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 March 2, 2023

OR

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

For the transition period from to

Commission file number 1-10658

Micron Technology, Inc.

(Exact name of registrant as specified in its charter)

Delaware	**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 March 23, 2023 was 1,094,394,354.

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Definitions of Commonly Used Terms

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

Term	Definition	Term	Definition
2023 Notes	2.497% Senior Notes due April 2023, repaid November 2021	DDR	Double data rate DRAM
2024 Notes	4.640% Senior Notes due February 2024, repaid November 2021	EBITDA	Earnings before interest, taxes, depreciation, and amortization
2024 Term Loan A	Senior Term Loan A due October 2024	ESG	Environmental, social, and governance
2025 Term Loan A	Senior Term Loan A due November 2025	EUV	Extreme ultraviolet lithography
2026 Term Loan A	Senior Term Loan A due November 2026	GDDR	Graphics double data rate
2027 Term Loan A	Senior Term Loan A due November 2027	HBM	High-bandwidth memory, a stacked DRAM technology optimized for memory-bandwidth intensive applications
2026 Notes	4.975% Senior Notes due February 2026	Inotera	Inotera Memories, Inc.
2027 Notes	4.185% Senior Notes due February 2027	LIBOR	London Interbank Offered Rate
2029 A Notes	5.327% Senior Notes due February 2029	LPDRAM	Low-power DRAM
2029 B Notes	6.750% Senior Notes due November 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	Qimonda	Qimonda AG
2033 Notes	5.875% Senior Notes due February 2033	Revolving Credit Facility	$2.5 billion Revolving Credit Facility due May 2026
2041 Notes	3.366% Senior Notes due November 2041	SOFR	Secured Overnight Financing Rate
2051 Notes	3.477% Senior Notes due November 2051	SSD	Solid state drive

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.

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 (“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 restructure plans and expected related savings and charges; market conditions and profitability in our industry; potential write-downs of inventories in future quarters; reductions in our wafer starts and the corresponding impact on our costs in 2023; the timing for construction and ramping of production for new memory manufacturing fabs in the United States; the receipt of government grants and investment tax credits; the sufficiency of our cash and investments; capital spending in 2023; funding of sustainability-focused projects; and allocation and dispersal of the net proceeds of our 2032 Green Bonds. 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		Six months ended	
	March 2, 2023	March 3, 2022	March 2, 2023	March 3, 2022
Revenue	$ 3,693	$ 7,786	$ 7,778	$ 15,473
Cost of goods sold	4,899	4,110	8,091	8,232
Gross margin	(1,206)	3,676	(313)	7,241
Research and development	788	792	1,637	1,504
Selling, general, and administrative	231	263	482	522
Restructure and asset impairments	86	5	99	43
Other operating (income) expense, net	(8)	70	(19)	(5)
Operating income (loss)	(2,303)	2,546	(2,512)	5,177
Interest income	119	12	207	22
Interest expense	(89)	(55)	(140)	(100)
Other non-operating income (expense), net	2	6	(2)	(69)
	(2,271)	2,509	(2,447)	5,030
Income tax (provision) benefit	(54)	(255)	(62)	(474)
Equity in net income (loss) of equity method investees	13	9	2	13
Net income (loss)	$ (2,312)	$ 2,263	$ (2,507)	$ 4,569
Earnings (loss) per share				
Basic	$ (2.12)	$ 2.02	$ (2.30)	$ 4.08
Diluted	(2.12)	2.00	(2.30)	4.04
Number of shares used in per share calculations				
Basic	1,091	1,119	1,091	1,119
Diluted	1,091	1,130	1,091	1,130

See accompanying notes to consolidated financial statements.

Micron Technology, Inc.
Consolidated Statements of Comprehensive Income (Loss)

(In millions)
(Unaudited)

	Quarter ended		Six months ended	
	March 2, 2023	March 3, 2022	March 2, 2023	March 3, 2022
Net income (loss)	$ (2,312)	$ 2,263	$ (2,507)	$ 4,569
Other comprehensive income (loss), net of tax				
Gains (losses) on derivative instruments	92	(34)	200	(120)
Gains (losses) on investments	7	(13)	(12)	(20)
Foreign currency translation adjustments	1	1	(2)	1
Pension liability adjustments	—	(1)	1	(1)
Other comprehensive income (loss)	100	(47)	187	(140)
Total comprehensive income (loss)	$ (2,212)	$ 2,216	$ (2,320)	$ 4,429

See accompanying notes to consolidated financial statements.

Micron Technology, Inc.
Consolidated Balance Sheets

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

As of	March 2, 2023	September 1, 2022
Assets		
Cash and equivalents	$ 9,798	$ 8,262
Short-term investments	1,020	1,069
Receivables	2,278	5,130
Inventories	8,129	6,663
Other current assets	673	657
Total current assets	21,898	21,781
Long-term marketable investments	1,212	1,647
Property, plant, and equipment	39,085	38,549
Operating lease right-of-use assets	673	678
Intangible assets	410	421
Deferred tax assets	697	702
Goodwill	1,228	1,228
Other noncurrent assets	1,317	1,277
Total assets	$ 66,520	$ 66,283
Liabilities and equity		
Accounts payable and accrued expenses	$ 4,310	$ 6,090
Current debt	237	103
Other current liabilities	708	1,346
Total current liabilities	5,255	7,539
Long-term debt	12,037	6,803
Noncurrent operating lease liabilities	610	610
Noncurrent unearned government incentives	529	589
Other noncurrent liabilities	832	835
Total liabilities	19,263	16,376
Commitments and contingencies		
Shareholders' equity		
Common stock, $0.10 par value, 3,000 shares authorized, 1,235 shares issued and 1,094 outstanding (1,226 shares issued and 1,094 outstanding as of September 1, 2022)	123	123
Additional capital	10,633	10,197
Retained earnings	44,426	47,274
Treasury stock, 141 shares held (132 shares as of September 1, 2022)	(7,552)	(7,127)
Accumulated other comprehensive income (loss)	(373)	(560)
Total equity	47,257	49,907
Total liabilities and equity	$ 66,520	$ 66,283

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 1, 2022	1,226	$ 123	$ 10,197	$ 47,274	$ (7,127)	$ (560)	$ 49,907
Net income (loss)	—	—	—	(195)	—	—	(195)
Other comprehensive income (loss), net	—	—	—	—	—	87	87
Stock issued under stock plans	8	—	7	—	—	—	7
Stock-based compensation expense	—	—	146	—	—	—	146
Repurchase of stock - repurchase program	—	—	—	—	(425)	—	(425)
Repurchase of stock - withholdings on employee equity awards	(2)	—	(15)	(80)	—	—	(95)
Dividends and dividend equivalents declared ($0.115 per share)	—	—	—	(126)	—	—	(126)
Balance at December 1, 2022	1,232	$ 123	$ 10,335	$ 46,873	$ (7,552)	$ (473)	$ 49,306
Net income (loss)	—	—	—	(2,312)	—	—	(2,312)
Other comprehensive income (loss), net	—	—	—	—	—	100	100
Stock issued under stock plans	3	—	142	—	—	—	142
Stock-based compensation expense	—	—	157	—	—	—	157
Repurchase of stock - withholdings on employee equity awards	—	—	(1)	(7)	—	—	(8)
Dividends and dividend equivalents declared ($0.115 per share)	—	—	—	(128)	—	—	(128)
Balance at March 2, 2023	1,235	$ 123	$ 10,633	$ 44,426	$ (7,552)	$ (373)	$ 47,257

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 (loss)	—	—	—	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 (loss)	—	—	—	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

See accompanying notes to consolidated financial statements.

Micron Technology, Inc.
Consolidated Statements of Cash Flows

(In millions)
(Unaudited)

Six months ended	March 2, 2023	March 3, 2022
Cash flows from operating activities		
Net income (loss)	$ (2,507)	$ 4,569
Adjustments to reconcile net income (loss) to net cash provided by operating activities:		
Depreciation expense and amortization of intangible assets	3,863	3,413
Provision to write-down inventories to net realizable value	1,430	—
Stock-based compensation	303	247
(Gain) loss on debt repurchases	—	83
Change in operating assets and liabilities:		
Receivables	2,910	(44)
Inventories	(2,896)	(900)
Accounts payable and accrued expenses	(1,795)	107
Other	(22)	91
Net cash provided by operating activities	1,286	7,566
Cash flows from investing activities		
Expenditures for property, plant, and equipment	(4,654)	(5,876)
Purchases of available-for-sale securities	(293)	(922)
Proceeds from maturities of available-for-sale securities	765	631
Proceeds from government incentives	64	66
Proceeds from sales of available-for-sale securities	8	172
Proceeds from sale of Lehi, Utah fab	—	893
Other	(71)	(140)
Net cash provided by (used for) investing activities	(4,181)	(5,176)
Cash flows from financing activities		
Proceeds from issuance of debt	5,221	2,000
Repurchases of common stock - repurchase program	(425)	(667)
Payments of dividends to shareholders	(252)	(224)
Payments on equipment purchase contracts	(76)	(105)
Repayments of debt	(53)	(1,981)
Other	19	(2)
Net cash provided by (used for) financing activities	4,434	(979)
Effect of changes in currency exchange rates on cash, cash equivalents, and restricted cash	9	(16)
Net increase (decrease) in cash, cash equivalents, and restricted cash	1,548	1,395
Cash, cash equivalents, and restricted cash at beginning of period	8,339	7,829
Cash, cash equivalents, and restricted cash at end of period	$ 9,887	$ 9,224

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 1, 2022. There have been no changes to our significant accounting policies since our Annual Report on Form 10-K for the year ended September 1, 2022.

Basis of Presentation

The accompanying consolidated financial statements include the accounts of Micron Technology, Inc. and our consolidated subsidiaries and have been prepared in accordance with accounting principles generally accepted in the United States of America (“U.S. GAAP”) consistent in all material respects with those applied in our Annual Report on Form 10-K for the year ended September 1, 2022.

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 2023 and 2022 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 1, 2022.

Cash and Investments

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

As of	March 2, 2023				September 1, 2022			
	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	$ 6,222	$ —	$ —	$ 6,222	$ 6,055	$ —	$ —	$ 6,055
Level 1[2]								
Money market funds	1,893	—	—	1,893	1,196	—	—	1,196
Level 2[3]								
Certificates of deposit	1,654	61	—	1,715	976	50	—	1,026
Corporate bonds	10	761	700	1,471	—	759	995	1,754
Asset-backed securities	—	13	475	488	—	20	608	628
Government securities	10	101	37	148	2	155	44	201
Commercial paper	9	84	—	93	33	85	—	118
	9,798	$ 1,020	$ 1,212	$ 12,030	8,262	$ 1,069	$ 1,647	$ 10,978
Restricted cash[4]	89				77			
Cash, cash equivalents, and restricted cash	$ 9,887				$ 8,339			

(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 March 2, 2023 or September 1, 2022.*
(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 or which will be returned if performance conditions are not met.*

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

Non-marketable Equity Investments

In addition to the amounts included in the table above, we had $218 million and $222 million of non-marketable equity investments without a readily determinable fair value that were included in other noncurrent assets as of March 2, 2023 and September 1, 2022, respectively.

Receivables

As of	March 2, 2023	September 1, 2022
Trade receivables	$ 1,891	$ 4,765
Income and other taxes	215	251
Other	172	114
	$ 2,278	$ 5,130

Inventories

As of	March 2, 2023	September 1, 2022
Finished goods	$ 1,631	$ 1,028
Work in process	5,653	4,830
Raw materials and supplies	845	805
	$ 8,129	$ 6,663

In the second quarter of 2023, we recorded a charge of $1.43 billion to cost of goods sold to write down the carrying value of work in process and finished goods inventories to their estimated net realizable values.

Property, Plant, and Equipment

As of	March 2, 2023	September 1, 2022
Land	$ 279	$ 280
Buildings	17,401	16,676
Equipment[(1)]	64,279	61,354
Construction in progress[(2)]	2,093	1,897
Software	1,247	1,124
	85,299	81,331
Accumulated depreciation	(46,214)	(42,782)
	$ 39,085	$ 38,549

[(1)] *Includes costs related to equipment not placed into service of $3.43 billion as of March 2, 2023 and $3.35 billion as of September 1, 2022.*
[(2)] *Includes building-related construction, tool installation, and software costs for assets not placed into service.*

Intangible Assets

As of	March 2, 2023 Gross Amount	March 2, 2023 Accumulated Amortization	March 2, 2023 Net Carrying Amount	September 1, 2022 Gross Amount	September 1, 2022 Accumulated Amortization	September 1, 2022 Net Carrying Amount
Product and process technology	$ 740	$ (330)	$ 410	$ 742	$ (321)	$ 421

In the first six months of 2023 and 2022, we capitalized $51 million and $105 million, respectively, for product and process technology with weighted-average useful lives of 10 years, and 7 years, respectively. Amortization expense was $45 million and $40 million for the first six months of 2023 and 2022, respectively. Expected amortization expense is $42 million for the remainder of 2023, $73 million for 2024, $52 million for 2025, $46 million for 2026, and $40 million for 2027.

Leases

The components of lease cost are presented below:

	Quarter ended		Six months ended	
	March 2, 2023	March 3, 2022	March 2, 2023	March 3, 2022
Finance lease cost				
Amortization of right-of-use assets	$ 25	$ 27	$ 49	$ 52
Interest on lease liabilities	6	6	12	12
Operating lease cost[(1)]	31	30	67	59
	$ 62	$ 63	$ 128	$ 123

[(1)] *Operating lease cost includes short-term and variable lease expenses, which were not material for the periods presented.*

Supplemental cash flow information related to leases was as follows:

Six months ended	March 2, 2023	March 3, 2022
Cash flows used for operating activities		
Finance leases	$ 11	$ 11
Operating leases	60	56
Cash flows used for financing activities – Finance leases	53	52
Noncash acquisitions of right-of-use assets		
Finance leases	225	304
Operating leases	35	68

Supplemental balance sheet information related to leases was as follows:

As of	March 2, 2023	September 1, 2022
Finance lease right-of-use assets (included in property, plant, and equipment)	$ 1,084	$ 904
Current operating lease liabilities (included in accounts payable and accrued expenses)	60	60
Weighted-average remaining lease term (in years)		
Finance leases	10	12
Operating leases	11	12
Weighted-average discount rate		
Finance leases	2.40 %	2.65 %
Operating leases	3.06 %	2.90 %

As of March 2, 2023, maturities of lease liabilities by fiscal year were as follows:

For the year ending	Finance Leases	Operating Leases
Remainder of 2023	$ 78	$ 13
2024	152	73
2025	138	73
2026	129	72
2027	126	72
2028 and thereafter	619	524
Less imputed interest	(171)	(156)
	$ 1,071	$ 671

The table above excludes obligations for leases that have been executed but have not yet commenced. As of March 2, 2023, excluded obligations consisted of $195 million of estimated finance lease payments over a weighted-average period of 11 years for gas supply arrangements deemed to contain embedded leases and equipment 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	March 2, 2023	September 1, 2022
Accounts payable	$ 1,689	$ 2,142
Property, plant, and equipment	1,712	2,170
Salaries, wages, and benefits	320	877
Income and other taxes	241	420
Other	348	481
	$ 4,310	$ 6,090

Debt

As of	Stated Rate	Effective Rate	March 2, 2023 Net Carrying Amount Current	Long-Term	Total	September 1, 2022 Net Carrying Amount Current	Long-Term	Total
2024 Term Loan A	5.340 %	5.38 %	$ —	$ 1,187	$ 1,187	$ —	$ 1,187	$ 1,187
2025 Term Loan A	5.968 %	6.10 %	—	1,050	1,050	—	—	—
2026 Term Loan A	6.093 %	6.23 %	49	946	995	—	—	—
2027 Term Loan A	6.218 %	6.36 %	57	1,092	1,149	—	—	—
2026 Notes	4.975 %	5.07 %	—	499	499	—	498	498
2027 Notes[(1)]	4.185 %	4.27 %	—	783	783	—	806	806
2029 A Notes	5.327 %	5.40 %	—	697	697	—	697	697
2029 B Notes	6.750 %	6.54 %	—	1,264	1,264	—	—	—
2030 Notes	4.663 %	4.73 %	—	846	846	—	846	846
2032 Green Bonds	2.703 %	2.77 %	—	995	995	—	994	994
2033 Notes	5.875 %	5.96 %	—	745	745	—	—	—
2041 Notes	3.366 %	3.41 %	—	497	497	—	496	496
2051 Notes	3.477 %	3.52 %	—	496	496	—	496	496
Finance lease obligations	N/A	2.40 %	131	940	1,071	103	783	886
			$ 237	$ 12,037	$ 12,274	$ 103	$ 6,803	$ 6,906

[(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 values of our 2027 Notes reflect adjustments in fair value.

