primarily due to declines in average selling prices for mobile DRAM and NAND, partially offset by increases in NAND bit shipments. MBU revenue increased 8% for the first nine months of 2022 as compared to the first nine months of 2021, primarily due to increases in NAND and DRAM bit shipments and higher average selling prices for mobile DRAM, partially offset by declines in average selling prices for NAND.
- SBU revenue increased 33% and 32%, respectively, primarily due to increases in bit shipments for NAND products and higher average selling prices for NAND.
- EBU revenue increased 30% and 38%, respectively, primarily due to increases in bit shipments driven by strong demand growth in automotive and industrial markets combined with higher pricing for DRAM.

Operating Income (Loss) by Business Unit

	Third Quarter 2022		Second Quarter 2022		Third Quarter 2021		Nine months ended 2022		Nine months ended 2021	
CNBU	$ 1,778	46%	$ 1,562	45%	$ 1,342	41%	$ 4,864	45%	$ 2,534	30%
MBU	640	33%	588	31%	683	34%	1,852	32%	1,517	29%
SBU	221	16%	178	15%	53	5%	551	15%	(2)	—%
EBU	504	35%	421	33%	282	26%	1,347	34%	539	19%
All Other	1	25%	1	50%	4	80%	5	50%	6	40%
	$ 3,144		$ 2,750		$ 2,364		$ 8,619		$ 4,594	

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

Changes in operating income or loss for each business unit for the third quarter of 2022 as compared to the second quarter of 2022 were as follows:

- CNBU operating income increased primarily due to higher bit shipments and manufacturing cost reductions, partially offset by declines in DRAM average selling prices.
- MBU operating income increased primarily due to higher bit shipments and manufacturing cost reductions.
- SBU operating income increased primarily due to increases in bit shipments.
- EBU operating income increased primarily due to higher bit shipments of DRAM and NAND as well as an increase in average selling prices for NAND.

Changes in operating income or loss for each business unit for the third quarter and first nine months of 2022 as compared to the corresponding periods of 2021 were as follows:

- CNBU operating income increased primarily due to increases in bit shipments and manufacturing cost reductions.
- MBU operating income decreased for the third quarter of 2022 as compared to the third quarter of 2021, primarily due to declines in mobile DRAM and NAND average selling prices, partially offset by manufacturing cost reductions and increases in NAND bit shipments. MBU operating income increased for the first nine months of 2022 as compared to the first nine months of 2021, primarily due to increases in bit shipments, higher average selling prices for mobile DRAM, and NAND manufacturing cost reductions.
- SBU operating income increased primarily due to increases in average selling prices, manufacturing cost reductions, and increases in bit shipments, partially offset by higher R&D expenses.
- EBU operating income increased primarily due to manufacturing cost reductions from an increasing mix of leading edge bits, higher bit shipments, and improved DRAM pricing in industrial and consumer markets, partially offset by higher R&D expenses.

Operating Expenses and Other

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

R&D expenses for the third quarter of 2022 were relatively unchanged as compared to the second quarter of 2022 and were 15% higher as compared to the third quarter of 2021 primarily due to increases in employee compensation and depreciation expense. R&D expenses for the first nine months of 2022 were 16% higher as compared to the first nine months of 2021 primarily due to increases in employee compensation, higher volumes of development and prequalification wafers, and higher depreciation expense.

***Selling, General, and Administrative*:** SG&A expenses for the third quarter of 2022 were relatively unchanged as compared to the second quarter of 2022. SG&A expenses for the third quarter and first nine months of 2022 increased 15% and 19%, respectively, as compared to the corresponding periods of 2021, primarily due to increases in employee compensation, professional services, and legal fees.

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

	Third Quarter 2022	Second Quarter 2022	Third Quarter 2021	Nine months ended 2022	Nine months ended 2021
Income before taxes	$ 2,988	$ 2,509	$ 1,806	$ 8,018	$ 3,282
Income tax (provision) benefit	(358)	(255)	(65)	(832)	(164)
Effective tax rate	12.0 %	10.2 %	3.6 %	10.4 %	5.0 %

Changes to our effective tax rate in the periods presented were primarily due to the geographic mix of our earnings, a valuation allowance recorded against our Idaho deferred tax assets, and tax impacts of changes in foreign currency exchange rates.

On March 16, 2022, the Idaho governor signed a new law that changed the way corporations calculate Idaho taxable income. This new law is expected to reduce our Idaho taxable income, and consequently, we do not expect to utilize our tax credits in Idaho for the foreseeable future. As a result, we recorded a discrete valuation allowance against our Idaho deferred tax assets and an increase to tax expense of $189 million in the third quarter of 2022.

We operate in a number of jurisdictions outside the United States, including Singapore, where we have tax incentive arrangements. These incentives expire, in whole or in part, at various dates through 2034 and are conditional, in part, upon meeting certain business operations and employment thresholds. The effect of tax incentive arrangements reduced our tax provision by $361 million (benefiting our diluted earnings per share by $0.32) for the third quarter of 2022, $304 million ($0.27 per diluted share) for the second quarter of 2022, $276 million ($0.24 per diluted share) for the third quarter of 2021, $955 million ($0.85 per diluted share) for the first nine months of 2022, and $377 million ($0.33 per diluted share) for the first nine months of 2021.

Beginning in 2023, provisions in the Tax Cuts and Jobs Act of 2017 will require us to capitalize and amortize R&D expenditures rather than deducting the costs as incurred. Unless the effective date is deferred or the law is repealed, we expect a low-to-mid-single-digit increase to our effective tax rate for several years.

Various tax reforms are being considered in multiple jurisdictions that, if enacted, contain provisions that could increase our tax expense. We continue to monitor the potential impact of these various tax reform proposals to our overall global effective tax rate and financial statements.

See "Item 1. Financial Statements – Notes to Consolidated Financial Statements – Income Taxes."

Other: Further discussion of other items can be found in "Item 1. Financial Statements – Notes to Consolidated Financial Statements."

Liquidity and Capital Resources

Our primary sources of liquidity are cash generated from operations and financing obtained from capital markets and financial institutions. Cash generated from operations is highly dependent on selling prices for our products, which can vary significantly from period to period. We are continuously evaluating alternatives for efficiently funding our capital expenditures and ongoing operations. We expect, from time to time, to engage in a variety of financing transactions for such purposes, including the issuance of securities. As of June 2, 2022, $2.50 billion was available to draw under our Revolving Credit Facility.

Cash and marketable investments totaled $11.87 billion as of June 2, 2022 and $10.40 billion as of September 2, 2021. Our cash and investments consist primarily of bank deposits, money market funds, and liquid investment-grade, fixed-income securities, which are diversified among industries and individual issuers. To mitigate credit risk, we invest through high-credit-quality financial institutions and by policy generally limit the concentration of credit exposure by restricting the amount of investments with any single obligor. As of June 2, 2022, $3.31 billion of our cash and marketable investments was held by our foreign subsidiaries.

