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 September 30, 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 **001-07882**

ADVANCED MICRO DEVICES, INC.

(Exact name of registrant as specified in its charter)

Delaware	**94-1692300**
(State or other jurisdiction of incorporation or organization)	(I.R.S. Employer Identification No.)

2485 Augustine Drive
Santa Clara, California 95054
(Address of principal executive offices)

(408) 749-4000
Registrant's telephone number, including area code

N/A
(Former name, former address and former fiscal year, if changed since last report)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $0.01 par value	**AMD**	**The 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 (the Exchange Act) 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 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 or a smaller reporting company. See definition 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 by Rule 12b-2 of the Exchange Act). Yes ☐ No ☑

Indicate the number of shares outstanding of the registrant's common stock, $0.01 par value, as of October 27, 2023: 1,615,498,891

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PART I. FINANCIAL INFORMATION

ITEM 1. CONDENSED CONSOLIDATED FINANCIAL STATEMENTS

Advanced Micro Devices, Inc.
Condensed Consolidated Statements of Operations
(Unaudited)

	Three Months Ended		Nine Months Ended	
	September 30, 2023	September 24, 2022	September 30, 2023	September 24, 2022
	(In millions, except per share amounts)			
Net revenue	$ 5,800	$ 5,565	$ 16,512	$ 18,002
Cost of sales	2,843	2,799	8,236	8,797
Amortization of acquisition-related intangibles	210	412	727	1,005
Total cost of sales	3,053	3,211	8,963	9,802
Gross profit	2,747	2,354	7,549	8,200
Research and development	1,507	1,279	4,361	3,639
Marketing, general and administrative	576	557	1,708	1,746
Amortization of acquisition-related intangibles	450	590	1,449	1,499
Licensing gain	(10)	(8)	(28)	(97)
Operating income (loss)	224	(64)	59	1,413
Interest expense	(26)	(31)	(79)	(69)
Other income (expense), net	59	22	148	(24)
Income (loss) before income taxes and equity income	257	(73)	128	1,320
Income tax provision (benefit)	(39)	(135)	(49)	32
Equity income in investee	3	4	10	11
Net income	$ 299	$ 66	$ 187	$ 1,299
Earnings per share				
Basic	$ 0.18	$ 0.04	$ 0.12	$ 0.84
Diluted	$ 0.18	$ 0.04	$ 0.11	$ 0.84
Shares used in per share calculation				
Basic	1,616	1,615	1,613	1,542
Diluted	1,629	1,625	1,625	1,555

See accompanying notes.

Advanced Micro Devices, Inc.
Condensed Consolidated Statements of Comprehensive Income
(Unaudited)

	Three Months Ended		Nine Months Ended	
	September 30, 2023	September 24, 2022	September 30, 2023	September 24, 2022
	(In millions)			
Net income	$ 299	$ 66	$ 187	$ 1,299
Other comprehensive loss, net of tax:				
Net change in unrealized gains on cash flow hedges	(18)	(55)	(9)	(85)
Total comprehensive income	$ 281	$ 11	$ 178	$ 1,214

See accompanying notes.

Advanced Micro Devices, Inc.
Condensed Consolidated Balance Sheets
(Unaudited)

	September 30, 2023	December 31, 2022
	(In millions, except par value amounts)	
ASSETS		
Current assets:		
Cash and cash equivalents	$ 3,561	$ 4,835
Short-term investments	2,224	1,020
Accounts receivable, net	5,054	4,126
Inventories	4,445	3,771
Receivables from related parties	1	2
Prepaid expenses and other current assets	1,403	1,265
Total current assets	16,688	15,019
Property and equipment, net	1,566	1,513
Operating lease right-of-use assets	507	460
Goodwill	24,186	24,177
Acquisition-related intangibles, net	21,950	24,118
Investment: equity method	93	83
Deferred tax assets	76	58
Other non-current assets	2,560	2,152
Total assets	$ 67,626	$ 67,580
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 2,245	$ 2,493
Payables to related parties	325	463
Accrued liabilities	3,376	3,077
Current portion of long-term debt, net	752	—
Other current liabilities	929	336
Total current liabilities	7,627	6,369
Long-term debt	1,715	2,467
Long-term operating lease liabilities	395	396
Deferred tax liabilities	1,152	1,934
Other long-term liabilities	1,767	1,664
Commitments and contingencies (See Note 12)		
Stockholders' equity:		
Capital stock:		
Common stock, par value $0.01; shares authorized: 2,250; shares issued: 1,660 and 1,645; shares outstanding: 1,615 and 1,612	17	16
Additional paid-in capital	59,182	58,005
Treasury stock, at cost (shares held: 45 and 33)	(4,235)	(3,099)
Retained earnings (Accumulated deficit)	56	(131)
Accumulated other comprehensive loss	(50)	(41)
Total stockholders' equity	54,970	54,750
Total liabilities and stockholders' equity	$ 67,626	$ 67,580

See accompanying notes.

Advanced Micro Devices, Inc.
Condensed Consolidated Statements of Cash Flows
(Unaudited)

	Nine Months Ended	
	September 30, 2023	September 24, 2022
	(In millions)	
Cash flows from operating activities:		
Net income	$ 187	$ 1,299
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	2,654	2,954
Stock-based compensation	1,010	766
Amortization of operating lease right-of-use assets	73	63
Amortization of inventory fair value adjustment	3	187
Loss on sale or disposal of property and equipment	10	15
Deferred income taxes	(800)	(1,328)
(Gain) loss on equity investments, net	(1)	57
Other	(43)	(9)
Changes in operating assets and liabilities		
Accounts receivable, net	(929)	(1,301)
Inventories	(674)	(997)
Receivables from related parties	1	(1)
Prepaid expenses and other assets	(380)	(825)
Payables to related parties	(137)	313
Accounts payable	(238)	811
Accrued and other liabilities	550	994
Net cash provided by operating activities	1,286	2,998
Cash flows from investing activities:		
Purchases of property and equipment	(407)	(326)
Purchases of short-term investments	(3,312)	(2,399)
Proceeds from maturity of short-term investments	1,917	2,864
Proceeds from sale of short-term investments	248	—
Cash received from acquisition of Xilinx	—	2,366
Acquisitions, net of cash acquired	(14)	(1,558)
Other	(5)	(15)
Net cash provided by (used in) investing activities	(1,573)	932
Cash flows from financing activities:		
Proceeds from debt, net of issuance costs	—	991
Repayment of debt	—	(312)
Proceeds from sales of common stock through employee equity plans	148	79
Repurchases of common stock	(752)	(3,452)
Common stock repurchases for tax withholding on employee equity plans	(382)	(371)
Other	(1)	(2)
Net cash used in financing activities	(987)	(3,067)
Net increase (decrease) in cash and cash equivalents	(1,274)	863
Cash and cash equivalents at beginning of period	4,835	2,535
Cash and cash equivalents at end of period	$ 3,561	$ 3,398

Advanced Micro Devices, Inc.
Condensed Consolidated Statements of Cash Flows
(Unaudited)

	Nine Months Ended	
	September 30, 2023	September 24, 2022
	(In millions)	
Supplemental cash flow information:		
Cash paid for taxes, net of refunds	$ 34	$ 584
Non-cash investing and financing activities:		
Purchases of property and equipment, accrued but not paid	$ 113	$ 122
Issuance of common stock and treasury stock for the acquisition of Xilinx	$ —	$ 48,514
Fair value of replacement share-based awards related to acquisition of Xilinx	$ —	$ 275
Non-cash activities for leases:		
Operating lease right-of-use assets acquired by assuming related liabilities	$ 121	$ 119

See accompanying notes.

Advanced Micro Devices, Inc.
Condensed Consolidated Statements of Stockholders' Equity
(Unaudited)

	Three Months Ended		Nine Months Ended	
	September 30, 2023	September 24, 2022	September 30, 2023	September 24, 2022
	(In millions)			
Capital stock:				
Common stock, par value				
Balance, beginning of period	$ 16	$ 16	$ 16	$ 12
Common stock issued under employee equity plans	1	—	1	—
Issuance of common stock as consideration for acquisition	—	—	—	4
Balance, end of period	$ 17	$ 16	$ 17	$ 16
Additional paid-in capital				
Balance, beginning of period	$ 58,825	$ 57,297	$ 58,005	$ 11,069
Common stock issued under employee equity plans	4	1	153	79
Stock-based compensation	353	275	1,010	765
Issuance of common stock to settle convertible debt	—	—	1	—
Issuance of common stock as consideration for acquisition	—	—	—	45,372
Fair value of replacement share-based awards related to acquisition	—	—	—	275
Issuance of common stock warrants	—	8	13	21
Balance, end of period	$ 59,182	$ 57,581	$ 59,182	$ 57,581
Treasury stock				
Balance, beginning of period	$ (3,430)	$ (1,893)	$ (3,099)	$ (2,130)
Repurchases of common stock	(511)	(617)	(752)	(3,452)
Common stock repurchases for tax withholding on employee equity plans	(294)	(305)	(384)	(371)
Reissuance of treasury stock as consideration for acquisition	—	—	—	3,138
Balance, end of period	$ (4,235)	$ (2,815)	$ (4,235)	$ (2,815)
Retained earnings (Accumulated deficit):				
Balance, beginning of period	$ (243)	$ (218)	$ (131)	$ (1,451)
Net income	299	66	187	1,299
Balance, end of period	$ 56	$ (152)	$ 56	$ (152)
Accumulated other comprehensive loss:				
Balance, beginning of period	$ (32)	$ (33)	$ (41)	$ (3)
Other comprehensive loss	(18)	(55)	(9)	(85)
Balance, end of period	$ (50)	$ (88)	$ (50)	$ (88)
Total stockholders' equity	$ 54,970	$ 54,542	$ 54,970	$ 54,542

See accompanying notes.

Notes to Condensed Consolidated Financial Statements
(Unaudited)

NOTE 1 – The Company

Advanced Micro Devices, Inc. is a global semiconductor company. References herein to AMD or the Company mean Advanced Micro Devices, Inc. and its consolidated subsidiaries. AMD's products include x86 microprocessors (CPUs) and graphics processing units (GPUs), as standalone devices or as incorporated into accelerated processing units (APUs), chipsets, data center and professional GPUs, embedded processors, semi-custom System-on-Chip (SoC) products, microprocessor and SoC development services and technology, data processing units (DPUs), Field Programmable Gate Arrays (FPGAs), and Adaptive SoC products. From time to time, the Company may also sell or license portions of its intellectual property (IP) portfolio.

NOTE 2 – Basis of Presentation and Significant Accounting Policies

Basis of Presentation. The accompanying unaudited condensed consolidated financial statements of AMD have been prepared in accordance with U.S. generally accepted accounting principles (U.S. GAAP) for interim financial information and the instructions to Form 10-Q and Article 10 of Regulation S-X. The results of operations for the three and nine months ended September 30, 2023 shown in this report are not necessarily indicative of results to be expected for the full year ending December 30, 2023 or any other future period. In the opinion of the Company's management, the information contained herein reflects all adjustments necessary for a fair presentation of the Company's results of operations, financial position, cash flows and stockholders' equity. All such adjustments are of a normal, recurring nature. The unaudited condensed consolidated financial statements should be read in conjunction with the audited consolidated financial statements in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2022. Certain immaterial prior period amounts have been reclassified to conform to current period presentation.

The Company uses a 52- or 53-week fiscal year ending on the last Saturday in December. The three and nine months ended September 30, 2023 and September 24, 2022 each consisted of 13 and 39 weeks, respectively.

Use of Estimates. The preparation of consolidated financial statements in conformity with U.S. GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of commitments and contingencies at the date of the financial statements and the reported amounts of revenues and expenses during the reporting periods. Actual results are likely to differ from those estimates, and such differences may be material to the financial statements. Areas where management uses judgment include, but are not limited to, revenue allowances, inventory valuation, valuation of goodwill and long-lived assets, and income taxes.

Significant Accounting Policies. There have been no material changes to the Company's significant accounting policies in Note 2 - Basis of Presentation and Significant Accounting Policies, of the Notes to Consolidated Financial Statements included in the Company's Annual Report on Form 10-K for the fiscal year ended December 31, 2022.

NOTE 3 – Supplemental Financial Statement Information

Accounts Receivable, net

As of September 30, 2023 and December 31, 2022, Accounts receivable, net included unbilled accounts receivable of $1.1 billion for both periods. Unbilled accounts receivable primarily represents work completed on development services and on custom products for which revenue has been recognized but not yet invoiced. All unbilled accounts receivable are expected to be billed and collected within 12 months.

Inventories	September 30, 2023	December 31, 2022
	(In millions)	
Raw materials	$ 245	$ 231
Work in process	3,270	2,648
Finished goods	930	892
Total inventories	$ 4,445	$ 3,771

Prepaid Expenses and Other Current Assets	September 30, 2023	December 31, 2022
	(In millions)	
Prepaid supply agreements	$ 913	$ 673
Other	490	592
Total prepaid expenses and other current assets	$ 1,403	$ 1,265

Prepaid supply agreements relate to the short-term portion of payments made to vendors to secure long-term supply capacity.

Property and Equipment, net	September 30, 2023	December 31, 2022
	(In millions)	
Land, building and leasehold improvements	$ 800	$ 714
Equipment	2,295	2,163
Construction in progress	201	143
Property and equipment, gross	3,296	3,020
Accumulated depreciation	(1,730)	(1,507)
Total property and equipment, net	$ 1,566	$ 1,513

Accrued Liabilities	September 30, 2023	December 31, 2022
	(In millions)	
Accrued marketing programs	$ 896	$ 876
Accrued compensation and benefits	871	701
Customer program liabilities	723	859
Other accrued liabilities	886	641
Total accrued liabilities	$ 3,376	$ 3,077

Other Current Liabilities	September 30, 2023	December 31, 2022
	(In millions)	
Tax liabilities	$ 769	$ 156
Other current liabilities	160	180
Total other current liabilities	$ 929	$ 336

Revenue

Revenue allocated to remaining performance obligations that are unsatisfied (or partially unsatisfied) include amounts received from customers and amounts that will be invoiced and recognized as revenue in future periods for development services, IP licensing and product revenue. As of September 30, 2023, the aggregate transaction price allocated to remaining performance obligations under contracts with an original expected duration of more than one year was $192 million, of which $129 million is expected to be recognized in the next 12 months. The revenue allocated to remaining performance obligations does not include amounts which have an original expected duration of one year or less.

Revenue recognized over time associated with custom products and development services accounted for 25% and 27% of the Company's revenue for the three and nine months ended September 30, 2023, respectively and 30% and 24% of the Company's revenue for the three and nine months ended September 24, 2022, respectively.

NOTE 4 – Segment Reporting

Management, including the Chief Operating Decision Maker (CODM), who is the Company's Chief Executive Officer, reviews and assesses operating performance using segment net revenue and operating income (loss). These performance measures include the allocation of expenses to the reportable segments based on management's judgment.

The Company's four reportable segments are:

- the Data Center segment, which primarily includes server microprocessors (CPUs) and graphics processing units (GPUs), data processing units (DPUs), Field Programmable Gate Arrays (FPGAs) and Adaptive System-on-Chip (SoC) products for data centers;
- the Client segment, which primarily includes CPUs, accelerated processing units (APUs) that integrate CPUs and GPUs, and chipsets for desktop and notebook personal computers;
- the Gaming segment, which primarily includes discrete GPUs, semi-custom SoC products and development services; and
- the Embedded segment, which primarily includes embedded CPUs and GPUs, APUs, FPGAs and Adaptive SoC products.

From time to time, the Company may also sell or license portions of its IP portfolio.

In addition to these reportable segments, the Company has an All Other category, which is not a reportable segment. This category primarily includes certain expenses and credits that are not allocated to any of the reportable segments because the CODM does not consider these expenses and credits in evaluating the performance of the reportable segments. This category primarily includes amortization of acquisition-related intangibles, employee stock-based compensation expense, acquisition-related costs and licensing gain. Acquisition-related costs primarily include transaction costs, purchase price adjustments for inventory, certain compensation charges, contract termination and workforce rebalancing charges.

The following table provides a summary of net revenue and operating income by segment:

	Three Months Ended		Nine Months Ended	
	September 30, 2023	September 24, 2022	September 30, 2023	September 24, 2022
	(In millions)			
Net revenue:				
Data Center	$ 1,598	$ 1,609	$ 4,214	$ 4,388
Client	1,453	1,022	3,190	5,298
Gaming	1,506	1,631	4,844	5,161
Embedded	1,243	1,303	4,264	3,155
Total net revenue	$ 5,800	$ 5,565	$ 16,512	$ 18,002
Operating income (loss):				
Data Center	$ 306	$ 505	$ 601	$ 1,404
Client	140	(26)	(101)	1,342
Gaming	208	142	747	687
Embedded	612	635	2,167	1,553
All Other[(1)]	(1,042)	(1,320)	(3,355)	(3,573)
Total operating income (loss)	$ 224	$ (64)	$ 59	$ 1,413

(1) For the three and nine months ended September 30, 2023, all other operating losses primarily included $660 million and $2.2 billion of amortization of acquisition-related intangibles, $353 million and $1.0 billion of stock-based compensation expense and $39 million and $184 million of acquisition-related costs, respectively.

For the three and nine months ended September 24, 2022, all other operating losses primarily included $1.0 billion and $2.5 billion of amortization of acquisition-related intangibles, $275 million and $766 million of stock-based compensation expense and $51 million and $400 million of acquisition-related costs, respectively.

NOTE 5 – Acquisition-related Intangible Assets

Xilinx Acquisition

On February 14, 2022, the Company completed the acquisition of Xilinx for a total purchase consideration of $48.8 billion. The Company allocated the purchase price to $27.3 billion of identified intangible assets and $1.3 billion of net liabilities, with the excess purchase price of $22.8 billion recorded as goodwill.

Pensando Acquisition

On May 26, 2022, the Company completed the acquisition of Pensando Systems, Inc. (Pensando) for a total purchase consideration of $1.7 billion. The Company allocated the purchase price to 349 million of identified intangible assets and 208 million of other net assets, with the excess purchase price of $1.1 billion recorded as goodwill.

Acquisition-related Intangible Assets

Acquisition-related intangibles were as follows:

	September 30, 2023			December 31, 2022		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
		(In millions)			(In millions)	
Developed technology	$ 12,372	$ (1,368)	$ 11,004	$ 12,360	$ (738)	$ 11,622
Customer relationships	12,324	(3,355)	8,969	12,324	(1,973)	10,351
Customer backlog	809	(809)	—	809	(712)	97
Corporate trade name	65	(65)	—	65	(57)	8
Product trademarks	914	(127)	787	914	(68)	846
Identified intangible assets subject to amortization	26,484	(5,724)	20,760	26,472	(3,548)	22,924
IPR&D not subject to amortization	1,190	—	1,190	1,194	—	1,194
Total acquisition-related intangible assets	$ 27,674	$ (5,724)	$ 21,950	$ 27,666	$ (3,548)	$ 24,118

Acquisition-related intangible amortization expense was $660 million and $2.2 billion for the three and nine months ended September 30, 2023, respectively.

Acquisition-related intangible amortization expense was $1.0 billion and $2.5 billion for the three and nine months ended September 24, 2022, respectively.

Based on the carrying value of acquisition-related intangibles recorded as of September 30, 2023, and assuming no subsequent impairment of the underlying assets, the estimated annual amortization expense for acquisition-related intangibles is expected to be as follows:

Fiscal Year	(In millions)
Remainder of 2023	$ 630
2024	2,290
2025	2,065
2026	1,954
2027	1,844
2028 and thereafter	11,977
Total	$ 20,760

NOTE 6 – Related Parties — Equity Joint Ventures

ATMP Joint Ventures

The Company holds a 15% equity interest in two joint ventures (collectively, the ATMP JV) with affiliates of Tongfu Microelectronics Co., Ltd, a Chinese joint stock company. The Company has no obligation to fund the ATMP JV. The Company accounts for its equity interests in the ATMP JV under the equity method of accounting due to its significant influence over the ATMP JV.

The ATMP JV provides assembly, testing, marking and packaging (ATMP) services to the Company. The Company assists the ATMP JV in its management of certain raw material inventory. The purchases from and resales to the ATMP JV of inventory under the Company's inventory management program are reported within purchases and resales with the ATMP JV and do not impact the Company's condensed consolidated statements of operations.

The Company's purchases from the ATMP JV during the three and nine months ended September 30, 2023 amounted to $448 million and $1.2 billion, respectively. The Company's purchases from the ATMP JV during the three and nine months ended September 24, 2022 amounted to $455 million and $1.2 billion, respectively. As of September 30, 2023 and December 31, 2022, the amounts payable to the ATMP JV were $325 million and $463 million, respectively, and are included in Payables to related parties on the Company's condensed consolidated balance sheets. The Company's resales to the ATMP JV during the three and nine months ended September 30, 2023 amounted to $2 million and $5 million, respectively. The Company's resales to the ATMP JV during the three and nine months ended September 24, 2022 amounted to $5 million and $13 million, respectively. As of September 30, 2023 and December 31, 2022, the Company had receivables from the ATMP JV of $1 million and $2 million, respectively, included in Receivables from related parties on the Company's condensed consolidated balance sheets.

During the three and nine months ended September 30, 2023, the Company recorded a gain of $3 million and $10 million, respectively, in Equity income in investee on its condensed consolidated statements of operations. During the three and nine months ended September 24, 2022, the Company recorded a gain of $4 million and $11 million, respectively, in Equity income in investee on its condensed consolidated statements of operations. As of September 30, 2023 and December 31, 2022, the carrying value of the Company's investment in the ATMP JV was $93 million and $83 million, respectively.

THATIC Joint Ventures

The Company holds equity interests in two joint ventures (collectively, the THATIC JV) with Higon Information Technology Co., Ltd. (THATIC), a third-party Chinese entity. As of both September 30, 2023 and December 31, 2022, the carrying value of the investment was zero.

In February 2016, the Company licensed certain of its intellectual property (Licensed IP) to the THATIC JV, payable over several years upon achievement of certain milestones. The Company also receives a royalty based on the sales of the THATIC JV's products developed on the basis of such Licensed IP. The Company classifies Licensed IP and royalty income associated with the February 2016 agreement as Licensing gain within operating income. During the three and nine months ended September 30, 2023, the Company recognized $10 million and $28 million of licensing gain from royalty income associated with Licensed IP, respectively. During the three and nine months ended September 24, 2022, the Company recognized $8 million of licensing gain from royalty income and $97 million of licensing gain from a milestone achievement and royalty income, respectively. As of both September 30, 2023 and December 31, 2022, the Company had no receivables from the THATIC JV.

In June 2019, the Bureau of Industry and Security of the United States Department of Commerce added certain Chinese entities to the Entity List, including THATIC and the THATIC JV. The Company is complying with U.S. law pertaining to the Entity List designation.