Debt Activity

The table below presents the effects of debt financing activities in the first six months of 2023.

	Increase in Principal	Increase in Carrying Value	Increase in Cash
2025 Term Loan A	$ 1,052	$ 1,050	$ 1,050
2026 Term Loan A	996	994	994
2027 Term Loan A	1,152	1,149	1,149
2029 B Notes	1,250	1,264	1,264
2033 Notes	750	745	745
	$ 5,200	$ 5,202	$ 5,202

Term Loan Agreements

On November 3, 2022, we entered into a term loan agreement consisting of three tranches and borrowed $2.60 billion in aggregate principal amount, including $927 million due November 3, 2025; $746 million due November 3, 2026; and $927 million due November 3, 2027 (the “Term Loan Agreement”). We incurred aggregate fees of $6 million in connection with these borrowings.

On January 5, 2023, we amended the Term Loan Agreement and borrowed an additional $600 million in aggregate principal amount, including $125 million due November 3, 2025, $250 million due November 3, 2026, and $225 million due November 3, 2027. The additional borrowings have terms that are identical to, and will be treated as a single class with, the three original tranches.

The 2026 Term Loan A and 2027 Term Loan A each require equal quarterly installment payments in an amount equal to 1.25% of the original principal amount. The 2025 Term Loan A does not require quarterly installment payments. Borrowings under the Term Loan Agreement will generally bear interest at adjusted term SOFR plus an applicable interest rate margin ranging from 1.00% to 2.00%, varying by tranche and depending on our corporate credit ratings. The Term Loan Agreement requires us to maintain, on a consolidated basis, a leverage ratio of total indebtedness to adjusted EBITDA, as defined in the Term Loan Agreement and calculated as of the last day of each fiscal quarter, not to exceed 3.25 to 1.00, except as described below.

On March 27, 2023, we further amended the Term Loan Agreement to provide that in lieu of the foregoing leverage ratio, during the fourth quarter of 2023 and each quarter of 2024, we will be required to maintain, on a consolidated basis, a net leverage ratio of total net indebtedness to adjusted EBITDA, as defined in the Term Loan Agreement and calculated as of the last day of each fiscal quarter, not to exceed 3.25 to 1.00, or alternatively, for up to three of such five quarters, we may elect to comply with a requirement of minimum liquidity, as defined in the Term Loan Agreement, of not less than $5.0 billion. Each of the leverage ratio and net leverage ratio maximums, as applicable, is subject to a temporary four quarter increase in such ratio to 3.75 to 1.00 following certain material acquisitions. Our obligations under the Term Loan Agreement are unsecured.

On March 27, 2023, we also amended the agreement governing the 2024 Term Loan A to align the leverage ratio covenant with the corresponding covenant in the Term Loan Agreement described above.

2029 B Notes and 2033 Notes

On October 31, 2022, we issued $750 million principal amount of senior unsecured 2029 B Notes in a public offering. The 2029 B Notes bear interest at a rate of 6.750% per year and will mature on November 1, 2029. Issuance costs and debt discount for these notes were $6 million.

On February 9, 2023, we issued an additional $500 million principal amount of 2029 B Notes at a $22 million premium. The additional notes have terms that are identical to the terms of the original 2029 B Notes other than the original offering price. Also on February 9, 2023, we issued $750 million principal amount of senior unsecured 2033 Notes. The 2033 Notes bear interest at a rate of 5.875% per year and will mature on February 9, 2033. Aggregate issuance costs for the February 9, 2023 offerings were $7 million.

We may redeem the 2029 B Notes and the 2033 Notes (the “Notes”), in whole or in part, at our option prior to their maturity dates 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 and interest, plus accrued interest in each case. We may also redeem the Notes, in whole or in part, at a price equal to par either two or three months prior to maturity in accordance with the terms of the Notes.

The Notes contain 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 indenture governing the 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 March 2, 2023, $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. The credit facility agreement provides for a transition to SOFR or other alternate benchmark rate upon the retirement of LIBOR in 2023.

On March 27, 2023, we amended the agreement governing the Revolving Credit Facility to align the leverage ratio covenant with the corresponding covenants in the Term Loan Agreement and 2024 Term Loan A described above.

Maturities of Notes Payable

As of March 2, 2023, maturities of notes payable by fiscal year were as follows:

Remainder of 2023	$	54
2024		107
2025		1,295
2026		1,659
2027		1,780
2028 and thereafter		6,443
Unamortized issuance costs, discounts, and premium, net		(21)
Hedge accounting fair value adjustment		(114)
	$	11,203

Commitments

In the second quarter of 2023, we entered into an 18-year power purchase agreement in Singapore to purchase up to 450 megawatts of power at variable prices. This contract, which begins in the fourth quarter of 2023, is expected to supply the majority of our power consumption needs in Singapore with more favorable pricing than our existing supply arrangements.

Contingencies

We are currently a party to legal actions other than those described below 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.

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 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 infringed one 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 infringed one 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. 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. ("MSP"), and Micron Technology Texas, LLC ("MTEC") in the U.S. District Court for the Western District of Texas. The first complaint alleges that one 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 ("LRDIMMs"). Each complaint seeks injunctive relief, damages, attorneys' fees, and costs. On March 31, 2022, Netlist filed a patent infringement complaint against Micron and Micron Semiconductor Germany, GmbH in Dusseldorf Regional Court alleging that two German patents are infringed by certain of our LRDIMMs. The complaint seeks damages, costs, and injunctive relief. On June 10, 2022, Netlist filed a patent infringement complaint against Micron, MSP, and MTEC in the U.S. District Court for the Eastern District of Texas ("E.D. Tex.") alleging that six U.S. patents are infringed by certain of our memory modules and HBM products. On August 1, 2022, Netlist filed a second patent infringement complaint against the same defendants in E.D. Tex. alleging that one U.S. patent is infringed by certain of our LRDIMMs. On August 15, 2022, Netlist amended the second complaint to assert that two additional U.S. patents are infringed by certain of our LRDIMMs. The complaints in E.D. Tex. seek injunctive relief, damages, and attorneys' fees.

On May 10, 2021, Vervain, LLC filed a patent infringement action against Micron, MSP, and MTEC 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.

Between April 27, 2022 and October 18, 2022, Bell Semiconductor, LLC ("Bell") filed four patent infringement complaints against Micron in the U.S. District Court for the District of Idaho. These complaints allege that a total of six U.S. patents are infringed by certain SSDs, a process for designing a NAND flash device included in certain SSDs, and an SSD controller. On September 30, 2022, Bell filed a complaint against Micron in the U.S. District Court for the District of Delaware alleging that six U.S. patents are infringed by certain SSD, GDDR5, GDDR6, GDDR6X, and DDR3 SDRAM products. Each of Bell's complaints in the District Courts sought damages, injunctive relief, attorneys' fees, and costs. On October 6, 2022, Bell filed a complaint with the ITC alleging violations of Section 337 of the Tariff Act of 1930 based on alleged importation of certain SSDs that infringe two U.S. patents also asserted by Bell in two of the lawsuits pending in the District of Idaho. The complaint requested institution of an investigation, which was granted on November 8, 2022, and, after the investigation, issuance of a limited exclusion order and cease and desist orders prohibiting Micron from importing, selling, offering for sale, or marketing the accused products in the United States. Pursuant to a December 31, 2022 agreement, all of Bell's complaints against Micron have been dismissed, and the ITC investigation was dismissed as to Micron.

On August 16, 2022, Sonrai Memory Ltd. filed a patent infringement action against Micron in the U.S. District Court for the Western District of Texas. The complaint alleges that two U.S. patents are infringed by certain SSD and NAND flash products. The complaint seeks damages, attorneys' fees, and costs.

On January 23, 2023, Besang Inc. filed a patent infringement complaint against Micron, MSP, and MTEC in the U.S. District Court for the Eastern District of Texas. The complaint alleges that one U.S. patent is infringed by certain of our 3D NAND and SSD products. The complaint seeks an injunction, damages, attorneys' fees, and costs.

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. Micron and Micron B.V. appealed the judgments to the German Appeals Court, which 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 March 31, 2020, the expert presented an opinion to the Appeals Court concluding that the amount paid by Micron was within an acceptable range of fair value. On October 5, 2022, the Appeals Court ruled that the relevant issue to be addressed is whether Qimonda's creditors were prejudiced such that the original transaction should be voided. The Appeals Court set a date of May 23, 2023 for issuing a decision.

Antitrust Matters

Six cases have been filed against Micron alleging price fixing of DRAM products 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.

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 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

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 any 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.

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. No shares were repurchased in the second quarter of 2023. In the first quarter of 2023, we repurchased 8.6 million shares of our common stock for $425 million. Through March 2, 2023, we had repurchased an aggregate of $6.89 billion under the authorization. Amounts repurchased are included in treasury stock.

***Dividends*:** We declared and paid dividends of $126 million ($0.115 per share) in each of the second and first quarters of 2023.

***Accumulated Other Comprehensive Income (Loss)*:** Changes in accumulated other comprehensive income (loss) by component for the six months ended March 2, 2023 were as follows:

	Gains (Losses) on Derivative Instruments	Unrealized Gains (Losses) on Investments	Pension Liability Adjustments	Cumulative Foreign Currency Translation Adjustment	Total
As of September 1, 2022	$ (538)	$ (47)	$ 25	$ —	$ (560)
Other comprehensive income (loss) before reclassifications	132	—	—	(2)	130
Amount reclassified out of accumulated other comprehensive income (loss)	122	1	1	—	124
Tax effects	(54)	(13)	—	—	(67)
Other comprehensive income (loss)	200	(12)	1	(2)	187
As of March 2, 2023	$ (338)	$ (59)	$ 26	$ (2)	$ (373)

Fair Value Measurements

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

	March 2, 2023		September 1, 2022	
As of	**Fair Value**	**Carrying Value**	**Fair Value**	**Carrying Value**
Notes	$ 10,577	$ 11,203	$ 5,472	$ 6,020

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 March 2, 2023			
Derivative instruments with hedge accounting designation			
Cash flow currency hedges	$ 4,116	$ 60	$ (116)
Cash flow commodity hedges	102	2	(6)
Fair value interest rate hedges	900	—	(115)
Derivative instruments without hedge accounting designation			
Non-designated currency hedges	1,454	4	(8)
		$ 66	$ (245)
As of September 1, 2022			
Derivative instruments with hedge accounting designation			
Cash flow currency hedges	$ 5,427	$ —	$ (330)
Cash flow commodity hedges	97	1	(6)
Fair value interest rate hedges	900	—	(91)
Derivative instruments without hedge accounting designation			
Non-designated currency hedges	2,821	7	(13)
		$ 8	$ (440)

[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 recognized gains from cash flow hedges of $75 million and $128 million for the second quarter and first six months of 2023, respectively, and losses of $70 million and $170 million for the second quarter and first six months of 2022, respectively, in accumulated other comprehensive income (loss). We reclassified losses of $54 million and $122 million for the second quarter and first six months of 2023, respectively, from accumulated other comprehensive income (loss) to earnings, primarily to cost of goods sold. The reclassifications for the second quarter and first six months of 2022 were not significant. As of March 2, 2023, we expect to reclassify $220 million of pre-tax losses related to cash flow hedges from accumulated other comprehensive income (loss) 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. The effects of fair value hedges on our consolidated statements of operations, recognized in interest expense, were not significant for the periods presented.

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. We do not use derivative instruments for speculative purposes.

Equity Plans

As of March 2, 2023, 50 million shares of our common stock were available for future awards under our equity plans, including 16 million shares approved for issuance under our employee stock purchase plan ("ESPP").

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

Restricted Stock Awards activity is summarized as follows:

Six months ended	March 2, 2023	March 3, 2022
Restricted stock award shares granted	14	10
Weighted-average grant-date fair value per share	$ 54.00	$ 71.31

Employee Stock Purchase Plan ("ESPP")

For each six-month ESPP offering period that ended in the second quarter of 2023 and 2022, employees purchased 3 million and 2 million shares, respectively, at a per share price of $52.45 and $65.94, respectively.

Stock-based Compensation Expense

Stock-based compensation expense recognized in our statements of operations is presented below. Stock-based compensation expense of $92 million and $48 million was capitalized and remained in inventory as of March 2, 2023 and September 1, 2022, respectively.

	Quarter ended		Six months ended	
	March 2, 2023	March 3, 2022	March 2, 2023	March 3, 2022
Stock-based compensation expense by caption				
Research and development	$ 59	$ 45	$ 112	$ 83
Cost of goods sold	40	45	76	88
Selling, general, and administrative	36	30	73	65
Restructure	(2)	—	(2)	(5)
	$ 133	$ 120	$ 259	$ 231
Stock-based compensation expense by type of award				
Restricted stock awards	$ 116	$ 104	$ 225	$ 200
ESPP	17	16	34	30
Stock options	—	—	—	1
	$ 133	$ 120	$ 259	$ 231

As of March 2, 2023, $1.43 billion of total unrecognized compensation costs for unvested awards, before the effect of any future forfeitures, was expected to be recognized through the second quarter of 2027, resulting in a weighted-average period of 1.4 years.

Revenue

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 March 2, 2023, our future performance obligations beyond one year were not significant.

As of March 2, 2023 and September 1, 2022, other current liabilities included $605 million and $1.26 billion, respectively, for estimates of consideration payable to customers including estimates for pricing adjustments and returns.

In the second quarter of 2023, we received $120 million in cash as settlement of an insurance claim involving an operational disruption in 2017, of which $114 million was for business interruption and recognized in revenue.

Revenue by Technology

	Quarter ended		Six months ended	
	March 2, 2023	March 3, 2022	March 2, 2023	March 3, 2022
DRAM	$ 2,722	$ 5,719	$ 5,551	$ 11,306
NAND	885	1,957	1,988	3,835
Other (primarily NOR)	86	110	239	332
	$ 3,693	$ 7,786	$ 7,778	$ 15,473

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

Restructure and Asset Impairments

	Quarter ended		Six months ended	
	March 2, 2023	March 3, 2022	March 2, 2023	March 3, 2022
Employee severance	$ 80	$ —	$ 93	$ —
Asset impairments and other asset-related costs	8	5	8	59
Other	(2)	—	(2)	(16)
Restructure and asset impairments	$ 86	$ 5	$ 99	$ 43

In 2023, we initiated a restructure plan in response to challenging industry conditions (the "2023 Restructure Plan"). Under the 2023 Restructure Plan, we expect our headcount reduction to approach 15% by the end of calendar 2023, through a combination of voluntary attrition and personnel reductions. In connection with the plan, we incurred restructure charges of $86 million and $99 million in the second quarter and first six months of 2023 respectively, primarily related to employee severance costs. As of March 2, 2023, total costs expected to be incurred under the 2023 Restructure Plan were approximately $160 million. We expect the plan to be substantially completed by the end of the third quarter of 2023.

Changes in our restructure liability (included in accounts payable and accrued expenses) for the six months ended March 2, 2023 were as follows:

	Employee Severance
Restructure liability as of September 1, 2022	$ —
Costs incurred and charged to expense	93
Costs paid or otherwise settled	(37)
Restructure liability as of March 2, 2023	$ 56

Other Non-Operating Income (Expense), Net

	Quarter ended		Six months ended	
	March 2, 2023	March 3, 2022	March 2, 2023	March 3, 2022
Gain (loss) on investments	$ (2)	$ 3	$ (11)	$ 13
Gain (loss) on debt repurchases	—	—	—	(83)
Other	4	3	9	1
	$ 2	$ 6	$ (2)	$ (69)

Income Taxes

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

	Quarter ended		Six months ended	
	March 2, 2023	March 3, 2022	March 2, 2023	March 3, 2022
Income (loss) before taxes	$ (2,271)	$ 2,509	$ (2,447)	$ 5,030
Income tax (provision) benefit	(54)	(255)	(62)	(474)
Effective tax rate	(2.4)%	10.2 %	(2.5)%	9.4 %

The changes in our effective tax rate for the second quarter and first six months of 2023 as compared to the corresponding periods of 2022 were primarily due to pre-tax losses incurred in the first six months of 2023. Despite a consolidated pre-tax loss on a worldwide basis, we have taxes payable in certain geographies due to minimum taxable income reportable in those geographies.