To develop new product and process technology, support future growth, achieve operating efficiencies, and maintain product quality, we must continue to invest in manufacturing technologies, facilities and equipment, and R&D. We estimate capital expenditures in 2022 for property, plant, and equipment, net of partner contributions, to be approximately $12 billion. Capital expenditures for 2022 are driven by our continued 176-layer NAND transition, pilot line enablement for next generation NAND and DRAM, and continued infrastructure and prepayments to support the introduction of EUV lithography. Actual amounts for 2022 will vary depending on market conditions. As of June 2, 2022, we had purchase obligations of approximately $4.18 billion for the acquisition of property, plant, and equipment, of which approximately $3.56 billion is expected to be paid within one year. For a description of other contractual obligations, such as debt and leases, see “Item 1. Financial Statements – Notes to Consolidated Financial Statements – Leases” and “– Debt.”

On November 1, 2021, we issued $1 billion in aggregate principal amount of unsecured 2032 Green Bonds. Over time, we plan to allocate an amount equal to the net proceeds to fund eligible sustainability-focused projects involving renewable energy, green buildings, energy efficiency, water management, waste abatement, and a circular economy.

Our Board of Directors has 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. Through June 2, 2022, we have repurchased an aggregate of $5.68 billion of the authorized amount. See “Item 1. Financial Statements – Notes to Consolidated Financial Statements – Equity.”

On June 30, 2022, our Board of Directors declared a quarterly dividend of $0.115 per share, payable in cash on July 26, 2022, to shareholders of record as of the close of business on July 11, 2022. 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, including, but not limited to, 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 expect that our cash and investments, cash flows from operations, and available financing will be sufficient to meet our requirements at least through the next 12 months and thereafter for the foreseeable future.

Cash Flows

	Nine months ended	
	2022	2021
Net cash provided by operating activities	$ 11,404	$ 8,584
Net cash provided by (used for) investing activities	(7,761)	(8,055)
Net cash provided by (used for) financing activities	(2,140)	(437)
Effect of changes in currency exchange rates on cash, cash equivalents, and restricted cash	(71)	44
Net increase (decrease) in cash, cash equivalents, and restricted cash	$ 1,432	$ 136

Operating Activities: Cash provided by operating activities reflects net income adjusted for certain non-cash items, including depreciation expense, amortization of intangible assets, asset impairments, and stock-based compensation, and the effects of changes in operating assets and liabilities. The increase in cash provided by operating activities for the first nine months of 2022 as compared to the first nine months of 2021 was primarily due to higher net income adjusted for non-cash items, partially offset by an increase in inventories and receivables.

Investing Activities: For the first nine months of 2022, net cash used for investing activities consisted primarily of $8.45 billion of expenditures for property, plant, and equipment; inflows of $104 million of partner contributions for capital expenditures; $888 million of net inflows from the sale of the Lehi, Utah fab; and $137 million of net outflows from purchases, sales, and maturities of available-for-sale securities.

For the first nine months of 2021, net cash used for investing activities consisted primarily of $8.02 billion of expenditures for property, plant, and equipment; inflows of $342 million of partner contributions for capital expenditures; and $422 million of net outflows from purchases, sales, and maturities of available-for-sale securities.

Financing Activities: For the first nine months of 2022, net cash used for financing activities included $2.01 billion of repayments of debt primarily to redeem the 2023 Notes and 2024 Notes, $1.65 billion for the acquisition of 22.2 million shares of our common stock under our $10 billion share repurchase authorization, $335 million of cash payments of dividends to shareholders, and $132 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 1. Financial Statements – Notes to Consolidated Financial Statements – Debt."

For the first nine months of 2021, net cash used for financing activities consisted primarily of $150 million for the acquisition of 1.7 million shares of our common stock under our $10 billion share repurchase authorization, $139 million of payments on equipment purchase contracts, and $156 million of repayments of debt, net of proceeds from new borrowings, partially offset by $148 million of proceeds from common stock issued in connection with employee equity plans. In the third quarter of 2021, we received proceeds of $1.19 billion from the new 2024 Term Loan A and used the proceeds to repay the $1.19 billion outstanding under the Extinguished 2024 Term Loan A.

Critical Accounting Estimates

For a discussion of our critical accounting estimates, see "Part II – Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations – Critical Accounting Estimates" of our Annual Report on Form 10-K for the year ended September 2, 2021. There have been no changes to our critical accounting estimates since our Annual Report on Form 10-K for the year ended September 2, 2021.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are affected by changes in currency exchange and interest rates. We are exposed to interest rate risk related to our indebtedness and our investment portfolio. As of June 2, 2022 and September 2, 2021, we had fixed-rate debt of $4.0 billion and $3.9 billion, respectively, and as a result, the fair value of our debt fluctuates with changes in market interest rates. In the first quarter of 2022, we issued new debt and repaid other debt, which significantly increased the average remaining maturity of our fixed-rate debt resulting in increased variability of its fair value from interest rate changes. We estimate that, as of June 2, 2022 and September 2, 2021, a decrease in market interest rates of 1% would increase the fair value of our fixed-rate debt by approximately $320 million and $200 million, respectively.

For further discussion about market risk and sensitivity analysis related to changes in currency exchange rates and interest rates, see "Part II – Item 7A. Quantitative and Qualitative Disclosures About Market Risk" in our Annual Report on Form 10-K for the year ended September 2, 2021.

ITEM 4. CONTROLS AND PROCEDURES

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

During the third quarter of 2022, there were no changes in our internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

For a discussion of legal proceedings, see "Part I – Item 3. Legal Proceedings" of our Annual Report on Form 10-K for the year ended September 2, 2021 and the sections titled "Part I. Financial Information – Item 1. Financial Statements – Notes to Consolidated Financial Statements – Contingencies" and "Item 1A. Risk Factors" in this Quarterly Report on Form 10-Q, as well as in our Quarterly Reports on Form 10-Q for the first and second quarters of 2022.

SEC regulations require disclosure of certain proceedings related to environmental matters unless we reasonably believe that the related monetary sanctions, if any, will be less than a specified threshold. We use a threshold of $1 million for this purpose.

ITEM 1A. RISK FACTORS

In addition to the factors discussed elsewhere in this Form 10-Q, 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
- the effects of the COVID-19 pandemic;
- volatility in average selling prices of our products;
- our ability to maintain or improve gross margins;
- the highly competitive nature of our industry;
- our ability to develop and produce new and competitive memory and storage technologies, products, and markets;
- dependency on specific customers, concentration of revenue with a select number of customers, and customers who are located internationally;
- our international operations, including geopolitical risks;
- limited availability and quality of materials, supplies, and capital equipment and dependency on third-party service providers for ourselves and our customers;
- products that fail to meet specifications, are defective, or are incompatible with end uses;

- disruptions to our manufacturing process from operational issues, natural disasters, or other events;
- breaches of our security systems or products, or those of our customers, suppliers, or business partners;
- attracting, retaining, and motivating highly skilled employees;
- achieving or maintaining certain performance obligations associated with incentives from various governments;
- future acquisitions and/or alliances;
- restructure charges;
- responsible sourcing requirements and related regulations;
- environmental, social, and governance ("ESG") considerations; and
- a downturn in the worldwide economy.