NOTE 7 – Debt and Revolving Credit Facility

Debt

The Company’s total debt as of September 30, 2023 and December 31, 2022 consisted of the following:

	September 30, 2023	December 31, 2022
	(In millions)	
2.95% Senior Notes Due 2024 (2.95% Notes)	$ 750	$ 750
2.125% Convertible Senior Notes Due 2026 (2.125% Notes)	—	1
2.375% Senior Notes Due 2030 (2.375% Notes)	750	750
3.924% Senior Notes Due 2032 (3.924% Notes)	500	500
4.393% Senior Notes Due 2052 (4.393% Notes)	500	500
Total debt (principal amount)	2,500	2,501
Unamortized debt premium, discount and issuance costs, net	(33)	(34)
Total debt (net)	2,467	2,467
Less: current portion of long-term debt (principal amount)	(750)	—
Less: unamortized debt premium related to current portion of debt	(2)	—
Total long-term debt	$ 1,715	$ 2,467

2.95% Senior Notes Due 2024 and 2.375% Senior Notes Due 2030

The 2.95% Notes and 2.375% Notes, which were assumed from the acquisition of Xilinx, are general unsecured senior obligations of the Company with semi-annual fixed interest payments due on June 1 and December 1. The indentures governing the 2.95% Notes and 2.375% Notes contain various covenants which limit the Company’s ability to, among other things, create certain liens on principal property or the capital stock of certain subsidiaries, enter into certain sale and leaseback transactions with respect to principal property, and consolidate or merge with, or convey, transfer or lease all or substantially all of the Company’s assets to another person.

3.924% Senior Notes Due 2032 and 4.393% Senior Notes Due 2052

On June 9, 2022, the Company issued $1.0 billion in aggregate principal amount of 3.924% Notes and 4.393% Notes. The 3.924% Notes and 4.393% Notes are general unsecured senior obligations of the Company. The interest is payable semi-annually on June 1 and December 1 of each year, commencing on December 1, 2022. The 3.924% and 4.393% Notes are governed by the terms of an indenture dated June 9, 2022 between the Company and US Bank Trust Company, National Association as trustee. As of September 30, 2023, the outstanding aggregate principal amount of the 3.924% Notes and 4.393% Notes was $1.0 billion.

The Company may redeem some or all of the 3.924% Notes and 4.393% Notes prior to March 1, 2032 and December 1, 2051, respectively, at a price equal to the greater of the present value of the principal amount and future interest through the maturity of the 3.924% Notes or 4.393% Notes or 100% of the principal amount plus accrued and unpaid interest. Holders have the right to require the Company to repurchase all or a portion of the 3.924% Notes or 4.393% Notes in the event that the Company undergoes a change of control as defined in the indenture, at a repurchase price of 101% of the principal amount plus accrued and unpaid interest. Additionally, an event of default may result in the acceleration of the maturity of the 3.924% Notes and 4.393% Notes.

2.125% Convertible Senior Notes Due 2026

During the nine months ended September 30, 2023 and September 24, 2022, the activity on the 2.125% Notes was immaterial.

Future Debt Payment Obligations

As of September 30, 2023, the Company's future principal debt payment obligations were as follows:

Fiscal Year	(In millions)
2024	$ 750
2028 and thereafter	1,750
Total	$ 2,500

Revolving Credit Facility

The Company has $3.0 billion available under a revolving credit agreement, as amended, that expires on April 29, 2027 (Revolving Credit Agreement). As of September 30, 2023, the Company had no outstanding borrowings under the Revolving Credit Agreement. Revolving loans under the Revolving Credit Agreement can be either Secure Overnight Financing Rate (SOFR) Loans or Base Rate Loans (each as defined in the Revolving Credit Agreement) at the Company's option. Each SOFR Loan will bear interest at a rate per annum equal to the applicable SOFR plus a margin between 0.625% and 1.250%. Each Base Rate Loan will bear interest equal to the Base Rate plus a margin between 0.000% and 0.250%. The Revolving Credit Agreement also contains a sustainability-linked pricing component which provides for interest rate and facility fee reductions or increases based on the Company meeting or missing targets related to environmental sustainability, specifically greenhouse gas emissions. The Revolving Credit Agreement contains customary representations and warranties, affirmative and negative covenants, and events of default applicable to the Company and its subsidiaries. As of September 30, 2023, the Company was in compliance with these covenants.

Commercial Paper

On November 3, 2022, the Company established a commercial paper program, under which the Company may issue unsecured commercial paper notes up to a maximum principal amount outstanding at any time of $3 billion with a maturity of up to 397 days from the date of issue. The commercial paper will be sold at a discount from par or, alternatively, will be sold at par and bear interest at rates that will vary based on market conditions at the time of issuance. As of September 30, 2023, the Company had no commercial paper outstanding.

NOTE 8 – Financial Instruments

Fair Value Measurements

The Company's financial instruments are measured and recorded at fair value on a recurring basis, except for non-marketable equity investments in privately-held companies. These equity investments are generally accounted for under the measurement alternative, defined as cost, less impairments, adjusted for subsequent observable price changes and are periodically assessed for impairment when events or circumstances indicate that a decline in value may have occurred.

Financial Instruments Recorded at Fair Value on a Recurring Basis

	September 30, 2023			December 31, 2022		
(In millions)	**Level 1**	**Level 2**	**Total**	**Level 1**	**Level 2**	**Total**
Cash equivalents						
Money market funds	$ 1,711	$ —	$ 1,711	$ 3,017	$ —	$ 3,017
Commercial paper	—	822	822	—	224	224
U.S. Treasury and agency securities	229	—	229	—	—	—
Time deposits and certificate of deposits	—	212	212	—	159	159
Foreign government securities	—	47	47	—	—	—
Short-term investments						
Commercial paper	—	464	464	—	441	441
Time deposits and certificates of deposits	—	7	7	—	—	—
Asset-backed and mortgage-backed securities	—	34	34	—	39	39
U.S. Treasury and agency securities	1,518	—	1,518	466	—	466
Foreign government securities	—	149	149	—	74	74
Equity investments	52	—	52	—	—	—
Other non-current assets						
Time deposits and certificates of deposits	—	3	3	—	9	9
Equity investments	—	—	—	8	—	8
Deferred compensation plan investments	110	—	110	90	—	90
Total assets measured at fair value	$ 3,620	$ 1,738	$ 5,358	$ 3,581	$ 946	$ 4,527

Deferred compensation plan investments are primarily mutual fund investments held in a Rabbi trust established to maintain the Company’s executive deferred compensation plan.

The following is a summary of cash equivalents and short-term investments:

	September 30, 2023				December 31, 2022			
	Cost/ Amortized Cost	**Gross Unrealized Gains**	**Gross Unrealized Losses**	**Estimated Fair Value**	**Cost/ Amortized Cost**	**Gross Unrealized Gains**	**Gross Unrealized Losses**	**Estimated Fair Value**
	(in millions)				(in millions)			
Asset-backed and mortgage-backed securities	$ 37	$ —	$ (3)	$ 34	$ 42	$ —	$ (3)	$ 39
Commercial paper	1,286	—	—	1,286	669	—	(4)	665
Money market funds	1,711	—	—	1,711	3,017	—	—	3,017
Time deposits and certificates of deposits	219	—	—	219	159	—	—	159
U.S. Treasury and agency securities	1,750	—	(3)	1,747	471	—	(5)	466
Foreign government securities	196	—	—	196	74	—	—	74
Equity investments	50	2	—	52	—	—	—	—
	$ 5,249	$ 2	$ (6)	$ 5,245	$ 4,432	$ —	$ (12)	$ 4,420

As of September 30, 2023, the Company did not have material available-for-sale debt securities which had been in a continuous unrealized loss position of more than twelve months.

The contractual maturities of cash equivalents and investments classified as available-for-sale are as follows:

	September 30, 2023		December 31, 2022	
	Amortized Cost	Fair Value	Amortized Cost	Fair Value
	(In millions)		(In millions)	
Due within 1 year	$ 3,067	$ 3,063	$ 1,224	$ 1,218
Due in 1 year through 5 years	391	391	159	156
Due in 5 years and later	33	31	41	38
	$ 3,491	$ 3,485	$ 1,424	$ 1,412

Financial Instruments Not Recorded at Fair Value

The Company carries its financial instruments at fair value except for its debt. The carrying amounts and estimated fair values of the Company's debt are as follows:

	September 30, 2023		December 31, 2022	
	Carrying Amount	Estimated Fair Value	Carrying Amount	Estimated Fair Value
	(In millions)		(In millions)	
Current portion of long-term debt, net	$ 752	$ 735	$ —	$ —
Long-term debt, net of current portion	$ 1,715	$ 1,483	$ 2,467	$ 2,281

The estimated fair value of the Company's long-term debt is based on Level 2 inputs of quoted prices for the Company's debt and comparable instruments in inactive markets.

The fair value of the Company's accounts receivable, accounts payable and other short-term obligations approximate their carrying value based on existing terms.

Financial Instruments Measured at Fair Value on a Non-Recurring Basis

The Company's investments in non-marketable securities in privately-held companies are recorded using a measurement alternative that adjusts the securities to fair value when the Company recognizes an observable price adjustment or an impairment. As of September 30, 2023 and December 31, 2022, the Company had non-marketable securities in privately-held companies of $148 million and $137 million, respectively, that are recorded under Other non-current assets in the balance sheet. Impairment losses or observable price adjustments were not material during the three and nine months ended September 30, 2023 and September 24, 2022.

Hedging Transactions and Derivative Financial Instruments

Foreign Currency Forward Contracts Designated as Accounting Hedges

The Company enters into foreign currency forward contracts to hedge its exposure to foreign currency exchange rate risk related to future forecasted transactions denominated in currencies other than the U.S. Dollar. These contracts generally mature within 24 months and are designated as accounting hedges. As of September 30, 2023 and December 31, 2022, the notional value of the Company's outstanding foreign currency forward contracts designated as cash flow hedges was $2.3 billion and $1.9 billion, respectively. The fair value of these contracts, recorded as a liability, was $38 million and $27 million as of September 30, 2023 and December 31, 2022, respectively.

Foreign Currency Forward Contracts Not Designated as Accounting Hedges

The Company also enters into foreign currency forward contracts to reduce the short-term effects of foreign currency fluctuations on certain receivables or payables denominated in currencies other than the U.S. Dollar. These forward contracts generally mature within 3 months and are not designated as accounting hedges. As of September 30, 2023 and December 31, 2022, the notional value of these outstanding contracts was $673 million and $485 million, respectively. The fair value of these contracts was not material as of September 30, 2023 and December 31, 2022.

NOTE 9 – Earnings Per Share

The following table sets forth the components of basic and diluted earnings per share:

	Three Months Ended		Nine Months Ended	
	September 30, 2023	September 24, 2022	September 30, 2023	September 24, 2022
	(In millions, except per share amounts)			
Numerator				
Net income for basic earnings per share	$ 299	$ 66	$ 187	$ 1,299
Denominator				
Basic weighted average shares	1,616	1,615	1,613	1,542
Potentially dilutive shares from employee equity plans and warrants	13	10	12	13
Diluted weighted average shares	1,629	1,625	1,625	1,555
Earnings per share:				
Basic	$ 0.18	$ 0.04	$ 0.12	$ 0.84
Diluted	$ 0.18	$ 0.04	$ 0.11	$ 0.84

Securities which would have been anti-dilutive are not material and are excluded from the computation of diluted earnings per share for all periods presented.

NOTE 10 – Common Stock and Employee Equity Plans

Common Stock

Shares of common stock outstanding were as follows:

	Three Months Ended		Nine Months Ended	
	September 30, 2023	September 24, 2022	September 30, 2023	September 24, 2022
	(In millions)			
Balance, beginning of period	1,614	1,612	1,612	1,207
Common stock issued in the acquisition of Xilinx	—	—	—	429
Common stock issued under employee equity plans	9	10	14	14
Common stock repurchases for tax withholding on equity awards	(3)	(3)	(4)	(5)
Issuance of common stock upon warrant exercise	—	—	1	—
Repurchases of common stock	(5)	(7)	(8)	(33)
Balance, end of period	1,615	1,612	1,615	1,612

Stock Repurchase Program

The Company has an approved stock repurchase program authorizing repurchases of up to $12 billion of the Company’s common stock (Repurchase Program). During the three and nine months ended September 30, 2023, the Company returned $511 million and $752 million to shareholders through the repurchase of 5 million and 8 million shares of its common stock under the Repurchase Program, respectively. As of September 30, 2023, $5.8 billion remains available for future stock repurchases under the Repurchase Program. The Repurchase Program does not obligate the Company to acquire any common stock, has no termination date and may be suspended or discontinued at any time.

Stock-based Compensation

Stock-based compensation expense recorded in the Condensed Consolidated Statements of Operations was as follows:

	Three Months Ended		Nine Months Ended	
	September 30, 2023	September 24, 2022	September 30, 2023	September 24, 2022
	(In millions)			
Cost of sales	$ 6	$ 8	$ 24	$ 20
Research and development	260	185	721	478
Marketing, general and administrative	87	82	265	268
Total	$ 353	$ 275	$ 1,010	$ 766

NOTE 11 – Income Taxes

The Company determines its income taxes for interim reporting periods by applying the Company's estimated annual effective tax rate to the year-to-date results, adjusted for tax items discrete to each period. The difference between the U.S. federal statutory tax rate of 21% and the Company's estimated annual effective tax rate for the three and nine months ended September 30, 2023 and September 24, 2022 was primarily due to the income tax benefit from foreign-derived intangible income (FDII) and research and development tax credits.

The Company recorded an income tax benefit of $39 million and $49 million for the three and nine months ended September 30, 2023, representing effective tax rates of (15.2)% and (35.8)%, respectively. The Company recorded the tax effects of stock-based compensation, uncertain tax positions, and other items discrete to the period resulting in income tax benefit of $17 million and $29 million for the three and nine months ended September 30, 2023, respectively.

The Company recorded an income tax benefit of $135 million and a provision of $32 million for the three and nine months ended September 24, 2022, representing effective tax rates of 195.7% and 2.4%, respectively. For the three and nine months ended September 24, 2022, the impact of tax items discrete to the periods was not material to the total tax expense or the effective tax rate.

As of September 30, 2023 and December 31, 2022, the Company had long-term income tax liabilities of $1.5 billion recorded under Other long-term liabilities in the balance sheet.

NOTE 12 – Commitments and Contingencies

Commitments

The Company's purchase commitments primarily include obligations to purchase wafers and substrates from third parties. These purchase obligations were made under noncancellable purchase orders or contractual obligations requiring minimum purchases for which cancellation would lead to significant penalties. Purchase commitments also include future payments related to certain software, technology and IP licenses.

Total future unconditional purchase commitments as of September 30, 2023 were as follows:

Fiscal Year		(In millions)
Remainder of 2023	$	2,426
2024		1,893
2025		343
2026		182
2027		51
2028 and thereafter		146
Total unconditional purchase commitments	$	5,041

On an ongoing basis, the Company works with suppliers on timing of payments and deliveries of purchase commitments, taking into account business conditions.

Contingencies

During the quarterly period ended September 30, 2023, there were no material legal proceedings. The Company is a defendant or plaintiff in various actions that arose in the normal course of business. With respect to these matters, based on management's current knowledge, the Company believes that the amount or range of reasonably possible loss, if any, will not, either individually or in the aggregate, have a material adverse effect on the Company's financial position, results of operations, or cash flows.

NOTE 13 – Subsequent Events

On October 27, 2023, the Company renewed its lease agreement on approximately 444,000 sq. ft. facility in Austin, Texas for a lease term extending through September 2038. Total noncancelable lease payments under the new lease are approximately $232 million.

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

The statements in this report include forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. These forward-looking statements are based on current expectations and beliefs and involve numerous risks and uncertainties that could cause actual results to differ materially from expectations. These forward-looking statements speak only as of the date hereof or as of the dates indicated in the statements and should not be relied upon as predictions of future events, as we cannot assure you that the events or circumstances reflected in these statements will be achieved or will occur. You can identify forward-looking statements by the use of forward-looking terminology including "believes," "expects," "may," "will," "should," "seeks," "intends," "plans," "pro forma," "estimates," "anticipates," or the negative of these words and phrases, other variations of these words and phrases or comparable terminology. The forward-looking statements relate to, among other things: possible impact of future accounting rules on AMD's condensed consolidated financial statements; demand for AMD's products; the growth, change and competitive landscape of the markets in which AMD participates; international sales will continue to be a significant portion of total sales in the foreseeable future; that AMD's cash, cash equivalents and short-term investment balances and cash flows from operations together with the availability under the revolving credit facility (the Revolving Credit Agreement) and commercial paper program will be sufficient to fund AMD's operations including capital expenditures and purchase commitments over the next 12 months and beyond; AMD's ability to access capital markets should it require additional funds; anticipated ongoing and increased costs related to enhancing and implementing information security controls; all unbilled accounts receivables are expected to be billed and collected within 12 months; a small number of customers will continue to account for a substantial part of AMD's revenue in the future; the legal and regulatory environment relating to emerging technologies; and AMD expects to fund stock repurchases through cash generated from operations. For a discussion of the factors that could cause actual results to differ materially from the forward-looking statements, see "Part II, Item 1A—Risk Factors" and the "Financial Condition" section set forth in "Part I, Item 2-Management's Discussion and Analysis of Financial Condition and Results of Operations," or MD&A, and such other risks and uncertainties as set forth below in this report or detailed in our other Securities and Exchange Commission (SEC) reports and filings. We assume no obligation to update forward-looking statements.

References in this Quarterly Report on Form 10-Q to "AMD," "we," "us," "management," "our" or the "Company" mean Advanced Micro Devices, Inc. and our consolidated subsidiaries.

AMD, the AMD Arrow logo, Alveo, Athlon, EPYC, FidelityFX, Kria, Radeon, Ryzen, Versal, Xilinx and combinations thereof are trademarks of Advanced Micro Devices, Inc. Other names are for informational purposes only and are used to identify companies and products and may be trademarks of their respective owners. "Zen" is a codename for an AMD architecture and is not a product name.

The following discussion should be read in conjunction with the unaudited condensed consolidated financial statements and related notes included in this report and our audited consolidated financial statements and related notes as of December 31, 2022 and December 25, 2021, and for each of the three years for the period ended December 31, 2022 as filed in our Annual Report on Form 10-K for the fiscal year ended December 31, 2022.

Overview and Recent Developments

We are a global semiconductor company primarily offering:

- server microprocessors (CPUs) and graphics processing units (GPUs), data processing units (DPUs), Field Programmable Gate Arrays (FPGAs) and Adaptive System-on-Chip (SoC) products for data centers;
- CPUs, accelerated processing units (APUs) that integrate CPUs and GPUs, and chipsets for desktop and notebook personal computers;
- discrete GPUs, semi-custom SoC products and development services; and
- embedded CPUs, GPUs, APUs, FPGAs, and Adaptive SoC products.

From time to time, we may also sell or license portions of our intellectual property (IP) portfolio.

In this section, we will describe the general financial condition and the results of operations of Advanced Micro Devices, Inc. and its wholly-owned subsidiaries (collectively, “us,” “our” or “AMD”), including a discussion of our results of operations for the three and nine months ended September 30, 2023 compared to the prior year period and an analysis of changes in our financial condition.

Net revenue for the three months ended September 30, 2023 was $5.8 billion, a 4% increase compared to the prior year period. The increase in net revenue was driven mainly by a 42% increase in Client segment revenue primarily due to higher Ryzen mobile processor sales as PC market conditions improved, partially offset by an 8% decrease in Gaming segment revenue primarily due to lower semi-custom product revenue, and a 5% decrease in Embedded segment revenue primarily due to lower sales in the communications market.

Gross margin for the three months ended September 30, 2023 was 47% compared to gross margin of 42% for the prior year period. The increase in gross margin was primarily driven by lower amortization of acquisition-related intangible assets, higher Client segment revenue and product mix.

Operating income for the three months ended September 30, 2023 was $224 million compared to operating loss of $64 million for the prior year period. Net income for the three months ended September 30, 2023 was $299 million compared to net income of $66 million for the prior year period. The increase in operating and net income was primarily driven by higher Client segment revenue and lower amortization of acquisition-related intangible assets.

We introduced a number of new products during the third quarter of 2023, including the new AMD Radeon™ PRO W7000 Series: the AMD Radeon PRO W7600 and AMD Radeon PRO W7500. We designed these workstation graphics cards for mainstream professional workflows. We also unveiled the AMD Radeon RX 7800 XT and Radeon RX 7700 XT graphics cards optimized to deliver high-performance and high-refresh 1440p gaming experiences along with AMD FidelityFX™ Super Resolution 3 designed to offer performance boosts in supported games. We announced the availability of the new AMD EPYC™ 8004 Series processors that bring the “Zen 4c” core into a purpose-built CPU, enabling hardware providers to create energy efficient and differentiated platforms. For our adaptive System-on-Modules (SOMs), we announced the addition of AMD Kria™ K24 SOM and KD240 Drives Starter Kit which offer power-efficient compute in a small factor and target cost-sensitive industrial and commercial edge applications. We also announced the AMD Alveo™ UL3524 accelerator card, a new fintech accelerator designed for ultra-low latency electronic trading applications providing execution performance at nanosecond speed.

As of September 30, 2023 our cash, cash equivalents and short-term investments were $5.8 billion compared to $5.9 billion as of December 31, 2022. During the nine months ended September 30, 2023, we generated $1.3 billion of cash from operating activities, and returned $752 million to shareholders through our stock repurchase program. We have an approved stock repurchase program authorizing repurchases of up to $12 billion of our common stock (Repurchase Program), of which $5.8 billion remains available for future stock repurchases as of September 30, 2023.

We intend the discussion of our financial condition and results of operations that follows to provide information that will assist in understanding our financial statements, the changes in certain key items in those financial statements from period to period, the primary factors that resulted in those changes, and how certain accounting principles, policies and estimates affect our financial statements.

Critical Accounting Policies and Estimates

Our discussion and analysis of our financial condition and results of operations are based upon our condensed consolidated financial statements, which have been prepared in accordance with U.S. generally accepted accounting principles (U.S. GAAP). The preparation of our financial statements requires us to make estimates and judgments that affect the reported amounts in our consolidated financial statements. We evaluate our estimates on an on-going basis, including those related to our revenue, inventories, goodwill, long-lived and intangible assets, and income taxes. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities. Although actual results have historically been reasonably consistent with management’s expectations, the actual results may differ from these estimates or our estimates may be affected by different assumptions or conditions.

Management believes there have been no significant changes for the three and nine months ended September 30, 2023 to the items that we disclosed as our critical accounting estimates in the Management’s Discussion and Analysis of Financial Condition and Results of Operations section of our Annual Report on Form 10-K for the fiscal year ended December 31, 2022.

Results of Operations

Our operating results tend to vary seasonally. Historically, our net revenue has been generally higher in the second half of the year than in the first half of the year, although market conditions and product transitions could impact this trend.

The following table provides a summary of net revenue and operating income (loss) by segment:

	Three Months Ended		Nine Months Ended	
	September 30, 2023	September 24, 2022	September 30, 2023	September 24, 2022
	(In millions)			
Net revenue:				
Data Center	$ 1,598	$ 1,609	$ 4,214	$ 4,388
Client	1,453	1,022	3,190	5,298
Gaming	1,506	1,631	4,844	5,161
Embedded	1,243	1,303	4,264	3,155
Total net revenue	$ 5,800	$ 5,565	$ 16,512	$ 18,002
Operating income (loss):				
Data Center	$ 306	$ 505	$ 601	$ 1,404
Client	140	(26)	(101)	1,342
Gaming	208	142	747	687
Embedded	612	635	2,167	1,553
All Other	(1,042)	(1,320)	(3,355)	(3,573)
Total operating income (loss)	$ 224	$ (64)	$ 59	$ 1,413

Data Center

Data Center net revenue of $1.6 billion for the three months ended September 30, 2023 was flat, compared to net revenue of $1.6 billion for the prior year period. Higher sales of EPYC processors was offset by lower sales of adaptive SoC data center products.