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. As a result of a loss before taxes and geographic mix of income, the benefit from tax incentive arrangements was not material for the second quarter and first six months of 2023. These arrangements reduced our tax provision by $304 million ($0.27 per diluted share) and $594 million ($0.53 per diluted share) for the second quarter and first six months of 2022, respectively.

Earnings Per Share

	Quarter ended		Six months ended	
	March 2, 2023	March 3, 2022	March 2, 2023	March 3, 2022
Net income (loss) – Basic and Diluted	$ (2,312)	$ 2,263	$ (2,507)	$ 4,569
Weighted-average common shares outstanding – Basic	1,091	1,119	1,091	1,119
Dilutive effect of equity plans	—	11	—	11
Weighted-average common shares outstanding – Diluted	1,091	1,130	1,091	1,130
Earnings (loss) per share				
Basic	$ (2.12)	$ 2.02	$ (2.30)	$ 4.08
Diluted	(2.12)	2.00	(2.30)	4.04

Antidilutive potential common shares excluded from the computation of diluted earnings per share, that could dilute basic earnings per share in the future, were 33 million and 34 million for the second quarter and first six months of 2023, respectively, and were 2 million for the second quarter and first six months of 2022.

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.
***Embedded Business Unit ("EBU")*:** Includes memory and storage products sold into automotive, industrial, and consumer markets.
***Storage Business Unit ("SBU")*:** Includes SSDs and component-level solutions sold into enterprise and cloud, client, and consumer storage 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		Six months ended	
	March 2, 2023	March 3, 2022	March 2, 2023	March 3, 2022
Revenue				
CNBU	$ 1,375	$ 3,461	$ 3,121	$ 6,867
MBU	945	1,875	1,600	3,782
EBU	865	1,277	1,865	2,497
SBU	507	1,171	1,187	2,321
All Other	1	2	5	6
	$ 3,693	$ 7,786	$ 7,778	$ 15,473
Operating income (loss)				
CNBU	$ (35)	$ 1,562	$ 155	$ 3,086
MBU	(344)	588	(539)	1,212
EBU	88	421	282	843
SBU	(357)	178	(614)	330
All Other	1	1	4	4
	(647)	2,750	(712)	5,475
Unallocated				
Provision to write-down inventories to net realizable value	(1,430)	—	(1,430)	—
Stock-based compensation	(136)	(119)	(262)	(235)
Restructure and asset impairments	(86)	(5)	(99)	(43)
Other	(4)	(80)	(9)	(20)
	(1,656)	(204)	(1,800)	(298)
Operating income (loss)	$ (2,303)	$ 2,546	$ (2,512)	$ 5,177

Certain Concentrations

Revenue for key market segments as an approximate percent of total revenue is presented in the table below:

Six months ended	March 2, 2023	March 3, 2022
Automotive, industrial, and consumer	25 %	15 %
Enterprise and cloud server	20 %	20 %
Client and graphics	20 %	20 %
Mobile	20 %	25 %
SSDs and other storage	15 %	15 %

Subsequent Events

On March 10, 2023, we reached an agreement in principle to settle an insurance claim involving a power disruption in 2022, under which we expect to receive approximately $110 million in cash, of which approximately $70 million is for business interruption and will be recognized in revenue.

On March 27, 2023, we entered into amendments to the Term Loan Agreement and the agreements governing the Revolving Credit Facility and the 2024 Term Loan A to revise the leverage ratio covenant in each such agreement, as further described in “Item 1. Financial Statements – Notes to Consolidated Financial Statements – Debt.”

On March 28, 2023, our Board of Directors declared a quarterly dividend of $0.115 per share, payable in cash on April 25, 2023, to shareholders of record as of the close of business on April 10, 2023.

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 1, 2022. 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 2023 and 2022 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 research and development ("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.

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 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.

Product Technologies

Our product portfolio of memory and storage solutions, advanced solutions, and storage platforms is based on our high-performance semiconductor memory and storage technologies, including DRAM, NAND, and NOR. We sell our products into various markets through our business units in numerous forms, including components, modules, SSDs, managed NAND, MCPs, and wafers. 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.

Industry Conditions

The memory and storage industry environment deteriorated sharply in the fourth quarter of 2022 through the first six months of 2023 due to reduced demand resulting from customer adjustments to lower elevated inventory levels and weak demand in many end markets combined with global and macroeconomic challenges. This led to significant reductions in average selling prices and bit shipments for both DRAM and NAND, as well as declines in revenue across all of our business segments and nearly all our end markets. Due to the challenging pricing environment, we recognized a $1.43 billion charge to write down inventories to their estimated net realizable value in the second quarter of 2023 and we project approximately $500 million of additional write-downs in the third quarter. These projected write-downs, which relate to inventories to be produced in the third quarter, may change significantly. Small changes to price expectations beyond the third quarter could have a substantial positive or negative impact on our expected third quarter inventory write-downs. Further write-downs of inventories in future quarters could occur if the challenging pricing environment persists. Given the challenging pricing environment, elevated levels of inventories for suppliers and customers, and significant supply-demand mismatch, we expect industry profitability will remain challenged throughout calendar 2023.

As a result of these conditions and increases in our inventory levels, we have reduced wafer starts and capital expenditures. We recognized $27 million of period costs from underutilization in the second quarter of 2023 due to wafer start reductions. We estimate approximately $300 million of period costs from underutilization due to wafer start reductions in the second half of 2023. We are also taking significant steps to reduce our costs and operating expenses. These actions include the 2023 Restructure Plan discussed below and additional reductions in external spending, including implementing productivity programs across the business, suspension of our 2023 bonus company-wide, reductions in select product programs, lower discretionary spending, and cuts to 2023 executive salaries across the company.

2023 Restructure Plan

We initiated the 2023 Restructure Plan in response to challenging industry conditions. Under the plan, we expect our headcount reduction to approach 15% by the end of calendar 2023, through a combination of voluntary attrition and personnel reductions. In connection with the plan, we incurred restructure charges of $86 million and $99 million in the second quarter and first six months of 2023, respectively. We expect to incur additional charges of approximately $60 million in the second half of 2023. As of March 2, 2023, we expect to make future cash payments of approximately $120 million in connection with the plan, substantially all of which will be paid in 2023. We expect the plan to be substantially completed by the end of the third quarter of 2023. As a result of the 2023 Restructure Plan, we expect to realize cost savings of approximately $130 million per quarter (approximately 60% in cost of goods sold, 30% in R&D, and 10% in SG&A) starting in the fourth quarter of 2023. Further information on restructure activities can be found in “Item 1. Financial Statements – Notes to Consolidated Financial Statements – Restructure and Asset Impairments.”

Results of Operations

Consolidated Results

	Second Quarter 2023		First Quarter 2023		Second Quarter 2022		Six months ended 2023		Six months ended 2022	
Revenue	$ 3,693	100 %	$ 4,085	100 %	$ 7,786	100 %	$ 7,778	100 %	$ 15,473	100 %
Cost of goods sold	4,899	133 %	3,192	78 %	4,110	53 %	8,091	104 %	8,232	53 %
Gross margin	(1,206)	(33)%	893	22 %	3,676	47 %	(313)	(4)%	7,241	47 %
Research and development	788	21 %	849	21 %	792	10 %	1,637	21 %	1,504	10 %
Selling, general, and administrative	231	6 %	251	6 %	263	3 %	482	6 %	522	3 %
Restructure and asset impairments	86	2 %	13	— %	5	— %	99	1 %	43	— %
Other operating (income) expense, net	(8)	— %	(11)	— %	70	1 %	(19)	— %	(5)	— %
Operating income (loss)	(2,303)	(62)%	(209)	(5)%	2,546	33 %	(2,512)	(32)%	5,177	33 %
Interest income (expense), net	30	1 %	37	1 %	(43)	(1)%	67	1 %	(78)	(1)%
Other non-operating income (expense), net	2	— %	(4)	— %	6	— %	(2)	— %	(69)	— %
Income tax (provision) benefit	(54)	(1)%	(8)	— %	(255)	(3)%	(62)	(1)%	(474)	(3)%
Equity in net income (loss) of equity method investees	13	— %	(11)	— %	9	— %	2	— %	13	— %
Net income (loss)	$ (2,312)	(63)%	$ (195)	(5)%	$ 2,263	29 %	$ (2,507)	(32)%	$ 4,569	30 %

Total Revenue: Total revenue for the second quarter and first six months of 2023 decreased significantly relative to the comparative periods described below as a result of the factors described in the “Industry Conditions” section above.

Total revenue for the second quarter of 2023 decreased 10% as compared to the first quarter of 2023 primarily due to decreases in sales of both DRAM and NAND products.

- Sales of DRAM products decreased 4% primarily due to an approximate 20 percent decline in average selling prices partially offset by a mid-teens percent range increase in bit shipments.
- Sales of NAND products decreased 20% primarily due to a mid-20s percent range decline in average selling prices partially offset by a mid-to-high single-digit percent range increase in bit shipments.

Total revenue for the second quarter of 2023 decreased 53% as compared to the second quarter of 2022 primarily due to decreases in sales of both DRAM and NAND products.

- Sales of DRAM products decreased 52% primarily due to a high-40s percent range decline in average selling prices and decreases in bit shipments in the low-teens percent range.
- Sales of NAND products decreased 55% primarily due to a high-40s percent range decline in average selling prices and decreases in bit shipments in the mid-teens percent range.

Total revenue for the first six months of 2023 decreased 50% as compared to the first six months of 2022 primarily due to decreases in both DRAM and NAND sales.

- Sales of DRAM products decreased 51% primarily due to a low-40s percent range decline in average selling prices and decreases in bit shipments in the mid-teens percent range.
- Sales of NAND products decreased 48% primarily due to a high-30s percent range decline in average selling prices and decreases in bit shipments in the high-teens percent range.

***Consolidated Gross Margin*:** Our consolidated gross margin percentage decreased to negative 33% for the second quarter of 2023 from 22% for the first quarter of 2023 primarily due to a $1.43 billion charge to write down inventories to their estimated net realizable value and the declines in average selling prices for both DRAM and NAND. Our consolidated gross margin percentage decreased to negative 33% for the second quarter of 2023 from 47% for the second quarter of 2022 primarily due to the charge to write down inventories and declines in average selling prices for both DRAM and NAND. Our consolidated gross margin percentage decreased to negative 4% for the first six months of 2023 from 47% for the first six months of 2022 primarily due to the charge to write down inventories and declines in average selling prices for both DRAM and NAND.

Revenue by Business Unit

	Second Quarter 2023		First Quarter 2023		Second Quarter 2022		Six months ended 2023		Six months ended 2022	
CNBU	$ 1,375	37 %	$ 1,746	43 %	$ 3,461	44 %	$ 3,121	40 %	$ 6,867	44 %
MBU	945	26 %	655	16 %	1,875	24 %	1,600	21 %	3,782	24 %
EBU	865	23 %	1,000	24 %	1,277	16 %	1,865	24 %	2,497	16 %
SBU	507	14 %	680	17 %	1,171	15 %	1,187	15 %	2,321	15 %
All Other	1	— %	4	— %	2	— %	5	— %	6	— %
	$ 3,693		$ 4,085		$ 7,786		$ 7,778		$ 15,473	

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

Changes in revenue for each business unit for the second quarter of 2023 as compared to the first quarter of 2023 were as follows:

- CNBU revenue decreased 21% primarily due to declines in DRAM average selling prices and decreases in bit shipments due to weakened conditions in server markets.
- MBU revenue increased 44% primarily due to increases in bit shipments due to timing of shipments between quarters, partially offset by declines in average selling prices for both DRAM and NAND.
- EBU revenue decreased 14% primarily due to declines in average selling prices for both DRAM and NAND and declines in bit shipments for NAND as a result of weakness in industrial and consumer markets.
- SBU revenue decreased 25% primarily due to declines in average selling prices as a result of challenging NAND market conditions.

Changes in revenue for each business unit for the second quarter and first six months of 2023 as compared to the corresponding periods of 2022 were as follows:

- CNBU revenue decreased 60% and 55%, respectively, primarily due to declines in DRAM average selling prices and decreases in bit shipments.
- MBU revenue decreased 50% and 58%, respectively, primarily due to declines in average selling prices for both DRAM and NAND and decreases in NAND bit shipments.
- EBU revenue decreased 32% and 25%, respectively, primarily due to lower DRAM revenue resulting from declines in DRAM average selling prices and decreases in bit shipments.
- SBU revenue decreased 57% and 49%, respectively, primarily due to declines in average selling prices and decreases in bit shipments for NAND.

Operating Income (Loss) by Business Unit

	Second Quarter 2023		First Quarter 2023		Second Quarter 2022		Six months ended 2023		Six months ended 2022	
CNBU	$ (35)	(3)%	$ 190	11 %	$ 1,562	45 %	$ 155	5 %	$ 3,086	45 %
MBU	(344)	(36)%	(195)	(30)%	588	31 %	(539)	(34)%	1,212	32 %
EBU	88	10 %	194	19 %	421	33 %	282	15 %	843	34 %
SBU	(357)	(70)%	(257)	(38)%	178	15 %	(614)	(52)%	330	14 %
All Other	1	100 %	3	75 %	1	50 %	4	80 %	4	67 %
	$ (647)		$ (65)		$ 2,750		$ (712)		$ 5,475	

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 second quarter of 2023 as compared to the first quarter of 2023 were as follows:

- CNBU operating income (loss) declined primarily due to declines in average selling prices and lower bit shipments.
- MBU operating loss increased primarily due to declines in average selling prices partially offset by lower R&D costs due to spending optimization.
- EBU operating income decreased primarily due to declines in average selling prices for both DRAM and NAND and declines in bit shipments for NAND.
- SBU operating loss increased primarily due to declines in average selling prices partially offset by lower operating expenses due to spending optimization.

Changes in operating income or loss for each business unit for the second quarter and first six months of 2023 as compared to the corresponding periods of 2022 were as follows:

- CNBU operating income (loss) declined primarily due to declines in average selling prices and lower bit shipments.
- MBU operating income (loss) declined primarily due to declines in average selling prices.
- EBU operating income decreased primarily due to declines in average selling prices and lower bit shipments.
- SBU operating income (loss) declined primarily due to declines in average selling prices and lower bit shipments.

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 second quarter of 2023 were 7% lower as compared to the first quarter of 2023 primarily due to lower volumes of development and prequalification wafers. R&D expenses for the second quarter of 2023 were relatively unchanged compared to the second quarter of 2022 as decreases in employee compensation were offset by higher depreciation expense. R&D expenses for the first six months of 2023 were 9% higher as compared to the first six months of 2022 primarily due to higher volumes of development and prequalification wafers and higher depreciation expense.

Selling, General, and Administrative: SG&A expenses for the second quarter of 2023 were 8% lower as compared to the first quarter of 2023 primarily due to decreases in employee compensation and other incremental decreases across multiple expense categories. SG&A expenses for the second quarter and first six months of 2023 decreased 12% and 8%, respectively, as compared to the corresponding periods of 2022, primarily due to decreases in employee compensation, legal fees, and advertising.

Restructure and Asset Impairments: See "Item 1. Financial Statements – Notes to Consolidated Financial Statements – Restructure and Asset Impairments" and "Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations – Overview."

***Interest Income (Expense), Net*:** Interest income (expense) for the second quarter of 2023 was relatively unchanged compared to the first quarter of 2023. Interest income (expense) improved for the second quarter and first six months of 2023 as compared to the corresponding periods of 2022, primarily as a result of increases of $107 million and $185 million, respectively, in interest income due to higher interest rates on our cash and investments.