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 proceedings and claims;
- allegations of anticompetitive conduct;
- 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; and
- alleged patent infringement complaints in Chinese courts.

Risks Related to Laws and Regulations

- 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 ESG 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 timing of our common stock repurchases and payment of cash dividends and resulting impacts.

Risks Related to Our Business, Operations, and Industry

The effects of the COVID-19 pandemic could adversely affect our business, results of operations, and financial condition.

The effects of the public health crisis caused by the COVID-19 pandemic and the measures being taken to limit COVID-19's spread are uncertain and difficult to predict, but may include, and in some cases, have included and may continue to include:

- Disruptions to our supply chain, our operations, or those of our suppliers resulting from the spread of COVID-19 and/or the actions taken by governments, businesses, and/or the general public in an effort to limit exposure to and the spread of COVID-19, such as travel restrictions, quarantines, and business shutdowns or slowdowns, which may be unexpected and/or lengthy, especially as a result of zero-COVID policies in China or elsewhere;
- Impacts to customer demand from a global economic downturn or recession and/or supply chain shortages causing a decrease or shift in short-term and/or long-term demand for our products, resulting in industry oversupply and declines in pricing for our products;
- Reductions in production levels, R&D activities, product development, technology transitions, yield enhancement activities, and qualification activities with our customers and increased costs, resulting from our efforts to mitigate the impact of COVID-19 and protect our employees' and contractors' health and well-being;
- Increased costs for, or unavailability of, transportation, raw materials, components, electricity and/or other energy sources, or other inputs necessary for the operation of our business;

- Reductions in, or cessation of operations at any site or in any jurisdiction, which may occur with little or no advance notice, resulting from government restrictions on movement and/or business operations or measures to prevent and/or mitigate the spread of COVID-19 at one or more of our sites or those of our subcontractors or suppliers;
- Our inability to continue, or increased costs of, construction projects due to delays in obtaining materials, equipment, labor, engineering services, government permits, or any other essential aspect of projects, which could impact our ability to introduce new technologies, reduce costs, or meet customer demand; and
- Deterioration of worldwide credit and financial markets that could: limit our ability, and our customers' ability, to obtain external financing to fund operations and capital expenditures; result in losses on our holdings of cash and investments due to failures of financial institutions and other parties; or result in a higher rate of losses on our accounts receivable due to credit defaults.

These effects, alone or taken together, could have a material adverse effect on our business, results of operations, or financial condition. The continuation of the pandemic or expanded or recurring outbreaks could exacerbate the adverse impact of such measures.

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

	DRAM	NAND
	(percentage change in average selling prices)	
2021 from 2020	8 %	(12)%
2020 from 2019	(34)%	(9)%
2019 from 2018	(30)%	(47)%
2018 from 2017	36 %	(13)%
2017 from 2016	18 %	(10)%

We may be unable to maintain or improve gross margins.

Our gross margins are dependent, in part, upon continuing decreases in per gigabit manufacturing costs achieved through improvements in our manufacturing processes and product designs. Factors that may limit our ability to reduce our per gigabit manufacturing costs at sufficient levels to maintain or improve gross margins include, but are not limited to, strategic product diversification decisions affecting product mix, the increasing complexity of manufacturing processes, difficulties in transitioning to smaller line-width process technologies 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, start-up or other costs associated with capacity expansion, and higher costs of goods and services due to inflationary pressures or market conditions.

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. A significant portion of our manufacturing costs are fixed and do not vary proportionally with changes in production output. As a result, lower utilization and corresponding increases in our per gigabit manufacturing costs may adversely affect our gross margins, business, results of operations, or financial condition.

Per gigabit manufacturing costs may also be affected by a broader product portfolio, which may have products with smaller production quantities and shorter product lifecycles. Our business and the markets we serve are subject to rapid technological changes and material fluctuations in demand based on end-user preferences. As a result, we may have work in process or finished goods inventories that could become obsolete or in amounts that are in excess of our customers' demand. Consequently, we may incur charges in connection with obsolete or excess inventories. In addition, due to the customized nature of certain of the 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.

Our inability to maintain or improve gross margins could have a material adverse effect on our business, results of operations, or financial condition.

The semiconductor memory and storage markets are highly competitive.

We face intense competition in the semiconductor memory and storage markets from a number of companies, including Intel; 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 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.

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, such as Yangtze Memory Technologies Co., Ltd. ("YMTC") and ChangXin Memory Technologies, Inc. ("CXMT"), that is intended to advance China's stated national policy objectives. In addition, the Chinese government may restrict us from participating in the China market or may prevent us from competing effectively with Chinese companies.

We and our competitors generally seek to increase wafer capacity, improve yields, and reduce die size in our and their product designs 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. 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.

Our key semiconductor memory and storage products and technologies face technological barriers to continue to meet long-term customer needs. These barriers include potential limitations on stacking additional 3D memory layers, increasing bits per cell (i.e., cell levels), meeting higher density requirements, and improving power consumption and reliability. We may face technological barriers to continue to shrink our products at our current or historical rate, which has generally reduced per 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. There can be no assurance of the following:

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

We develop and produce advanced memory and storage technologies and there can be no assurance that our efforts to develop and market new product technologies will be successful. Unsuccessful efforts to develop new memory and storage technologies 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.

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

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. Our operations, and the global supply chain of the technology industry, are subject to a number of risks, including the effects of actions and policies of various governments across our global operations and supply chain. For example, political, economic, or other actions may adversely affect our operations in Taiwan. A majority of our DRAM production output in 2021 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.

In 2021, 56% of our revenue was from sales to customers who have headquarters located outside the United States. We ship our products to the locations specified by our customers. Customers with global supply chains and operations may request we deliver products to countries where they own or operate production facilities or to countries where they utilize third-party subcontractors or warehouses. As a result, 89% of our revenue in 2021 was from products shipped to customer locations outside the United States.

In addition, the U.S. government has in the past restricted American firms from selling products and software to certain of our customers and may in the future impose similar bans or other restrictions on sales to one or more of our significant customers. 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 when 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 while complying with such restrictions.

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

- export and import duties, changes to import and export regulations, customs regulations and processes, and restrictions on the transfer of funds, 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;
- imposition of bans on sales of goods or services to one or more of our significant foreign customers;
- public health issues (for example, an outbreak of a contagious disease such as COVID-19);
- compliance with U.S. and international laws involving international operations, including the Foreign Corrupt Practices Act of 1977, as amended, export and import laws, and similar rules and regulations;
- theft of intellectual property;
- political and economic instability, including the effects of disputes between China and Taiwan and Russia's invasion of Ukraine;
- 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; and
- difficulties in staffing and managing international operations.

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.