Data Center net revenue of $4.2 billion for the nine months ended September 30, 2023 decreased by 4%, compared to net revenue of $4.4 billion for the prior year period primarily due to lower EPYC processor sales.

Data Center operating income was $306 million for the three months ended September 30, 2023, compared to operating income of $505 million for the prior year period. The decrease in operating income was primarily due to increased Research and Development (R&D) investment in artificial intelligence (AI) and product mix.

Data Center operating income was $601 million for the nine months ended September 30, 2023, compared to operating income of $1.4 billion for the prior year period. The decrease in operating income was primarily due to lower revenue and increased investment in R&D.

Client

Client net revenue of $1.5 billion for the three months ended September 30, 2023 increased by 42%, compared to net revenue of $1.0 billion for the prior year period, primarily due to a 62% increase in unit shipments driven by higher Ryzen mobile processor sales as PC market conditions improved, partially offset by a 10% decrease in average selling price.

Client net revenue of $3.2 billion for the nine months ended September 30, 2023 decreased by 40%, compared to net revenue of $5.3 billion for the prior year period, primarily due to a 19% decrease in average selling price and a 27% decrease in unit shipments driven by lower Ryzen processor sales. The decrease in shipments and average selling price resulted from a weaker PC market and inventory correction across the PC supply chain impacting the first half of 2023.

Client operating income was $140 million for the three months ended September 30, 2023, compared to operating loss of $26 million for the prior year period. The increase in operating income was primarily driven by higher revenue and lower operating expenses.

Client operating loss was $101 million for the nine months ended September 30, 2023, compared to operating income of $1.3 billion for the prior year period. The decrease in operating income was primarily due to lower revenue.

Gaming

Gaming net revenue of $1.5 billion for the three months ended September 30, 2023 decreased by 8%, compared to net revenue of $1.6 billion for the prior year period, primarily due to lower semi-custom product revenue, partially offset by higher Radeon GPU sales.

Gaming net revenue of $4.8 billion for the nine months ended September 30, 2023 decreased by 6%, compared to net revenue of $5.2 billion for the prior year period, primarily due to lower gaming graphics revenue.

Gaming operating income was $208 million for the three months ended September 30, 2023, compared to operating income of $142 million for the prior year period. The increase in operating income was primarily driven by higher Radeon GPU sales.

Gaming operating income was $747 million for the nine months ended September 30, 2023, compared to operating income of $687 million for the prior year period. The increase in operating income was primarily driven by product mix.

Embedded

Embedded net revenue of $1.2 billion for the three months ended September 30, 2023 decreased by 5%, compared to net revenue of $1.3 billion for the prior year period. The decrease in net revenue was primarily due to lower revenue in the communications market.

Embedded net revenue of $4.3 billion for the nine months ended September 30, 2023 increased by 35%, compared to net revenue of $3.2 billion for the prior year period. The increase in net revenue was primarily driven by the inclusion of embedded product revenue from Xilinx, Inc. (Xilinx) for the full nine months period in 2023 as compared to a partial period from February 14, 2022 (the Xilinx Acquisition Date) in the prior year period.

Embedded operating income was $612 million for the three months ended September 30, 2023, compared to operating income of $635 million for the prior year period, the decrease was primarily due to increased investment in R&D.

Embedded operating income was $2.2 billion for the nine months ended September 30, 2023, compared to operating income of $1.6 billion for the prior year period. The increase in operating income was primarily driven by the inclusion of Xilinx for the full nine months period as compared to a partial period from the Xilinx Acquisition Date in the prior year period.

All Other

All Other operating loss of $1.0 billion for the three months ended September 30, 2023 primarily consisted of $660 million of amortization of acquisition-related intangibles, $353 million of stock-based compensation expense, and $39 million of acquisition-related costs. All Other operating loss of $1.3 billion for the prior year period primarily consisted of $1.0 billion of amortization of acquisition-related intangibles, $275 million of stock-based compensation expense, and $51 million of acquisition-related costs.

All Other operating loss of $3.4 billion for the nine months ended September 30, 2023 primarily consisted of $2.2 billion of amortization of acquisition-related intangibles, $1.0 billion of stock-based compensation expense, and $184 million of acquisition-related costs. All Other operating loss of $3.6 billion for the prior year period primarily consisted of $2.5 billion of amortization of acquisition-related intangibles, $766 million of stock-based compensation expense, $400 million of acquisition-related costs, and $97 million of licensing gain.

Acquisition-related costs primarily include transaction costs, purchase price adjustments for inventory, certain compensation charges, contract termination and workforce rebalancing charges.

International Sales

International sales as a percentage of net revenue were 68% and 62% for the three months ended September 30, 2023 and September 24, 2022, respectively. International sales as a percentage of net revenue was 67% for both the nine month periods ended September 30, 2023 and September 24, 2022. We expect that international sales will continue to be a significant portion of total sales in the foreseeable future. Substantially all of our sales transactions were denominated in U.S. dollars.

Comparison of Gross Margin, Expenses, Licensing Gain, Interest Expense, Other Income (Expense) and Income Taxes

The following is a summary of certain condensed consolidated statement of operations data for the periods indicated:

	Three Months Ended		Nine Months Ended	
	September 30, 2023	September 24, 2022	September 30, 2023	September 24, 2022
Net revenue	$ 5,800	$ 5,565	$ 16,512	$ 18,002
Cost of sales	2,843	2,799	8,236	8,797
Amortization of acquisition-related intangibles	210	412	727	1,005
Gross profit	2,747	2,354	7,549	8,200
Gross margin	47 %	42 %	46 %	46 %
Research and development	1,507	1,279	4,361	3,639
Marketing, general and administrative	576	557	1,708	1,746
Amortization of acquisition-related intangibles	450	590	1,449	1,499
Licensing gain	(10)	(8)	(28)	(97)
Interest expense	(26)	(31)	(79)	(69)
Other income (expense), net	59	22	148	(24)
Income tax provision (benefit)	(39)	(135)	(49)	32
Equity income in investee	3	4	10	11

Gross Margin

Gross margin was 47% and 42% for the three months ended September 30, 2023 and September 24, 2022, respectively. The increase in gross margin was primarily driven by lower amortization of acquisition-related intangible assets, higher Client segment revenue and product mix.

Gross margin remained flat at 46% for the nine months ended September 30, 2023 and September 24, 2022, primarily due to higher Embedded segment performance and lower amortization of acquisition-related intangible assets, partially offset by lower Client segment performance.

Expenses

Research and Development Expenses

Research and development expenses of $1.5 billion for the three months ended September 30, 2023 increased by $228 million, or 18%, compared to $1.3 billion for the prior year period. Research and development expenses of $4.4 billion for the nine months ended September 30, 2023 increased by $722 million, or 20%, compared to $3.6 billion for the prior year period. The increase in both periods was primarily driven by an increase in employee-related costs due to an increase in headcount to support increased investment in AI.

Marketing, General and Administrative Expenses

Marketing, general and administrative expenses of $576 million for the three months ended September 30, 2023 increased by $19 million, or 3%, compared to $557 million for the prior year period, primarily due to an increase in employee-related costs.

Marketing, general and administrative expenses of $1.7 billion for the nine months ended September 30, 2023 decreased by $38 million, or 2%, compared to $1.7 billion for the prior year period, primarily due to a decrease in acquisition-related costs.

Amortization of Acquisition-Related Intangibles

Amortization of acquisition-related intangibles of $660 million for the three months ended September 30, 2023 decreased by $342 million, or 34%, compared to $1.0 billion for the prior year period. Amortization of acquisition-related intangibles of $2.2 billion for the nine months ended September 30, 2023 decreased by $328 million or 13% compared to $2.5 billion amortization for the prior year period. The decrease was primarily due to certain acquisition-related intangibles being fully amortized in the first half of the current fiscal year.

Licensing Gain

During the three and nine months ended September 30, 2023, we recognized $10 million and $28 million of licensing gain from royalty income associated with certain intellectual property licensed to two joint ventures in which we have an equity interest in with Higon Information Technology Co., Ltd., a third-party Chinese entity (Licensed IP). During the three and nine months ended September 24, 2022, we recognized $8 million of licensing gain from royalty income and $97 million of licensing gain from a milestone achievement and royalty income associated with the Licensed IP.

Interest Expense

Interest expense for the three months ended September 30, 2023 and September 24, 2022 was $26 million and $31 million, respectively, the decrease was primarily due to the 7.5% Senior Notes due 2022, which matured and were repaid in 2022.

Interest expense for the nine months ended September 30, 2023 and September 24, 2022 was $79 million and $69 million, respectively, the increase was primarily due to interest expense from the 3.924% Senior Notes Due 2032 (3.924% Notes) and the 4.393% Senior Notes Due 2052 (4.393% Notes) that were issued in June 2022.

Other Income (Expense), Net

Other income (expense), net is primarily comprised of interest income from short-term investments, changes in valuation of equity investments, and foreign currency transaction gains and losses.

Other income, net for the three and nine months ended September 30, 2023 was $59 million and $148 million, respectively, primarily due to interest income driven by rising interest rates.

Other income, net for the three months ended September 24, 2022 was $22 million, primarily due to interest income driven by rising interest rates. Other expenses, net for the nine months ended September 24, 2022 was $24 million, primarily due to a $57 million decrease in the fair value of equity investments, partially offset by $33 million of interest income driven by rising interest rates.

Income Tax Provision (Benefit)

We determine income taxes for interim reporting periods by applying our estimated annual effective tax rate to the year-to-date results and adjusted for tax items discrete to each period. The difference between the U.S. federal statutory tax rate of 21% and our effective tax rate for the three and nine months ended September 30, 2023 and September 24, 2022 was primarily due to the income tax benefit from foreign-derived intangible income (FDII) and research and development tax credits.

We recorded an income tax benefit of $39 million and $49 million for the three and nine months ended September 30, 2023, respectively, representing effective tax rates of (15.2)% and (35.8)%, respectively. We recorded the tax effects of stock-based compensation, uncertain tax positions, and other items discrete to the period resulting in income tax benefit of $17 million and $29 million for the three and nine months ended September 30, 2023, respectively.

We recorded an income tax benefit of $135 million and a provision of $32 million for the three and nine months ended September 24, 2022, representing effective tax rates of 195.7% and 2.4%, respectively. For the three and nine months ended September 24, 2022, the impact of tax items discrete to the periods was not material to the total tax expense or the effective tax rate.

FINANCIAL CONDITION

Liquidity and Capital Resources

As of September 30, 2023 and December 31, 2022, our cash, cash equivalents and short-term investments were $5.8 billion and $5.9 billion, respectively. The percentage of cash, cash equivalents and short-term investments held domestically as of September 30, 2023 and December 31, 2022 were 81% and 73%, respectively.

Our operating, investing and financing activities for the nine months ended September 30, 2023 compared to the prior year period are as described below:

	Nine Months Ended	
	September 30, 2023	September 24, 2022
	(In millions)	
Net cash provided by (used in):		
Operating activities	$ 1,286	$ 2,998
Investing activities	(1,573)	932
Financing activities	(987)	(3,067)
Net (decrease) increase in cash and cash equivalents	$ (1,274)	$ 863

We have $3.0 billion available under an unsecured revolving credit agreement (Revolving Credit Agreement) that expires on April 29, 2027. No funds were drawn from this credit facility during the nine months ended September 30, 2023.

We also have a commercial paper program where we may issue unsecured commercial paper notes up to a maximum principal amount outstanding, at any time, of $3.0 billion, with a maturity of up to 397 days from the date of issue. We did not issue any commercial paper during the nine months ended September 30, 2023.

As of September 30, 2023, our principal debt obligations were $2.5 billion. Our 2.95% Notes with a principal amount of $750 million are due in June 2024.

As of September 30, 2023, we had unconditional purchase commitments of approximately $5.0 billion, of which $2.4 billion are for the remainder of fiscal year 2023. On an ongoing basis, we work with our suppliers on the timing of payments and deliveries of purchase commitments, taking into account business conditions.

We believe our cash, cash equivalents, short-term investments and cash flows from operations along with our Revolving Credit Agreement and commercial paper program will be sufficient to fund operations, including capital expenditures and purchase commitments, over the next 12 months and beyond. We believe we will be able to access the capital markets should we require additional funds. However, we cannot assure that such funds will be available on favorable terms, or at all.

Operating Activities

Our working capital cash inflows and outflows from operations are primarily cash collections from our customers, payments for inventory purchases and payments for employee-related expenditures.

Net cash provided by operating activities was $1.3 billion in the nine months ended September 30, 2023, primarily due to our net income of $187 million, adjusted for non-cash and non-operating charges of $2.9 billion and net cash outflows of $1.8 billion from changes in our operating assets and liabilities. The primary driver of the change in operating assets and liabilities was a $929 million increase in accounts receivable driven primarily by higher revenue in the last month of the quarter ended September 30, 2023 compared to the last month of the quarter ended December 31, 2022, and a $674 million increase in inventory primarily to support the continued ramp of Data Center and Client products in advanced process technology nodes.

Net cash provided by operating activities was $3.0 billion in the nine months ended September 24, 2022, primarily due to our net income of $1.3 billion, adjusted for non-cash and non-operating charges of $2.7 billion and net cash outflows of $1.0 billion from changes in our operating assets and liabilities. The primary drivers of the changes in operating assets and liabilities included a $1.3 billion increase in accounts receivable driven primarily by higher revenue in the first three quarters of 2022, a $997 million increase in inventory primarily driven by product build in the Client segment, partially offset by a $994 million increase in accrued liabilities and other driven primarily by higher customer-related accruals.

Investing Activities

Net cash used in investing activities was $1.6 billion for the nine months ended September 30, 2023 which primarily consisted of cash used in the purchases of short-term investments of $3.3 billion and purchases of property and equipment of $407 million, partially offset by $2.2 billion of proceeds from the maturity and sale of short-term investments.

Net cash provided by investing activities was $932 million for the nine months ended September 24, 2022 which primarily consisted of $2.4 billion of cash received from Xilinx and $2.9 billion of proceeds from the maturity of short-term investments, partially offset by cash used in the acquisition of Pensando Systems, Inc. of $1.6 billion, purchases of short-term investments of $2.4 billion and purchases of property and equipment of $326 million.

Financing Activities

Net cash used in financing activities was $987 million for the nine months ended September 30, 2023, which primarily consisted of common stock repurchases of $752 million and repurchases for tax withholding on employee equity plans of $382 million, partially offset by a cash inflow of $148 million from issuance of common stock under our employee equity plans.

Net cash used in financing activities was $3.1 billion for the nine months ended September 24, 2022, which primarily consisted of common stock repurchases of $3.5 billion and repurchases for tax withholding on employee equity plans of $371 million and repayment of debt of $312 million, partially offset by proceeds from the issuance of debt of $991 million and a cash inflow of $79 million from issuance of common stock under our employee equity plans.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Reference is made to “Part II, Item 7A, Quantitative and Qualitative Disclosures About Market Risk,” in our Annual Report on Form 10-K for the fiscal year ended December 31, 2022.

There have not been any material changes in interest rate risk, default risk or foreign exchange risk since December 31, 2022.

ITEM 4. CONTROLS AND PROCEDURES

We maintain disclosure controls and procedures that are designed to ensure that information required to be disclosed in our reports made under the Securities Exchange Act of 1934, as amended, is recorded, processed, summarized and reported within the time periods specified in SEC rules and forms, and that such information is accumulated and communicated to our management, including our Chief Executive Officer (CEO) and Chief Financial Officer (CFO) as appropriate, to allow for timely decisions regarding required disclosure. In designing and evaluating our disclosure controls and procedures, our management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving the desired control objectives, and our management is required to apply its judgment in evaluating the cost-benefit relationship of possible controls and procedures.

As of September 30, 2023, the end of the period covered by this report, we carried out an evaluation under the supervision and with the participation of our management, including our CEO and CFO, of the effectiveness of the design and operation of our disclosure controls and procedures. Based on the foregoing, our CEO and CFO concluded that our disclosure controls and procedures were effective at the reasonable assurance level.

During the nine months ended September 30, 2023, we completed the implementation of our new enterprise resource planning (ERP) system to help us manage our operations and financial reporting. In connection with this implementation, we modified the design and documentation of our internal control processes and procedures relating to the new system. Following the implementation, the changes to our control environment were validated according to our established processes and our internal controls over financial reporting continued to operate as designed.

There were no other changes in our internal controls over financial reporting for the three months ended September 30, 2023 that materially affected, or are reasonably likely to materially affect, our internal controls over financial reporting.

PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

For a discussion of our legal proceedings, refer to Note 12—Commitments and Contingencies of the Notes to Condensed Consolidated Financial Statements (Part I, Item 1 of this Form 10-Q).

ITEM 1A. RISK FACTORS

The risks and uncertainties described below are not the only ones we face. If any of the following risks actually occurs, our business, financial condition or results of operations could be materially adversely affected. In addition, you should consider the interrelationship and compounding effects of two or more risks occurring simultaneously.

Risk Factors Summary

The following is a summary of the principal risks that could adversely affect our business, operations and financial results.

Economic and Strategic Risks

- Intel Corporation's dominance of the microprocessor market and its aggressive business practices may limit our ability to compete effectively on a level playing field.
- Economic and market uncertainty may adversely impact our business and operating results.
- The semiconductor industry is highly cyclical and has experienced severe downturns that have materially adversely affected, and may continue to materially adversely affect, our business in the future.
- The demand for our products depends in part on the market conditions in the industries into which they are sold. Fluctuations in demand for our products or a market decline in any of these industries could have a material adverse effect on our results of operations.
- The loss of a significant customer may have a material adverse effect on us.
- The ongoing COVID-19 pandemic could materially adversely affect our business, financial condition and results of operations.
- The markets in which our products are sold are highly competitive.
- Our operating results are subject to quarterly and seasonal sales patterns.
- If we cannot adequately protect our technology or other intellectual property in the United States and abroad, through patents, copyrights, trade secrets, trademarks and other measures, we may lose a competitive advantage and incur significant expenses.
- Unfavorable currency exchange rate fluctuations could adversely affect us.

Operational and Technology Risks

- We rely on third parties to manufacture our products, and if they are unable to do so on a timely basis in sufficient quantities and using competitive technologies, our business could be materially adversely affected.
- If essential equipment, materials, substrates or manufacturing processes are not available to manufacture our products, we could be materially adversely affected.
- Failure to achieve expected manufacturing yields for our products could negatively impact our financial results.
- The success of our business is dependent upon our ability to introduce products on a timely basis with features and performance levels that provide value to our customers while supporting and coinciding with significant industry transitions.
- Our revenue from our semi-custom System-on-Chip (SoC) products is dependent upon our semi-custom SoC products being incorporated into customers' products and the success of those products.
- Our products may be subject to security vulnerabilities that could have a material adverse effect on us.
- IT outages, data loss, data breaches and cyber-attacks could disrupt operations and compromise our intellectual property or other sensitive information, be costly to remediate or cause significant damage to our business, reputation and financial results.
- We may encounter difficulties in operating our newly upgraded enterprise resource planning (ERP) system, which could materially adversely affect us.
- Uncertainties involving the ordering and shipment of our products could materially adversely affect us.

- Our ability to design and introduce new products in a timely manner includes the use of third-party intellectual property.
- We depend on third-party companies for the design, manufacture and supply of motherboards, software, memory and other computer platform components to support our business and products.
- If we lose Microsoft Corporation’s support for our products or other software vendors do not design and develop software to run on our products, our ability to sell our products could be materially adversely affected.
- Our reliance on third-party distributors and add-in-board (AIB) partners subjects us to certain risks.
- Our business is dependent upon the proper functioning of our internal business processes and information systems and modification or interruption of such systems may disrupt our business, processes and internal controls.
- If our products are not compatible with some or all industry-standard software and hardware, we could be materially adversely affected.
- Costs related to defective products could have a material adverse effect on us.
- If we fail to maintain the efficiency of our supply chain as we respond to changes in customer demand for our products, our business could be materially adversely affected.
- We outsource to third parties certain supply-chain logistics functions, including portions of our product distribution, transportation management and information technology support services.
- Our inability to effectively control the sales of our products on the gray market could have a material adverse effect on us.

Legal and Regulatory Risks

- Government actions and regulations such as export regulations, tariffs, and trade protection measures may limit our ability to export our products to certain customers.
- If we cannot realize our deferred tax assets, our results of operations could be adversely affected.
- Our business is subject to potential tax liabilities, including as a result of tax regulation changes.
- We are party to litigation and may become a party to other claims or litigation that could cause us to incur substantial costs or pay substantial damages or prohibit us from selling our products.
- We are subject to environmental laws, conflict minerals-related provisions of the Dodd-Frank Wall Street Reform and Consumer Protection Act as well as a variety of other laws or regulations that could result in additional costs and liabilities.

Merger, Acquisition and Integration Risks

- Acquisitions, joint ventures and/or investments, and the failure to integrate acquired businesses could disrupt our business and/or dilute or adversely affect the price of our common stock.
- Any impairment of our tangible, definite-lived intangible or indefinite-lived intangible assets, including goodwill, may adversely impact our financial position and results of operations.

Liquidity and Capital Resources Risks

- The agreements governing our notes, our guarantees of Xilinx’s 2.95% and 2.375% Notes (Xilinx Notes), and our Revolving Credit Agreement impose restrictions on us that may adversely affect our ability to operate our business.
- Our indebtedness could adversely affect our financial position and prevent us from implementing our strategy or fulfilling our contractual obligations.
- We may not be able to generate sufficient cash to meet our working capital requirements. If we cannot generate sufficient revenue and operating cash flow, we may face a cash shortfall and be unable to make all of our planned investments in research and development or other strategic investments. Also, our cash and cash equivalents could be adversely affected if the financial institutions in which we hold our cash and cash equivalents fail.

General Risks

- Our worldwide operations are subject to political, legal and economic risks and natural disasters, which could have a material adverse effect on us.
- We may incur future impairments of our technology license purchases.
- Our inability to continue to attract and retain qualified personnel may hinder our business.
- Our stock price is subject to volatility.

For a more complete discussion of the material risks facing our business, see below.

Economic and Strategic Risks

Intel Corporation's dominance of the microprocessor market and its aggressive business practices may limit our ability to compete effectively on a level playing field.

Intel's microprocessor market share position, significant financial resources, its introduction of competitive new products, and its existing relationships with top-tier OEMs have enabled it to market and price its products aggressively, to target our customers and our channel partners with special incentives and to influence customers who do business with us. These aggressive activities have in the past resulted in lower unit sales and a lower average selling price for many of our products and adversely affected our margins and profitability. Intel also dominates the computer system platform and has a heavy influence on PC manufacturers, other PC industry participants, and benchmarks. It is able to drive de facto standards and specifications for x86 microprocessors that could cause us and other companies to have delayed access to such standards. We may be materially adversely affected by Intel's business practices, including rebating and allocation strategies and pricing actions, designed to limit our market share and margins; product mix and introduction schedules; product bundling, marketing and merchandising strategies; and exclusivity payments to its current and potential customers, retailers and channel partners. We expect Intel to continue to invest its substantial resources heavily in marketing, research and development, new manufacturing facilities and other technology companies. To the extent Intel manufactures a significantly larger portion of its microprocessor products using more advanced process technologies or introduces competitive new products into the market before we do, we may be more vulnerable to Intel's aggressive marketing and pricing strategies for microprocessor products.