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

	Second Quarter 2023	First Quarter 2023	Second Quarter 2022	Six months ended 2023	Six months ended 2022
Income (loss) before taxes	$ (2,271)	$ (176)	$ 2,509	$ (2,447)	$ 5,030
Income tax (provision) benefit	(54)	(8)	(255)	(62)	(474)
Effective tax rate	(2.4)%	(4.5)%	10.2 %	(2.5)%	9.4 %

The changes in our effective tax rate for the second quarter and first six months of 2023 as compared to the corresponding periods of 2022 were primarily due to pre-tax losses incurred in the first six months of 2023. Despite a consolidated pre-tax loss on a worldwide basis, we have taxes payable in certain geographies due to minimum taxable income reportable in those geographies.

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. As a result of a loss before taxes and geographical mix of income, the net benefit from tax incentive arrangements was not material for the first six months of 2023. These arrangements reduced our tax provision by $304 million ($0.27 per diluted share) for the second quarter of 2022 and $594 million ($0.53 per diluted share) for the first six months of 2022.

Other: Further information on 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. Cash and marketable investments totaled $12.03 billion as of March 2, 2023, and $10.98 billion as of September 1, 2022. 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 March 2, 2023, $3.53 billion of our cash and marketable investments was held by our foreign subsidiaries.

We continuously evaluate 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 March 2, 2023, $2.50 billion was available to draw under our Revolving Credit Facility. On March 27, 2023, we entered into amendments to the Term Loan Agreement and the agreements governing the Revolving Credit Facility and the 2024 Term Loan A to revise the leverage ratio covenant in each such agreement, as further described in "Item 1. Financial Statements – Notes to Consolidated Financial Statements – Debt." Funding of certain significant capital projects is also dependent on the receipt of government incentives, which are subject to conditions and may not be obtained.

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 2023 for property, plant, and equipment, net of partner contributions, to be approximately $7.0 billion. Actual amounts for 2023 will vary depending on market conditions. As of March 2, 2023, we had purchase obligations of approximately $3.14 billion for the acquisition of property, plant, and equipment, of which approximately $2.26 billion is expected to be paid within one year. For a description of other contractual obligations, such as leases, debt, and commitments, see "Item 1. Financial Statements – Notes to Consolidated Financial Statements – Leases," " – Debt," and " – Commitments."

To support expected memory demand in the second half of the decade, we plan to add new DRAM wafer capacity. Following the enactment of the U.S. CHIPS and Science Act of 2022 ("CHIPS Act"), we announced plans to invest in two leading-edge memory manufacturing fabs in the United States, contingent on CHIPS Act support through grants and investment tax credits. As part of this plan, in September 2022, we broke ground on a leading-edge memory manufacturing fab in Boise, Idaho. Construction of the fab is expected to begin in calendar 2023 with DRAM production targeted to start in calendar 2025. In addition, in October 2022, we announced plans to build a second leading-edge DRAM manufacturing fab in Clay, New York. We plan to start site preparation work in calendar 2023 and expect construction to begin in calendar 2024, with production anticipated to ramp in the latter half of the decade. We expect these new fabs to fulfill our requirements for additional wafer capacity starting in the second half of the decade and beyond, in line with industry demand trends.

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. Through November 1, 2022, the date of our 2022 Green Bond Report, we had allocated $676 million toward this commitment. We currently anticipate that 100% of net proceeds of the 2032 Green Bonds will be allocated and dispersed for eligible projects by November 1, 2023.

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 March 2, 2023, we had repurchased an aggregate of $6.89 billion of the authorized amount. See "Item 1. Financial Statements – Notes to Consolidated Financial Statements – Equity."

On March 28, 2023, our Board of Directors declared a quarterly dividend of $0.115 per share, payable in cash on April 25, 2023, to shareholders of record as of the close of business on April 10, 2023. 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

	Six months ended	
	2023	**2022**
Net cash provided by operating activities	$ 1,286	$ 7,566
Net cash provided by (used for) investing activities	(4,181)	(5,176)
Net cash provided by (used for) financing activities	4,434	(979)
Effect of changes in currency exchange rates on cash, cash equivalents, and restricted cash	9	(16)
Net increase (decrease) in cash, cash equivalents, and restricted cash	$ 1,548	$ 1,395

Operating Activities: Cash provided by operating activities reflects net income (loss) adjusted for certain non-cash items, including depreciation expense, amortization of intangible assets, and stock-based compensation, and the effects of changes in operating assets and liabilities. The decrease in cash provided by operating activities for the first six months of 2023 as compared to the first six months of 2022 was primarily due to a net loss in the current quarter adjusted for non-cash items and the effect of lower receivables, partially offset by an increase in inventories and a decline in accounts payable and accrued expenses.

Investing Activities: For the first six months of 2023, net cash used for investing activities consisted primarily of $4.65 billion of expenditures for property, plant, and equipment, partially offset by $480 million of net inflows from maturities, sales, and purchases of available-for-sale securities.

For the first six months of 2022, net cash used for investing activities consisted primarily of $5.88 billion of expenditures for property, plant, and equipment; inflows of $66 million of partner contributions for capital expenditures; $893 million of net inflows from the sale of the Lehi, Utah fab; and $119 million of net outflows from purchases, sales, and maturities of available-for-sale securities.

Financing Activities: For the first six months of 2023, net cash provided by financing activities consisted primarily of $3.20 billion of proceeds from our 2025, 2026, and 2027 Term Loan A borrowings, $1.27 billion from the issuance of the 2029 B Notes, and $749 million from the issuance of the 2033 Notes. See “Item 1. Financial Statements – Notes to Consolidated Financial Statements – Debt.” Cash used for financing activities included $425 million for the acquisition of 8.6 million shares of our common stock under our share repurchase authorization, $252 million of cash payments of dividends to shareholders, and $76 million of payments on equipment purchase contracts.

For the first six months of 2022, net cash used for financing activities included $1.98 billion of repayments of debt primarily to redeem the 2023 Notes and 2024 Notes, $667 million for the acquisition of 8.4 million shares of our common stock under our share repurchase authorization, $224 million of cash payments of dividends to shareholders, and $105 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.

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 1, 2022. Except for the significant accounting estimate associated with inventories as discussed below, there have been no changes to our critical accounting estimates since our Annual Report on Form 10-K for the year ended September 1, 2022.

Inventories**:** Inventories are stated at the lower of cost or net realizable value, with cost being determined on a first-in, first-out ("FIFO") basis. Cost includes depreciation, labor, material, and overhead costs, including product and process technology costs. Determining net realizable value of inventories involves significant judgments, including projecting future average selling prices, future sales volumes, and estimated costs to complete. To project average selling prices and sales volumes, we review recent sales volumes, existing customer orders, current contract prices, industry analyses of supply and demand, seasonal factors, general economic trends, and other information. Actual selling prices and volumes may vary significantly from projected prices and volumes due to the volatile nature of the semiconductor memory and storage markets. When these analyses reflect estimated net realizable values below our manufacturing costs, we record a charge to cost of goods sold in advance of when inventories are actually sold. As a result, the timing of when product costs are charged to costs of goods sold can vary significantly. Differences in forecasted average selling prices used in calculating lower of cost or net realizable value adjustments can result in significant changes in the estimated net realizable value of product inventories and accordingly the amount of write-down recorded. For example, a 5% variance in the estimated selling prices would have changed the estimated net realizable value of our inventory by approximately $600 million as of March 2, 2023. Due to the volatile nature of the semiconductor memory and storage markets, actual selling prices and volumes often vary significantly from projected prices and volumes; as a result, the timing of when product costs are charged to operations can vary significantly.

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

Recently Adopted Accounting Standards

No material items.

Recently Issued Accounting Standards

No material items.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to interest rate risk related to our indebtedness. As of March 2, 2023 and September 1, 2022, we had fixed-rate debt with an aggregate carrying value of $6.04 billion and $4.03 billion, respectively, and as a result, the fair value of our debt fluctuates with changes in market interest rates. In the first six months of 2023, we issued $2.00 billion principal amount of new fixed-rate debt. We estimate that, as of March 2, 2023 and September 1, 2022, a hypothetical 1% decrease in market interest rates would increase the fair value of our fixed-rate debt by approximately $385 million and $275 million, respectively.

As of March 2, 2023 and September 1, 2022, we had floating-rate debt as well as fixed-rate debt that is swapped to floating-rate debt with an aggregate principal amount of $5.29 billion and $2.09 billion, respectively. In the first six months of 2023, we borrowed $3.20 billion principal amount of new floating-rate debt. We estimate that, as of March 2, 2023 and September 1, 2022, a hypothetical 1% increase in the interest rates of this floating-rate debt would result in an increase in annual interest expense of approximately $53 million and $21 million, respectively.

For further discussion about market risk and sensitivity analysis related to changes in interest rates and currency exchange 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 1, 2022.

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 second quarter of 2023, 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 1, 2022, 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 Report on Form 10-Q for the first quarter of 2023.

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

- volatility in average selling prices of our products;
- our ability to maintain or improve gross margins;
- the highly competitive nature of our industry;
- a downturn in the worldwide economy;
- our ability to develop and produce new and competitive memory and storage technologies and products;
- 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;
- the effects of the COVID-19 pandemic;
- 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;
- realizing expected returns from capacity expansions;
- achieving or maintaining certain performance or other obligations associated with incentives from various governments;
- acquisitions and/or alliances;
- restructure charges;
- responsible sourcing requirements and related regulations; and
- ESG considerations.

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; and
- claims that our products or manufacturing processes infringe or otherwise violate the intellectual property rights of others or failure to obtain or renew license agreements covering such intellectual property.

Risks Related to Laws and Regulations

- 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

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

We have experienced significant volatility in our average selling prices and may continue to experience such volatility in the future. For example, average selling prices for both DRAM and NAND declined approximately 40% for the second quarter of 2023 as compared to the fourth quarter of 2022. Since 2017, annual percentage changes in DRAM average selling prices have ranged from approximately plus 35% to minus 35%. Since 2017, annual percentage changes in NAND average selling prices have ranged from nearly flat to approximately minus 50%. In some prior periods, average selling prices for our products have been below our manufacturing costs and we may experience such circumstances in the future. Average selling prices for our products that decline faster than our costs have recently had an adverse effect on our business and results of operations, and could have a material adverse effect on our business, results of operations, or financial condition.

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;
- 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 expansions;
- higher costs of goods and services due to inflationary pressures or market conditions; and
- higher manufacturing costs per gigabit due to fab underutilization.

Many factors may result in a reduction of our output or a delay in ramping production, which could lead to underutilization of our production assets. These factors may include, among others, a weak demand environment, industry oversupply, inventory surpluses, difficulties in ramping emerging technologies, supply chain disruptions, and delays from equipment suppliers. See “Part I. Financial Information – Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations – Overview – Industry Conditions” for information regarding our current underutilization. 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 have had, and may continue to have, an adverse effect our gross margins, business, results of operations, or financial condition.

We have a broad portfolio of products to address our customers’ needs, which span multiple market segments and are subject to rapid technological changes. Our manufacturing costs on a per gigabit basis vary across our portfolio as they are largely influenced by the technology node in which the solution was developed. We strive to balance our demand and supply for each technology node, but the dynamics of our markets and our customers can create periods of imbalance, which can lead us to carry elevated inventory levels. Consequently, we may incur charges in connection with obsolete or excess inventories or we may not fully recover our costs, which would reduce our gross margins. For example, in the second quarter of 2023, we recorded a charge of $1.43 billion to write down the carrying value of our inventories to estimated net realizable value. 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 Corporation; 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 output, improve yields, and reduce die size, which could result in significant increases in worldwide supply and downward pressure on prices. Increases in worldwide supply of semiconductor memory and storage also result from fabrication capacity expansions, either by way of new facilities, increased capacity utilization, or reallocation of other semiconductor production to semiconductor memory and storage production. Our competitors may increase capital expenditures resulting in future increases in worldwide supply. We, and some of our competitors, have plans to ramp, or are constructing or ramping, production at new fabrication facilities. Increases in worldwide supply of semiconductor memory and storage, if not accompanied by commensurate increases in demand, could lead to declines in average selling prices for our products and could materially adversely affect our business, results of operations, or financial condition. 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.

A downturn in the worldwide economy may harm our business.

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

A deterioration of conditions in 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.

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

Our key semiconductor memory and storage technologies face technological barriers to continue to meet long-term customer needs. These barriers include potential limitations on stacking additional 3D memory layers, increasing bits per cell (i.e., cell levels), meeting higher density requirements, improving power consumption and reliability, and delivering advanced features and higher performance. We may face technological barriers to continue to shrink our products at our current or historical rate, which has generally reduced per gigabit cost. We have invested and expect to continue to invest in R&D for new and existing products and process technologies, such as EUV lithography, to continue to deliver advanced product requirements. Such new technologies can add complexity and risk to our schedule and may affect our costs and production output. We may be unable to recover our investment in R&D or otherwise realize the economic benefits of reducing die size or increasing memory and storage densities. Our competitors are working to develop new memory and storage technologies that may offer performance and/or cost advantages to existing technologies and render existing technologies obsolete. Accordingly, our future success may depend on our ability to develop and produce viable and competitive new memory and storage technologies.

We are developing new products, including system-level memory and storage products and solutions, which complement our traditional products or leverage their underlying design or process technology. We have invested and expect to continue to invest in new semiconductor product and system-level solution development. We are increasingly differentiating our products and solutions to meet the specific demands of our customers, which increases our reliance on our customers' ability to accurately forecast the needs and preferences of their customers. As a result, our product demand forecasts may be impacted significantly by the strategic actions of our customers. In addition, our ability to successfully introduce new products often requires us to make product specification decisions multiple years in advance of when new products enter the market.

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

There can be no assurance of the following:

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

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

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, 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. In 2022, nearly half of our revenue was from sales to customers who have headquarters located outside the United States, while over 80% of our revenue in 2022 was from products shipped to customer locations outside the United States.

Our international operations are subject to a number 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;
- compliance with U.S. and international laws involving international operations, including the Foreign Corrupt Practices Act of 1977, as amended, sanctions and anti-corruption laws, export and import laws, and similar rules and regulations;
- theft of intellectual property;
- political and economic instability, including 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. For example, political, economic, or other actions may adversely affect our operations in Taiwan. A majority of our DRAM production output in 2022 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 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 restrictions on one or more of our significant customers. These restrictions may not prohibit our competitors from selling similar products to our customers, which may result in our loss of sales and market share. Even 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, or make such recoveries at acceptable average selling prices, while complying with such restrictions.

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. 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 is impacted by various factors. 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, logistics 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. 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.

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

The ongoing effects of the public health crisis caused by the COVID-19 pandemic and the measures being taken to limit COVID-19's impact on our business, results of operations, and financial condition 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 and our operations, or those of our suppliers, especially as a result of public health measures;
- Impacts to customer demand, resulting in industry oversupply and declines in pricing for our products;
- Adverse impacts to our business activities and increased costs from our efforts to mitigate the impact of COVID-19;
- 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 one or more of our sites or those of our subcontractors or suppliers, resulting from government restrictions and/or our own measures to prevent and/or mitigate the spread of COVID-19; and
- Adverse impacts to our construction projects, which could hamper our ability to introduce new technologies, reduce costs, or meet customer demand.

These effects and other impacts of the pandemic, alone or taken together, could have a material adverse effect on our business, results of operations, or financial condition.

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

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

Manufacturing system-level solutions, such as SSDs 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 resulting in increased costs, or disruptions to our manufacturing operations or those of our suppliers or customers. In addition, climate change may pose physical risks to our manufacturing facilities or our suppliers' facilities, including increased extreme weather events that could result in supply delays or disruptions. Other events, including political or public health crises, such as an outbreak of contagious diseases like COVID-19 may also affect our production capabilities or that of our suppliers, including as a result of quarantines, closures of production facilities, lack of supplies, or delays caused by restrictions on travel or shipping. Events of the types noted above have occurred from time to time and 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, employees, former employees, or other third parties 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. This risk is exacerbated as competitors for talent, particularly engineering talent, increasingly attempt to hire our employees. 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 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 succession for key employees. Competition for experienced employees in our industry can be intense. Hiring and retaining qualified executives and other employees is critical to our business. If our total compensation programs, employment benefits, and workplace culture are not 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 countries in which we operate, as well as restrictions on travel due to public health crises or other causes, 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 succession of key roles may inhibit our ability to maintain or expand our business operations.

We may not be able to achieve expected returns from capacity expansions.

We have announced our intent to expand our DRAM production capacity in the United States and we also make capital investments in projects outside the United States.