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

Our supply chain and operations are dependent on the availability of materials that meet exacting standards and the use of third parties to provide us with components and services. We generally have multiple sources of supply for our materials and services. However, only a limited number of suppliers are capable of delivering certain materials, components, and services that meet our standards and, in some cases, materials, components, or services are provided by a single or sole source, and we may be unable to qualify new suppliers on a timely basis. Various factors could impact the availability of materials or components such as chemicals, silicon wafers, gases, photoresist, controllers, substrates, lead frames, printed circuit boards, targets, and reticle glass blanks. These factors could include a shortage of raw materials or a disruption in the processing or purification of those raw materials into finished goods. Shortages or increases in lead times have occurred in the past, are currently occurring with respect to some materials and components, and may occur from time to time in the future. Constraints within our supply chain for certain materials and integrated circuit components could limit our bit shipments, which 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, logistic carriers, and other service providers, including 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 and shortages have increased, and 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 was 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, such as COVID-19, 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 certain 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 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, 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, contagious disease outbreaks, or other matters, which could limit the supply of our materials and/or increase the cost. For example, Russia's invasion of Ukraine as well as sanctions against Russia could result in higher costs or reduced availability of supplies, materials, components, or services. 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 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 significant 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.

New product and market development may be unsuccessful.

We are developing new products, including system-level memory and storage products and solutions, which complement our traditional products or leverage their underlying design or process technology. We have made significant investments in product and process technology and anticipate expending significant resources for new semiconductor product and system-level solution development over the next several years. Additionally, we are increasingly differentiating our products and solutions to meet the specific demands of our customers, which increases our reliance on our customers' ability to accurately forecast the needs and preferences of their customers. 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. Such factors have included, and may include in the future, the effects of the public health crisis caused by the COVID-19 pandemic and the measures being taken to limit COVID-19's spread. 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 that:

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

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

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

Manufacturing system-level solutions, such as SSDs and managed NAND, 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.

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, including droughts, earthquakes, tsunamis, or other occurrences that could disrupt operations, resulting in increased costs, or disruptions to our or our suppliers' or customers' manufacturing operations. 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. For example, since the start of the COVID-19 pandemic, some of our facilities and some of our subcontractors' facilities at times have been required to operate at reduced staffing and capacity levels due to COVID-19 quarantines and other public health protocols, which temporarily reduced output levels from those facilities. Events of the types noted above have occurred from time to time and 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.

Breaches of our security systems or products, or those of our customers, suppliers, or business partners, could expose us to losses.

We maintain a system of controls over the physical security of our facilities. We also manage and store various proprietary information and sensitive or confidential data relating to our operations. In addition, we process, store, and transmit large amounts of data relating to our customers and employees, including sensitive personal information. Unauthorized persons or employees may gain access to our facilities or technology infrastructure and systems to steal trade secrets or other proprietary information, compromise confidential information, create system disruptions, or cause shutdowns. Through cyberattacks on technology infrastructure and systems, unauthorized parties may obtain access to computer systems, networks, and data, including cloud-based platforms. The technology infrastructure and systems of our suppliers, vendors, service providers, cloud solution providers, and partners have in the past experienced, and may in the future experience, such attacks, which could impact our operations. Cyberattacks can include ransomware, computer denial-of-service attacks, worms, supply chain attacks, social engineering, and other malicious software programs or other attacks, including those using techniques that change frequently or may be disguised or difficult to detect, or designed to remain dormant until a triggering event, impersonation of authorized users, and efforts to discover and exploit any design flaws, "bugs," security vulnerabilities, as well as intentional or unintentional acts by employees or other insiders with access privileges. Globally, cyberattacks are increasing in number and the attackers are increasingly organized and well-financed, or supported by state actors, and are developing increasingly sophisticated systems to not only attack, but also to evade detection. In addition, geopolitical tensions or conflicts, such as Russia's invasion of Ukraine, may create a heightened risk of cyberattacks. Breaches of our physical security, attacks on our technology infrastructure and systems, or breaches or attacks on our customers, suppliers, or business partners who have confidential or sensitive information regarding us and our customers and suppliers, could result in significant losses and damage our reputation with customers and suppliers and may expose us to litigation if the confidential information of our customers, suppliers, or employees is compromised.

Our products are also targets for cyberattacks, including those products utilized in cloud-based environments. While some of our products contain encryption or security algorithms to protect third-party content or user-generated data stored on our products, these products could still be hacked or the encryption schemes could be compromised, breached, or circumvented by motivated and sophisticated attackers. Further, our products contain sophisticated hardware and firmware and applications that may contain security vulnerabilities or defects in design or manufacture, including "bugs" and other problems that could interfere with the intended operation of our products. To the extent our products are hacked, or the encryption schemes are compromised or breached, this could harm our business by requiring us to employ additional resources to fix the errors or defects, exposing us to litigation, claims, and harm to our reputation.

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

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

To remain competitive, we must attract, retain, and motivate executives and other highly skilled, diverse employees, as well as effectively manage or plan for succession for key employees. Competition for experienced employees in our industry continues to be intense. Hiring and retaining qualified executives, engineers, technical staff, sales representatives, and other employees is critical to our business. If other employers are perceived as offering a greater degree of workplace flexibility, promotional opportunity, greater compensation, or other employment benefits to employees than us, we may experience difficulty in attracting, retaining, and motivating the employees needed for our business operations. If our total compensation programs and workplace culture cease to be viewed as competitive and inclusive, our ability to attract, retain, and motivate employees could be compromised.

At times, we experience higher levels of attrition, increasing compensation costs, and more intense competition for talent across our industry. To the extent we experience significant attrition and are unable to timely replace employees, we could experience a loss of critical skills and reduced employee morale, potentially resulting in business disruptions or increased expenses to address any disruptions. Additionally, changes to immigration policies in the numerous countries in which we operate, including the United States, as well as restrictions on global travel as a result of local or global public health crises requiring quarantines, lockdowns, or other precautions to limit exposure to infectious diseases, may limit our ability to hire and/or retain talent in, or transfer talent to, specific locations.

Our inability to attract, retain, and motivate executives and other employees or effectively manage or plan for succession of key roles may inhibit our ability to maintain or expand our business operations.

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

We have received, and may in the future continue to receive, benefits and incentives from national, state, and local governments in various regions of the world designed to encourage us to establish, maintain, or increase investment, workforce, or production in those regions. These incentives may take various forms, including grants, loan subsidies, and tax arrangements, and typically require us to achieve or maintain certain levels of investment, capital spending, employment, technology deployment, or research and development activities to qualify for such incentives. We may be unable to obtain significant future incentives to continue to fund a portion of our capital expenditures and operating costs, without which our cost structure would be adversely impacted. We also cannot guarantee that we will successfully achieve performance obligations required to qualify for these incentives or that the granting agencies will provide such funding. These incentive arrangements typically provide the granting agencies with rights to audit our compliance with their terms and obligations. Such audits could result in modifications to, or termination of, the applicable incentive program. The incentives we receive could be subject to reduction, termination, or clawback, and any decrease or clawback of government incentives could have a material adverse effect on our business, results of operations, or financial condition.