We also compete with Intel in field programmable gate arrays (FPGAs) and Adaptive SoC products. In the graphics processing unit (GPU) market, Intel has developed and released their own high-end discrete GPUs, including gaming focused discrete GPUs. Intel could take actions that place our GPUs at a competitive disadvantage, including giving one or more of our competitors in the graphics market preferential access to its proprietary graphics interface or other useful information or restricting access to external companies.

Economic and market uncertainty may adversely impact our business and operating results.

Uncertain global or regional economic conditions have and may in the future adversely impact our business. Uncertainty in the economic environment or other unfavorable changes in economic conditions, such as inflation, higher interest rates, recession, slowing growth, increased unemployment, tighter credit markets, changes in fiscal monetary or trade policy, or currency fluctuations, may negatively impact consumer confidence and spending causing our customers to stop or postpone purchases. For example, we have experienced a decline in our Client segment revenue as a result of weak PC market macroeconomic conditions and inventory correction actions across the PC supply chain during the second half of 2022 and first half of 2023. During challenging economic times, our current or potential future customers may experience cash flow problems and as a result may modify, delay or cancel plans to purchase our products. Additionally, if our customers are not successful in generating sufficient revenue or are unable to secure financing, they may not be able to pay, or may delay payment of, accounts receivable that they owe us. The risk related to our customers potentially defaulting on or delaying payments to us is increased because we expect that a small number of customers will continue to account for a substantial part of our revenue. Any inability of our current or potential future customers to pay us for our products may adversely affect our earnings and cash flow. Moreover, our key suppliers may reduce their output or become insolvent, thereby adversely impacting our ability to manufacture our products. Adverse changes in economic conditions could cause increased costs of memory, equipment, materials or substrates and other supply chain expenses. If we are not able to procure a stable supply of materials on an ongoing basis and at reasonable costs to meet our production requirements, we could experience a supply shortage or an increase in production costs, which could negatively impact our gross margin and materially adversely affect our business. In addition, uncertain economic conditions could lead to higher borrowing costs and reduced availability of capital and credit markets, making it more difficult for us to raise funds through borrowings or private or public sales of debt or equity securities. An economic downturn or increased uncertainty could also lead to failures of counterparties including financial institutions and insurers, asset impairments and declines in the value of our financial instruments.

The semiconductor industry is highly cyclical and has experienced severe downturns that have materially adversely affected, and may continue to materially adversely affect, our business in the future.

The semiconductor industry is highly cyclical and has experienced significant downturns, often in conjunction with constant and rapid technological change, wide fluctuations in supply and demand, continuous new product introductions, price erosion and declines in general economic conditions. We have incurred substantial losses in previous downturns, due to substantial declines in average selling prices; the cyclical nature of supply and demand imbalances in the semiconductor industry; a decline in demand for end-user products that incorporate our products; and excess inventory levels and periods of inventory adjustment. Such industry-wide fluctuations may materially adversely affect us in the future.

Global economic uncertainty and weakness have in the past impacted the semiconductor market as consumers and businesses have deferred purchases, which negatively impacted demand for our products. For instance, during the second half of 2022 and first half of 2023, we experienced a decline in our Client segment revenue as a result of weak PC market macroeconomic conditions and inventory correction actions across the PC supply chain. Our financial performance has been, and may in the future be, negatively affected by these downturns.

The growth of our business is also dependent on continued demand for our products from high-growth adjacent emerging global markets. Our ability to be successful in such markets depends in part on our ability to establish adequate local infrastructure, as well as our ability to cultivate and maintain local relationships in these markets. If demand from these markets is below our expectations, sales of our products may decrease, which would have a material adverse effect on us.

The demand for our products depends in part on the market conditions in the industries into which they are sold. Fluctuations in demand for our products or a market decline in any of these industries could have a material adverse effect on our results of operations.

Industry-wide fluctuations in the computer marketplace have materially adversely affected us in the past and may materially adversely affect us in the future. We offer products that are used in different end markets and the demand for our products can vary among our Data Center, Client, Gaming and Embedded end markets. For instance, our Client segment revenue is focused on the consumer desktop and notebook PC segments, which during the second half of 2022 and first half of 2023 experienced a decline as a result of weak PC market macroeconomic conditions and inventory correction actions across the PC supply chain. In our Data Center segment, we offer products that are optimized for generative AI applications and demand for such products will depend on the extent to which our customers utilize generative AI solutions in a wide variety of applications. In the past, revenues from the Client and Gaming segments have experienced a decline driven by, among other factors, the adoption of smaller and other form factors, increased competition and changes in replacement cycles. In addition, our GPU revenue in the past has been affected in part by the volatility of the cryptocurrency mining market. If we are unable to manage the risks related to the volatility of the cryptocurrency mining market (including potential actions by global monetary authorities), our GPU business could be materially adversely affected. The success of our semi-custom SoC products in our Gaming segment is dependent on securing customers for our semi-custom design pipeline and consumer market conditions, including the success of game console systems and next generation consoles for Sony and Microsoft. Our Embedded segment primarily includes embedded CPUs and GPUs, APUs, FPGAs and Adaptive SoC products some of which are subject to macroeconomic trends and volatile business conditions. To the extent our embedded customers are faced with higher inventory levels, they may choose to draw down their existing inventory and order less of our products.

The loss of a significant customer may have a material adverse effect on us.

We depend on a small number of customers for a substantial portion of our business and we expect that a small number of customers will continue to account for a significant part of our revenue in the future. If one of our key customers decides to stop buying our products, materially reduces its operations or its demand for our products, or has operations that are materially impaired for a significant period of time such that it is unable to receive or utilize our products, our business would be materially adversely affected.

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

The effects of the COVID-19 pandemic and public health measures implemented by government authorities to contain the virus have disrupted and may continue to disrupt our business operations and practices, as well those of our customers, partners, vendors and suppliers. While the exceptional COVID-19 related challenges that the global supply chain has experienced have mostly subsided, disruptions to our supply chain or to our customers' supply chains as a result of COVID-19 could have a material adverse effect on our business.

If there are further waves of the virus, health measures may be reimplemented, such as travel bans, social-distancing, lockdown measures, vaccination requirements and quarantines, and we may incur additional costs, need to limit operations or modify our business practices in a manner that may adversely impact our business and operations. If our employees are unable to perform their job duties, we may not be able to meet our product schedules, roadmaps and customer commitments and we may experience an overall lower productivity of our workforce. The extent to which future variants or outbreaks of COVID-19 impacts our business, financial condition and results of operations will depend on future developments, which are unpredictable and highly uncertain, including the severity, duration and resurgence of the pandemic and the measures taken to contain the virus.

The markets in which our products are sold are highly competitive.

The markets in which our products are sold are highly competitive and delivering the latest and best products to market on a timely basis is critical to achieving revenue growth. We believe that the main factors that determine our product competitiveness are timely product introductions, product quality, product features and capabilities (including accelerations for key workloads such as artificial intelligence (AI)), energy efficiency (including power consumption and battery life), reliability, processor clock speed, performance, size (or form factor), selling price, cost, adherence to industry standards (and the creation of open industry standards), level of integration, software and hardware compatibility, ease of use and functionality of software design tools, completeness of applicable software solutions, security and stability, brand recognition and availability.

We expect that competition will continue to be intense due to rapid technological changes, frequent product introductions by our competitors or new competitors of products that may provide better performance/experience or that may include additional features that render our products comparatively less competitive. We may also face aggressive pricing by competitors, especially during challenging economic times. In addition, our competitors have significant marketing and sales resources which could increase the competitive environment in a declining market or during challenging economic times, leading to lower prices and margins. Some competitors may have greater access or rights to complementary technologies, including interface, processor and memory technical information. For instance, with our APU products and other competing solutions with integrated graphics, we believe that demand for additional discrete graphics chips and cards may decrease in the future due to improvements in the quality and performance of integrated graphics. If competitors introduce competitive new products into the market before us, demand for our products could be adversely impacted and our business could be adversely affected. In addition, Intel is expanding its position in integrated graphics for the PC market with high-end discrete graphics solutions for a broad range of computing markets, which may negatively impact our ability to compete in these computing markets, and Nvidia has added an ARM CPU offering which adds competition in the CPU market. Also, increased adoption of ARM-based semiconductor designs could lead to further growth and development of the ARM ecosystem. While we see significant opportunity in AI, we expect intense competition from companies such as Nvidia in the supply of GPUs and other accelerators for the AI market.

In addition, we are entering markets with current and new competitors who may be able to adapt more quickly to customer requirements and emerging technologies. We cannot guarantee that we will be able to compete successfully against current or new competitors who may have stronger positions in these new markets or superior ability to anticipate customer requirements and emerging industry trends. Furthermore, we may face competition from some of our customers who internally develop the same products as us. We may face delays or disruptions in research and development efforts, or we may be required to invest significantly greater resources in research and development than anticipated. Also, the semiconductor industry has seen several mergers and acquisitions over the last number of years. Further consolidation could adversely impact our business due to there being fewer suppliers, customers and partners in the industry.

From time to time, governments provide incentives or make other investments that could benefit and give a competitive advantage to our competitors. For example, in August 2022, the United States government enacted the Creating Helpful Incentives to Produce Semiconductors for America and Science Act (CHIPS Act) of 2022 to provide financial incentives to the U.S. semiconductor industry. Government incentives, including the CHIPS Act, may not be available to us on acceptable terms or at all. If our competitors can benefit from such government incentives and we cannot, it could strengthen our competitors' relative position and have a material adverse effect on our business.

Our operating results are subject to quarterly and seasonal sales patterns.

The profile of our sales may be weighted differently during the year. A large portion of our quarterly sales have historically been made in the last month of the quarter. This uneven sales pattern makes prediction of revenue for each financial period difficult and increases the risk of unanticipated variations in quarterly results and financial condition. In addition, our operating results tend to vary seasonally with the markets in which our products are sold. For example, historically, our net revenue has been generally higher in the second half of the year than in the first half of the year, although market conditions and product transitions could impact these trends. Many of the factors that create and affect quarterly and seasonal trends are beyond our control.

If we cannot adequately protect our technology or other intellectual property in the United States and abroad, through patents, copyrights, trade secrets, trademarks and other measures, we may lose a competitive advantage and incur significant expenses.

We rely on a combination of protections provided by contracts, including confidentiality and nondisclosure agreements, copyrights, patents, trademarks and common law rights, such as trade secrets, to protect our intellectual property. However, we cannot assure you that we will be able to adequately protect our technology or other intellectual property from third-party infringement or from misappropriation in the United States and abroad. Any patent licensed by us or issued to us could be challenged, invalidated, expire, or circumvented or rights granted thereunder may not provide a competitive advantage to us.

Furthermore, patent applications that we file may not result in issuance of a patent or, if a patent is issued, the patent may not be issued in a form that is advantageous to us. Despite our efforts to protect our intellectual property rights, others may independently develop similar products, duplicate our products or design around our patents and other rights. In addition, it is difficult to monitor compliance with, and enforce, our intellectual property on a worldwide basis in a cost-effective manner. In jurisdictions where foreign laws provide less intellectual property protection than afforded in the United States and abroad, our technology or other intellectual property may be compromised, and our business would be materially adversely affected.

Unfavorable currency exchange rate fluctuations could adversely affect us.

We have costs, assets and liabilities that are denominated in foreign currencies. As a consequence, movements in exchange rates could cause our foreign currency denominated expenses to increase as a percentage of revenue, affecting our profitability and cash flows. Whenever we believe appropriate, we hedge a portion of our foreign currency exposure to protect against fluctuations in currency exchange rates. We determine our total foreign currency exposure using projections of long-term expenditures for items such as payroll. We cannot assure you that these activities will be effective in reducing foreign exchange rate exposure. Failure to do so could have an adverse effect on our business, financial condition, results of operations and cash flow. In addition, the majority of our product sales are denominated in U.S. dollars. Fluctuations in the exchange rate between the U.S. dollar and the local currency can cause increases or decreases in the cost of our products in the local currency of such customers. An appreciation of the U.S. dollar relative to the local currency could reduce sales of our products.

Operational and Technology Risks

We rely on third parties to manufacture our products, and if they are unable to do so on a timely basis in sufficient quantities and using competitive technologies, our business could be materially adversely affected.

We utilize third-party wafer foundries to fabricate the silicon wafers for all of our products. We rely on Taiwan Semiconductor Manufacturing Company Limited (TSMC) for the production of all wafers for microprocessor and GPU products at 7 nanometer (nm) or smaller nodes, and we rely primarily on GLOBALFOUNDRIES Inc. (GF) for wafers for microprocessor and GPU products manufactured at process nodes larger than 7 nm. We also utilize TSMC, United Microelectronics Corporation (UMC) and Samsung Electronics Co., Ltd. for our integrated circuits (IC) in the form of programmable logic devices. We also rely on third-party manufacturers to assemble, test, mark and pack (ATMP) our products. Our third-party package assembly partners are responsible for packaging technology used to fabricate our products. It is important to have reliable relationships with all of these third-party manufacturing suppliers to ensure adequate product supply to respond to customer demand.

We cannot guarantee that these manufacturers or our other third-party manufacturing suppliers will be able to meet our near-term or long-term manufacturing requirements. If we experience supply constraints from our third-party manufacturing suppliers, we may be required to allocate the reduced quantities of affected products amongst our customers, which could have a material adverse effect on our relationships with these customers and on our financial condition. In addition, if we are unable to meet customer demand due to fluctuating or late supply from our manufacturing suppliers, it could result in lost sales and have a material adverse effect on our business. For example, if TSMC is not able to manufacture wafers for our microprocessor and GPU products at 7 nm or smaller nodes and our newest IC products in sufficient quantities to meet customer demand, it could have a material adverse effect on our business.

We do not have long-term commitment contracts with some of our third-party manufacturing suppliers. We obtain some of these manufacturing services on a purchase order basis and these manufacturers are not required to provide us with any specified minimum quantity of product beyond the quantities in an existing purchase order. Accordingly, we depend on these suppliers to allocate to us a portion of their manufacturing capacity sufficient to meet our needs, to produce products of acceptable quality and at acceptable manufacturing yields and to deliver those products to us on a timely basis and at acceptable prices. The manufacturers we use also fabricate wafers and ATMP products for other companies, including certain of our competitors. They could choose to prioritize capacity for other customers, increase the prices that they charge us on short notice, require onerous prepayments, or reduce or eliminate deliveries to us, which could have a material adverse effect on our business.

Other risks associated with our dependence on third-party manufacturers include limited control over delivery schedules, yield, cycle times, quality assurance, price increases, lack of capacity in periods of excess demand, misappropriation of our intellectual property, dependence on several subcontractors, and limited ability to manage inventory and parts. Moreover, if any of our third-party manufacturers (or their subcontractors) suffer any damage to facilities, lose benefits under material agreements, experience power outages,water shortages, or high heat events, lack sufficient capacity to manufacture our products, encounter financial difficulties, are unable to secure necessary raw materials from their suppliers, suffer any other disruption or reduction in efficiency, or experience uncertain environmental, social, atmospheric or natural, economic or political circumstances or conditions, we may encounter supply delays or disruptions. If we are unable to secure sufficient or reliable supplies of products, our ability to meet customer demand may be adversely affected and this could materially affect our business.

If we transition the production of some of our products to new manufacturers, we may experience delayed product introductions, lower yields or poorer performance of our products. If we experience problems with product quality or are unable to secure sufficient capacity from a particular third-party manufacturer, or if we for other reasons cease utilizing one of those manufacturers, we may be unable to timely secure an alternative supply for any specific product. We could experience significant delays in the shipment of our products if we are required to find alternative third-party manufacturers, which could have a material adverse effect on our business.

We are a party to a wafer supply agreement (WSA) with GF that governs the terms by which we purchase products manufactured by GF and this agreement is in place through 2025. GF will provide a minimum annual capacity allocation to us for years 2022 through 2025 and we have corresponding annual wafer purchase targets. If we do not meet the annual wafer purchase target for any of these years, we will be required to pay to GF a portion of the difference between the actual wafer purchases and the wafer purchase target for that year. AMD and GF also have agreed to wafer pricing through 2025, and we are obligated to pre-pay GF certain amounts for those wafers in 2023. We do not have any exclusivity commitments with GF, and we have full flexibility to contract with any wafer foundry with respect to all products manufactured at any technology node. If our actual wafer requirements are less than the number of wafers required to meet the applicable annual wafer purchase target, we could have excess inventory or higher inventory unit costs, both of which may adversely impact our gross margin and our results of operations. If GF fails to meet its minimum annual capacity allocation obligations, we could experience significant delays in the shipment of our products, which could have a material adverse effect on our business.

We are party to two ATMP joint ventures (collectively, the ATMP JVs) with affiliates of Tongfu Microelectronics Co., Ltd. The majority of our ATMP services are provided by the ATMP JVs and there is no guarantee that the ATMP JVs will be able to fulfill our long-term ATMP requirements. If we are unable to meet customer demand due to fluctuating or late supply from the ATMP JVs, it could result in lost sales and have a material adverse effect on our business.

If essential equipment, materials, substrates or manufacturing processes are not available to manufacture our products, we could be materially adversely affected.

We may purchase equipment, materials and substrates for use by our back-end manufacturing service providers from a number of suppliers and our operations depend upon obtaining deliveries of adequate supplies of equipment and materials on a timely basis. Our third-party suppliers also depend on the same timely delivery of adequate quantities of equipment and materials in the manufacture of our products. In addition, as many of our products increase in technical complexity, we rely on our third-party suppliers to update their processes in order to continue meeting our back-end manufacturing needs. Certain equipment and materials that are used in the manufacture of our products are available only from a limited number of suppliers, or in some cases, a sole supplier. We also depend on a limited number of suppliers to provide the majority of certain types of IC packages for our microprocessors, including our APU products. Similarly, certain non-proprietary materials or components such as memory, printed circuit boards (PCBs), interposers, substrates and capacitors used in the manufacture of our products are currently available from only a limited number of suppliers. If we are unable to procure a stable supply of memory, equipment, materials or substrates on an ongoing basis and at reasonable costs to meet our production requirements, we could experience a shortage in memory, equipment, materials or substrate supply or an increase in production costs, which could have a material adverse effect on our business. We have long-term purchase commitments and prepayment arrangements with some of our suppliers. If the delivery of such supply is delayed or does not occur for any reason, it could materially impact our ability to procure and process the required volume of supply to meet customer demand. Conversely, a decrease in customer demand could result in excess inventory and an increase in our production costs, particularly since we have prepayment arrangements with certain suppliers. Because some of the equipment and materials that we and our third-party manufacturers purchase are complex, it is sometimes difficult to substitute one equipment or materials supplier for another. From time to time, suppliers may extend lead times, limit supply or increase prices due to capacity constraints or other factors. Also, some of these materials and components may be subject to rapid changes in price and availability. Interruption of supply or increased demand in the industry could cause shortages and price increases in various essential materials. Dependence on a sole supplier or a limited number of suppliers exacerbates these risks. If we are unable to procure certain of these materials for our back-end manufacturing operations, or our third-party manufacturers are unable to procure materials for manufacturing our products, our business would be materially adversely affected.

Failure to achieve expected manufacturing yields for our products could negatively impact our financial results.

Semiconductor manufacturing yields are a result of product design, process technology and packaging technology, which is typically proprietary to the manufacturer, and low yields can result from design failures, packaging technology failures, process technology failures or a combination of some or all of these. Our third-party manufacturers are responsible for the process technologies used to fabricate silicon wafers. If our third-party manufacturers experience manufacturing inefficiencies or encounter disruptions, errors or difficulties during production, we may fail to achieve acceptable yields or we may experience product delivery delays. We cannot be certain that our third-party manufacturers will be able to develop, expand, obtain or successfully implement leading-edge manufacturing process or packaging technologies needed to manufacture future generations of our products profitably or on a timely basis or that our competitors will not develop new technologies, products or processes earlier. Moreover, during periods when our third-party manufacturers are implementing new process or packaging technologies, their manufacturing facilities may not be fully productive. A substantial delay in the technology transitions to smaller process technologies could have a material adverse effect on us, particularly if our competitors transition to more cost effective technologies before us. For example, we are presently focusing our 7 nm and lower product microprocessor and GPU portfolio on TSMC’s processes. If TSMC is not able to manufacture wafers for our products at 7 nm or smaller nodes in sufficient quantities to meet customer demand, it could have a material adverse effect on our business. Moreover, we rely on TSMC, UMC and our other foundries to produce wafers with competitive performance attributes for our IC products. Therefore, the foundries, particularly TSMC which manufactures our newest IC products, must be able to transition to advanced manufacturing process technologies and increased wafer sizes, produce wafers at acceptable yields and deliver them in a timely manner.

Any decrease in manufacturing yields could result in an increase in per unit costs, which would adversely impact our gross margin and/or force us to allocate our reduced product supply amongst our customers, which could harm our relationships and reputation with our customers and materially adversely affect our business.

The success of our business is dependent upon our ability to introduce products on a timely basis with features and performance levels that provide value to our customers while supporting and coinciding with significant industry transitions.

Our success depends to a significant extent on the development, qualification, implementation and acceptance of new product designs and improvements that provide value to our customers. Our ability to develop, qualify and distribute, and have manufactured, new products and related technologies to meet evolving industry requirements, at prices acceptable to our customers and on a timely basis, are significant factors in determining our competitiveness in our target markets. We cannot assure you that our efforts to execute our product roadmap will result in innovative products and technologies that provide value to our customers. If we fail to or are delayed in developing, qualifying or shipping new products or technologies that provide value to our customers and address these new trends or if we fail to predict which new form factors, product features preferences or requirements, consumers will adopt and adjust our business accordingly, we may lose competitive positioning, which could cause us to lose market share and require us to discount the selling prices of our products. Although we make substantial investments in research and development, we cannot be certain that we will be able to develop, obtain or successfully implement new products and technologies on a timely basis or that they will be well-received by our customers. Moreover, our investments in new products and technologies involve certain risks and uncertainties and could disrupt our ongoing business. New investments may not generate sufficient revenue, may incur unanticipated liabilities and may divert our limited resources and distract management from our current operations. We cannot be certain that our ongoing investments in new products and technologies will be successful, will meet our expectations and will not adversely affect our reputation, financial condition and operating results. For example, as part of our Pervasive AI strategy, we have a portfolio of hardware products and software tools to allow our customers to develop scalable and pervasive AI solutions. We are increasingly building AI capabilities into our products, but if we fail to develop and timely offer such products and technologies or keep pace with the product offerings of our competitors, our business could be adversely affected. Additionally, our efforts in developing new AI technology solutions are inherently risky and may not always succeed. We may incur significant costs, resources, investments, delays and not achieve a return on investment or capitalize on the opportunities presented by demand for AI solutions. Moreover, while AI adoption is likely to continue and may accelerate, the long-term trajectory of this technological trend is uncertain.