These expansions involve several risks including the following:

- capital expenditure requirements for capacity expansions during periods of relatively low free cash flow generation, resulting from challenging memory and storage industry conditions;
- availability of necessary funding, which may include external sources;
- ability to realize expected grants, investment tax credits, and other government incentives, including through the CHIPS Act and foreign, state, and local grants;
- potential changes in laws or provisions of grants, investment tax credits, and other government incentives;
- potential restrictions on expanding in certain geographies;
- availability of equipment and construction materials;
- ability to complete construction as scheduled and within budget;
- availability of the necessary workforce;
- ability to timely ramp production in a cost-effective manner;
- increases to our cost structure until new production is ramped to adequate scale; and
- sufficient customer demand to utilize our increased capacity.

We invest our capital in areas that we believe best align with our business strategy and optimize future returns. Investments in capital expenditures may not generate expected returns or cash flows. 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.

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

Our incentives from various governments are conditional upon achieving or maintaining certain performance or other obligations and are subject to reduction, termination, clawback, or could impose certain limitations on our business.

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 or could restrict us from undertaking certain activities. 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 or other 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.

Acquisitions and/or alliances 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;
- underestimating the costs or overestimating the benefits, including product, revenue, cost and other synergies and growth opportunities that we expect to realize, and we may not achieve those 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 or technological advancements.

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

In 2023, we initiated a restructure plan in response to current market conditions. See “Part I. Financial Information – Item 1. Financial Statements – Notes to Consolidated Financial Statements – Restructure and Asset Impairments” and “Part I. Financial Information – Item 2. Management’s Discussion and Analysis of Financial Condition and Results of Operations – Overview.” In addition, we may in the future, enter into other 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 current or future restructure activities and may incur additional restructure charges or other losses in future periods associated with other initiatives. In connection with any restructure initiatives, we could incur restructure charges, loss of production output, loss of key personnel, disruptions in our operations, and difficulties in the timely delivery of products, which could have a material adverse effect on our business, results of operations, or financial condition.

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.

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. 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, and this may also negatively impact our ability to maintain and develop intellectual property.

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. Such claims include, but are not limited to, allegations of anticompetitive conduct and infringement of intellectual property. 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.

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.

Risks Related to Laws and Regulations

Government actions and regulations, such as export restrictions, tariffs, and trade protection measures, may limit our ability to sell our products to certain customers or markets, or could otherwise restrict our ability to conduct operations.

International trade disputes, geopolitical tensions, and military conflicts have led, and continue to lead, to new and increasing export restrictions, trade barriers, tariffs, and other trade 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, or increase our costs for, 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.

We cannot predict what further actions may ultimately be taken with respect to export regulations, tariffs, or other trade regulations between the United States and other countries, what products or companies may be subject to such actions, or what actions may be taken by other countries in retaliation. Further changes in trade policy, tariffs, 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. Such changes may also result in reputational harm to us, the development or adoption of technologies that compete with our products, long-term changes in global trade and technology supply chains, or negative impacts on our customers' products which incorporate our solutions. Any of the effects described in this risk factor could have a material 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.

Tax-related matters could have a material adverse effect on our business, results of operations, or financial condition.

We are subject to income taxes in the United States and many foreign jurisdictions. Our provision for income taxes and cash tax liabilities in the future could be adversely affected by numerous factors, including changes in the geographic mix of our earnings among jurisdictions, 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, adverse resolution of audits and examinations of previously filed tax returns, and changes in tax laws and regulations.

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. Beginning in 2024, the Inflation Reduction Act of 2022 imposes a 15% book minimum tax on corporations with three-year average annual adjusted financial statement income exceeding $1 billion. We are in the process of assessing whether the book minimum tax would impact our effective tax rate. 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 ("OECD"). In December 2022, the European Union ("EU") member states reached an agreement to implement the minimum tax component ("Pillar Two") of the OECD's tax reform initiative. The directive is expected to be enacted into the national law of the EU member states by December 31, 2023. If similar directives under Pillar Two are adopted by taxing authorities in other countries where we do business, such changes 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, which 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 2023 for property, plant, and equipment, net of partner contributions, will be approximately $7.0 billion.

In the past, we have utilized external sources of financing when needed. As a result of our debt levels, expected debt amortization, prevailing interest rates, and general capital market and other 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 we expect to 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, refinance our debt, 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 to realign our capital structure. As of March 2, 2023, we had debt with a carrying value of $12.27 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 our business activities;
- 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 industry conditions;
- increase our exposure to rising interest rates from variable rate indebtedness; and
- result in certain of our debt instruments becoming immediately due and payable or being deemed to be in default if applicable cross default, cross-acceleration and/or similar provisions are triggered.

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. In light of current industry conditions, we amended the financial covenants in our Revolving Credit Facility and term loan agreements. See “Part I. Financial Information - Item 1. Financial Statements – Notes to Consolidated Financial Statements – Debt.” If we are unable to generate sufficient cash flows to service our debt payment obligations or satisfy our debt covenants, we may need to refinance, restructure, or amend the terms of 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 forecasts or 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.

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. Our expenditures for share repurchases were $2.43 billion in 2022, $1.20 billion in 2021, $176 million in 2020, and $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. During the quarter ended March 2, 2023, we did not repurchase any common stock under the authorization and as of March 2, 2023, $3.11 billion of the authorization remained available for the repurchase of our common stock.

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 this Item 2.

ITEM 5. OTHER INFORMATION

The information set forth below in this Item 5 is included herein in lieu of reporting on a Current Report on Form 8-K under Item 1.01 Entry into a Material Definitive Agreement.

Amendments to Term Loan Agreement, 2024 Term Loan A, and Revolving Credit Facility.

On March 27, 2023, we entered into amendments to our Term Loan Agreement, 2024 Term Loan A, and Revolving Credit Facility (the “Amendments”). The descriptions of the Amendments below are not intended to be complete and are qualified in their entirety by reference to the full text of the Amendments, copies of which are filed herewith as Exhibits 10.2, 10.3, and 10.4, respectively, and are incorporated herein by reference.

Amendment to Term Loan Agreement

As previously disclosed, on November 3, 2022, we entered into a term loan agreement consisting of three tranches and borrowed $2.60 billion in aggregate principal amount, including $927 million due November 3, 2025; $746 million due November 3, 2026; and $927 million due November 3, 2027 (the “Term Loan Agreement”).

On January 5, 2023, we amended the Term Loan Agreement and borrowed an additional $600 million in aggregate principal amount, including $125 million due November 3, 2025, $250 million due November 3, 2026, and $225 million due November 3, 2027. The additional borrowings have terms that are identical to, and will be treated as a single class with, the three original tranches.

The 2026 Term Loan A and 2027 Term Loan A each require equal quarterly installment payments in an amount equal to 1.25% of the original principal amount. The 2025 Term Loan A does not require quarterly installment payments. Borrowings under the Term Loan Agreement will generally bear interest at adjusted term SOFR plus an applicable interest rate margin ranging from 1.00% to 2.00%, varying by tranche and depending on our corporate credit ratings. The Term Loan Agreement requires us to maintain, on a consolidated basis, a leverage ratio of total indebtedness to adjusted EBITDA, as defined in the Term Loan Agreement and calculated as of the last day of each fiscal quarter, not to exceed 3.25 to 1.00, except as described below.

On March 27, 2023, we further amended the Term Loan Agreement to provide that in lieu of the foregoing leverage ratio, during the fourth quarter of 2023 and each quarter of 2024, we will be required to maintain, on a consolidated basis, a net leverage ratio of total net indebtedness to adjusted EBITDA, as defined in the Term Loan Agreement and calculated as of the last day of each fiscal quarter, not to exceed 3.25 to 1.00, or alternatively, for up to three of such five quarters, we may elect to comply with a requirement of minimum liquidity as defined in the Term Loan Agreement of not less than $5.0 billion. Each of the maximum leverage ratio and net leverage ratio, as applicable, is subject to a temporary four quarter increase in such maximum ratio to 3.75 to 1.00 following certain material acquisitions. Our obligations under the Term Loan Agreement are unsecured.

Amendment to 2024 Term Loan A

On March 27, 2023, we also amended the agreement governing the 2024 Term Loan A to align the leverage ratio covenant with the corresponding covenant in the Term Loan Agreement described above.

Amendment to Revolving Credit Facility

On March 27, 2023, we amended the agreement governing the Revolving Credit Facility to align the leverage ratio covenant with the corresponding covenants in the Term Loan Agreement and 2024 Term Loan A described above.

ITEM 6. EXHIBITS

Exhibit Number	Description of Exhibit	Filed Herewith	Form	Period Ending	Exhibit/ Appendix	Filing Date
4.1	Indenture, dated February 6, 2019, by and between Micron Technology, Inc. and U.S. Bank Trust Company, National Association (as successor in interest to U.S. Bank National Association), as Trustee		8-K		4.1	2/6/19
4.2	Sixth Supplemental Indenture, dated as of February 9, 2023, by and between Micron Technology, Inc. and U.S. Bank Trust Company, National Association, as Trustee		8-K		4.3	2/9/23
4.3	Form of Note for Micron Technology, Inc.'s 5.875% Senior Notes due 2033 (included in Exhibit 4.2)		8-K		4.5	2/9/23
10.1	Incremental Amendment No. 1, dated as of January 5, 2023, to the Term Loan Credit Agreement, dated as of November 3, 2022, by and among Micron Technology, Inc., as borrower, Wells Fargo Bank, National Association, as administrative agent, and the lenders party thereto	X				
10.2	Amendment No. 2 to Term Loan Credit Agreement, dated as of March 27, 2023, by and among Micron Technology, Inc., as borrower, Wells Fargo Bank, National Association, as administrative agent, and the lenders party thereto	X				
10.3	Amendment No. 1 to Term Loan Credit Agreement, dated as of March 27, 2023, by and among Micron Technology, Inc., as borrower, Wells Fargo Bank, National Association, as administrative agent, and the lenders party thereto	X				
10.4	Amendment No. 1 to Credit Agreement, dated as of March 27, 2023, by and among Micron Technology, Inc., as borrower, HSBC Bank USA, National Association, as administrative agent, and the lenders party thereto	X				
10.5*	Form of Consent for Named Executive Officers	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:	March 29, 2023	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)

EXHIBIT 10.1

EXECUTION VERSION

INCREMENTAL AMENDMENT NO. 1,
dated as of January 5, 2023

to the

TERM LOAN CREDIT AGREEMENT,
dated as of November 3, 2022

among

MICRON TECHNOLOGY, INC.,
as Borrower,

THE LENDERS PARTY HERETO,

and

WELLS FARGO BANK, NATIONAL ASSOCIATION,
as Administrative Agent

INCREMENTAL AMENDMENT NO. 1

INCREMENTAL AMENDMENT NO. 1 TO THE TERM LOAN CREDIT AGREEMENT, dated as of January 5, 2023 (this "Amendment"), among Micron Technology, Inc., a Delaware corporation (the "Borrower"), the 2023 Incremental Term Lenders (as defined below), Wells Fargo Bank, National Association, as administrative agent under the Existing Credit Agreement (in such capacity and including any successors in such capacity, the "Administrative Agent").

W I T N E S S E T H :

WHEREAS, reference is hereby made to the Term Loan Credit Agreement, dated as of November 3, 2022 (as amended, restated, supplemented or otherwise modified from time to time heretofore, the "Existing Credit Agreement" and as amended by this Amendment, the "Amended Credit Agreement");

WHEREAS, pursuant to Section 2.21 of the Existing Credit Agreement, the Borrower desires to establish Incremental Term Loan Commitments and incur Incremental Term Loans thereunder (such term loans, collectively, the "2023 Incremental Term Loans" and the commitments in respect of such 2023 Incremental Term Loans, the "2023 Incremental Term Loan Commitments"; individually, such term loans are referred to herein as (a) the "2023 Incremental Term A-1 Loans" and the commitments in respect of such 2023 Incremental Term A-1 Loans, the "2023 Incremental Term A-1 Loan Commitments", (b) the "2023 Incremental Term A-2 Loans" and the commitments in respect of such 2023 Incremental Term A-2 Loans, the "2023 Incremental Term A-2 Loan Commitments" or (c) the "2023 Incremental Term A-3 Loans" and the commitments in respect of such 2023 Incremental Term A-3 Loans, the "2023 Incremental Term A-3 Loan Commitments", as applicable), which (i) such 2023 Incremental Term A-1 Loans will be the same class as the Term A-1 Loans made prior to the Amendment Effective Date (the "Existing Term A-1 Loans"), (ii) such 2023 Incremental Term A-2 Loans will be the same class as the Term A-2 Loans made prior to the Amendment Effective Date (the "Existing Term A-2 Loans") and (iii) such 2023 Incremental Term A-3 Loans will be the same class as the Term A-3 Loans made prior to the Amendment Effective Date (the "Existing Term A-3 Loans");

WHEREAS, the Persons set forth in Exhibit A hereto under the caption "2023 Incremental Term Lender" (each, a "2023 Incremental Term Lender") have agreed, as applicable, to provide such 2023 Incremental Term Loan Commitments and 2023 Incremental Term Loans;

WHEREAS, Wells Fargo Securities, LLC has agreed to act as Sole Bookrunner and Sole Lead Arranger and each of Bank of America, N.A., BNP Paribas, and HSBC Bank USA, N.A. has agreed to act as a Documentation Agent, in each case, for the Amendment; and

WHEREAS, subject to the terms and conditions set forth herein and with the consent of the 2023 Incremental Term Lenders, the 2023 Incremental Term Lenders have agreed to provide 2023 Incremental Term Commitments in the amounts set forth in Exhibit A hereto.

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

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

SECTION 2. Incremental Term Facility.

(a) 2023 Incremental Term A-1 Loans.

(i) Each 2023 Incremental Term Lender, as applicable, agrees to provide the Incremental Term A-1 Commitments and to fund the 2023 Incremental Term A-1 Loans thereunder on the Amendment Effective Date in an amount set forth next to such 2023 Incremental Term Lender's name on Exhibit A hereto under the caption "2023 Incremental Term A-1 Commitment".

(ii) Except as otherwise expressly set forth herein and in the Amended Credit Agreement, the 2023 Incremental Term A-1 Loans shall have terms that are identical to those of the Existing Term A-1 Loans and shall be "Term A-1 Loans" for all purposes under the Amended Credit Agreement and the other Loan Documents. Effective as of the Amendment Effective Date, the 2023 Incremental Term A-1 Loans shall constitute the same class of Term Loans as the Existing Term A-1 Loans and shall be fungible with the Existing Term A-1 Loans. Except as necessary to give effect to the provisions of Section (a)(iii) through (v) below, (a) the 2023 Incremental Term A-1 Loans shall be "Term Loans", "Term A-1 Loans" and "Incremental Term Loans" and (b) the 2023 Incremental Term A-1 Loan Commitments shall be "Term Commitments", "Term A-1 Loan Commitments" and "Incremental Term Loan Commitments", in each case, for all purposes of the Amended Credit Agreement and the other Loan Documents. The 2023 Incremental Term Loans may be repaid or prepaid in the same manner as the Existing Term A-1 Loans in accordance with the provisions of the Amended Credit Agreement and this Amendment, but once repaid or prepaid may not be reborrowed.

(iii) The aggregate principal amount of the 2023 Incremental Term A-1 Loans made on the Amendment Effective Date shall be $125,000,000.00.

(iv) The Stated Maturity in respect of the 2023 Incremental Term A-1 Loans shall be the Term A-1 Stated Maturity in respect of the Existing Term A-1 Loans as set forth in the definition "Term A-1 Stated Maturity" in the Existing Credit Agreement.

(v) The 2023 Incremental Term A-1 Loans shall accrue interest on the same basis, and with the same Applicable Margin as the Existing Term A-1 Loans (it being understood that, as of the Amendment Effective Date, the 2023 Incremental Term A-1 Loans shall constitute the same Type of Term A-1 Loans as the Existing Term A-1 Loans and, to the extent the Existing Term A-1 Loans are SOFR Loans, have an initial Interest Period ending on the last day of the Interest Period applicable to the Existing Term A-1 Loans).

(b) 2023 Incremental Term A-2 Loans.