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

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

- integrating the operations, technologies, and products of acquired or newly formed entities into our operations;
- increasing capital expenditures to upgrade and maintain facilities;
- increased debt levels;
- the assumption of unknown or underestimated liabilities;
- the use of cash to finance a transaction, which may reduce the availability of cash to fund working capital, capital expenditures, R&D expenditures, and other business activities;
- diverting management’s attention from daily operations;
- managing larger or more complex operations and facilities and employees in separate and diverse geographic areas;

- hiring and retaining key employees;
- requirements imposed by government authorities in connection with the regulatory review of a transaction, which may include, among other things, divestitures or restrictions on the conduct of our business or the acquired business;
- inability to realize synergies or other expected benefits;
- failure to maintain customer, vendor, and other relationships;
- inadequacy or ineffectiveness of an acquired company’s internal financial controls, disclosure controls and procedures, compliance programs, and/or environmental, health and safety, anti-corruption, human resource, or other policies or practices; and
- impairment of acquired intangible assets, goodwill, or other assets as a result of changing business conditions, technological advancements, or worse-than-expected performance of the acquired business.

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

We may incur restructure charges in future periods and may not realize expected savings or other benefits from restructure activities.

From time to time, we have, and may in the future, enter into restructure initiatives in order to, among other items, streamline our operations, respond to changes in business conditions, our markets, or product offerings, or to centralize certain key functions. We may not realize expected savings or other benefits from our restructure activities and may incur additional restructure charges or other losses in future periods associated with other initiatives. For example, we recognized significant restructure charges in connection with the sale of our Lehi facility. See “Part I. Financial Information – Item 1. Financial Statements – Notes to Consolidated Financial Statements – Lehi, Utah Fab and 3D XPoint.” In connection with any restructure initiatives, we could incur restructure charges, loss of production output, loss of key personnel, disruptions in our operations, and difficulties in the timely delivery of products, which could have a material adverse effect on our business, results of operations, or financial condition.

Compliance with responsible sourcing requirements and any related regulations could increase our operating costs, or limit the supply and increase the cost of certain materials, supplies, and services, and if we fail to comply, customers may reduce purchases from us or disqualify us as a supplier.

We and many of our customers have adopted responsible sourcing programs that require us to meet certain ESG criteria, and to periodically report on our performance against these requirements, including that we source the materials, supplies, and services we use and incorporate into the products we sell as prescribed by these programs. Many customer programs require us to remove a supplier within a prescribed period if such supplier ceases to comply with prescribed criteria, and our supply chain may at any time contain suppliers at risk of being removed due to non-compliance with responsible sourcing requirements. Some of our customers may elect to disqualify us as a supplier (resulting in a permanent or temporary loss of sales to such customer) or reduce purchases from us if we are unable to verify that our performance or products (including the underlying supply chain) meet the specifications of our customers’ responsible sourcing programs on a continuous basis. Meeting responsible sourcing requirements may increase operating requirements and costs or limit the sourcing and availability of some of the materials, supplies, and services we use, particularly when the availability of such materials, supplies, and services is concentrated to a limited number of suppliers. From time to time we remove suppliers or require our suppliers to remove suppliers from their supply chains based on our responsible sourcing requirements or customer requirements, and we or our suppliers may be unable to replace such removed suppliers in a timely or cost effective manner. Any inability to replace removed suppliers in a timely or cost effective manner may affect our ability and/or the cost to obtain sufficient quantities of materials, supplies, and services necessary for the manufacture of our products. Our inability to replace suppliers we have removed in a timely or cost effective manner or comply with customers’ responsible sourcing requirements or with any related regulations could have a material adverse effect on our business, results of operations, or financial condition.

Failure to meet ESG expectations or standards or achieve our ESG goals could adversely affect our business, results of operations, financial condition, or stock price.

In recent years, there has been an increased focus from stakeholders on ESG matters, including greenhouse gas emissions and climate-related risks, renewable energy, water stewardship, waste management, diversity, equality and inclusion, responsible sourcing and supply chain, human rights, and social responsibility. Given our commitment to ESG, we actively manage these issues and have established and publicly announced certain goals, commitments, and targets which we may refine or even expand further in the future. These goals, commitments, and targets reflect our current plans and aspirations and are not guarantees that we will be able to achieve them. Evolving stakeholder expectations and our efforts to manage these issues, report on them, and accomplish our goals present numerous operational, regulatory, reputational, financial, legal, and other risks, any of which could have a material adverse impact, including on our reputation and stock price.

Such risks and uncertainties include:

- reputational harm, including damage to our relationships with customers, suppliers, investors, governments, or other stakeholders;
- adverse impacts on our ability to sell and manufacture products;
- the success of our collaborations with third parties;
- increased risk of litigation, investigations, or regulatory enforcement action;
- unfavorable ESG ratings or investor sentiment;
- diversion of resources and increased costs to control, assess, and report on ESG metrics;
- our ability to achieve our goals, commitments, and targets within timeframes announced;
- increased costs to achieve our goals, commitments, and targets;
- unforeseen operational and technological difficulties;
- access to and increased cost of capital; and
- adverse impacts on our stock price.

Any failure, or perceived failure, to meet evolving stakeholder expectations and industry standards or achieve our ESG goals, commitments, and targets could have an adverse effect on our business, results of operations, financial condition, or stock price.

A downturn in the worldwide economy may harm our business.

Downturns in the worldwide economy, due to inflation, geopolitics, major central bank policy actions, public health crises, or other factors, have harmed our business in the past and future downturns could also adversely affect our business. Adverse economic conditions affect demand for devices that incorporate our products, such as personal computers, 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, 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 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. As a result, downturns in the worldwide economy could have a material adverse effect on our business, results of operations, or financial condition.

Risks Related to Intellectual Property and Litigation

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

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

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

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

Legal proceedings and claims could have a material adverse effect on our business, results of operations, or financial condition.

From time to time we are subject to various legal proceedings and claims that arise out of the ordinary conduct of our business or otherwise, both domestically and internationally. See “Part I. Financial Information – Item 1. Financial Statements – Notes to Consolidated Financial Statements – Contingencies.” Any claim, with or without merit, could result in significant legal fees that could negatively impact our financial results, disrupt our operations, and require significant attention from our management. We may be associated with and subject to litigation, claims, or arbitration disputes arising from, or as a result of:

- our relationships with vendors or customers, supply agreements, or contractual obligations with our subcontractors or business partners;
- the actions of our vendors, subcontractors, or business partners;
- our indemnification obligations, including obligations to defend our customers against third-party claims asserting infringement of certain intellectual property rights, which may include patents, trademarks, copyrights, or trade secrets; and
- the terms of our product warranties or from product liability claims.