Delays in developing, qualifying or shipping new products can also cause us to miss our customers' product design windows or, in some cases, breach contractual obligations or cause us to pay penalties. If our customers do not include our products in the initial design of their computer systems or products, they will typically not use our products in their systems or products until at least the next design configuration. The process of being qualified for inclusion in a customer's system or product can be lengthy and could cause us to further miss a cycle in the demand of end-users, which also could result in a loss of market share and harm our business. We also depend on the success and timing of our customers' platform launches. If our customers delay their product launches or if our customers do not effectively market their platforms with our products, it could result in a delay in bringing our products to market and cause us to miss a cycle in the demand of end-users, which could materially adversely affect our business. In addition, market demand requires that products incorporate new features and performance standards on an industry-wide basis. Over the life of a specific product, the sale price is typically reduced over time. The introduction of new products and enhancements to existing products is necessary to maintain the overall corporate average selling price. If we are unable to introduce new products with sufficiently high sale prices or to increase unit sales volumes capable of offsetting the reductions in the sale prices of existing products over time, our business could be materially adversely affected.

Our revenue from our semi-custom SoC products is dependent upon our semi-custom SoC products being incorporated into customers' products and the success of those products.

The revenue that we receive from our semi-custom SoC products is in the form of non-recurring engineering fees charged to third parties for design and development services and revenue received in connection with sales of our semi-custom SoC products to these third parties. As a result, our ability to generate revenue from our semi-custom products depends on our ability to secure customers for our semi-custom design pipeline, our customers' desire to pursue the project and our semi-custom SoC products being incorporated into those customers' products. Any revenue from sales of our semi-custom SoC products is directly related to sales of the third-party's products and reflective of their success in the market. Moreover, we have no control over the marketing efforts of these third parties, and we cannot make any assurances that sales of their products will be successful in current or future years. Consequently, the semi-custom SoC product revenue expected by us may not be fully realized and our operating results may be adversely affected.

Our products may be subject to security vulnerabilities that could have a material adverse effect on us.

The products that we sell are complex and have been and may in the future be subject to security vulnerabilities that could result in, among other things, the loss, corruption, theft or misuse of confidential data or system performance issues. Our efforts to prevent and address security vulnerabilities may decrease performance, be only partially effective or not successful at all. We may depend on vendors to create mitigations to their technology that we incorporate into our products and they may delay or decline to make such mitigations. We may also depend on third parties, such as customers and end users, to deploy our mitigations alone or as part of their own mitigations, and they may delay, decline or modify the implementation of such mitigations. Our relationships with our customers could be adversely affected as some of our customers may stop purchasing our products, reduce or delay future purchases of our products, or use competing products. Any of these actions by our customers could adversely affect our revenue. We have and may in the future be subject to claims and litigation related to security vulnerabilities. Actual or perceived security vulnerabilities of our products may subject us to adverse publicity, damage to our brand and reputation, and could materially harm our business or financial results.

IT outages, data loss, data breaches and cyber-attacks could disrupt operations and compromise our intellectual property or other sensitive information, be costly to remediate or cause significant damage to our business, reputation and financial results.

Our business relies on technology hardware, software, cloud services, infrastructure, networks and systems (collectively, “IT Systems”). We own and manage some IT Systems but also rely on critical third-party IT Systems, products and services. In the ordinary course of business, we and various third-party providers and business partners process and maintain sensitive data, including personal information about workers, customers and others, as well as intellectual property and proprietary or confidential information relating to our business and that of our customers and business partners (collectively, “Confidential Data”). Maintaining the availability, integrity and security of our IT Systems and Confidential Data is critical to our business and reputation. While we and others have implemented various controls and defenses, AMD and companies like AMD and our vendors and customers have been and are increasingly subject to cybersecurity attacks, risks and threats. Threat actors range in sophistication from individual hackers and insiders to ransom gangs and state-sponsored attackers. Cyber threats may be generic, or they may be custom-crafted against our IT Systems or supply chain. The increased prevalence of remote working arrangements at AMD and our providers present additional operational risks and attack vectors to our IT Systems. Our IT Systems and Confidential Data are vulnerable to a range of cybersecurity risks and threats, including malicious code that is added to widely available open-source software, compromised commercial software or security vulnerabilities in our products or systems, or those of a third party, that are being used by attackers prior to mitigations being put in place, such as zero-day attacks. Cyber-attacks have and may come into our IT Systems through the compromise of user’ access credentials. Users’ access credentials can be compromised by phishing, vishing, smishing, multi-factor authentication (MFA) prompt bombing, hacking, or other social engineering, cybersecurity, or theft activities.

Threat actors are also increasingly using tools and techniques that circumvent controls, evade detection, and remove forensic evidence, which means that we and others may be unable to anticipate, detect, deflect, contain or recover from cyberattacks in a timely or effective manner. As AI capabilities improve and are increasingly adopted, we may see cyberattacks created through AI. These attacks could be crafted with an AI tool to directly attack IT Systems with increased speed and/or efficiency than a human threat actor or create more effective phishing emails. In addition, the threat could be introduced from the result of our or our customers and business partners incorporating the output of an AI tool that includes a threat, such as introducing malicious code by incorporating AI generated source code. Our network and storage applications, as well as those of our customers, business partners, and third-party providers, may be subject to unauthorized access by hackers or breached due to operator error, malfeasance or other system disruptions.

Cyberattacks that breach our security measures, or those of our third-party service providers, customers or business partners, could result in any or all of the following, which individually or collectively could materially adversely affect our financial condition, our competitive position; unauthorized access to, misuse or disclosure of Confidential Data (such as intellectual property, sensitive business information or personally identifiable information (PII)); reputational harm and/or diminution in our competitiveness; loss of existing and/or future customers; litigation and/or regulatory investigations or enforcement; significant remediation, restoration and compliance costs; and the diversion of management’s attention and key information technology resources. In addition, many governments have enacted and are continuing to enact strict privacy and security laws, such as the UK’s and European Union’s General Data Protection Regulation (GDPR) and the California Consumer Privacy Act (CCPA), which provide for fines, penalties, and in the case of the CCPA and similar legislation, the basis for private claims for certain types of data breaches. We anticipate ongoing and increasing costs related to enhancing and implementing information security controls, including costs related to upgrading application, computer, and network security components; training workers to maintain and monitor our security controls; investigating, responding to and remediating any data security breach, and addressing any related litigation or regulatory proceedings; mitigating reputational harm; and complying with external regulations.

We may encounter difficulties in operating our newly upgraded enterprise resource planning system, which could materially adversely affect us.

We have recently upgraded our enterprise resource planning (ERP) system to help us manage our operations and financial reporting. Our newly upgraded ERP system may not operate as we expect it to and cause disruption to our operations, which could have a material adverse effect on our business. Difficulties that may occur in connection with operating our newly upgraded ERP system include disruptions to business continuity, administrative or technical problems, difficulty in maintaining effective internal controls, and interruptions or delays to our sales processes. Any of these events could have an adverse effect on our business, operating results and financial condition.

Uncertainties involving the ordering and shipment of our products could materially adversely affect us.

We typically sell our products pursuant to individual purchase orders. We generally do not have long-term supply arrangements with our customers or minimum purchase requirements except that orders generally must be for standard pack quantities. Generally, our customers may cancel orders for standard products more than 30 days prior to shipment without incurring significant fees. We base our inventory levels in part on customers' estimates of demand for their products, which may not accurately predict the quantity or type of our products that our customers will want in the future or ultimately end up purchasing. Our ability to forecast demand is further complicated when our products are sold indirectly through downstream channel distributors and customers, as our forecasts for demand are then based on estimates provided by multiple parties throughout the downstream channel. To the extent we fail to forecast demand and product mix accurately or are unable to increase production or secure sufficient capacity and there is a mismatch between supply and demand for our products, it could limit our ability to meet customer demand and have a material adverse effect on our business. Many of our markets are characterized by short product lifecycles, which can lead to rapid obsolescence and price erosion. In addition, our customers may change their inventory practices on short notice for any reason. For example, during the second half of 2022 and first half of 2023, we experienced a decline in our Client segment revenue as a result of weak PC market macroeconomic conditions and inventory correction actions across the PC supply chain. We may build inventories during periods of anticipated growth, and the cancellation or deferral of product orders or overproduction due to failure of anticipated orders to materialize could result in excess or obsolete inventory, which could result in write-downs of inventory and an adverse effect on gross margins. Our customers may also experience a shortage of, or delay in receiving certain components to build their products, which in turn may affect the demand for or the timing of our products. For instance, OEMs have and continue to experience industry-wide challenges securing matched component sets to build their products.

Excess or obsolete inventory have and may in the future result in write-downs of the value of our inventory. For example, in the third quarter of 2022, we recorded certain charges primarily for inventory, pricing and related reserves in the Gaming and Client segments. Factors that may result in excess or obsolete inventory, a reduction in the average selling price, or a reduction in our gross margin include: a sudden or significant decrease in demand for our products; a production or design defect in our products; a higher incidence of inventory obsolescence because of rapidly changing technology and customer requirements; a failure to accurately estimate customer demand for our products, including for our older products as our new products are introduced; or our competitors introducing new products or taking aggressive pricing actions.

Our ability to design and introduce new products in a timely manner includes the use of third-party intellectual property.

In the design and development of new and enhanced products, we rely on third-party intellectual property such as development and testing tools for software and hardware. Furthermore, certain product features may rely on intellectual property acquired from third parties that incorporate into our software or hardware. The design requirements necessary to meet customer demand for more features and greater functionality from semiconductor products may exceed the capabilities of the third-party intellectual property or development or testing tools available to us. If the third-party intellectual property that we use becomes unavailable, is not available with required functionality or performance in the time frame, manufacturing technology, or price point needed for our new products or fails to produce designs that meet customer demands, or laws are adopted that affect our use of third party intellectual property in certain regions or products, our business could be materially adversely affected.

We depend on third-party companies for the design, manufacture and supply of motherboards, software, memory and other computer platform components to support our business and products.

We depend on third-party companies for the design, manufacture and supply of motherboards, graphics cards, software (e.g., BIOS, operating systems, drivers), memory and other components that we use to design, support and sell, and our customers utilize to support and/or use our product offerings. We also rely on our AIB partners to support our products. In addition, our microprocessors are not designed to function with motherboards and chipsets designed to work with Intel microprocessors. If the designers, manufacturers, AIBs and suppliers of motherboards, graphics cards, software, memory and other components cease or reduce their design, manufacture or production of current or future products that are based on, utilized in, or support our products, or laws are adopted that result in the same, our business could be materially adversely affected.

If we lose Microsoft Corporation's support for our products or other software vendors do not design and develop software to run on our products, our ability to sell our products could be materially adversely affected.

Our ability to innovate beyond the x86 instruction set controlled by Intel depends partially on Microsoft designing and developing its operating systems to run on or support our x86-based microprocessor products. With respect to our graphics products, we depend in part on Microsoft to design and develop its operating system to run on or support our graphics products. Similarly, the success of our products in the market, such as our APU products, is dependent on independent software providers designing and developing software to run on our products. If Microsoft does not continue to design and develop its operating systems so that they work with our x86 instruction sets or does not continue to develop and maintain their operating systems to support our graphics products, independent software providers may forego designing their software applications to take advantage of our innovations and customers may not purchase PCs with our products. In addition, some software drivers licensed for use with our products are certified by Microsoft. If Microsoft did not certify a driver, or if we otherwise fail to retain the support of Microsoft or other software vendors, our ability to market our products would be materially adversely affected.

Our reliance on third-party distributors and AIB partners subjects us to certain risks.

We market and sell our products directly and through third-party distributors and AIB partners pursuant to agreements that can generally be terminated for convenience by either party upon prior notice. These agreements are non-exclusive and permit both our distributors and AIB partners to offer our competitors' products. We are dependent on our distributors and AIB partners to supplement our direct marketing and sales efforts. If any significant distributor or AIB partner or a substantial number of our distributors or AIB partners terminated their relationship with us, decided to market our competitors' products over our products or decided not to market our products at all, our ability to bring our products to market would be impacted and we would be materially adversely affected. We extend credit to certain of our distributors and AIB partners. If we are unable to collect accounts receivable from our significant distributors and/or AIB partners or incur higher allowances for credit losses, it could have a material adverse effect on our business. If we are unable to manage the risks related to the use of our third-party distributors and AIB partners or offer appropriate incentives to focus them on the sale of our products, our business could be materially adversely affected.

Additionally, distributors and AIB partners typically maintain an inventory of our products. In most instances, our agreements with distributors protect their inventory of our products against price reductions, as well as provide return rights for any product that we have removed from our price book that is less than 12 months older than the manufacturing date. Some agreements with our distributors also contain standard stock rotation provisions permitting limited levels of product returns. Our agreements with AIB partners protect their inventory of our products against price reductions. In the event of a significant decline in the price of our products, the price protection rights we offer would materially adversely affect us because our revenue and corresponding gross margin would decline.

Our business is dependent upon the proper functioning of our internal business processes and information systems and modification or interruption of such systems may disrupt our business, processes and internal controls.

We rely upon a number of internal business processes and information systems to support key business functions, and the efficient operation of these processes and systems is critical to our business. Our business processes and information systems need to be sufficiently scalable to support the growth of our business and may require modifications or upgrades that expose us to a number of operational risks. As such, our information systems will continually evolve and adapt in order to meet our business needs. These changes may be costly and disruptive to our operations and could impose substantial demands on management time.

These changes may also require changes in our information systems, modification of internal control procedures and significant training of employees and third-party resources. We continuously work on simplifying our information systems and applications through consolidation and standardization efforts. There can be no assurance that our business and operations will not experience any disruption in connection with this transition. Our information technology systems, and those of third-party information technology providers or business partners, may also be vulnerable to damage or disruption caused by circumstances beyond our control including catastrophic events, power anomalies or outages, natural disasters, viruses or malware, cyber-attacks, insider threat attacks, unauthorized system or data modifications, data breaches and computer system or network failures, exposing us to significant cost, reputational harm and disruption or damage to our business.

In addition, as our IT environment continues to evolve, we are embracing new ways of communicating and sharing data internally and externally with customers and partners using methods such as mobility and the cloud that can promote business efficiency. However, these practices can also result in a more distributed IT environment, making it more difficult for us to maintain visibility and control over internal and external users, and meet scalability and administrative requirements. If our security controls cannot keep pace with the speed of these changes or if we are not able to meet regulatory and compliance requirements, our business would be materially adversely affected.

If our products are not compatible with some or all industry-standard software and hardware, we could be materially adversely affected.

Our products may not be fully compatible with some or all industry-standard software and hardware. Further, we may be unsuccessful in correcting any such compatibility problems in a timely manner. If our customers are unable to achieve compatibility with software or hardware, we could be materially adversely affected. In addition, the mere announcement of an incompatibility problem relating to our products could have a material adverse effect on our business.

Costs related to defective products could have a material adverse effect on us.

Products as complex as those we offer may contain defects or failures when first introduced or when new versions or enhancements to existing products are released. We cannot assure you that, despite our testing procedures, errors will not be found in new products or releases after commencement of commercial shipments in the future, which could result in loss of or delay in market acceptance of our products, material recall and replacement costs, loss of revenue, writing down the inventory of defective products, the diversion of the attention of our engineering personnel from product development efforts, defending against litigation related to defective products or related liabilities, including property damage, personal injury, damage to our reputation in the industry and loss of data or intangible property, and could adversely affect our relationships with our customers. In addition, we may have difficulty identifying the end customers of the defective products in the field. As a result, we could incur substantial costs to implement modifications to correct defects. Any of these problems could materially adversely affect our business.

We could be subject to potential product liability claims if one of our products causes, or merely appears to have caused, an injury, whether tangible or intangible. Claims may be made by consumers or others selling our products, and we may be subject to claims against us even if an alleged injury is due to the actions of others. A product liability claim, recall or other claim with respect to uninsured liabilities or for amounts in excess of insured liabilities could have a material adverse effect on our business.

If we fail to maintain the efficiency of our supply chain as we respond to changes in customer demand for our products, our business could be materially adversely affected.

Our ability to meet customer demand for our products depends, in part, on our ability to deliver the products our customers want on a timely basis. Accordingly, we rely on our supply chain for the manufacturing, distribution and fulfillment of our products. As we continue to grow our business, expand to high-growth adjacent markets, acquire new customers and strengthen relationships with existing customers, the efficiency of our supply chain will become increasingly important because many of our customers tend to have specific requirements for particular products, geographic requirements, and specific time-frames in which they require delivery of these products. If we are unable to consistently deliver the right products to our customers on a timely basis in the right locations, our customers may reduce the quantities they order from us, which could have a material adverse effect on our business.

We outsource to third parties certain supply-chain logistics functions, including portions of our product distribution, transportation management and information technology support services.

We rely on third-party providers to operate our regional product distribution centers and to manage the transportation of our work-in-process and finished products among our facilities, to our third-party manufacturers and to our customers. In addition, we rely on third parties to provide certain information technology services to us, including help desk support, desktop application services, business and software support applications, server and storage administration, data center operations, database administration and voice, video and remote access. We cannot guarantee that these providers will fulfill their respective responsibilities in a timely manner in accordance with the contract terms, in which case our internal operations and the distribution of our products to our customers could be materially adversely affected. Also, we cannot guarantee that our contracts with these third-party providers will be renewed, in which case we would have to transition these functions in-house or secure new providers, which could have a material adverse effect on our business if the transition is not executed appropriately.

Our inability to effectively control the sales of our products on the gray market could have a material adverse effect on us.

We market and sell our products directly to OEMs and through authorized third-party distributors. From time to time, our products are diverted from our authorized distribution channels and are sold on the “gray market.” Gray market products result in shadow inventory that is not visible to us, thus making it difficult to forecast demand accurately. Also, when gray market products enter the market, we and our distribution channels compete with these heavily discounted gray market products, which adversely affects demand for our products and negatively impacts our margins. In addition, our inability to control gray market activities could result in customer satisfaction issues because any time products are purchased outside our authorized distribution channels there is a risk that our customers are buying counterfeit or substandard products, including products that may have been altered, mishandled or damaged, or are used products represented as new.

Legal and Regulatory Risks

Government actions and regulations such as export regulations, tariffs, and trade protection measures may limit our ability to export our products to certain customers.

We have equity interests in two joint ventures (collectively, the THATIC JV) with Higon Information Technology Co., Ltd. (THATIC), a third-party Chinese entity. In June 2019, the Bureau of Industry and Security (BIS) of the United States Department of Commerce added certain Chinese entities to the Entity List, including THATIC and the THATIC JV. Since that time, the United States administration has called for changes to domestic and foreign policy, including policies with respect to China and Russia. Specifically, United States-China trade relations remain uncertain as the United States continues to add more Chinese companies to the Entity List and more regulations targeted to advanced computing, semiconductor manufacturing, and emerging technologies such as AI. Further, the United States and other countries and coalitions have issued sanctions and revisions to export control and other regulations against Russia, Belarus and the DNR and LNR regions of Ukraine, due to the conflict in Ukraine.

In October 2023, BIS issued new requirements for certain advanced computing items that apply to the export of products classified ECCN 3A090 or 4A090 to a party headquartered in, or with an ultimate parent headquartered in, any of Country Groups D1, D4 or D5, including China. These controls may prevent us from shipping our AMD Instinct™ MI250, MI300X, MI300A, MI388X integrated circuits and our Versal™ VC2802, VE2802 FPGAs to China, or to customers outside of the United States whose ultimate parent is headquartered in a D5 country (including China), without a license. BIS may issue new licensing requirements and regulatory controls in the future. A significant trade disruption or the establishment or increase of any tariffs, trade protection measures or restrictions could result in lost sales adversely impacting our reputation and business. There is also a possibility of future tariffs, trade protection measures, import or export regulations or other restrictions imposed on our products, customers, or suppliers by the United States, China or other countries that could have a material adverse effect on our business. Export control restrictions may adversely impact the ability of our research and development teams located outside of the United States from executing our product roadmaps in a timely manner or at all.

We may, from time to time, receive technical data from third parties that is subject to the International Traffic and Arms Regulations (ITAR), which are administered by the U.S. Department of State. EAR governs the export and re-export of certain AMD products, including FPGAs, as well as the transfer of related technologies or provision of services, whether in the U.S. or abroad. We are required to maintain an internal compliance program and security infrastructure to meet EAR and ITAR requirements. An inability to obtain the required export licenses, or to predict when they will be granted, increases the difficulties of forecasting shipments. In addition, security or compliance program failures that could result in penalties or a loss of export privileges, as well as stringent licensing restrictions that may make our products less attractive to overseas customers, could have a material adverse effect on our business, financial condition and/or operating results.

If we cannot realize our deferred tax assets, our results of operations could be adversely affected.

Our deferred tax assets include net operating losses and tax credit carryforwards that can be used to offset taxable income and reduce income taxes payable in future periods. Each quarter, we consider both positive and negative evidence to determine whether all or a portion of the deferred tax assets are more likely than not to be realized. If we determine that some or all of our deferred tax assets are not realizable, it could result in a material expense in the period in which this determination is made which may have a material adverse effect on our financial condition and results of operations.

In addition, a significant amount of our deferred tax assets related to net operating losses or tax credits which remain under a valuation allowance could be subject to limitations under Internal Revenue Code Section 382 or 383, separate return loss year rules, or dual consolidated loss rules. The limitations could reduce our ability to utilize the net operating losses or tax credits before the expiration of the tax attributes.

Our business is subject to potential tax liabilities, and exposure to greater-than-anticipated income tax liabilities as a result of changes in tax rules and regulations, changes in interpretation of tax rules and regulations, or unfavorable assessments from tax audits, could affect our effective tax rates, financial condition, and results of operations.

We are a U.S.-based multinational company subject to income tax, indirect tax or other tax claims in multiple U.S. and foreign tax jurisdictions in which we conduct business. Significant judgment is required in determining our worldwide provision for income taxes. Tax laws are dynamic and subject to change as new laws are passed and new interpretations of the law are issued or applied. Any changes to tax laws could have a material adverse effect on our tax obligations and effective tax rate. Our income tax obligations could be affected by many factors, including, but not limited to, changes to our corporate operating structure, intercompany arrangements, and tax planning strategies.

Our income tax expense is computed based on tax rates at the time of the respective financial period. Our future effective tax rates, financial condition and results from operations could be unfavorably affected by changes in the tax rates in jurisdictions where our income is earned, by changes in the tax rules and regulations or the interpretation of tax rules and regulations in the jurisdictions in which we do business or by changes in the valuation of our deferred tax assets. For example, the Organization for Economic Co-operation and Development (OECD) has introduced a framework to implement a global minimum corporate tax of 15%, referred to as Pillar Two. While it is uncertain whether the U.S. will enact legislation to adopt Pillar Two, certain countries in which we operate have adopted legislation and other countries are in the process of introducing legislation to implement Pillar Two. It is possible that such measures, if adopted, may increase our tax uncertainty and may adversely affect our provision for income taxes.

In addition, we are subject to examinations of our income tax returns by domestic and foreign tax authorities. We regularly assess the likelihood of outcomes resulting from these examinations to determine the adequacy of our provision for income taxes and have reserved for potential adjustments that may result from the current examinations. There can be no assurance that the final determination of any of these examinations will not have an adverse effect on our effective tax rates, financial condition, and results of operations.

In the ordinary course of our business, there are many transactions and calculations where the ultimate income tax, indirect tax, or other tax determination is uncertain. Although we believe our tax estimates are reasonable, we cannot assure that the final determination of any tax audits or litigation will not be materially different from that which is reflected in historical tax provisions and accruals. Should additional taxes be assessed as a result of an audit, assessment or litigation, there could be a material adverse effect on our cash, tax provisions and results of operations in the period or periods for which that determination is made.