(i) Each 2023 Incremental Term Lender, as applicable, agrees to provide the Incremental Term A-2 Commitments and to fund the 2023

Incremental Term A-2 Loans thereunder on the Amendment Effective Date in an amount set forth next to such 2023 Incremental Term Lender's name on Exhibit A hereto under the caption "2023 Incremental Term A-2 Commitment".

(ii) Except as otherwise expressly set forth herein and in the Amended Credit Agreement, the 2023 Incremental Term A-2 Loans shall have terms that are identical to those of the Existing Term A-2 Loans and shall be "Term A-2 Loans" for all purposes under the Amended Credit Agreement and the other Loan Documents. Effective as of the Amendment Effective Date, the 2023 Incremental Term A-2 Loans shall constitute the same class of Term Loans as the Existing Term A-2 Loans and shall be fungible with the Existing Term A-2 Loans. Except as necessary to give effect to the provisions of Section (b)(iii) through (vi) below, (a) the 2023 Incremental Term A-2 Loans shall be "Term Loans", "Term A-2 Loans" and "Incremental Term Loans" and (b) the 2023 Incremental Term A-2 Loan Commitments shall be "Term Commitments", "Term A-2 Loan Commitments" and "Incremental Term Loan Commitments", in each case, for all purposes of the Amended Credit Agreement and the other Loan Documents. The 2023 Incremental Term Loans may be repaid or prepaid in the same manner as the Existing Term A-2 Loans in accordance with the provisions of the Amended Credit Agreement and this Amendment, but once repaid or prepaid may not be reborrowed.

(iii) The aggregate principal amount of the 2023 Incremental Term A-2 Loans made on the Amendment Effective Date shall be $250,000,000.00.

(iv) The Stated Maturity in respect of the 2023 Incremental Term A-2 Loans (the "2023 Incremental Term A-2 Loan Stated Maturity") shall be the Term A-2 Stated Maturity in respect of the Existing Term A-2 Loans as set forth in the definition "Term A-2 Stated Maturity" in the Existing Credit Agreement.

(v) The 2023 Incremental Term A-2 Loans shall accrue interest on the same basis, and with the same Applicable Margin as the Existing Term A-2 Loans (it being understood that, as of the Amendment Effective Date, the 2023 Incremental Term A-2 Loans shall constitute the same Type of Term A-2 Loans as the Existing Term A-2 Loans and, to the extent the Existing Term A-2 Loans are SOFR Loans, have an initial Interest Period ending on the last day of the Interest Period applicable to the Existing Term A-2 Loans).

(vi) The original aggregate principal amount of the 2023 Incremental Term A-2 Loans (as such amounts may be reduced pursuant to Section 2.11 of the Amended Credit Agreement) shall be repayable in equal quarterly installments on the same dates and in the same percentage as for the Existing Term A-2 Loans as set forth in Section 2.7 of the Amended Credit Agreement. The balance of the 2023 Incremental Term A-2 Loans will be repayable on the Term Loan Maturity Date.

(c) 2023 Incremental Term A-3 Loans.

(i) Each 2023 Incremental Term Lender, as applicable, agrees to provide the Incremental Term A-3 Commitments and to fund the 2023 Incremental Term A-3 Loans thereunder on the Amendment Effective Date in an amount set forth next to such 2023 Incremental Term Lender's name on Exhibit A hereto under the caption "2023 Incremental Term A-3 Commitment".

(ii) Except as otherwise expressly set forth herein and in the Amended Credit Agreement, the 2023 Incremental Term A-3 Loans shall have terms that are identical to those of the Existing Term A-3 Loans and shall be "Term A-3 Loans" for all purposes under the Amended Credit Agreement and the other Loan Documents. Effective as of the Amendment Effective Date, the 2023 Incremental Term A-3 Loans shall constitute the same class of Term Loans as the Existing Term A-3 Loans and shall be fungible with the Existing Term A-3 Loans. Except as necessary to give effect to the provisions of Section (c)(iii) through (vi) below, (a) the 2023 Incremental Term A-3 Loans shall be "Term Loans", "Term A-3 Loans" and "Incremental Term Loans" and (b) the 2023 Incremental Term A-3 Loan Commitments shall be "Term Commitments", "Term A-3 Loan Commitments" and "Incremental Term Loan Commitments", in each case, for all purposes of the Amended Credit Agreement and the other Loan Documents. The 2023 Incremental Term Loans may be repaid or prepaid in the same manner as the Existing Term A-3 Loans in accordance with the provisions of the Amended Credit Agreement and this Amendment, but once repaid or prepaid may not be reborrowed.

(iii) The aggregate principal amount of the 2023 Incremental Term A-3 Loans made on the Amendment Effective Date shall be $225,000,000.00.

(iv) The Stated Maturity in respect of the 2023 Incremental Term A-3 Loans (the "2023 Incremental Term A-3 Loan Stated Maturity") shall be the Term A-3 Stated Maturity in respect of the Existing Term A-3 Loans as set forth in the definition "Term A-3 Stated Maturity" in the Existing Credit Agreement.

(v) The 2023 Incremental Term A-3 Loans shall accrue interest on the same basis, and with the same Applicable Margin as the Existing Term A-3 Loans (it being understood that, as of the Amendment Effective Date, the 2023 Incremental Term A-3 Loans shall constitute the same Type of Term A-3 Loans as the Existing Term A-3 Loans and, to the extent the Existing Term A-3 Loans are SOFR Loans, have an initial Interest Period ending on the last day of the Interest Period applicable to the Existing Term A-3 Loans).

(vi) The original aggregate principal amount of the 2023 Incremental Term A-3 Loans (as such amounts may be reduced pursuant to Section 2.11 of the Amended Credit Agreement) shall be repayable in equal quarterly installments on the same dates and in the same percentage as for the Existing Term A-3 Loans as set forth in Section 2.7 of the Amended Credit Agreement. The balance of the 2023 Incremental Term A-3 Loans will be repayable on the Term Loan Maturity Date.

(d) With respect to the 2023 Incremental Term Loans, this Amendment is an Incremental Assumption Amendment referred to in Section 2.21 of the Existing Credit Agreement. The parties hereto agree to waive the notice required pursuant to Section 2.21 of the Existing Credit Agreement.

SECTION 3. Amendments.

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

"2023 Incremental Amendment": means that certain Incremental Amendment No. 1 to the Term Loan Credit Agreement, dated as of January 5, 2023, among the Borrower, the Lenders party thereto and the Administrative Agent.

"Amendment Effective Date": as defined in the 2023 Incremental Amendment.

(b) Section 1.1 of the Existing Credit Agreement is hereby amended by adding the following sentence to the end of the definition of "Term A-1 Commitments":

"As of the Amendment Effective Date, the Term A-1 Loan Commitments shall be increased by $125,000,000.00."

(c) Section 1.1 of the Existing Credit Agreement is hereby amended by adding the following sentence to the end of the definition of "Term A-2 Commitments":

"As of the Amendment Effective Date, the Term A-2 Loan Commitments shall be increased by $250,000,000.00."

(d) Section 1.1 of the Existing Credit Agreement is hereby amended by adding the following sentence to the end of the definition of "Term A-2 Commitments":

"As of the Amendment Effective Date, the Term A-3 Loan Commitments shall be increased by $225,000,000.00."

SECTION 4. Conditions to Effectiveness.

(a) Effectiveness. This Amendment and the obligation of each 2023 Incremental Term Lender to make the 2023 Incremental Term Loans shall become effective on the date that the following conditions shall have been satisfied (or waived in accordance with Section 9.1 of the Existing Credit Agreement) (the "Amendment Effective Date"):

(i) This Amendment shall have been executed and delivered by (i) a duly authorized officer of the Borrower, (ii) the 2023 Incremental Term Lenders and (iii) the Administrative Agent.

(ii) The Administrative Agent shall have received executed legal opinions from (i) Wilson Sonsini Goodrich & Rosati P.C., counsel to the Borrower and (ii) the general counsel of the Borrower, each in form and substance satisfactory to the Administrative Agent

(iii) The Administrative Agent shall have received (i) a certificate of Borrower, dated the Amendment Effective Date with appropriate insertions and attachments, including the certificate of incorporation of the Borrower, and (ii) a long form good standing certificate for Borrower from its jurisdiction of organization.

(iv) (i) The Administrative Agent shall have received, at least three (3) Business Days prior to the Amendment Effective Date, all documentation and information as is reasonably requested in writing by any 2023 Incremental Term Lender at least 10 days prior to the Amendment Effective Date about the Borrower and its Subsidiaries that is required by U.S. Governmental Authorities under applicable "know your customer" and anti-money laundering rules and regulations, including without limitation, the Patriot Act and (ii) to the extent the Borrower qualifies as a "legal entity customer" under the Beneficial Ownership Regulation, at least five days prior to the Amendment Effective Date, any Lender that has requested, in a written notice to the Borrower at least 10 days prior to the Amendment Effective Date, a Beneficial Ownership Certification in relation to the Borrower shall have received such Beneficial Ownership Certification (provided that, upon the execution and delivery by such 2023 Incremental Term Lender of its signature page to this Amendment, the condition set forth in this clause (ii) shall be deemed to be satisfied).

(v) No Default or Event of Default shall have occurred and be continuing, or would result after giving effect to this Amendment, including the 2023 Incremental Term Loans and use of proceeds thereof.

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

(vii) The Administrative Agent shall have received from the Borrower payment of all fees and expenses required to be paid to the Administrative Agent and 2023 Incremental Term Lenders on or before the Amendment Effective Date for which written invoices in reasonable detail have been submitted at least two Business Days prior to the Amendment Effective Date.

(viii) The Amendment Effective Date shall be on or prior to March 31, 2023.

(ix) The Administrative Agent shall have received a Borrowing Request delivered in accordance with Section 2.3 of the Existing Credit Agreement specifying the Amendment Effective Date as the Borrowing Date.

SECTION 5. 2023 Incremental Term Lenders. Each 2023 Incremental Term Lender (a) represents and warrants that it is legally authorized to enter into this Amendment; (b) confirms that it has received a copy of the Amended Credit Agreement, together with copies of the financial statements delivered pursuant to Section 5.1 thereof and such other documents and information as it has deemed appropriate to make its own credit analysis and decision to enter into this Amendment; (c) agrees that it will, independently and without reliance upon the Administrative Agent or any Lender and based on such documents and information as it shall deem appropriate at the time, continue to make its own credit decisions in taking or not taking action under the Amended Credit Agreement, the other Loan Documents or any other instrument or document furnished pursuant hereto or thereto; (d) appoints and authorizes the

Administrative Agent to take such action as agent on its behalf and to exercise such powers and discretion under the Amended Credit Agreement, the other Loan Documents or any other instrument or document furnished pursuant hereto or thereto as are delegated to the Administrative Agent by the terms thereof, together with such powers as are incidental thereto; and (e) agrees that it will be bound by the provisions of the Amended Credit Agreement and will perform in accordance with its terms all the obligations which by the terms of the Amended Credit Agreement are required to be performed by it as a Lender including, if it is organized under the laws of a jurisdiction outside the United States, its obligation pursuant to Section 2.16(e) of the Amended Credit Agreement.

SECTION 6. Representations of the Borrower. On and as of the Amendment Effective Date, after giving effect to this Amendment, the Borrower hereby represents and warrants to the Administrative Agent and each Lender that this Amendment has been duly authorized by all necessary corporate or other organizational action. This Amendment has been duly executed and delivered by Borrower hereto and constitutes a legal, valid and binding obligation of the Borrower, enforceable against such Person in accordance with its terms, subject to applicable bankruptcy, insolvency, reorganization, moratorium or other laws affecting creditors' rights generally and subject to general principles of equity, regardless of whether considered in a proceeding in equity or at law.

SECTION 7. No Other Amendment or Waivers; Confirmation; Reaffirmation.

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

(b) The Borrower hereby (i) expressly acknowledges the terms of the Amended Credit Agreement, (ii) ratifies and affirms its obligations under the Loan Documents to which it is a party, (iii) acknowledges, renews and extends its continued liability under all such Loan Documents and agrees such Loan Documents remain in full force and effect and (iv) further confirms that each Loan Document to which it is a party is and shall continue to be in full force and effect and the same are hereby ratified and confirmed in all respects.

(c) The Borrower hereby reaffirms, as of the Amendment Effective Date, the covenants and agreements contained in each Loan Document to which it is a party, including, in each case, such covenants and agreements as in effect immediately after giving effect to this Amendment and the transactions contemplated thereby.

SECTION 8. APPLICABLE LAW; WAIVER OF JURY TRIAL. THIS AMENDMENT SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAW OF THE STATE OF NEW YORK. EACH PARTY HERETO HEREBY AGREES AS SET FORTH IN SECTION 9.12 AND SECTION 9.16 OF THE EXISTING CREDIT AGREEMENT AS IF SUCH SECTION WERE SET FORTH IN FULL HEREIN.

SECTION 9. Miscellaneous. (a) This Amendment may be executed in counterparts (and by different parties hereto in different counterparts), each of which shall constitute an original, but all of which when taken together shall constitute a single contract. Delivery of an executed counterpart of a signature page of this Amendment by telecopy or other electronic imaging means shall be effective as delivery of a manually executed counterpart of this Amendment.

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

SECTION 10. Headings. Section headings herein are included herein for convenience of reference only and shall not constitute a part hereof for any other purpose or be given any substantive effect.

[*Signature Pages Follow*]

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

MICRON TECHNOLOGY, INC.

By: /s/ Gregory Routin
Name: Gregory Routin
Title: Vice President and Treasurer

WELLS FARGO BANK, NATIONAL ASSOCIATION,
as Administrative Agent

By: /s/ Sid Khanolkar
Name: Sid Khanolkar
Title: Managing Director

BANK OF AMERICA, N.A.,
as a 2023 Incremental Term Lender

By: /s/ Ladi Oluwole
Name: Ladi Oluwole
Title: Vice President

BNP PARIBAS, as a 2023 Incremental Term Lender

By: /s/ Brendan Heneghan
Name: Brendan Heneghan
Title: Director

By: /s/ Nicolas Doche
Name: Nicolas Doche
Title: Vice President

HSBC BANK USA, N.A., as a 2023 Incremental Term Lender

By: /s/ Ilene Hernandez
Name: Ilene Hernandez
Title: Vice President

EXHIBIT A

2023 Incremental Term Commitments

[Omitted]

EXHIBIT 10.2

EXECUTION VERSION

AMENDMENT NO. 2 TO TERM LOAN CREDIT AGREEMENT,

dated as of March 27, 2023

by and among

MICRON TECHNOLOGY, INC.,
as Borrower,

THE LENDERS PARTY HERETO,
and

WELLS FARGO BANK, NATIONAL ASSOCIATION,
as Administrative Agent

AMENDMENT NO. 2 TO TERM LOAN CREDIT AGREEMENT

AMENDMENT NO. 2 TO TERM LOAN CREDIT AGREEMENT, dated as of March 27, 2023 (this "Amendment"), by and among Micron Technology, Inc., a Delaware corporation (the "Borrower"), the Lenders party hereto, and Wells Fargo Bank, National Association, as administrative agent under the Existing Credit Agreement (as defined below) (in such capacity and including any successors in such capacity, the "Administrative Agent").

W I T N E S S E T H :

WHEREAS, reference is hereby made to the Term Loan Credit Agreement, dated as of November 3, 2022 (as amended by that certain Incremental Amendment No. 1, dated as of January 5, 2023, and as further amended, restated, amended and restated, supplemented or otherwise modified from time to time prior to the date hereof, the "Existing Credit Agreement" and as further amended by this Amendment, the "Amended Credit Agreement");

WHEREAS, the Borrower has requested that certain provisions of the Existing Credit Agreement be amended as set forth herein; and

WHEREAS, subject to the terms and conditions set forth herein, the Administrative Agent and the Lenders party hereto are willing to amend the Existing Credit Agreement on the terms set forth herein;

NOW, THEREFORE, in consideration of the foregoing and for other good and valuable consideration, the receipt, adequacy and sufficiency of which are hereby acknowledged, the parties hereto hereby agree as follows:

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

SECTION 2. Amendments. Subject to the satisfaction of the conditions set forth in Section 3 below, the parties hereto agree that the Existing Credit Agreement shall be amended as of the Amendment Effective Date (as defined below), as follows:

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

"Available Unused Commitments": as of the date of determination thereof, the aggregate amount by which (a) the aggregate amount of commitments under revolving credit facilities and revolving lines of credit of the Borrower and its Consolidated Subsidiaries exceeds (b) the aggregate principal amount of outstanding loans and advances under such revolving credit facilities and revolving lines of credit.