As we continue to focus on developing system solutions with manufacturers of consumer products, including autonomous driving, augmented reality, and others, we may be exposed to greater potential for personal liability claims against us as a result of consumers’ use of those products. We, our officers, or our directors could also be subject to claims of alleged violations of securities laws. There can be no assurance that we are adequately insured to protect against all claims and potential liabilities, and we may elect to self-insure with respect to certain matters. Exposures to various legal proceedings and claims could lead to significant costs and expenses as we defend claims, are required to pay damage awards, or enter into settlement agreements, any of which could have a material adverse effect on our business, results of operations, or financial condition.

We are subject to allegations of anticompetitive conduct.

On October 28, 2019, a consolidated, amended complaint was filed against Micron and other DRAM suppliers in the U.S. District Court for the Northern District of California on behalf of a purported class of indirect purchasers of DRAM products. The amended complaint asserted claims based on alleged price-fixing of DRAM products under federal and state law during the period from June 1, 2016 to at least February 1, 2018, and sought treble monetary damages, costs, interest, attorneys' fees, and other injunctive and equitable relief. On December 21, 2020, the District Court dismissed the plaintiffs' claims and entered judgment against them. On March 7, 2022, the U.S. Court of Appeals for the Ninth Circuit affirmed the District Court's ruling dismissing the plaintiffs' claims. On May 16, 2022, the Court of Appeals denied the plaintiffs' request for rehearing.

On October 28, 2019, a consolidated, amended complaint was filed against Micron and other DRAM suppliers in the U.S. District Court for the Northern District of California on behalf of a purported class of direct purchasers of DRAM products. The consolidated complaint asserted claims based on alleged price-fixing of DRAM products under federal and state law during the period from June 1, 2016 through at least February 1, 2018, and sought treble monetary damages, costs, interest, attorneys' fees, and other injunctive and equitable relief. On December 21, 2020, the District Court granted Micron's motion to dismiss and granted the plaintiffs permission to file a further amended complaint. On January 11, 2021, the plaintiffs filed a further amended complaint asserting substantially the same claims and seeking the same relief. On September 3, 2021, the District Court granted Micron's motion to dismiss the further amended complaint with prejudice. On October 1, 2021, the plaintiffs filed a notice of appeal to the U.S. Court of Appeals for the Ninth Circuit.

Additionally, six cases have been filed in the following Canadian courts: Superior Court of Quebec, the Federal Court of Canada, the Ontario Superior Court of Justice, and the Supreme Court of British Columbia. The substantive allegations in these cases are similar to those asserted in the cases filed in the United States.

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

We are unable to predict the outcome of these matters and therefore cannot estimate the range of possible loss. For further information regarding these matters, see "Part I. Financial Information – Item 1. Financial Statements – Notes to Consolidated Financial Statements – Contingencies." The final resolution of these matters could result in significant liability and could have a material adverse effect on our business, results of operations, or financial condition.

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

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

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

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

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

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

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

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

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

In January 2011, Dr. Michael Jaffé, administrator for Qimonda's insolvency proceedings, filed suit against Micron and Micron Semiconductor B.V. ("Micron B.V."), in the District Court of Munich, Civil Chamber. The complaint seeks to void a share purchase agreement between Micron B.V. and Qimonda signed in 2008, pursuant to which Micron B.V. purchased substantially all of Qimonda's shares of Inotera, representing approximately 18% of Inotera's outstanding shares at that time, and seeks an order requiring us to re-transfer those shares to the Qimonda estate. The complaint also seeks, among other things, to recover damages for the alleged value of the joint venture relationship with Inotera and to terminate a patent cross-license between us and Qimonda entered into at the same time as the share purchase agreement. See "Part I. Financial Information – Item 1. Financial Statements – Notes to Consolidated Financial Statements – Contingencies" for further information regarding the matter.

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

Risks Related to Laws and Regulations

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

In 2021, 89% of our revenue was from products shipped to customer locations outside the United States. We also purchase a significant portion of equipment and supplies from suppliers outside the United States. Additionally, a significant portion of our facilities are located outside the United States, including in Taiwan, Singapore, Japan, Malaysia, and China.

The United States and other countries have levied tariffs and taxes on certain goods. Trade tensions between the United States and China have continued, with U.S. tariffs on Chinese goods and retaliatory Chinese tariffs on U.S. goods remaining in place. Some of our products are impacted by these tariffs. Additionally, the United States has imposed tariffs on goods imported from other countries, which could also impact certain of our customers' or our operations. If the United States were to impose current or additional tariffs on components that we or our suppliers source, our cost for such components would increase. We may also incur increases in manufacturing costs and supply chain risks due to our efforts to mitigate the impact of tariffs on our customers and our operations. Additionally, tariffs on our customers' products could impact their sales of such end products, resulting in lower demand for our products.

We cannot predict what further actions may ultimately be taken with respect to tariffs or trade relations between the United States and other countries, what products may be subject to such actions, or what actions may be taken by other countries in retaliation. Further changes in trade policy, tariffs, additional taxes, restrictions on exports or other trade barriers, or restrictions on supplies, equipment, and raw materials including rare earth minerals, may limit our ability to produce products, increase our selling and/or manufacturing costs, decrease margins, reduce the competitiveness of our products, or inhibit our ability to sell products or purchase necessary equipment and supplies, which could have a material adverse effect on our business, results of operations, or financial condition.

Trade regulations have restricted our ability to sell our products to several customers, could restrict our ability to sell our products to other customers or in certain markets, or could otherwise restrict our ability to conduct operations.

International trade disputes have led, and continue to lead, to new and increasing trade barriers and other protectionist measures that can increase our manufacturing costs, make our products less competitive, reduce demand for our products, limit our ability to sell to certain customers or markets, limit our ability to procure components or raw materials, impede or slow the movement of our goods across borders, impede our ability to perform R&D activities, or otherwise restrict our ability to conduct operations. Increasing protectionism, economic nationalism, and national security concerns may lead to further changes in trade policy, domestic sourcing initiatives, or other formal and informal measures that could make it more difficult to sell our products in, or restrict our access to, some markets and/or customers.

Ongoing tensions between the United States and China have led to increased trade restrictions and have affected customer ordering patterns. In addition, in response to Russia's invasion of Ukraine, many countries have enacted broad trade restrictions with respect to Russia and Belarus that prevent us and many other companies from shipping products to these countries. We cannot predict whether U.S. or foreign government entities will enact additional restrictions with respect to our customers, markets, or products. We may not be able to replace the lost revenue opportunities associated with such restrictions.

The United States has also imposed other restrictions on the export of U.S. regulated products and technology to certain Chinese technology companies, including certain of our customers. These restrictions reduced our sales to those customers, and continuing or future restrictions could adversely affect our financial results, result in reputational harm to us due to our relationship with such companies, or lead such companies to develop or adopt technologies that compete with our products. It is difficult to predict what further trade-related actions governments may take, and we may be unable to quickly and effectively react to such actions. For example, U.S. legislation has expanded the power of the U.S. Department of Commerce to restrict the export of "emerging and foundational technologies" yet to be identified, which could impact our current or future products.