We are party to litigation and may become a party to other claims or litigation that could cause us to incur substantial costs or pay substantial damages or prohibit us from selling our products.

From time to time, we are a defendant or plaintiff in various legal actions, as described in Note 12 - Commitments and Contingencies of the Notes to our Condensed Consolidated Financial Statements. For example, we have been subject to certain claims concerning federal securities laws and corporate governance. Our products are purchased by and/or used by consumers, which could increase our exposure to consumer actions such as product liability claims and consumer class action claims. On occasion, we receive claims that individuals were allegedly exposed to substances used in our former semiconductor wafer manufacturing facilities and that this alleged exposure caused harm. Litigation can involve complex factual and legal questions, and its outcome is uncertain. It is possible that if a claim is successfully asserted against us, it could result in the payment of damages that could be material to our business.

With respect to intellectual property litigation, from time to time, we have been notified of, or third parties may bring or have brought, actions against us and/or against our customers based on allegations that we are infringing the intellectual property rights of others, contributing to or inducing the infringement of the intellectual property rights of others, improperly claiming ownership of intellectual property or otherwise improperly using the intellectual property of others. If any such claims are asserted, we may seek to obtain a license under the third parties' intellectual property rights. We cannot assure you that we will be able to obtain all of the necessary licenses on satisfactory terms, if at all. These parties may file lawsuits against us or our customers seeking damages (potentially up to and including treble damages) or an injunction against the sale of products that incorporate allegedly infringed intellectual property or against the operation of our business as presently conducted, which could result in our having to stop the sale of some of our products or to increase the costs of selling some of our products or which could damage our reputation. The award of damages, including material royalty payments, or other types of damages, or the entry of an injunction against the manufacture and sale of some or all of our products could have a material adverse effect on us. We could decide, in the alternative, to redesign our products or to resort to litigation to challenge such claims. Such challenges could be extremely expensive and time-consuming regardless of their merit, could cause delays in product release or shipment and/or could have a material adverse effect on us. We cannot assure you that litigation related to our intellectual property rights or the intellectual property rights of others can always be avoided or successfully concluded.

Even if we were to prevail, any litigation could be costly and time-consuming and would divert the attention of our management and key personnel from our business operations, which could have a material adverse effect on us.

We are subject to environmental laws, conflict minerals-related provisions of the Dodd-Frank Wall Street Reform and Consumer Protection Act as well as a variety of other laws or regulations that could result in additional costs and liabilities.

Our operations and properties have in the past been and continue to be subject to various United States and foreign laws and regulations, including those relating to materials used in our products and the manufacturing processes of our products, discharge of pollutants into the environment, the treatment, transport, storage and disposal of solid and hazardous wastes and remediation of contamination. In addition, our operations and those of our suppliers are further governed by regulations prohibiting the use of forced labor (e.g., mining conflict materials), and restrictions on other materials, as well as laws or regulations governing the operation of our facilities, sale and distribution of our products, and real property. For manufacturing of our products, these laws and regulations require our suppliers to obtain permits for operations, including the discharge of air pollutants and wastewater. Although our management systems are designed to oversee our suppliers' compliance, we cannot assure you that our suppliers have been or will be at all times in complete compliance with such laws, regulations and permits. If our suppliers violate or fail to comply with any of them, a range of consequences could result, including fines, suspension of production, alteration of manufacturing processes, import/export restrictions, sales limitations, criminal and civil liabilities or other sanctions. Such non-compliance from our manufacturing suppliers could result in disruptions in supply, higher sourcing costs, and/or reputational damage for us. We could also be held liable for any and all consequences arising out of exposure to hazardous materials used, stored, released, disposed of by us or located at, under or emanating from our current or former facilities or other environmental or natural resource damage. We have been named as a responsible party at three Superfund sites in Sunnyvale, California. Although we have not been, we could be named a potentially responsible party at other Superfund or contaminated sites in the future. In addition, contamination that has not been identified could exist at our other facilities.

We cannot be certain that future environmental legal requirements will not become more stringent or costly in the future. Therefore, we cannot assure you that our costs of complying with current and future environmental and health and safety laws, and our liabilities arising from past and future releases of, or exposure to, hazardous substances will not have a material adverse effect on us.

Environmental laws are complex, change frequently and have tended to become more stringent over time. For example, the European Union (EU) and China are among a growing number of jurisdictions that have enacted restrictions on the use of lead and other materials in electronic products. These regulations affect semiconductor devices and packaging. As regulations restricting materials in electronic products continue to increase around the world, there is a risk that the cost, quality and manufacturing yields of products that are subject to these restrictions may be less favorable compared to products that are not subject to such restrictions, or that the transition to compliant products may not meet customer roadmaps, or produce sudden changes in demand, which may result in excess inventory. A number of jurisdictions including the EU, Australia, California and China are developing or have finalized market entry or public procurement regulations for computers and servers based on ENERGY STAR specifications, and the like, as well as additional energy consumption limits. There is the potential for certain of our products being excluded from some of these markets which could materially adversely affect us.

We incur costs associated with complying with conflict minerals reporting requirements to our customers and the SEC. In addition to the SEC regulation, the EU, China and other jurisdictions are developing new policies focused on conflict minerals that may impact and increase the cost of our compliance program. Customers are increasingly seeking information about the source of minerals used in our supply chain beyond those addressed in laws and regulations. Given the complexity of mineral supply chains, we may face reputational challenges if we are unable to sufficiently verify the origins of the subject minerals. Moreover, we are likely to encounter challenges to satisfy customers who require that all of the components of our products be certified as “conflict free.” If we cannot satisfy these customers, they may choose a competitor’s products. In addition, new or increased regulations limiting the use of such components, or regulation regarding greenhouse gas emissions and climate change-related risks, could increase our energy costs, for example as a result of carbon pricing impacts on electrical utilities and/or necessitating that we purchase more renewable energy than otherwise planned. Our supply chain manufacturing suppliers may be exposed to increased cost of doing business should they be affected by new climate-related regulations, for example, affecting abatement equipment, renewable energy, and/or alter production processes and materials selections.

In addition to our Company, customers, governments and authorities continue to be focused on eliminating risks of forced labor in supply chains which may increase the cost of our compliance program. Several customers have also issued expectations to eliminate these occurrences, if any, that may impact us. While we have a Human Rights Policy and management systems to identify and avoid these practices in our supply chain, we cannot guarantee that our suppliers will always be in conformance to these laws and expectations. We may face enforcement liability and reputational challenges if we are unable to sufficiently meet these expectations. Moreover, we are likely to encounter challenges with customers if we cannot satisfy their forced and trafficked labor polices and they may choose a competitor’s product.There is expanding focus from governments, investors, customers, and other stakeholders concerning corporate responsibility matters, including environment and climate, diversity and inclusion, human rights and cybersecurity. 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 on our business. If our corporate responsibility practices and initiatives do not meet the evolving expectations of our stakeholders, some customers may stop purchasing products from us or some investors may sell their shares, which could harm our reputation and could materially adversely affect our business. Our actual or perceived failure to achieve our corporate responsibility initiatives could negatively impact our reputation or have a material effect on our business, financial condition or results of operation.

New emerging technology trends, such as AI, require us to keep pace with evolving regulations and industry standards. In the United States, there are various current and proposed regulatory frameworks relating to the use of AI in products and services. We expect that the legal and regulatory environment relating to emerging technologies such as AI will continue to develop and could increase the cost of doing business, and create compliance risks and potential liability, all which may have a material adverse effect on our financial condition and results of operations. Governments are also considering the new issues in intellectual property law that AI creates, which could result in different intellectual property rights in technology we create with AI and development processes and procedures and could have a material adverse effect on our business.

Merger, Acquisition and Integration Risks

Acquisitions, joint ventures and/or investments, and the failure to integrate acquired businesses, could disrupt our business and/or dilute or adversely affect the price of our common stock.

Our success will depend, in part, on our ability to expand our product offerings and grow our business in response to changing technologies, customer demands and competitive pressures. In some circumstances, we may pursue growth through the acquisition of complementary businesses, solutions or technologies or through joint ventures or investments rather than through internal development. The identification of suitable acquisition or joint venture candidates can be difficult, time-consuming and costly, and we may not be able to successfully complete identified acquisitions or joint ventures.

In addition, it is not certain that the companies we acquire will be successfully integrated with our business in a timely manner or at all, or that any of the anticipated benefits will be realized for a variety of reasons, including, but not limited to: our inability to integrate or benefit from acquired technologies or services in a profitable manner; diversion of capital and other resources, including management’s attention from our existing business; unanticipated costs or liabilities associated with the integration; failure to leverage the increased scale of the combined businesses quickly and effectively; coordinating and integrating in countries in which we have not previously operated; the potential impact of the acquisitions on our relationships with employees, vendors, suppliers and customers; the impairment of relationships with, or the loss of, the acquired companies’ employees, vendors, suppliers and customers; adverse changes in general economic conditions in regions in which we and the acquired companies operate; potential litigation associated with the acquisitions; difficulties in the assimilation of employees and culture; difficulties in managing the expanded operations of a larger and more complex company; challenges in attracting and retaining key personnel; and difficulties with integrating and upgrading our and the acquired companies’ financial reporting systems. Many of these factors will be outside of our control and any one of them could result in increased costs, decreases in expected revenues and diversion of management’s time and attention, which could materially impact the combined company. In addition, even if the operations of the businesses are integrated successfully, the full benefits of the acquisitions may not be realized within the anticipated time frame or at all. All of these factors could decrease or delay the expected accretive effect of the acquisitions and negatively impact the combined company. If we cannot successfully integrate our and the acquired companies’ businesses and operations, or if there are delays in combining the businesses, it could negatively impact our ability to develop or sell new products and impair our ability to grow our business, which in turn could adversely affect our financial condition and operating results.

Acquisitions and joint ventures may also involve the entry into geographic or business markets in which we have little or no prior experience. Consequently, we may not achieve anticipated benefits of acquisitions or joint ventures, which could harm our operating results. In addition, to complete an acquisition, we may issue equity securities, which would dilute our stockholders’ ownership and could adversely affect the price of our common stock, and/or incur debt, assume contingent liabilities or have amortization expenses and write-downs of acquired assets, which could adversely affect our results of operations. Moreover, if such acquisitions or joint ventures require us to seek additional debt or equity financing, we may not be able to obtain such financing on terms favorable to us or at all. Even if we successfully complete an acquisition or joint venture, we may not be able to assimilate and integrate effectively or efficiently the acquired business, technologies, solutions, assets, personnel or operations, particularly if key personnel of the acquired company decide not to work for us.

Acquisitions and joint ventures may also reduce our cash available for operations and other uses, which could harm our business. Also, any failure on our part to effectively evaluate and execute new business initiatives could adversely affect our business. We may not adequately assess the risks of new business initiatives and subsequent events may arise that alter the risks that were initially considered. Furthermore, we may not achieve the objectives and expectations with respect to future operations, products and services. The majority of our ATMP services are provided by the ATMP JVs, and there is no guarantee that the JVs will be able to fulfill our long-term ATMP requirements. If we are unable to meet customer demand due to fluctuating or late supply from the ATMP JVs, it could result in lost sales and have a material adverse effect on our business.

In addition, we may not realize the anticipated benefits from our business initiatives. For example, we may not realize the expected benefits from the THATIC JV’s expected future performance, including the receipt of any future milestone payments and any royalties from certain licensed intellectual property. In June 2019, the BIS added certain Chinese entities to the Entity List, including THATIC and the THATIC JV. We are complying with U.S. law pertaining to the Entity List designation.

Any impairment of our tangible, definite-lived intangible or indefinite-lived intangible assets, including goodwill, may adversely impact our financial position and results of operations.

We account for certain acquisitions, including the Xilinx and Pensando acquisitions, using the acquisition method of accounting under the provisions of ASC 805, Business Combinations, with AMD representing the accounting acquirer under this guidance. We record assets acquired, including identifiable intangible assets, and liabilities assumed, at their respective fair values at the acquisition date. Any excess of the purchase price over the net fair value of such assets and liabilities will be recorded as goodwill. In connection with the Xilinx and Pensando acquisitions, we recorded significant goodwill and other intangible assets on our consolidated balance sheet. Indefinite-lived intangible assets, including goodwill, are tested for impairment at least annually, and all tangible and intangible assets including goodwill will be tested for impairment when certain indicators are present. If, in the future, we determine that tangible or intangible assets, including goodwill, are impaired, we would record an impairment charge at that time. Impairment testing of goodwill requires significant use of judgment and assumptions, particularly as it relates to the determination of fair value. Subsequent to our annual goodwill impairment analysis, we monitor for any events or changes in circumstances, such as significant adverse changes in business climate or operating results, changes in management's business strategy, an inability to successfully introduce new products in the marketplace, an inability to successfully achieve internal forecasts or significant declines in our stock price, which may represent an indicator of impairment. A decrease in the long-term economic outlook and future cash flows of our business could significantly impact asset values and potentially result in the impairment of tangible and intangible assets, including goodwill and may require us to record future impairment charges, which may have a material adverse impact on our financial position and results of operations.

Liquidity and Capital Resources Risks

The agreements governing our notes, our guarantees of the Xilinx Notes, and our Revolving Credit Agreement impose restrictions on us that may adversely affect our ability to operate our business.

The indenture governing our 3.924% Senior Notes due 2032 and 4.393% Senior Notes due 2052 contains various covenants that limit our ability to, among other things: create liens on certain assets to secure debt, enter into certain sale and leaseback transactions; and consolidate with, merge into or sell, convey or lease all or substantially all of our assets to any other person.

Additionally, in connection with the acquisition of Xilinx, we entered into supplemental indentures for the Xilinx Notes pursuant to which all obligations of Xilinx under the Xilinx Notes are unconditionally guaranteed on a senior unsecured basis by us. The indentures governing the Xilinx Notes also contain various covenants which limit our ability to, among other things, create certain liens on principal property or the capital stock of certain subsidiaries, enter into certain sale and leaseback transactions with respect to principal property, and consolidate or merge with, or convey, transfer or lease all or substantially all our assets, taken as a whole, to another person.

We also have an unsecured revolving credit facility in the aggregate principal amount of $3.0 billion (Revolving Credit Agreement). Our Revolving Credit Agreement contains various covenants which limit our ability to, among other things, incur liens; and consolidate or merge or sell our assets as an entirety or substantially as an entirety (in each case, except for certain customary exceptions). In addition, our Revolving Credit Agreement requires us to maintain a minimum consolidated interest coverage ratio at the end of each fiscal quarter. The agreement governing our convertible notes and our Revolving Credit Agreement contains provisions whereby a payment default or acceleration under certain agreements with respect to other material indebtedness would result in cross defaults under our convertible indenture or the Revolving Credit Agreement and allow note holders or the lenders under our Revolving Credit Agreement to declare all amounts outstanding under certain of our indentures or the Revolving Credit Agreement to be immediately due and payable. If the lenders under our Revolving Credit Agreement accelerate the repayment of borrowings, we cannot assure you that we will have sufficient assets to repay those borrowings.

Our indebtedness could adversely affect our financial position and prevent us from implementing our strategy or fulfilling our contractual obligations.

Our total debt principal amount outstanding as of September 30, 2023 was $2.5 billion. Our indebtedness may make it difficult for us to satisfy our financial obligations, including making scheduled principal and interest payments; limit our ability to borrow additional funds for working capital, capital expenditures, acquisitions and general corporate and other purposes; limit our ability to use our cash flow or obtain additional financing for future working capital, capital expenditures, acquisitions or other general corporate purposes; require us to use a substantial portion of our cash flow from operations to make debt service payments; place us at a competitive disadvantage compared to our competitors with relatively less debt; and increase our vulnerability to the impact of adverse economic and industry conditions.

We enter into sale and factoring arrangements from time to time with respect to certain accounts receivables, which arrangements are non-recourse to us in the event that an account debtor fails to pay for credit-related reasons, and are not included in our indebtedness. We could become obligated to repurchase such accounts receivables or otherwise incur liability to the counterparties under these arrangements under certain circumstances, such as where a commercial dispute arises between us and an account debtor.

We may not be able to generate sufficient cash to meet our working capital requirements. If we cannot generate sufficient revenue and operating cash flow, we may face a cash shortfall and be unable to make all of our planned investments in research and development or other strategic investments. Also, our cash and cash equivalents could be adversely affected if the banking institutions in which we hold our cash and cash equivalents fail.

Our ability to generate sufficient cash to meet our working capital requirements will depend on our financial and operating performance, which may fluctuate significantly from quarter to quarter, and is subject to prevailing economic, financial and business conditions along with other factors, many of which are beyond our control. We cannot assure you that we will be able to generate cash flow in amounts sufficient to enable us to meet our working capital requirements. If we are not able to generate sufficient cash flow from operations, we may be required to sell assets or equity, reduce expenditures, refinance all or a portion of our existing debt or obtain additional financing.

In addition, our ability to fund research and development expenditures depends on generating sufficient revenue and cash flow from operations and the availability of external financing, if necessary. Our research and development expenditures, together with ongoing operating expenses, will be a substantial drain on our cash flow and may decrease our cash balances. If new competitors, technological advances by existing competitors, or other competitive factors require us to invest significantly greater resources than anticipated in our research and development efforts, our operating expenses would increase. If we are required to invest significantly greater resources than anticipated in research and development efforts without an increase in revenue, our operating results could decline.

Our inability to generate sufficient cash from operations may require us to abandon projects or curtail planned investments in research and development or other strategic initiatives. If we curtail planned investments in research and development or abandon projects, our products may fail to remain competitive and our business would be materially adversely affected.

We maintain our cash and cash equivalents in accounts at certain banking institutions, and our deposits at these banking institutions may exceed insured limits. If a banking institution in which we hold funds fails or is subject to significant adverse conditions in the financial or credit markets, we could be subject to a risk of loss of all or a portion of such uninsured funds or be subject to a delay in accessing all or a portion of such uninsured funds. Any such loss or lack of access to these funds could adversely impact our short-term liquidity and ability to meet our operating expense obligations. Further, these events may make equity or debt financing more difficult to obtain, and additional equity or debt financing might not be available on reasonable terms, if at all.

General Risks

Our worldwide operations are subject to political, legal and economic risks and natural disasters, which could have a material adverse effect on us.

We maintain operations around the world, including in the United States, Canada, Europe, Australia, Latin America and Asia. We rely on third-party wafer foundries in the United States, Europe and Asia. Nearly all product assembly and final testing of our products is performed at manufacturing facilities, operated by third-party manufacturing facilities, in China, Malaysia and Taiwan. We also depend on third-party subcontractors to provide shipment services. We also have international sales operations. International sales, as a percent of net revenue, were 68% for the three months ended September 30, 2023. We expect that international sales will continue to be a significant portion of total sales in the foreseeable future. The political, legal and economic risks associated with our operations in foreign countries include, without limitation: expropriation; changes in a specific country's or region's political or economic conditions; changes in tax laws, trade protection measures and import or export licensing requirements and restrictions; difficulties in protecting our intellectual property; difficulties in managing staffing and exposure to different employment practices and labor laws; changes in foreign currency exchange rates; restrictions on transfers of funds and other assets of our subsidiaries between jurisdictions; changes in freight rates; changes to macroeconomic conditions, including interest rates, inflation and recession; disruption in air transportation between the United States and our overseas facilities; loss or modification of exemptions for taxes and tariffs; and compliance with United States laws and regulations related to international operations, including export control and economic sanctions laws and regulations and the Foreign Corrupt Practices Act. Recently, the United States and other countries and coalitions have issued sanctions and revisions to export control and other regulations against Russia, Belarus, and the DNR and LNR regions of Ukraine, due to the conflict in Ukraine. Also, geopolitical changes between China and Taiwan could disrupt the operations of our Taiwan-based third-party wafer foundries, manufacturing facilities and subcontractors, and materially adversely affect our business, financial condition and/or operating results. Moreover, the Ukraine-Russia and Israel-Hamas conflicts could escalate and expand, which in turn could have negative impacts on the global economy and financial markets.

In addition, our worldwide operations (or those of our business partners) could be subject to natural disasters and climate change such as earthquakes, tsunamis, flooding, typhoons, droughts, fires, sea-level rise, extreme heat and volcanic eruptions that disrupt our operations, or those of our manufacturers, vendors or customers. For example, our Santa Clara and San Jose operations are located near major earthquake fault lines in California. Also, we have operations and employees in regions that have experienced extreme weather such as prolonged heat waves, wildfires and freezing. Extreme weather events can also disrupt the ability of our suppliers to deliver expected manufacturing parts and/or services for periods of time. In addition, certain natural disasters, including drought, wildfires, storms, sea-level rise and flooding, could disrupt the availability of water necessary for the operations of our business or the business of our suppliers or customers. Global climate change also may result in chronic changes that result in certain natural disasters occurring more frequently or with greater intensity, which could disrupt our operations, or the operations of our third parties. There may be conflict or uncertainty in the countries in which we operate, including public health issues (for example, an outbreak of a contagious disease such as COVID-19, avian influenza, measles or Ebola), safety issues, natural disasters, fire, disruptions of service from utilities, nuclear power plant accidents or general economic or political factors. For example, governments worldwide have implemented, and continue to implement, measures to slow down the outbreak of COVID-19. We have experienced, and will continue to experience, disruptions to our business as these measures have, and will continue to have, an effect on our business operations and practices.

In addition, many governments have enacted laws around PII, such as the GDPR and the CCPA, and the failure to comply could result in sanctions or other actions by the governments. The GDPR imposes significant requirements on how we collect, process and transfer personal data, as well as significant fines for non-compliance.

The United States has been and may continue to be involved in armed conflicts that could have a further impact on our sales and our supply chain. The consequences of armed conflict, political instability or civil or military unrest are unpredictable, and we may not be able to foresee events that could have a material adverse effect on us. Terrorist attacks or other hostile acts may negatively affect our operations, or adversely affect demand for our products, and such attacks or related armed conflicts may impact our physical facilities or those of our suppliers or customers. Furthermore, these attacks or hostile acts may make travel and the transportation of our products more difficult and more expensive, which could materially adversely affect us. Any of these events could cause consumer spending to decrease or result in increased volatility in the United States economy and worldwide financial markets.

Any of the above risks, should they occur, could result in increased costs, shipment delays, general business interruptions, the inability to obtain, or delays in obtaining export licenses for certain technology, penalties or a loss of export privileges, as well as stringent licensing restrictions that may make our products less attractive to international customers, tariffs and other barriers and restrictions, longer payment cycles, increased taxes, restrictions on the repatriation of funds and the burdens of complying with a variety of foreign laws, any of which could ultimately have a material adverse effect on our business.

We may incur future impairments of our technology license purchases.

We license certain third-party technologies and tools for the design and production of our products. We report the value of those licenses as other non-current assets on the balance sheet and we periodically evaluate the carrying value of those licenses based on their future economic benefit to us. Factors such as the life of the assets, changes in competing technologies, and changes to the business strategy may represent an indicator of impairment. The occurrence of any of these events may require us to record future technology license impairment charges.

Our inability to continue to attract and retain qualified personnel may hinder our business.