"Investment Grade Debt": long-term and short-term bonds, bills, notes and other debt obligations with any "investment grade" rating from any of Moody's, S&P or Fitch.

"Liquidity": as of the date of determination thereof, the sum of (a) the Unrestricted Cash, Cash Equivalent and Marketable Securities Amount on such date plus (b) the Available Unused Commitments on such date.

“Specified Fiscal Quarters”: the fiscal quarters of the Borrower ending August 31, 2023, November 30, 2023, February 29, 2024, May 30, 2024, and August 29, 2024.

“Total Net Leverage Ratio”: as of the date of determination thereof, the ratio of (a) Indebtedness of the Borrower and its Consolidated Subsidiaries as of such date minus the Unrestricted Cash, Cash Equivalent and Marketable Securities Amount as of such date, to (b) Consolidated EBITDA of the Borrower for such Measurement Period.

“Unrestricted Cash, Cash Equivalent and Marketable Securities Amount”: as of the date of determination thereof, the aggregate amount of unrestricted cash, cash equivalents and Investment Grade Debt, as determined in accordance with GAAP and reported on the consolidated balance sheet of the Borrower and its Consolidated Subsidiaries as of the last day of the most recently ended fiscal quarter of the Borrower for which financial statements are available.

(b) Section 6 of the Existing Credit Agreement is hereby amended by amending and restating Section 6.6 thereof in its entirety as follows:

“6.6. Financial Covenant. The Borrower will not permit, (a) as of the last day of any fiscal quarter of the Borrower other than a Specified Fiscal Quarter, the Total Leverage Ratio to exceed 3.25 to 1.00 and (b) as of the last day of any Specified Fiscal Quarter, either of the following (i) or (ii) (at the Borrower’s sole election as to the applicability of (i) or (ii) for such Specified Fiscal Quarter (provided that (ii) shall not be elected in more than three (3) of such Specified Fiscal Quarters)): (i) the Total Net Leverage Ratio to exceed 3.25 to 1.00 or (ii) Liquidity to be less than $5,000,000,000; provided that following the consummation of a Qualified Acquisition for the four fiscal quarters of the Borrower then ended as set forth in the last Compliance Certificate delivered pursuant to Section 5.2, the Total Leverage Ratio and Total Net Leverage Ratio set forth above shall increase for each of the four fiscal quarters of the Borrower ending following the consummation of a Qualified Acquisition to 3.75 to 1.00.”

(c) Exhibit C to the Existing Credit Agreement is hereby amended and restated in its entirety to read as set forth on Annex I attached hereto.

SECTION 3. Conditions to Effectiveness. This Amendment shall become effective on the date that the following conditions shall have been satisfied (the “Amendment Effective Date”):

(a) This Amendment shall have been executed and delivered by (i) a duly authorized officer of the Borrower, (ii) the Required Lenders and (iii) the Administrative Agent.

(b) No Default or Event of Default shall have occurred and be continuing, or would result immediately prior to or after giving effect to this Amendment.

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

(d) The Administrative Agent shall have received from the Borrower payment of all fees and expenses required to be paid to the Administrative Agent on or before

the Amendment Effective Date for which written invoices in reasonable detail have been submitted at least two Business Days prior to the Amendment Effective Date.

SECTION 4. Representations of the Borrower. On and as of the Amendment Effective Date, after giving effect to this Amendment, the Borrower hereby represents and warrants to the Administrative Agent and each Lender that this Amendment has been duly authorized by all necessary corporate or other organizational action. This Amendment has been duly executed and delivered by Borrower hereto and constitutes a legal, valid and binding obligation of the Borrower, enforceable against such Person in accordance with its terms, subject to applicable bankruptcy, insolvency, reorganization, moratorium or other laws affecting creditors' rights generally and subject to general principles of equity, regardless of whether considered in a proceeding in equity or at law.

SECTION 5. No Other Amendment or Waivers; Confirmation; Reaffirmation.

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

(b) The Borrower hereby (i) expressly acknowledges the terms of the Amended Credit Agreement, (ii) ratifies and affirms its obligations under the Loan Documents to which it is a party, (iii) acknowledges, renews and extends its continued liability under all such Loan Documents and agrees such Loan Documents remain in full force and effect and (iv) further confirms that each Loan Document to which it is a party is and shall continue to be in full force and effect and the same are hereby ratified and confirmed in all respects.

(c) The Borrower hereby reaffirms, as of the Amendment Effective Date, the covenants and agreements contained in each Loan Document to which it is a party as modified hereby, including, in each case, such covenants and agreements as in effect immediately after giving effect to this Amendment and the transactions contemplated thereby.

SECTION 6. APPLICABLE LAW; WAIVER OF JURY TRIAL. THIS AMENDMENT SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAW OF THE STATE OF NEW YORK. EACH PARTY HERETO HEREBY AGREES AS SET FORTH IN SECTION 9.12 AND SECTION 9.16 OF THE EXISTING CREDIT AGREEMENT AS IF SUCH SECTIONS WERE SET FORTH IN FULL HEREIN.

SECTION 7. Miscellaneous. (a) This Amendment may be executed in counterparts (and by different parties hereto in different counterparts), each of which shall constitute an original, but all of which when taken together shall constitute a single contract. Delivery of an executed counterpart of a signature page of this Amendment by telecopy or other electronic imaging means shall be effective as delivery of a manually executed counterpart of this Amendment.

(b) The provisions of this Amendment shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns permitted hereby.

SECTION 8. Headings. Section headings herein are included herein for convenience of reference only and shall not constitute a part hereof for any other purpose or be given any substantive effect.

[*Signature Pages Follow*]

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

MICRON TECHNOLOGY, INC.
By: /s/ Gregory Routin
Name: Gregory Routin
Title: Vice President and Treasurer

WELLS FARGO BANK, NATIONAL ASSOCIATION, as Administrative Agent and a Lender
By: /s/ Sid Khanolkar Name: Sid Khanolkar
Title: Managing Director

Mizuho Bank, Ltd., as a Lender
By: /s/ Tracy Rahn Name: Tracy Rahn
Title: Executive Director

TRUIST BANK, as a Lender

By: /s/ Paige Scheper Name: Paige Scheper

Title: Director

DBS BANK LTD., as a Lender
By: /s/ Erny Ismail Name: Erny Ismail
Title: Senior Vice President

JPMORGAN CHASE BANK, N.A., as a Lender
By: /s/ Zachary Quan Name: Zachary Quan
Title: Vice President

PNC Bank, National Association, as a Lender
By: /s/ Skyler Zweifel
Name: Skyler Zweifel
Title: Vice President

The Bank of Nova Scotia, as a Lender
By: /s/ Luke Copley Name: Luke Copley
Title: Director

Australia and New Zealand Banking Group Limited, as a Lender
By: /s/ Robert Grillo Name: Robert Grillo
Title: Executive Director

The Toronto-Dominion Bank, New York Branch, as a Lender
By: /s/ David Perlman Name: David Perlman
Title: Authorized Signatory

Canadian Imperial Bank of Commerce, New York Branch, as a Lender
By: /s/ Bernadette Murphy Name: Bernadette Murphy
Title: Managing Director and Authorized Signatory

CREDIT AGRICOLE CORPORATE AND INVESTMENT BANK, as a Lender
By: /s/ Fanny Charrier Name: Fanny Charrier
Title: Director

By: /s/ Paul Arens Name: Paul Arens
Title: Director

MUFG Bank, Ltd., as a Lender
By: /s/ Lillian Kim
Name: Lillian Kim
Title: Director

Bank of America, N.A., as a Lender
By: /s/ Ladi Oluwole
Name: Ladi Oluwole
Title: Vice President

BNP Paribas, as a Lender
By: /s/ Gregory R. Paul Name: Gregory R. Paul
Title: Managing Director

BNP Paribas, as a Lender
By: /s/ My-Linh Yoshiike
Name: My-Linh Yoshiike
Title: Vice President

HSBC Bank USA, National Association, as a Lender
By: /s/ Ilene Hernandez Name: Ilene Hernandez
Title: Vice President

Annex I

Form of Compliance Certificate

[Omitted]

EXHIBIT 10.3

EXECUTION VERSION

AMENDMENT NO. 1 TO TERM LOAN CREDIT AGREEMENT,

dated as of March 27, 2023

by and among

MICRON TECHNOLOGY, INC.,
as Borrower,

THE LENDERS PARTY HERETO,
and

WELLS FARGO BANK, NATIONAL ASSOCIATION,
as Administrative Agent

AMENDMENT NO. 1 TO TERM LOAN CREDIT AGREEMENT

AMENDMENT NO. 1 TO TERM LOAN CREDIT AGREEMENT, dated as of March 27, 2023 (this "Amendment"), by and among Micron Technology, Inc., a Delaware corporation (the "Borrower"), the Lenders party hereto, and Wells Fargo Bank, National Association, as administrative agent under the Existing Credit Agreement (as defined below) (in such capacity and including any successors in such capacity, the "Administrative Agent").

W I T N E S S E T H :

WHEREAS, reference is hereby made to the Term Loan Credit Agreement, dated as of May 14, 2021 (as amended, restated, amended and restated, supplemented or otherwise modified from time to time prior to the date hereof, the "Existing Credit Agreement" and as further amended by this Amendment, the "Amended Credit Agreement");

WHEREAS, the Borrower has requested that certain provisions of the Existing Credit Agreement be amended as set forth herein; and

WHEREAS, subject to the terms and conditions set forth herein, the Administrative Agent and the Lenders party hereto are willing to amend the Existing Credit Agreement on the terms set forth herein;

NOW, THEREFORE, in consideration of the foregoing and for other good and valuable consideration, the receipt, adequacy and sufficiency of which are hereby acknowledged, the parties hereto hereby agree as follows:

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

SECTION 2. Amendments. Subject to the satisfaction of the conditions set forth in Section 3 below, the parties hereto agree that the Existing Credit Agreement shall be amended as of the Amendment Effective Date (as defined below), as follows:

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

"Available Unused Commitments": as of the date of determination thereof, the aggregate amount by which (a) the aggregate amount of commitments under revolving credit facilities and revolving lines of credit of the Borrower and its Consolidated Subsidiaries exceeds (b) the aggregate principal amount of outstanding loans and advances under such revolving credit facilities and revolving lines of credit.

"Investment Grade Debt": long-term and short-term bonds, bills, notes and other debt obligations with any "investment grade" rating from any of Moody's, S&P or Fitch.

"Liquidity": as of the date of determination thereof, the sum of (a) the Unrestricted Cash, Cash Equivalent and Marketable Securities Amount on such date plus (b) the Available Unused Commitments on such date.

"Specified Fiscal Quarters": the fiscal quarters of the Borrower ending August 31, 2023, November 30, 2023, February 29, 2024, May 30, 2024, and August 29, 2024.

"Total Net Leverage Ratio": as of the date of determination thereof, the ratio of (a) Indebtedness of the Borrower and its Consolidated Subsidiaries as of such date minus the Unrestricted Cash, Cash Equivalent and Marketable Securities Amount as of such date, to (b) Consolidated EBITDA of the Borrower for such Measurement Period.

"Unrestricted Cash, Cash Equivalent and Marketable Securities Amount": as of the date of determination thereof, the aggregate amount of unrestricted cash, cash equivalents and Investment Grade Debt, as determined in accordance with GAAP and reported on the consolidated balance sheet of the Borrower and its Consolidated Subsidiaries as of the last day of the most recently ended fiscal quarter of the Borrower for which financial statements are available.

(b) Section 6 of the Existing Credit Agreement is hereby amended by amending and restating Section 6.6 thereof in its entirety as follows:

"6.6. Financial Covenant.
The Borrower will not permit, (a) as of the last day of any fiscal quarter of the Borrower other than a Specified Fiscal Quarter, the Total Leverage Ratio to exceed 3.25 to 1.00 and (b) as of the last day of any Specified Fiscal Quarter, either of the following (i) or (ii) (at the Borrower's sole election as to the applicability of (i) or (ii) for such Specified Fiscal Quarter (provided that (ii) shall not be elected in more than three (3) of such Specified Fiscal Quarters)): (i) the Total Net Leverage Ratio to exceed 3.25 to 1.00 or (ii) Liquidity to be less than $5,000,000,000; provided that following the consummation of a Qualified Acquisition for the four fiscal quarters of the Borrower then ended as set forth in the last Compliance Certificate delivered pursuant to Section 5.2, the Total Leverage Ratio and Total Net Leverage Ratio set forth above shall increase for each of the four fiscal quarters of the Borrower ending following the consummation of a Qualified Acquisition to 3.75 to 1.00."

(c) Exhibit C to the Existing Credit Agreement is hereby amended and restated in its entirety to read as set forth on Annex I attached hereto.

SECTION 3. Conditions to Effectiveness. This Amendment shall become effective on the date that the following conditions shall have been satisfied (the "Amendment Effective Date"):

(a) This Amendment shall have been executed and delivered by (i) a duly authorized officer of the Borrower, (ii) the Required Lenders and (iii) the Administrative Agent.

(b) No Default or Event of Default shall have occurred and be continuing, or would result immediately prior to or after giving effect to this Amendment.

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

(d) The Administrative Agent shall have received from the Borrower payment of all fees and expenses required to be paid to the Administrative Agent on or before

the Amendment Effective Date for which written invoices in reasonable detail have been submitted at least two Business Days prior to the Amendment Effective Date.

SECTION 4. Representations of the Borrower. On and as of the Amendment Effective Date, after giving effect to this Amendment, the Borrower hereby represents and warrants to the Administrative Agent and each Lender that this Amendment has been duly authorized by all necessary corporate or other organizational action. This Amendment has been duly executed and delivered by Borrower hereto and constitutes a legal, valid and binding obligation of the Borrower, enforceable against such Person in accordance with its terms, subject to applicable bankruptcy, insolvency, reorganization, moratorium or other laws affecting creditors' rights generally and subject to general principles of equity, regardless of whether considered in a proceeding in equity or at law.

SECTION 5. No Other Amendment or Waivers; Confirmation; Reaffirmation.

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

(b) The Borrower hereby (i) expressly acknowledges the terms of the Amended Credit Agreement, (ii) ratifies and affirms its obligations under the Loan Documents to which it is a party, (iii) acknowledges, renews and extends its continued liability under all such Loan Documents and agrees such Loan Documents remain in full force and effect and (iv) further confirms that each Loan Document to which it is a party is and shall continue to be in full force and effect and the same are hereby ratified and confirmed in all respects.

(c) The Borrower hereby reaffirms, as of the Amendment Effective Date, the covenants and agreements contained in each Loan Document to which it is a party as modified hereby, including, in each case, such covenants and agreements as in effect immediately after giving effect to this Amendment and the transactions contemplated thereby.

SECTION 6. APPLICABLE LAW; WAIVER OF JURY TRIAL. THIS AMENDMENT SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAW OF THE STATE OF NEW YORK. EACH PARTY HERETO HEREBY AGREES AS SET FORTH IN SECTION 9.12 AND SECTION 9.16 OF THE EXISTING CREDIT AGREEMENT AS IF SUCH SECTIONS WERE SET FORTH IN FULL HEREIN.

SECTION 7. Miscellaneous. (a) This Amendment may be executed in counterparts (and by different parties hereto in different counterparts), each of which shall constitute an original, but all of which when taken together shall constitute a single contract. Delivery of an executed counterpart of a signature page of this Amendment by telecopy or other electronic imaging means shall be effective as delivery of a manually executed counterpart of this Amendment.

(b) The provisions of this Amendment shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns permitted hereby.

SECTION 8. Headings. Section headings herein are included herein for convenience of reference only and shall not constitute a part hereof for any other purpose or be given any substantive effect.