Trade disputes and protectionist measures, or continued uncertainty about such matters, could result in declining consumer confidence and slowing economic growth or recession, and could cause our customers to reduce, cancel, or alter the timing of their purchases with us. Sustained trade tensions could lead to long-term changes in global trade and technology supply chains, which could adversely affect our business and growth prospects. Trade restrictions that may be imposed by the United States, China, or other countries may impact our business in ways we cannot reasonably quantify, including that some of our customers' products which incorporate our solutions may also be impacted. In addition, further increases in trade restrictions or barriers may negatively impact our revenue, and any licenses we have received or could receive in the future could be rendered ineffective. Any such changes may have an adverse effect on our business, results of operations, or financial condition.

The technology industry is subject to intense media, political, and regulatory scrutiny, which can increase our exposure to government investigations, legal actions, and penalties. Although we have policies, controls, and procedures designed to help ensure compliance with applicable laws, there can be no assurance that our employees, contractors, suppliers, or agents will not violate such laws or our policies. Violations of trade laws, restrictions, or regulations can result in fines; criminal sanctions against us or our officers, directors, or employees; prohibitions on the conduct of our business; and damage to our reputation.

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

We operate in a number of jurisdictions outside the United States, including Singapore, where we have tax incentive arrangements that are conditional, in part, upon meeting certain business operations and employment thresholds. Our domestic and international taxes are dependent upon the geographic mix of our earnings among these jurisdictions. Our provision for income taxes and cash tax liabilities in the future could be adversely affected by numerous factors, including mandatory capitalization of R&D expenses beginning in 2023, challenges by tax authorities to our tax positions and intercompany transfer pricing arrangements, failure to meet performance obligations with respect to tax incentive agreements, expanding our operations in various countries, fluctuations in foreign currency exchange rates, and changes in tax laws and regulations. Additionally, we file income tax returns with the U.S. federal government, various U.S. states, and various other jurisdictions throughout the world and certain tax returns may remain open to examination for several years. The results of audits and examinations of previously filed tax returns and continuing assessments of our tax exposures may have an adverse effect on our provision for income taxes and cash tax liability. The foregoing items could have a material adverse effect on our business, results of operations, or financial condition.

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

We are subject to income taxes in the United States and many foreign jurisdictions. Changes to income tax laws and regulations, or the interpretation of such laws, in any of the jurisdictions in which we operate could significantly increase our effective tax rate and ultimately reduce our cash flows from operating activities and otherwise have a material adverse effect on our financial condition. For example, our effective tax rate increased from 1.2% for 2018 to 9.8% for 2019 primarily as a result of tax reform by the United States. Additionally, various levels of government are increasingly focused on tax reform and other legislative actions to increase tax revenue. The United States government is considering various tax reform proposals that, if enacted, contain provisions that could increase our tax expense. Further changes in the tax laws of foreign jurisdictions could arise as a result of the base erosion and profit shifting project undertaken by the Organisation for Economic Co-operation and Development, which represents a coalition of member countries and recommended changes to numerous long-standing tax principles. If implemented by taxing authorities, such changes, as well as changes in U.S. federal and state tax laws or in taxing jurisdictions' administrative interpretations, decisions, policies, and positions, could have a material adverse effect on our business, results of operations, or financial condition.

We and others are subject to a variety of laws, regulations, or industry standards, including with respect to ESG considerations, that may have a material adverse effect on our business, results of operations, or financial condition.

The manufacture of our products requires the use of facilities, equipment, and materials that are subject to a broad array of laws and regulations in numerous jurisdictions in which we operate. Additionally, we are subject to a variety of other laws and regulations relative to the construction, maintenance, and operations of our facilities. Any changes in laws, regulations, or industry standards could cause us to incur additional direct costs, as well as increased indirect costs related to our relationships with our customers and suppliers, and otherwise harm our operations and financial condition. Any failure to comply with laws, regulations, or industry standards could adversely impact our reputation and our financial results. Additionally, we engage various third parties as sales channel partners or to represent us or otherwise act on our behalf who are also subject to a broad array of laws, regulations, and industry standards. Our engagement with these third parties may also expose us to risks associated with their respective compliance with laws and regulations.

New ESG considerations, including those related to climate change and the potential resulting environmental impact, may result in new laws, regulations, or industry standards that may affect us, our suppliers, and our customers. Such laws, regulations, or industry standards could cause us to incur additional direct costs for compliance, as well as increased indirect costs resulting from our customers, suppliers, or both incurring additional compliance costs that are passed on to us. These costs may adversely impact our results of operations and financial condition.

As a result of the items detailed in this risk factor, we could experience the following:

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

Compliance with, or our failure, or the failure of our third-party sales channel partners or agents, to comply with, laws, regulations, or industry standards could have a material adverse effect on our business, results of operations, or financial condition.

Risks Related to Capitalization and Financial Markets

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

Our cash flows from operations depend primarily on the volume of semiconductor memory and storage products sold, average selling prices, and manufacturing costs. To develop new product and process technology, support future growth, achieve operating efficiencies, and maintain product quality, we must make significant capital investments in manufacturing technology, capital equipment, facilities, R&D, and product and process technology.

We estimate capital expenditures in 2022 for property, plant, and equipment, net of partner contributions, will be approximately $12 billion. Investments in capital expenditures may not generate expected returns or cash flows. In addition, we invest our capital in areas that we believe best align with our business strategy and will yield future profitability. Significant judgment is required to determine which capital investments will result in optimal returns, and we could invest in projects that are ultimately less profitable than those projects we do not select. Delays in completion and ramping of new production facilities, or failure to optimize our investment choices, could significantly impact our ability to realize expected returns on our capital expenditures, which could have a material adverse effect on our business, results of operations, or financial condition.

In the past we have utilized external sources of financing when needed. As a result of our debt levels, expected debt amortization, and general economic conditions, it may be difficult for us to obtain financing on terms acceptable to us or at all. We have experienced volatility in our cash flows and operating results and may continue to experience such volatility in the future, which may negatively affect our credit rating. Our credit rating may also be affected by our liquidity, financial results, economic risk, or other factors, which may increase the cost of future borrowings and make it difficult for us to obtain financing on terms acceptable to us or at all. There can be no assurance that we will be able to generate sufficient cash flows, access capital or credit markets, or find other sources of financing to fund our operations, make debt payments, pay our quarterly dividend, and make adequate capital investments to remain competitive in terms of technology development and cost efficiency. Our inability to do any of the foregoing could have a material adverse effect on our business, results of operations, or financial condition.

Debt obligations could adversely affect our financial condition.