Much of our future success depends upon the continued service of numerous qualified engineering, marketing, sales and executive employees. Competition for highly skilled executives and employees in the technology industry, especially in the areas of AI and machine learning, is intense and our competitors have targeted individuals in our organization that have desired skills and experience. If we are not able to continue to attract, train and retain our leadership team and our qualified employees necessary for our business, the progress of our product development programs could be hindered, and we could be materially adversely affected. To help attract, retain and motivate our executives and qualified employees, we use share-based incentive awards such as employee stock options and non-vested share units (restricted stock units). If the value of such stock awards does not appreciate as measured by the performance of the price of our common stock, or if our share-based compensation otherwise ceases to be viewed as a valuable benefit, our ability to attract, retain and motivate our executives and employees could be weakened, which could harm our results of operations. Also, if the value of our stock awards increases substantially, this could potentially create great personal wealth for our executives and employees and affect our ability to retain our personnel. In addition, any future restructuring plans may adversely impact our ability to attract and retain key employees.

Our stock price is subject to volatility.

Our stock price has experienced price and volume fluctuations and could be subject to wide fluctuations in the future. The trading price of our stock may fluctuate widely due to various factors including actual or anticipated fluctuations in our financial conditions and operating results, changes in financial estimates by us or financial estimates and ratings by securities analysts, changes in our capital structure, including issuance of additional debt or equity to the public, interest rate changes, inflation, news regarding our products or products of our competitors, and broad market and industry fluctuations. Stock price fluctuations could impact the value of our equity compensation, which could affect our ability to recruit and retain employees. In addition, volatility in our stock price could adversely affect our business and financing opportunities.

We have an approved stock repurchase program authorizing repurchases of up to $12 billion of our common stock (Repurchase Program). As of September 30, 2023, $5.8 billion remains available for future stock repurchases under the Repurchase Program. The Repurchase Program does not obligate us to acquire any common stock, has no termination date and may be suspended or discontinued at any time. Our stock repurchases could affect the trading price of our stock, the volatility of our stock price, reduce our cash reserves, and may be suspended or discontinued at any time, which may result in a decrease in our stock price.

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

Issuer Purchases of Equity Securities

We have an approved stock repurchase program authorizing repurchases of up to $12 billion of our common stock (Repurchase Program). We expect to fund repurchases through cash generated from operations. Our Repurchase Program does not obligate us to acquire any common stock, has no termination date and may be suspended or discontinued at any time.

The following table provides information relating to our repurchase of common stock for the three months ended September 30, 2023:

	Total Number of Shares Repurchased	Average Price Paid per Share	Total Number of Shares Repurchased as Part of Publicly Announced Program	Maximum Dollar Value of Shares That May Yet be Purchased Under the Program
				(In millions)
Jul 2, 2023 - Jul 29, 2023	—	$ —	—	$ 6,299
Jul 30, 2023 - Aug 26, 2023	2,891,781	$ 107.96	2,891,781	$ 5,987
Aug 27, 2023 - Sep 30, 2023	1,872,524	$ 106.27	1,872,524	$ 5,788
Total	4,764,305			

The amounts above do not include the 1% excise tax on stock repurchases enacted by the Inflation Reduction Act of 2022.

Equity Award Share Withholding

During the three months ended September 30, 2023, we paid $294 million in employee withholding taxes due upon the vesting of net settled equity awards. We withheld approximately 2.7 million shares of common stock from employees in connection with such net share settlement at an average price of $110.75 per share. These shares may be deemed to be “issuer purchases” of shares.

ITEM 5. OTHER INFORMATION

On October 27, 2023, we entered into a seventh amendment ("Seventh Amendment") with Summit Lantana Owner (the "Landlord"), the successor-in-interest to 7171 Southwest Parkway Holdings, LP, from whom we lease approximately 444,000 sq. ft. multi-building office complex (the "Premises") located at 7171 Southwest Parkway, Austin, Texas (the "Property"). Pursuant to the Seventh Amendment, we extended the term of our lease, which is scheduled to expire on March 31, 2025. The extension term of the Seventh Amendment commences on April 1, 2025 and ends on September 30, 2038 (the "Extension Term"). The Seventh Amendment sets forth the monthly rent during the Extension Term that ranges from $1.3 million to $1.7 million.

The Seventh Amendment also provides that we are granted two options to extend the Extension Term for a period of ten years each (each a "Renewal Term") for all or any portion of the Premises, provided we give written notice of the election to extend no later than twenty-one months and no more than twenty-four months prior to the expiration of the Extension Term or the first Renewal Term, as the case may be. In the Seventh Amendment, the Landlord has also agreed to provide us with an allowance of up to $26,639,220 for tenant improvements to be made to the Premises.

Under certain circumstances, we have the option to expand our Premises by 29,925 sq. ft. in Building B300 located on the Property by providing written notice to the Landlord prior to September 30, 2025. We also have a right of first offer to lease from the Landlord at least two full floors in a building located at 7201 Southwest Parkway, Austin, Texas. Also, if the Landlord receives an offer from a third party to lease all or any portion of the available space on the Property in either or both of Building B300 or Building B400, the Landlord will not accept the third party offer without offering to lease to us first on the same terms and conditions as the third-party offer.

The foregoing description of the terms of the Seventh Amendment does not purport to be complete and is qualified in its entirety by reference to the complete text of the Seventh Amendment filed hereto as Exhibit 10.2.

Item 5(c) Rule 10b5-1 Trading Plans

On August 18, 2023, Victor Peng, President, AMD, adopted a Rule 10b5-1 trading arrangement that is intended to satisfy the affirmative defense of Rule 10b5-1(c) for the sale of up to 100,000 shares of the Company's common stock until November 20, 2024.

ITEM 6. EXHIBITS

10.1	First Amendment to Credit Agreement by and among Advanced Micro Devices, Inc. as borrower, the lenders referred to therein, as lenders, and Wells Fargo Bank, National Association as administrative agent, swingline lender and an issuing lender, dated September 22, 2023.
10.2	Seventh Amendment to Lease by and between Summit Lantana Owner, LP and Advanced Micro Devices, Inc. for the property at 7171 Southwest Parkway, Austin, Texas, dated October 27, 2023.
31.1	Certification of the Chief Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Certification of the Chief Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Certification of the Principal Executive Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
32.2	Certification of the Principal Financial Officer pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
101.INS	XBRL Instance Document.
101.SCH	XBRL Taxonomy Extension Schema Document.
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document.
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document.
101.LAB	XBRL Taxonomy Extension Label Linkbase Document.
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document.
104	Cover Page Interactive Data File - the cover page XBRL tags are embedded within the Inline XBRL document

SIGNATURE

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

ADVANCED MICRO DEVICES, INC.

November 1, 2023	By:	*/s/ Jean Hu*
	Name:	Jean Hu
	Title:	Executive Vice President, Chief Financial Officer and Treasurer Signing on behalf of the Registrant as the Principal Financial Officer

FIRST AMENDMENT TO CREDIT AGREEMENT

This First Amendment to Credit Agreement (this "Agreement"), dated as of September 22, 2023 amongst ADVANCED MICRO DEVICES, INC., a Delaware corporation (the "Borrower"), each of the Lenders (as defined below) party hereto, WELLS FARGO SECURITIES, LLC, as sustainability structuring agent (in such capacity, the "Sustainability Structuring Agent") and WELLS FARGO BANK, NATIONAL ASSOCIATION, as administrative agent (in such capacity, the "Administrative Agent"). Unless otherwise indicated, all capitalized terms used herein and not otherwise defined herein shall have the respective meanings provided such terms in the Credit Agreement referred to below.

W I T N E S S E T H:

WHEREAS, the Borrower, the lenders party thereto (the "Lenders"), and the Administrative Agent have entered into that certain Credit Agreement, dated as of April 29, 2022 (as amended, supplemented, or modified prior to the date hereof, the "Credit Agreement").

WHEREAS, Section 4.17(g) of the Credit Agreement contemplates an amendment to address changes in the Borrower's structure as a result of acquisitions or dispositions.

WHEREAS Section 4.17(j) of the Credit Agreement contemplated an amendment to adjust the Baseline Amount as a result of the Xilinx acquisition.

WHEREAS, the Borrower and the Sustainability Structuring Agent have determined that the circumstances described in Section 4.17(g) of the Credit Agreement exist as result of the acquisitions of Xilinx, Inc. and Pensando Systems, Inc. and their respective Subsidiaries and that an amendment to the Credit Agreement (including the applicable Exhibits and Schedules thereto) to reflect a revision to the Baseline Amount to incorporate the results of the KPI Metric that are applicable Xilinx, Inc. and Pensando Systems, Inc. and their respective Subsidiaries is necessary.

WHEREAS, the Borrower, the Required Lenders, the Sustainability Structuring Agent and the Administrative Agent wish to enter into this Agreement subject to the terms and conditions set forth herein.

NOW, THEREFORE, in consideration of the foregoing and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, it is agreed as follows:

SECTION 1. Amendment. Effective as of the Amendment Effective Date (as defined below) and subject to the terms and conditions set forth herein and in reliance upon representations and warranties set forth herein, the Credit Agreement is hereby amended as follows:

(a) Schedule 4.17 to the Credit Agreement is hereby amended and restated in the form attached hereto as Exhibit A;

(b) Section 1.1 of the Credit Agreement is hereby amended by deleting the defined term "Sustainability Baseline Amendment";

(c) Section 4.17 of the Credit Agreement is hereby amended by deleting clause (j) thereof in its entirety; and

(d) Section 11.2 of the Credit Agreement is hereby amended by deleting clause (ix) of the second proviso to the first sentence of such section in its entirety and replacing it with "(ix) [reserved]".

SECTION 2. Conditions of Effectiveness of this Agreement. This Agreement shall become effective on the date when the following conditions shall have been satisfied or waived (such date, the "Amendment Effective Date"):

(a) the Administrative Agent's receipt of this Agreement, duly executed by a Responsible Officer of the Borrower, Lenders constituting Required Lenders, the Administrative Agent and Sustainability Structuring Agent, which shall be originals or facsimiles (followed promptly by originals) unless otherwise specified;

(b) payment of all reasonable and documented fees and expenses of the Administrative Agent required to be paid on the Amendment Effective Date, including, but not limited to, the legal fees and expenses of McGuireWoods LLP, as legal counsel for the Administrative Agent, to the extent that invoices therefor have been provided to the Borrower prior to the Amendment Effective Date; and

(c) no Default or Event of Default shall have occurred and be continuing immediately prior to, or after giving effect to this Agreement.

SECTION 3. Costs and Expenses. The Borrower hereby reconfirms its obligations pursuant to Section 11.3(a) of the Credit Agreement to pay and reimburse the Administrative Agent in accordance with the terms thereof.

SECTION 4. Representations and Warranties. To induce the Sustainability Structuring Agent, the Administrative Agent and the other Lenders to enter into this Agreement, the Borrower represents and warrants to the Sustainability Structuring Agent, the Administrative Agent and the Lenders party hereto on and as of the Amendment Effective Date that, in each case:

(a) all of the representations and warranties set forth in Article VI of the Credit Agreement are true and correct in all material respects on and as of the Amendment Effective Date with the same effect as though made on and as of such date, except to the extent such representations and warranties expressly relate to an earlier date, in which case they shall be true and correct in all material respects as of such earlier date; provided that any representation and warranty that is qualified as to "materiality," "Material Adverse Effect" or similar language shall be true and correct (after giving effect to any qualification therein) in all respects on such respective dates;

(b) it has the right, power and authority and has taken all necessary corporate and other action to authorize the execution, delivery and performance of this Agreement and each other document executed in connection herewith to which it is a party in accordance with their respective terms and the transactions contemplated hereby; and

(c) this Agreement and each other document executed in connection herewith has been duly executed and delivered by the duly authorized officers of the Borrower, and each such document constitutes the legal, valid and binding obligation of the Borrower, enforceable in accordance with its terms, except as may be limited by bankruptcy, insolvency, reorganization, moratorium or similar state or federal debtor relief laws from time to time in effect which affect the enforcement of creditors' rights in general and the availability of equitable remedies.

SECTION 5. Reference to and Effect on the Credit Agreement and the Loan Documents.

(a) The Credit Agreement and each of the other Loan Documents are and shall continue to be in full force and effect and are hereby in all respects ratified and confirmed.

(b) The execution, delivery and effectiveness of this Agreement shall not operate as a waiver of any right, power or remedy of any Lender or the Administrative Agent or the Sustainability Structuring Agent under any of the Loan Documents, nor constitute a waiver of any provision of any of the Loan Documents.

(c) Except as expressly provided herein, the Credit Agreement and the other Loan Documents shall remain unmodified and in full force and effect. This Agreement shall not be deemed (i) to be a waiver of, or consent to, or a modification or amendment of, any other term or condition of the Credit Agreement or any other Loan Document, (ii) to prejudice any right or rights which the Administrative Agent or the Lenders may now have or may have in the future under or in connection with the Credit Agreement or the other Loan Documents or any of the instruments or agreements referred to therein, as the same may be amended, restated, supplemented or modified from time to time, or (iii) to be a commitment or any other undertaking or expression of any willingness to engage in any further discussion with the Borrower or any other Person with respect to any other waiver, amendment, modification or any other change to the Credit Agreement or the Loan Documents or any rights or remedies arising in favor of the Lenders, the Sustainability Structuring Agent or the Administrative Agent, or any of them, under or with respect to any such documents. References in the Credit Agreement to "this Agreement" (and indirect references such as "hereunder", "hereby", "herein", "hereof" or other words of like import) and in any Loan Document to the "Credit Agreement" shall be deemed to be references to the Credit Agreement as modified hereby.

(d) From and after the Amendment Effective Date, it is agreed and acknowledged that the KPI Metric and the related calculations in the Pricing Certificate shall be determined by including the KPI Metric that is attributable to Xilinx, Inc. and Pensando Systems, Inc. and their Subsidiaries.

SECTION 6. Governing Law. THIS AGREEMENT SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE LAW OF THE STATE OF NEW YORK.

SECTION 7. Counterparts. This Agreement may be executed in any number of counterparts and by the different parties hereto on separate counterparts, each of which counterparts when executed and delivered shall be an original, but all of which shall together constitute one and the same instrument. Delivery by facsimile or electronic transmission of an executed counterpart of a signature page to this Agreement shall be effective as delivery of an original executed counterpart of this Agreement.

SECTION 8. Entire Agreement. This Agreement is the entire agreement, and supersedes any prior agreements and contemporaneous oral agreements, of the parties concerning its subject matter. This Agreement is a Loan Document and is subject to the terms and conditions of the Credit Agreement.

SECTION 9. Successors and Assigns. This Agreement shall be binding on and inure to the benefit of the parties hereto, the Lenders and their heirs, beneficiaries, successors and permitted assigns.

[The remainder of this page is intentionally left blank.]

IN WITNESS WHEREOF, the parties hereto have caused their duly authorized officers to execute and deliver this Agreement as of the date first above written.

CREDIT PARTIES:

ADVANCED MICRO DEVICES, INC., a Delaware corporation, as Borrower

By: /s/ Zain Kazim
Name: Zain Kazim
Title: Assistant Treasurer

AGENTS AND THE LENDERS:

WELLS FARGO BANK, NATIONAL ASSOCIATION, as Administrative Agent and a Lender

By: /s/Spencer Ferry
Name: Spencer Ferry
Title: Director

WELLS FARGO SECURITIES, LLC, as Sustainability Structuring Agent

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

BANK OF AMERICA, N.A., as a Lender

By: /s/Haley Heslip
Name: Haley Heslip
Title: Director

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

By: /s/Abhishek Joshi
Name: Abhishek Joshi
Title: Vice President

BARCLAYS BANK PLC, as a Lender

By: /s/Warren Veech III
Name: Warren Veech III
Title: Vice President

GOLDMAN SACHS BANK USA, as a Lender

By: /s/Dan Martis
Name: Dan Morris
Title: Authorized Signatory

MORGAN STANLEY BANK, N.A., as a Lender

By: /s/Jack Kuhns
Name: Jack Kuhns
Title: Authorized Signatory

MUFG BANK, LTD., as a Lender

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

BANK OF CHINA, LOS ANGELES BRANCH, as a Lender

By: /s/Peng Li
Name: Peng Li
Title: SVP & Branch Manager

CITIBANK, N.A., as a Lender

By: /s/Stella Zhang
Name: Stella Zhang
Title: Vice President

THE BANK OF NEW YORK MELLON, as a Lender

By: Thomas J. Tarasovich, Jr.
Name: Thomas J. Tarasovich, Jr.
Title: Senior Vice President

STANDARD CHARTERED BANK, as a Lender

By: /s/Kristopher Tracy
Name: Kristopher Tracy
Title: Director, Financing Solutions

SEVENTH AMENDMENT TO LEASE

THIS SEVENTH AMENDMENT TO LEASE (this "Amendment") is made and entered into as of the 27th day of October, 2023 (the "Effective Date"), by and between SUMMIT LANTANA OWNER, LP, a Delaware limited partnership ("Landlord") and ADVANCED MICRO DEVICES, INC., a Delaware corporation ("Tenant").

WHEREAS, Landlord, as a successor-in-interest to 7171 SOUTHWEST PARKWAY HOLDINGS, L.P., a Delaware limited partnership, and LANTANA HP, LTD., a Texas limited partnership ("Master Lease Tenant") were parties to that certain Lease Agreement dated as of March 26, 2013 (the "Master Lease Agreement"), covering certain space in the multi-building office complex known as The Summit at Lantana, and whose street address is 7171 Southwest Parkway, Austin, Texas 78735 (the "Property"), as more particularly described therein;

WHEREAS, the Master Lease Agreement has been previously amended by that certain First Amendment to Lease dated as of December 13, 2013 (the "First Amendment"), that certain Second Amendment to Lease dated as of March 10, 2015 (the "Second Amendment"), that certain Third Amendment to Lease dated as of May 15, 2015 (the "Third Amendment"), and that certain Fourth Amendment to Lease dated as of September 24, 2015 (the "Fourth Amendment" and the Master Lease Agreement, as amended, the "Master Lease");

WHEREAS, pursuant to that certain Sublease Agreement dated as of March 26, 2013 (the "Sublease Agreement"), Tenant subleased from Master Lease Tenant a certain portion of premises leased to the Master Lease Tenant under the Master Lease;

WHEREAS, pursuant to that certain Agreement and Acceptance by Subtenant attached to the First Amendment, that certain Agreement and Acceptance by Subtenant attached to the Second Amendment, that certain Agreement and Acceptance by Subtenant attached to the Third Amendment and that certain Agreement and Acceptance by Subtenant attached to the Fourth Amendment, the Sublease Agreement has been amended as set forth in said amendments and acceptances by Subtenant in accordance with the terms and provisions set forth therein (the Sublease Agreement, as so amended by said amendments and acceptances by Subtenant, the "Sublease");

WHEREAS, pursuant to that certain Termination of Master Lease, Acknowledgment of Direct Lease and Fifth Amendment dated as of May 8, 2019 (the "Fifth Amendment"), the Master Lease was terminated, as such, and the Sublease became a direct lease between Landlord and Tenant, which direct lease incorporated by reference therein certain of the terms and provisions of the Master Lease. Said direct lease was further amended by that certain Sixth Amendment to Lease dated as of July 9, 2019 (the “Sixth Amendment” and such direct lease, including the provisions therein stated as incorporated therein from the Master Lease and as amended by the Sixth Amendment, and as further amended herein, collectively is referred to herein as the "Lease");

WHEREAS, the premises on the Property leased by Tenant under the Lease, which premises contains approximately 443,987 rentable square feet of area (the “Premises”) includes (i) 106,275 rentable square feet in the building commonly known as Building B100 on the Property (“Building B100”), (ii) 224,734 rentable square feet in the building commonly known as Building B200 on the Property (“Building B200”), (iii) 74,357 rentable square feet in the building commonly known as Building B300 on the Property (“Building B300”), and (iv) 38,621 rentable square feet in the building commonly known as Building B500 on the Property (“Building B500”);

WHEREAS, the Term is currently scheduled to expire on March 31, 2025; and

WHEREAS, Landlord and Tenant desire to amend the Lease to, among other things, extend the Term of the Lease pursuant to the terms and conditions herein.

NOW, THEREFORE, in consideration of the premises and the respective terms and agreements of Landlord and Tenant herein contained, and other good and valuable consideration, the receipt of which hereby is acknowledged, the parties hereby agree as follows:

1. Definition of Terms. Terms used herein which are defined herein shall have the meanings therefor as stated in this Amendment or if not defined herein shall have the meanings set forth in the Lease.

2. Right to Remeasure the Premises. Section 2.1(b)(ii) of the Lease hereby is deleted and is no longer in force or effect.

3. Extension of Term. Section 3.1 of the Lease is hereby amended by adding the following to the end of said Section 3.1(a): "Landlord and Tenant agree that the Term is hereby extended for a period of one hundred sixty-two (162) months (the "Extension Term"). The Extension Term commences April 1, 2025 (the "Extension Term Commencement Date") and expires September 30, 2038."

4. Base Rent. Section 4.1 of the Lease of the Lease is amended by adding the below rows to the end of the Base Rent schedule in said Section 4.1. During the Extension Term, (i) Tenant's Base Rent shall be in the amount listed in the table below for the "Period" specified therein; (ii) Tenant shall remain obligated to pay Additional Rent in accordance with the Lease except as provided herein, and (iii) except as otherwise provided in this Amendment, the same terms and provisions as set forth in the Lease shall be and remain in full force and effect.

Period	Annual Base Rent Rate Per Rentable Square Foot	Rentable Square Footage of Premises	Monthly Installment of Base Rent
4/1/25 – 9/30/25*	$0.00	443,987	$0.00
10/1/25 – 9/30/26	$34.50	443,987	$1,276,462.63
10/1/26 – 9/30/27	$35.36	443,987	$1,308,281.69
10/1/27 – 9/30/28	$36.25	443,987	$1,341,210.73
10/1/28 – 9/30/29	$37.15	443,987	$1,374,509.75
10/1/29 – 9/30/30	$38.08	443,987	$1,408,918.75
10/1/30 – 9/30/31	$39.03	443,987	$1,444,067.72
10/1/31 – 9/30/32	$40.01	443,987	$1,480,326.66
10/1/32 – 9/30/33	$41.01	443,987	$1,517,325.57
10/1/33 – 9/30/34	$42.03	443,987	$1,555,064.47
10/1/34 – 9/30/35	$43.09	443,987	$1,594,283.32
10/1/35 – 9/30/36	$44.16	443,987	$1,633,872.16
10/1/36 – 9/30/37	$45.27	443,987	$1,674,940.96
10/1/37 – 9/30/38	$46.40	443,987	$1,716,749.73

*Provided that no Event of Default by Tenant has then occurred and is continuing under the Lease, Base Rent only for the Premises shall be abated for the first six (6) full months of the Extension Term (the "Abatement Period"). All of the terms and provisions of the Lease, including, but not limited to, Tenant's obligation to pay Additional Rent, shall remain in full force and effect during the Abatement Period.