[*Signature Pages Follow*]

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

MICRON TECHNOLOGY, INC.
By: /s/ Gregory Routin
Name: Gregory Routin
Title: Vice President and Treasurer

WELLS FARGO BANK, NATIONAL ASSOCIATION, as Administrative Agent and a Lender
By: /s/ Sid Khanolkar Name: Sid Khanolkar
Title: Managing Director

The Bank of Nova Scotia, as a Lender
By: /s/ Luke Copley Name: Luke Copley
Title: Director

The Toronto-Dominion Bank, New York Branch, as a Lender
By: /s/ David Perlman Name: David Perlman
Title: Authorized Signatory

Bank of America, N.A.
By: /s/ Ladi Oluwole
Name: Ladi Oluwole
Title: Vice President

DBS BANK LTD., as a Lender
By: /s/ Erny Ismail Name: Erny Ismail
Title: Senior Vice President

U.S. Bank National Association, as a Lender
By: /s/ Lukas Coleman Name: Lukas Coleman
Title: Vice President

United Overseas Bank Limited, New York Agency, as a Lender
By: /s/ Eriberto de Guzman
Name: Eriberto de Guzman
Title: Managing Director

By: /s/ Brian Ike
Name: Brian Ike
Title: First Vice President

CREDIT AGRICOLE CORPORATE AND INVESTMENT BANK, as a Lender
By: /s/ Fanny Charrier Name: Fanny Charrier
Title: Director

By: /s/ Paul Arens Name: Paul Arens
Title: Director

Annex I

Form of Compliance Certificate

[Omitted]

EXHIBIT 10.4

EXECUTION VERSION

AMENDMENT NO. 1 TO CREDIT AGREEMENT,

dated as of March 27, 2023

by and among

MICRON TECHNOLOGY, INC.,
as Borrower,

THE LENDERS PARTY HERETO,
and

HSBC BANK USA, NATIONAL ASSOCIATION,
as Administrative Agent

AMENDMENT NO. 1 TO CREDIT AGREEMENT

AMENDMENT NO. 1 TO CREDIT AGREEMENT, dated as of March 27, 2023 (this "Amendment"), by and among Micron Technology, Inc., a Delaware corporation (the "Borrower"), the Lenders party hereto, and HSBC Bank USA, National Association, as administrative agent under the Existing Credit Agreement (as defined below) (in such capacity and including any successors in such capacity, the "Administrative Agent").

W I T N E S S E T H :

WHEREAS, reference is hereby made to the Credit Agreement, dated as of May 14, 2021 (as amended, restated, amended and restated, supplemented or otherwise modified from time to time prior to the date hereof, the "Existing Credit Agreement" and as further amended by this Amendment, the "Amended Credit Agreement");

WHEREAS, the Borrower has requested that certain provisions of the Existing Credit Agreement be amended as set forth herein; and

WHEREAS, subject to the terms and conditions set forth herein, the Administrative Agent and the Lenders party hereto are willing to amend the Existing Credit Agreement on the terms set forth herein;

NOW, THEREFORE, in consideration of the foregoing and for other good and valuable consideration, the receipt, adequacy and sufficiency of which are hereby acknowledged, the parties hereto hereby agree as follows:

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

SECTION 2. Amendments. Subject to the satisfaction of the conditions set forth in Section 3 below, the parties hereto agree that the Existing Credit Agreement shall be amended as of the Amendment Effective Date (as defined below), as follows:

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

"Available Unused Commitments": as of the date of determination thereof, the aggregate amount by which (a) the aggregate amount of commitments under revolving credit facilities and revolving lines of credit of the Borrower and its Consolidated Subsidiaries exceeds (b) the aggregate principal amount of outstanding loans and advances under such revolving credit facilities and revolving lines of credit.

"Investment Grade Debt": long-term and short-term bonds, bills, notes and other debt obligations with any "investment grade" rating from any of Moody's, S&P or Fitch.

"Liquidity": as of the date of determination thereof, the sum of (a) the Unrestricted Cash, Cash Equivalent and Marketable Securities Amount on such date plus (b) the Available Unused Commitments on such date.

"Specified Fiscal Quarters": the fiscal quarters of the Borrower ending August 31, 2023, November 30, 2023, February 29, 2024, May 30, 2024, and August 29, 2024.

"Total Net Leverage Ratio": as of the date of determination thereof, the ratio of (a) Indebtedness of the Borrower and its Consolidated Subsidiaries as of such date minus the Unrestricted Cash, Cash Equivalent and Marketable Securities Amount as of such date, to (b) Consolidated EBITDA of the Borrower for such Measurement Period.

"Unrestricted Cash, Cash Equivalent and Marketable Securities Amount": as of the date of determination thereof, the aggregate amount of unrestricted cash, cash equivalents and Investment Grade Debt, as determined in accordance with GAAP and reported on the consolidated balance sheet of the Borrower and its Consolidated Subsidiaries as of the last day of the most recently ended fiscal quarter of the Borrower for which financial statements are available.

(b) Section 6 of the Existing Credit Agreement is hereby amended by amending and restating Section 6.6 thereof in its entirety as follows:

"6.6. Financial Covenant.
The Borrower will not permit, (a) as of the last day of any fiscal quarter of the Borrower other than a Specified Fiscal Quarter, the Total Leverage Ratio to exceed 3.25 to 1.00 and (b) as of the last day of any Specified Fiscal Quarter, either of the following (i) or (ii) (at the Borrower's sole election as to the applicability of (i) or (ii) for such Specified Fiscal Quarter (provided that (ii) shall not be elected in more than three (3) of such Specified Fiscal Quarters)): (i) the Total Net Leverage Ratio to exceed 3.25 to 1.00 or (ii) Liquidity to be less than $5,000,000,000; provided that following the consummation of a Qualified Acquisition for the four fiscal quarters of the Borrower then ended as set forth in the last Compliance Certificate delivered pursuant to Section 5.2, the Total Leverage Ratio and Total Net Leverage Ratio set forth above shall increase for each of the four fiscal quarters of the Borrower ending following the consummation of a Qualified Acquisition to 3.75 to 1.00."

(c) Exhibit C to the Existing Credit Agreement is hereby amended and restated in its entirety to read as set forth on Annex I attached hereto.

SECTION 3. Conditions to Effectiveness. This Amendment shall become effective on the date that the following conditions shall have been satisfied (the "Amendment Effective Date"):

(a) This Amendment shall have been executed and delivered by (i) a duly authorized officer of the Borrower, (ii) the Required Lenders and (iii) the Administrative Agent.

(b) No Default or Event of Default shall have occurred and be continuing, or would result immediately prior to or after giving effect to this Amendment.

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

(d) The Administrative Agent shall have received from the Borrower payment of all fees and expenses required to be paid to the Administrative Agent on or before

the Amendment Effective Date for which written invoices in reasonable detail have been submitted at least two Business Days prior to the Amendment Effective Date.

SECTION 4. Representations of the Borrower. On and as of the Amendment Effective Date, after giving effect to this Amendment, the Borrower hereby represents and warrants to the Administrative Agent and each Lender that this Amendment has been duly authorized by all necessary corporate or other organizational action. This Amendment has been duly executed and delivered by Borrower hereto and constitutes a legal, valid and binding obligation of the Borrower, enforceable against such Person in accordance with its terms, subject to applicable bankruptcy, insolvency, reorganization, moratorium or other laws affecting creditors' rights generally and subject to general principles of equity, regardless of whether considered in a proceeding in equity or at law.

SECTION 5. No Other Amendment or Waivers; Confirmation; Reaffirmation.

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

(b) The Borrower hereby (i) expressly acknowledges the terms of the Amended Credit Agreement, (ii) ratifies and affirms its obligations under the Loan Documents to which it is a party, (iii) acknowledges, renews and extends its continued liability under all such Loan Documents and agrees such Loan Documents remain in full force and effect and (iv) further confirms that each Loan Document to which it is a party is and shall continue to be in full force and effect and the same are hereby ratified and confirmed in all respects.

(c) The Borrower hereby reaffirms, as of the Amendment Effective Date, the covenants and agreements contained in each Loan Document to which it is a party as modified hereby, including, in each case, such covenants and agreements as in effect immediately after giving effect to this Amendment and the transactions contemplated thereby.

SECTION 6. APPLICABLE LAW; WAIVER OF JURY TRIAL. THIS AMENDMENT SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAW OF THE STATE OF NEW YORK. EACH PARTY HERETO HEREBY AGREES AS SET FORTH IN SECTION 9.12 AND SECTION 9.16 OF THE EXISTING CREDIT AGREEMENT AS IF SUCH SECTIONS WERE SET FORTH IN FULL HEREIN.

SECTION 7. Miscellaneous. (a) This Amendment may be executed in counterparts (and by different parties hereto in different counterparts), each of which shall constitute an original, but all of which when taken together shall constitute a single contract. Delivery of an executed counterpart of a signature page of this Amendment by telecopy or other electronic imaging means shall be effective as delivery of a manually executed counterpart of this Amendment.

(b) The provisions of this Amendment shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns permitted hereby.

SECTION 8. Headings. Section headings herein are included herein for convenience of reference only and shall not constitute a part hereof for any other purpose or be given any substantive effect.

[*Signature Pages Follow*]

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

MICRON TECHNOLOGY, INC.

By: /s/ Gregory Routin
Name: Gregory Routin
Title: Vice President and Treasurer

HSBC BANK USA, NATIONAL ASSOCIATION, as Administrative Agent

By: /s/ Daniel Gonzalez Name: Daniel Gonzalez
Title: Vice President

HSBC BANK USA, NATIONAL ASSOCIATION, as Issuing Bank and a Lender

By: /s/ Ilene Hernandez Name: Ilene Hernandez
Title: Vice President

BNP Paribas,
as a Lender

By: /s/ Gregory R. Paul Name: Gregory R. Paul
Title: Managing Director

BNP Paribas,
as a Lender

By: /s/ My-Linh Yoshiike Name: My-Linh Yoshiike
Title: Vice President

CREDIT AGRICOLE CORPORATE AND INVESTMENT BANK, as a Lender

By: /s/ Fanny Charrier Name: Fanny Charrier
Title: Director

By: /s/ Paul Arens Name: Paul Arens
Title: Director

DBS BANK LTD.,
as a Lender

By: /s/ Erny Ismail Name: Erny Ismail
Title: Senior Vice President

Industrial and Commercial Bank of China Ltd., **New York Branch**,
as a Lender

By: /s/ Tony Huang
Name: Tony Huang
Title: Director

By: /s/ Yuanyuan Peng
Name: Yuanyuan Peng
Title: Executive Director

Mizuho Bank, Ltd.,
as a Lender

By: /s/ Tracy Rahn
Name: Tracy Rahn
Title: Executive Director

MUFG Bank, Ltd.,
a Lender

By: /s/ Lillian Kim
Name: Lillian Kim
Title: Director

WELLS FARGO BANK, NATIONAL ASSOCIATION, as a Lender and as Issuing Bank

By: /s/ Gambo Audu
Name: Gambo Audu
Title: Vice President

Australia and New Zealand Banking Group Limited, as a Lender

By: /s/ Robert Grillo
Name: Robert Grillo
Title: Executive Director

Bank of America, N.A.,
as a Lender

By: /s/ Ladi Oluwole
Name: Ladi Oluwole
Title: Vice President

The Bank of Nova Scotia,
a Lender

By: /s/ Luke Copley
Name: Luke Copley
Title: Director

BARCLAYS BANK PLC,
as a Lender

By: /s/ Pallavi Batra
Name: Pallavi Batra
Title: Relationship Director

CITIBANK, N.A.,
as a Lender

By: /s/ Carmen-Christina Kelleher
Name: Carmen-Christina Kelleher
Title: Vice President

CREDIT SUISSE AG, NEW YORK BRANCH,
as a Lender

By: /s/ Doreen Barr
Name: Doreen Barr
Title: Authorized Signatory

By: /s/ Wing Yee Lee-Cember
Name: Wing Yee Lee-Cember
Title: Authorized Signatory

GOLDMAN SACHS BANK USA,
as a Lender

By: /s/ Keshia Leday
Name: Keshia Leday
Title: Authorized Signatory

JPMORGAN CHASE BANK, N.A.,
as a Lender

By: /s/ Zachary Quan
Name: Zachary Quan
Title: Vice President

MORGAN STANLEY BANK, NA,
as a Lender

By: /s/ Phillip Magdaleno
Name: Phillip Magdaleno
Title: Authorized Signatory

Royal Bank of Canada,
as a Lender

By: /s/ Nicholas Heslip
Name: Nicholas Heslip
Title: Managing Director

The Toronto-Dominion Bank, New York Branch, as a Lender

By: /s/ David Perlman
Name: David Perlman
Title: Authorized Signatory

U.S, Bank National Association,
as a Lender

By: /s/ Lukas Coleman
Name: Lukas Coleman
Title: Vice President

Annex I

Form of Compliance Certificate

[Omitted]

EXHIBIT 10.5

FORM OF CONSENT FOR NAMED EXECUTIVE OFFICERS

[February], 2023

[Name]
[Email]

Re: Agreed Salary Reduction

Dear [Name],

I am writing to follow up on the recent communications about the proposed changes to your salary in connection with your employment with Micron Technology, Inc. (‘**Micron**’) and similar reductions in compensation for your peer group. In light of the current challenging business environment, Micron is asking you to prospectively confirm your acceptance of the following changes to your base salary and related arrangements in order to, among other things, help reduce costs and protect our business:

Beginning on February 5, 2023, your gross annual base salary will be reduced by [ ]% to USD [ ] for the remainder of Micron’s fiscal year 2023.

Any payment, benefit or entitlement calculated by reference to your base salary (including but not limited to leave payments, retirement contributions, and incentive pay (if applicable)) will be calculated based on your reduced base salary for the remainder of fiscal year 2023, except to the extent otherwise required by law or as expressly provided under any applicable employment agreement. However, for purposes of any written agreement with Micron (such as an offer letter, severance or change in control agreement) that contains severance that is calculated based on your base salary, the reduction described above will not apply. In other words, if you qualify for severance, your severance amount that is based on your base salary (but not other elements of severance such as incentive and equity compensation) will be calculated as if the above base salary reduction did not occur.

All other terms of your employment remain in full force and effect other than as varied by this letter. In particular, we do not believe that this reduction in pay creates a breach of any employment agreement between you and Micron or provides the basis for a “good reason” termination (or under any similar concept) under any employment or other agreement with Micron.

Please let us know if you have any questions. Otherwise, we would be grateful if you could confirm your agreement and consent to the above by signing in the space indicated below as soon as possible and in no event by later than [ ], [February], 2023.

Thank you for your support, professionalism and key leadership in this difficult time.

Yours sincerely,

[Name of Signatory]
[Title of Signatory]

I confirm that I have read and understand the above, and that I agree and consent to the changes set out above. I also confirm that all other terms of my employment agreements with Micron remain in full force and effect and that this reduction in pay does not constitute a breach of any employment agreements with Micron or provide the basis for me to terminate for “good reason” (or under any similar concept) under any employment, compensation, severance, change in control or other agreements with Micron.

___________________________ ___________________

[Name] Date

EXHIBIT 31.1

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

I, Sanjay Mehrotra, certify that:

1. I have reviewed this Quarterly Report on Form 10-Q of Micron Technology, Inc.;

2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations, and cash flows of the registrant as of, and for, the periods presented in this report;

4. The registrant's other certifying officer(s) and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:

    a. Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

    b. Designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

    c. Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

    d. Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

5. The registrant's other certifying officer(s) and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

    a. All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize, and report financial information; and

    b. Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 29, 2023

/s/ Sanjay Mehrotra

Sanjay Mehrotra
President and Chief Executive Officer and Director

EXHIBIT 31.2

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

I, Mark Murphy, certify that:

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

Date: March 29, 2023

/s/ Mark Murphy

Mark Murphy
Executive Vice President and Chief Financial Officer

EXHIBIT 32.1

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

I, Sanjay Mehrotra, certify, pursuant to 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Quarterly Report of Micron Technology, Inc. on Form 10-Q for the period ended March 2, 2023, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in the Quarterly Report on Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of Micron Technology, Inc.

Date: March 29, 2023

/s/ Sanjay Mehrotra

Sanjay Mehrotra
President and Chief Executive Officer and Director

EXHIBIT 32.2

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

I, Mark Murphy, certify, pursuant to 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that the Quarterly Report of Micron Technology, Inc. on Form 10-Q for the period ended March 2, 2023, fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934 and that information contained in the Quarterly Report on Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of Micron Technology, Inc.

Date: March 29, 2023

/s/ Mark Murphy

Mark Murphy
Executive Vice President and Chief Financial Officer