We have incurred in the past, and expect to incur in the future, debt to finance our capital investments, business acquisitions, and restructure of our capital structure. As of June 2, 2022 we had debt with a carrying value of $6.96 billion and may incur additional debt, including under our $2.50 billion Revolving Credit Facility. Our debt obligations could adversely impact us as follows:

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

Our ability to meet our payment obligations under our debt instruments depends on our ability to generate significant cash flows or obtain external financing in the future. This, to some extent, is subject to market, economic, financial, competitive, legislative, and regulatory factors as well as other factors that are beyond our control. There can be no assurance that our business will generate cash flow from operations, or that additional capital will be available to us, in amounts sufficient to enable us to meet our debt payment obligations and to fund other liquidity needs. Additionally, events and circumstances may occur which would cause us to not be able to satisfy applicable draw-down conditions and utilize our Revolving Credit Facility. If we are unable to generate sufficient cash flows to service our debt payment obligations, we may need to refinance or restructure our debt, sell assets, reduce or delay capital investments, or seek to raise additional capital. If we are unable to implement one or more of these alternatives, we may be unable to meet our debt payment obligations, which could have a material adverse effect on our business, results of operations, or financial condition.

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

Across our global operations, significant transactions and balances are denominated in currencies other than the U.S. dollar (our reporting currency), primarily the euro, Malaysian ringgit, Singapore dollar, New Taiwan dollar, and yen. In addition, a significant portion of our manufacturing costs are denominated in foreign currencies. Exchange rates for some of these currencies against the U.S. dollar have been volatile and may be volatile in future periods. If these currencies strengthen against the U.S. dollar, our manufacturing costs could significantly increase. Exchange rates for the U.S. dollar that adversely change against our foreign currency exposures could have a material adverse effect on our business, results of operations, or financial condition.

We are subject to counterparty default risks.

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

The trading price of our common stock has been and may continue to be volatile.

Our common stock has experienced substantial price volatility in the past and may continue to do so in the future. Additionally, we, the technology industry, and the stock market as a whole have on occasion experienced extreme stock price and volume fluctuations that have affected stock prices in ways that may have been unrelated to the specific operating performance of individual companies. The trading price of our common stock may fluctuate widely due to various factors, including, but not limited to, actual or anticipated fluctuations in our financial condition and operating results, changes in financial estimates by us or financial or other market estimates and ratings by securities and other analysts, changes in our capital structure, including issuance of additional debt or equity to the public, interest rate changes, regulatory changes, news regarding our products or products of our competitors, and broad market and industry fluctuations.

Our operating results have fluctuated in the past and will continue to do so, sometimes materially. Many of the matters discussed in this Risk Factors section could impact our operating results in any fiscal quarter or year. If our operating results fall below our forecasts and the expectations of public market analysts and investors, the trading price of our common stock may decline.

For these reasons, investors should not rely on recent or historical trends to predict future trading prices of our common stock, financial condition, results of operations, or cash flows. Investors in our common stock may not realize any return on their investment in us and may lose some or all of their investment. Volatility in the trading price of our common stock could also result in the filing of securities class action litigation matters, which could result in substantial costs and the diversion of management time and resources.

The amount and frequency of our share repurchases may fluctuate, and we cannot guarantee that we will fully consummate our share repurchase authorization, or that it will enhance long-term shareholder value. Share repurchases could also increase the volatility of the trading price of our stock and will diminish our cash reserves.

The amount, timing, and execution of our share repurchases pursuant to our share repurchase authorization may fluctuate based on our operating results, cash flows, and priorities for the use of cash for other purposes. For example, we repurchased 22.2 million shares for $1.65 billion in the first nine months of 2022, 15.6 million shares for $1.2 billion in 2021, 3.6 million shares for $176 million in 2020, and 66.4 million shares for $2.66 billion in 2019. These other purposes include, but are not limited to, operational spending, capital spending, acquisitions, and repayment of debt. Other factors, including changes in tax laws, could also impact our share repurchases. Although our Board of Directors has authorized share repurchases of up to $10 billion of our outstanding common stock, the authorization does not obligate us to repurchase any common stock.

We cannot guarantee that our share repurchase authorization will be fully consummated or that it will enhance long-term shareholder value. The repurchase authorization could affect the trading price of our stock and increase volatility, and any announcement of a pause in, or termination of, this program may result in a decrease in the trading price of our stock. In addition, this program will diminish our cash reserves.

There can be no assurance that we will continue to declare cash dividends in any particular amounts or at all.

Our Board of Directors has adopted a dividend policy pursuant to which we currently pay a cash dividend on our common shares on a quarterly basis. The declaration and payment of any dividend is subject to the approval of our Board of Directors and our dividend may be discontinued or reduced at any time. There can be no assurance that we will declare cash dividends in the future in any particular amounts, or at all.

Future dividends, if any, and their timing and amount, may be affected by, among other factors: 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. A reduction in or elimination of our dividend payments could have a negative effect on the trading price of our stock.

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

In May 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.

Period		Total number of shares purchased	Average price paid per share	Total number of shares purchased as part of publicly announced plans or programs	Approximate dollar value of shares that may yet be purchased under publicly announced plans or programs (in millions)
March 4, 2022	– April 7, 2022	2,343,113	$ 77.12	2,343,113	
April 8, 2022	– May 5, 2022	5,579,701	$ 70.74	5,579,701	
May 6, 2022	– June 2, 2022	5,816,605	$ 69.65	5,816,605	
		13,739,419	$ 71.37	13,739,419	$4,315

Shares of common stock withheld as payment of withholding taxes and exercise prices in connection with the vesting or exercise of equity awards are also treated as common stock repurchases. Those withheld shares of common stock are not required to be disclosed under Item 703 of Regulation S-K and accordingly are excluded from the amounts in the table above.

ITEM 6. EXHIBITS

Exhibit Number	Description of Exhibit	Filed Herewith	Form	Period Ending	Exhibit/ Appendix	Filing Date
10.1*	Micron Technology, Inc. Employee Stock Purchase Plan, as amended and restated	X				
10.2*	Micron Technology, Inc. Deferred Compensation Plan, as amended	X				
10.3*	Certain Benefits Granted to Mark Murphy upon Appointment as Chief Financial Officer	X				
31.1	Rule 13a-14(a) Certification of Chief Executive Officer	X				
31.2	Rule 13a-14(a) Certification of Chief Financial Officer	X				
32.1	Certification of Chief Executive Officer Pursuant to 18 U.S.C. 1350	X				
32.2	Certification of Chief Financial Officer Pursuant to 18 U.S.C. 1350	X				
101.INS	Inline XBRL Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document	X				
101.SCH	Inline XBRL Taxonomy Extension Schema Document	X				
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document	X				
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document	X				
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document	X				
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document	X				
104	Cover Page Interactive Data File (formatted as Inline XBRL and contained in Exhibit 101)	X				

* Indicates management contract or compensatory plan or arrangement.

SIGNATURES

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

Micron Technology, Inc.
(Registrant)

Date: June 30, 2022

By: */s/ Mark Murphy*
Mark Murphy
Executive Vice President and Chief Financial Officer
(Principal Financial Officer)

/s/ Scott Allen
Scott Allen
Corporate Vice President and Chief Accounting Officer
(Principal Accounting Officer)