5. Operating Expenses. Section 5.6 of the Lease hereby is amended and as so amended is restated hereby to read as follows:

5.6 Cap on Operating Costs. For purposes of calculating Tenant's Proportionate Share of Operating Costs under Section 5.1 of the Lease, the maximum increase in the amount of Controllable Operating Costs (defined below) that may be included in calculating Tenant's Proportionate Share of Operating Costs for each calendar year after the Cap Base Year (defined below) shall be limited to six percent (6%) per calendar year on a cumulative, compounding basis; for example, the maximum amount of Controllable Operating Costs that may be included in the calculation of Tenant's Proportionate Share of Operating Costs for each calendar year after the Cap Base Year shall equal the product of the Controllable Operating Costs during the Cap Base Year and the following percentages for the following calendar years: 106% for the first calendar year following the Cap Base Year; 112.36% for the second calendar year following the Cap Base Year; 119.10% for the third calendar year following the Cap Base Year, etc. However, any increases in Operating Costs not recovered by Landlord due to the foregoing limitation shall be carried forward into succeeding calendar years during the Term (subject to the foregoing limitation) to the extent necessary until fully recouped by the Landlord. Effective as of the Extension Term Commencement Date "Cap Base Year" means the calendar year 2025, and, notwithstanding its effectiveness as of the Extension Term Commencement Date, shall apply to the calculation of Tenant's Proportionate Share of Operating Costs for such calendar year in its entirety. There shall be no cap on the amount of Operating Costs payable by Tenant for the calendar year 2025. "Controllable Operating Costs" means all Operating Costs which are within the reasonable control of Landlord; thus, Controllable Operating Costs excludes taxes (to the extent any taxes are included within a component of Operating Costs), insurance, utilities (to the extent any utility costs are included within a component of Operating Costs), snow removal costs, costs incurred to comply with After-Enacted Legal Requirements, and other costs beyond the reasonable control of Landlord. Controllable Operating Costs shall not include costs for janitorial or security services provided to the Premises, it being agreed that Tenant's right to separately contract for such services pursuant to Section 6.3(c) below is a reasonable price control on such services.

6. Tenant Improvements. A new Section 10.40 hereby is added to the Lease which new section shall read in its entirety as follows:

10.40 Tenant Improvements. Landlord has agreed to provide Tenant an allowance (the "TI Allowance") of up to $60.00 per rentable square foot of the Premises (*i.e.*, up to a total of $26,639,220.00) for Tenant Improvements (as defined in the Work Letter attached hereto as Exhibit A) to be made in, on or about the Premises. The Tenant Improvements shall be performed and the TI Allowance shall be disbursed in accordance with said Work Letter as further described in Exhibit DD attached to this Lease and made a part hereof. Such TI Allowance will be available as of the Reference Date.

A new Exhibit DD in the form and content of Exhibit A attached hereto and which is incorporated herein for all purposes, hereby is added to and made a part of the Lease.

7. Landlord Improvements. A new Section 10.41 hereby is added to the Lease which new section shall read in its entirety as follows:

10.41 Landlord Improvements. Landlord shall update the elevator cabs in (i) Building B100 no later than December 31, 2025, and (ii) Building B200 and Building B500 no later than December 31, 2026 (each subject to extension for force majeure and any delays caused solely by the negligence or willful misconduct of Tenant or by Tenant's objections to reasonable Class A office finishes proposed by Landlord in Building B100 or Building B200). Landlord shall also, prior to December 31, 2029 (subject to extension for force majeure and any delays caused by Tenant), update the restrooms in the common areas and the paint and flooring of the first floor gaming and tenant lounge in Building B500. All such update work shall be performed by Landlord at its sole cost and expense (and all costs and expenses so incurred by Landlord shall not be included as part of Operating Costs), in good and workman-like manner which is consistent with a Class A Office Property and using Class A office Building standard finishes selected by Landlord and, with respect to the finishes in Building B100 and/or Building B200, to which Tenant has not notified Landlord of its reasonable objection within fifteen (15) days after Landlord's selection is presented to Tenant.

8. Signage. Exhibits T and T-1 to the Lease are hereby amended as follows:

(i) Exhibit T Section 1 hereby is deleted in its entirety and replaced by the following in lieu thereof:

1. Building Top Signage. As of the Extension Term Commencement Date, Tenant has Building-top signage ("Building-Top Signage") on each of B100 and B200, as depicted on Exhibit T-1. Tenant shall have the option, at its sole cost and expense (which Tenant is permitted to fund via the TI Allowance) and subject to local ordinances and city code, to install its name, its logo or both on the top of any building at the Property to which Tenant leases at least fifty (50%) of the rentable square footage of that building.

(ii) Exhibit T Section 2 is hereby amended to add the following as the third to last sentence of the section: "Tenant shall have the option, at its sole cost and expense (which Tenant is permitted to fund via the TI Allowance) and subject to local ordinances and city code, to install its name, its logo or both on the building monument sign facing William Cannon Drive so long as Tenant leases a minimum of two (2) full floors of the 7201 Building (as defined herein)."

(iii) Exhibit T hereby is amended by adding a Section 12 which shall read in its entirety as follows:

12. Directional Signage. Landlord shall, at its sole cost and expense (and all costs and expenses so incurred by Landlord shall not be included as part of Operating Costs), install updated directional signage to the buildings at the Property at Tenant's request, with the location and appearance subject to Landlord's review and approval, which shall not be unreasonably withheld, conditioned or delayed.

(iv) Exhibit T-1 is hereby deleted in its entirety and replaced by Exhibit B attached hereto.

9. Restoration. Sections 6.4, 10.15, and 10.32 of the Lease are hereby amended as follows:

(i) The third sentence of Section 6.4(d) is amended and restated as follows:

"With respect to any Alterations (as such term is defined herein) constructed by Tenant after the 26 day of October, 2023 (herein, the "Reference Date"), Landlord reserves the option to require Tenant, at Tenant's sole cost and expense, to remove all fixtures, alterations, additions, decorations, or installations installed by Tenant, collectively in this Section called "Alterations," and to restore the Property to the same condition as existed at time said Alterations were constructed or installed, reasonable wear and tear excepted, if Landlord gives Tenant written notice electing to require said removal and restoration prior to the expiration or other termination of the Term; provided, however, that Tenant may, at such time as it requests Landlord's approval for Tenant to make Alterations, request that Landlord either allow such Alterations to remain upon expiration of the Lease, or that Landlord requires such Alterations to be removed by Tenant upon expiration of the Term, and Landlord agrees to provide Landlord's decision with respect to such change at the time of a request by Tenant for that decision. Any such request from Tenant regarding removal of Alterations shall conspicuously state in bold, uppercase typeface that Tenant will not be required to remove the Alterations in question at the end of the Term unless, contemporaneously with Landlord's notice of approval to Tenant with respect to the Alterations in question, Landlord notifies Tenant in writing that Landlord will require Tenant to remove such alterations prior to the expiration of the Term."

(ii) The following sentence is added to the end of Section 6.4(d):

"For the avoidance of doubt, Tenant shall have no obligation to remove or restore any alterations or improvements made in the Premises or the Property by Tenant prior to the Reference Date."

(iii) The first two sentences of Section 10.32(f) are amended and restated as follows: "Within five (5) days after the date that Tenant no longer leases any of the rentable square footage in a particular Building, Tenant shall, at its risk and expense, remove the Rooftop Equipment from such Building that was installed on or after the Reference Date. In addition, within five (5) days after (A) the termination of this Lease, (B) the expiration of the Term, or (C) Tenant's vacating all of the Premises, Tenant shall, at its risk and expense, remove all Rooftop Equipment from the Property that was installed on or after the Reference Date."

10. Exclusivity. Exhibit C to the Fifth Amendment is hereby amended as follows:

(i) A new Exhibit GG in the form and content of Exhibit F attached to this Amendment and which is incorporated herein for all purposes, hereby is added to and made a part of the Lease.

11. Building B300 Expansion Premises. A new Section 10.42 hereby is added to the Lease which new section shall read in its entirety as follows:

10.42. Building 300 Expansion Premises. "Building B300 Expansion Premises" shall mean that 29,925 square feet in Building B300 that Tenant subleases from SolarWinds Worldwide, LLC, a Delaware limited liability company ("SWI") pursuant to that certain Sublease Agreement dated as of October [__], 2021 (the "B300 Sublease"). Tenant has certain Premises expansion rights with respect to the Building 300 Expansion Premises as further described in **Exhibit EE** attached hereto and made a part hereof.

A new Exhibit EE in the form and content of Exhibit C attached to this Amendment and which is incorporated herein for all purposes, hereby is added to and made a part of the Lease.

12. Right of First Refusal. A new Exhibit FF in the form and content of Exhibit D attached to this Amendment and which is incorporated herein for all purposes, hereby is added to and made a part of the Lease.

13. Right of First Offer. Exhibit I to the Lease and Section 2 of the Fifth Amendment are amended as follows:

(i) The language of Exhibit I to the Lease is hereby deleted in its entirety and replaced with the following: Tenant shall have the right of first offer (the "Right of First Offer") to lease at least two (2) full floors of space in the proposed new building on the Property which would be constructed by Landlord at 7201 Southwest Parkway, Austin, Texas 78735 (the “7201 Building”). Landlord shall provide Tenant with an offer of the terms (the “Offer”), including the fair market rental rate (as determined by Landlord reasonably and in good faith), at least sixty (60) days prior to the date on which Landlord begins to market the availability of rentable space in the 7201 Building for lease. Tenant shall have sixty (60) days following its receipt of such Offer to exercise its Right of First Offer pursuant to the terms and conditions provided in the Offer by written notice to Landlord until Landlord will be free to lease the 7201 Building to third parties. In the event Tenant fails to timely exercise its Right of First Offer (i) and Landlord is unable to finalize a lease with a third-party tenant for any or all of the 7201 Building by the time construction has commenced on such 7201 Building, then the Offer will be resubmitted to Tenant and Tenant shall have an additional sixty (60) days within which to elect its Right of First Offer pursuant to the terms and conditions provided in such Offer until Landlord will be free to lease the 7201 Building to third parties, or (ii) and Landlord does not commence construction of the 7201 Building, Tenant’s Right of First Offer shall be reinstated. Tenant shall have no such Right of First Offer and Landlord need not provide Tenant with an Offer, if at the time Landlord would otherwise deliver the Offer: (a) a monetary Event of Default by Tenant exists, (b) Tenant has subleased, in the aggregate, 60,000 rentable square feet or more of the Premises, or (c) Tenant assigns its interest under this Lease other than to a Permitted Transferee. For the avoidance of doubt, (1) Landlord has no obligation to build the 7201 Building, and (2) in the event Landlord does decide to build the 7201 Building, Tenant shall have no approval rights over the construction and/or design of the 7201 Building.

(ii) Section 2 of the Fifth Amendment is amended by removing the following phrase from the beginning of the second sentence “except for the Right of First Offer set forth in Exhibit I (which rights have terminated),”.

14. Renewal Option. Section 3.2 of the Lease hereby is amended and restated in its entirety to be as follows:

(a) Landlord and Tenant agree that Tenant shall hereby have two (2) options (each a "Renewal Option") to extend the Term of the Lease for a period of ten (10) years (each a "Renewal Term") each for all or any portion of the Premises in (i) full building increments in any building of the Premises where Tenant leases the entire building, or (ii) half-floor increments in any building of the Premises where Tenant leases less than the entire building. In order to exercise a Renewal Option, Tenant must give written notice of Tenant's election to extend the Term of the Lease (the "Renewal Notice") no later than twenty-one (21) months and no more than twenty-four (24) months prior to the expiration of the Extension Term or first Renewal Term, as the case may be. Following Tenant's delivery of the Renewal Notice, Tenant shall notify Landlord in writing at least eighteen (18) months prior to the expiration of the Extension Term or first Renewal Term, as the case may be (the "Additional Notice") as to whether the Renewal Notice will apply to the entire Premises or apply to a reduced portion of the Premises as permitted herein. If Tenant does not timely deliver the Additional Notice, then it shall be deemed that the Renewal Notice will apply to the entire Premises. In the event Tenant exercises or is deemed to have exercised a Renewal Option for the entire Premises, the Base Rent for the applicable Renewal Term shall be calculated at 95% of the then-current "Fair Market Rental Rate" (determined as provided by the procedure stated in Section 4.2 of the Lease); provided, however, if Tenant exercises a Renewal Option for less than the entire Premises, the Base Rent for the applicable Renewal Term shall be calculated at 100% of the then-current Fair Market Rental Rate. Landlord and Tenant agree that, notwithstanding anything to the contrary contained in the Lease, Tenant has no further options to extend the Lease.

(b) Intentionally deleted.

(c) Tenant's lease of the Premises during the Renewal Term shall be on all of the then existing terms and conditions of this Lease, except that the Base Rent shall be in accordance with the foregoing and with Section 4.2 of the Lease. If Tenant exercises a Renewal Option for the Renewal Term in accordance with this section, Landlord and Tenant each shall, on or before the first day of the Renewal Term, execute and deliver to the other an amendment to this Lease, which confirms the renewal of the term of this Lease for the Renewal Term, sets forth the Base Rent (as determined in accordance with the foregoing and with Section 4.2 below) during the Renewal Term, but the term of this Lease shall be renewed for the Renewal Term and the Base Rent so determined in accordance with Section 4.2 shall be effective during the Renewal Term whether or not such amendment is executed.

(d) Tenant's rights under this Section 3.2 shall terminate, at Landlord's option, if (i) an Event of Default by Tenant exists as of the date of Tenant's exercise of its rights under this Section 3.2 or as of the commencement date of the Renewal Term, (ii) this Lease is terminated in accordance with the provisions of this Lease, (iii) Tenant assigns its interest in this Lease other than to a Permitted Transferee, (iv) Tenant ceases to lease at least 370,000 rentable square feet of space in the Property, (v) Tenant has sublet to a third party more than twenty-five percent (25%) of the premises leased by Tenant at the Property except pursuant to a Permitted Transfer, (vi) Tenant does not (as of the date of Tenant's exercise of its rights under this Section 3.2 or as of the commencement of the Renewal Term) occupy at least 65% of the premises that is being renewed, or (vii) Tenant fails to timely exercise its option under this Section 3.2, time being of the essence with respect to Tenant's exercise thereof.

(e) Landlord shall have no right to relocate Tenant during the Extension Term (or any extensions thereof).

15. Release of Letter of Credit. Section 4.6 and Exhibit BB of the Lease and are hereby amended as follows:

(i) Section 4.6 is hereby deleted in its entirety and replaced with the following: "Within ninety (90) days after the Reference Date, the current Letter of Credit shall be terminated and returned to Tenant. Landlord shall not require a replacement security deposit or Letter of Credit and all provisions of the Lease relating to or governing the Letter of Credit or other form of security deposit hereby are terminated, canceled and of no further force or effect."

(ii) Exhibit BB is hereby deleted in its entirety and replaced with the following: "Intentionally Deleted".

16. Density Limits. Section 6.1(b) of the Lease is amended to read as follows:

(i) Effective as of the Effective Date hereof, the Density Limit as set forth in Section 6.1(b) is hereby amended such that all references to a density limit of one (1) person for each 200 rentable square feet shall be deleted and replaced with "one (1) person for each 165 rentable square feet".

(ii) The following sentence shall be added to the end of Section 6.1(b): "Notwithstanding the foregoing, Tenant shall have the right to exceed the Density Limit in the Premises by fifty (50) people from time to time on a temporary basis. Should Tenant desire to increase the Density Limit by fifty (50) people on a permanent basis, it shall comply with the requirements of Section 6.1(b) of the Lease, the remainder of which, for the avoidance of doubt, is not modified hereunder and shall remain in effect. For the avoidance of doubt, Tenant's obligation to conform with all relevant code requirements shall apply on a floor-by-floor basis."

17. Parking. The following two sections are hereby added to the end of Exhibit U to the Lease:

5. Valet Parking. Landlord hereby agrees to permit Tenant to utilize a valet parking program in any parking garage supporting a building in which Tenant is the sole occupant, which valet program shall be subject to Landlord's approval, not to be unreasonably withheld or delayed.

6. P100 Additional Parking. Landlord agrees, from time to time throughout the Term of the Lease, at Tenant's request and at no cost to Landlord, to consult and advise in good faith with Tenant regarding the expansion of the parking garage P100 on the Property. Landlord shall have no obligation to expand parking garage P100.

18. Generator/Equipment Pads. Landlord agrees, from time to time throughout the Term of the Lease and at Tenant's request, to consult and advise in good faith with Tenant regarding the expansion or addition of equipment pads on the Property.

19. Utility Exhibit. Effective as of the Effective Date, Exhibit J, Utility Exhibit to the Lease, is hereby deleted in its entirety and replaced with the Exhibit J, Utility Exhibit in the form attached hereto as Exhibit E.

20. Landlord's Lenders. Landlord represents and warrants to Tenant that it has obtained all consents and approvals from each and all of its lenders that may be required by its lenders to enable Landlord to enter into and perform its obligation under this Amendment and that the keeping and performance of Landlord's obligations under this Amendment have not resulted, and will not, result, in a breach or violation of and deed of trust or other lien, security interest, assignment or pledge heretofore granted by Landlord covering the Property of any part thereof.

21. Authority. Tenant represents to Landlord as follows: (a) Tenant is validly existing and in good standing under the laws of the State of Delaware, (b) Tenant has and is qualified to do business in Texas, (c) Tenant has the full right and authority to enter into this Amendment, and (d) each person signing on behalf of Tenant was and continues to be authorized to do so. Landlord represents to Tenant as follows: (i) Landlord is validly existing under the laws of the State of Delaware, (ii) Landlord has and is qualified to do business in Texas, (iii) Landlord has the full right and authority to enter into this Amendment, and (iv) each person signing on behalf of Landlord was and continues to be authorized to do so.

22. Ratification of Lease. Except as amended hereby, the Lease shall remain in full force and effect in accordance with its term and is hereby ratified. In the event of a conflict between the Lease and this Amendment, this Amendment shall control.

23. No Representations. Landlord and Landlord's agents have made no representations or promises, express or implied, in connection with this Amendment except as expressly set forth herein and Tenant has not relied on any representations except as expressly set forth herein.

24. Entire Agreement. This Amendment, together with the Lease contain all of the agreements of the parties hereto with respect to any matter covered or mentioned in this Amendment or the Lease and no prior agreement, understanding or representation pertaining to any such matter shall be effective for any purpose, except for any obligations that survive the expiration or termination of the Sublease Consent (as defined in the Fifth Amendment).

25. Severability. A determination that any provision of this Amendment is unenforceable or invalid shall not affect the enforceability or validity of any other provision hereof and any determination that the application of any provision of this Amendment to any person or circumstance is illegal or unenforceable shall not affect the enforceability or validity of such provision as it may apply to any other persons or circumstances.

26. Governing Law. This Amendment shall be governed by and construed in accordance with the laws of the State of Texas without regard to its provisions governing conflicts of law.

27. Section Headings. The section headings contained in this Amendment are for convenience only and shall in no way enlarge or limit the scope or meaning of the various and several sections hereof.

28. Successors and Assigns. The terms and provisions hereof shall be binding upon and inure to the benefit of the parties hereto and their respective successors and assigns.

29. Submission of Amendment Not Offer. The submission by any party hereto to the other parties hereto for their consideration shall have no binding force or effect, and shall not confer any rights upon any party or impose any obligations upon any party irrespective of any reliance thereon, change of position or partial performance. This Amendment is effective and binding on the parties hereto only upon the execution and delivery of this Amendment by Landlord and Tenant.

30. Brokers. Landlord and Tenant hereby warrant to each other that they have had no dealings with any real estate broker or agent in connection with the negotiation of this Amendment other than HPI Real Estate Services & Investments (Landlord's broker) and CBRE, Inc. (Tenant's broker) (collectively, the "Brokers"), and that they know of no other real estate broker or agent who is entitled to a commission in connection with this Amendment. Each party agrees to indemnify and defend the other party against and hold the other party harmless from any and all claims, demands, losses, liabilities, lawsuits, judgments, and costs and expenses (including, without limitation, reasonable attorneys' fees) with respect to any leasing commission or equivalent compensation alleged to be owing on account of the indemnifying party's dealings with any real estate broker or agent, other than the Brokers. Each of Landlord and Tenant agree to obtain and deliver to the other of them at the time this Amendment is signed by them, a written release of all liens and claims (statutory, common law or otherwise) of the Landlord's Broker and the Tenant's Broker, respectively, to commissions or fees incident to the signing of this Amendment. The terms of this Section 30 shall survive the expiration or earlier termination of the Lease, as hereby amended.

[Signature page to follow.]

IN WITNESS WHEREOF, the parties have executed this Amendment to be effective as of the Effective Date.

LANDLORD:

SUMMIT LANTANA OWNER, LP,
a Delaware limited partnership

By: Summit Lantana Owner GP, LLC, a Delaware limited liability company, its general partner

By: Summit Lantana REIT, LLC, a Delaware limited liability company, its sole member

By: Summit Lantana JV, LP, a Delaware limited partnership, its sole member

By: 7171 HP GP, LLC, a Texas limited liability company, its general partner

By: /s/Sam Houston
Name: Sam Houston
Title: Manager

TENANT:

ADVANCED MICRO DEVICES, INC.,
a Delaware corporation

By: /s/Jean Hu
Name: Jean Hu
Title: CFO

Certification of Chief Executive Officer
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Lisa T. Su, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Advanced Micro Devices, Inc. (the “Company”);

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 Company as of, and for, the periods presented in this report;

4. The Company’s other certifying officer 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 Company 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 Company, 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 Company’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 Company’s internal control over financial reporting that occurred during the Company’s most recent fiscal quarter (the Company’s fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the Company’s internal control over financial reporting; and

5. The Company’s other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Company’s auditors and the audit committee of the Company’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 Company'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 Company's internal control over financial reporting.

Date: November 1, 2023

/s/Lisa T. Su

Lisa T. Su
Chair, President and Chief Executive Officer
(Principal Executive Officer)

Certification of Chief Financial Officer
Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002

I, Jean Hu, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Advanced Micro Devices, Inc. (the "Company");

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 Company as of, and for, the periods presented in this report;

4. The Company's other certifying officer 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 Company 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 Company, 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 Company'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 Company's internal control over financial reporting that occurred during the Company's most recent fiscal quarter (the Company's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting; and

5. The Company's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the Company's auditors and the audit committee of the Company'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 Company’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 Company’s internal control over financial reporting.

Date: November 1, 2023

/s/Jean Hu

Jean Hu
Executive Vice President,
Chief Financial Officer and Treasurer
(Principal Financial Officer)

Exhibit 32.1

Certification of Principal Executive Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

Pursuant to 18 U.S.C. § 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, the undersigned officer of Advanced Micro Devices, Inc. (the "Company") hereby certifies, to such officer's knowledge, that:

(i.) the Quarterly Report on Form 10-Q of the Company for the period ended September 30, 2023 (the "Report") fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and

(ii.) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: November 1, 2023

/s/*Lisa T. Su*

Lisa T. Su
Chair, President and Chief Executive Officer
(Principal Executive Officer)

Exhibit 32.2

Certification of Principal Financial Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002

Pursuant to 18 U.S.C. § 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, the undersigned officer of Advanced Micro Devices, Inc. (the "Company") hereby certifies, to such officer's knowledge, that:

(i.) the Quarterly Report on Form 10-Q of the Company for the period ended September 30, 2023 (the "Report") fully complies with the requirements of Section 13(a) or Section 15(d), as applicable, of the Securities Exchange Act of 1934, as amended; and

(ii.) the information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: November 1, 2023

/s/Jean Hu

Jean Hu
Executive Vice President,
Chief Financial Officer and Treasurer
(Principal Financial Officer)