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 24, 2022

OR

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

For the transition period from to

Commission File Number **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 28, 2022: 1,612,356,162

INDEX

Table of Contents

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 24, 2022	September 25, 2021	September 24, 2022	September 25, 2021
	(In millions, except per share amounts)			
Net revenue	$ 5,565	$ 4,313	$ 18,002	$ 11,608
Cost of sales	2,799	2,227	8,797	6,105
Amortization of acquisition-related intangibles	412	—	1,005	—
Total cost of sales	3,211	2,227	9,802	6,105
Gross profit	2,354	2,086	8,200	5,503
Research and development	1,279	765	3,639	2,034
Marketing, general and administrative	557	376	1,746	1,036
Amortization of acquisition-related intangibles	590	—	1,499	—
Licensing gain	(8)	(3)	(97)	(8)
Operating income (loss)	(64)	948	1,413	2,441
Interest expense	(31)	(7)	(69)	(26)
Other income (expense), net	22	62	(24)	51
Income (loss) before income taxes and equity income	(73)	1,003	1,320	2,466
Income tax provision (benefit)	(135)	82	32	284
Equity income in investee	4	2	11	6
Net income	$ 66	$ 923	$ 1,299	$ 2,188
Earnings per share				
Basic	$ 0.04	$ 0.76	$ 0.84	$ 1.80
Diluted	$ 0.04	$ 0.75	$ 0.84	$ 1.78
Shares used in per share calculation				
Basic	1,615	1,214	1,542	1,214
Diluted	1,625	1,230	1,555	1,231

See accompanying notes.

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

	Three Months Ended		Nine Months Ended	
	September 24, 2022	September 25, 2021	September 24, 2022	September 25, 2021
	(In millions)			
Net income	$ 66	$ 923	$ 1,299	$ 2,188
Other comprehensive income (loss), net of tax:				
Net change in unrealized gains (losses) on cash flow hedges	(55)	(7)	(85)	(17)
Total comprehensive income	$ 11	$ 916	$ 1,214	$ 2,171

See accompanying notes.

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

	September 24, 2022	December 25, 2021
	(In millions, except par value amounts)	
ASSETS		
Current assets:		
Cash and cash equivalents	$ 3,398	$ 2,535
Short-term investments	2,193	1,073
Accounts receivable, net	4,336	2,706
Inventories	3,369	1,955
Receivables from related parties	4	2
Prepaid expenses and other current assets	1,120	312
Total current assets	14,420	8,583
Property and equipment, net	1,486	702
Operating lease right-of-use assets	490	367
Goodwill	24,187	289
Acquisition-related intangibles	25,162	—
Investment: equity method	80	69
Deferred tax assets	32	931
Other non-current assets	1,954	1,478
Total assets	$ 67,811	$ 12,419
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable	$ 2,337	$ 1,321
Payables to related parties	397	85
Accrued liabilities	3,598	2,424
Current portion of long-term debt, net	—	312
Other current liabilities	359	98
Total current liabilities	6,691	4,240
Long-term debt, net of current portion	2,466	1
Long-term operating lease liabilities	424	348
Deferred tax liabilities	2,078	12
Other long-term liabilities	1,610	321
Commitments and Contingencies (See Note 13)		
Stockholders' equity:		
Capital stock:		
Common stock, par value $0.01; shares authorized: 2,250; shares issued: 1,642 and 1,232; shares outstanding: 1,612 and 1,207	16	12
Additional paid-in capital	57,581	11,069
Treasury stock, at cost (shares held: 30 and 25)	(2,815)	(2,130)
Accumulated deficit	(152)	(1,451)
Accumulated other comprehensive loss	(88)	(3)
Total stockholders' equity	54,542	7,497
Total liabilities and stockholders' equity	$ 67,811	$ 12,419

See accompanying notes.

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

	Nine Months Ended	
	September 24, 2022	September 25, 2021
	(In millions)	
Cash flows from operating activities:		
Net income	$ 1,299	$ 2,188
Adjustments to reconcile net income to net cash provided by operating activities:		
Depreciation and amortization	2,954	289
Stock-based compensation	766	267
Amortization of operating lease right-of-use assets	63	40
Amortization of inventory fair value adjustment	187	—
Loss on debt redemption, repurchase and conversion	—	7
Loss on sale or disposal of property and equipment	15	19
Deferred income taxes	(1,328)	201
(Gains) losses on equity investments, net	57	(52)
Other	(9)	(2)
Changes in operating assets and liabilities		
Accounts receivable, net	(1,301)	(158)
Inventories	(997)	(504)
Receivables from related parties	(1)	5
Prepaid expenses and other assets	(825)	(284)
Payables to related parties	313	(42)
Accounts payable	811	526
Accrued liabilities and other	994	199
Net cash provided by operating activities	2,998	2,699
Cash flows from investing activities:		
Purchases of property and equipment	(326)	(215)
Purchases of short-term investments	(2,399)	(1,901)
Proceeds from maturity of short-term investments	2,864	1,428
Cash received from acquisition of Xilinx	2,366	—
Acquisition of Pensando, net of cash acquired	(1,558)	—
Other	(15)	2
Net cash provided by (used in) investing activities	932	(686)
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	79	55
Repurchases of common stock	(3,452)	(1,004)
Common stock repurchases for tax withholding on employee equity plans	(371)	(219)
Other	(2)	—
Net cash used in financing activities	(3,067)	(1,168)
Net increase in cash and cash equivalents	863	845
Cash and cash equivalents at beginning of period	2,535	1,595
Cash and cash equivalents at end of period	$ 3,398	$ 2,440

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

	Nine Months Ended	
	September 24, 2022	September 25, 2021
	(In millions)	
Supplemental cash flow information:		
Cash paid for taxes, net of refunds	$ 584	$ 23
Non-cash investing and financing activities:		
Purchases of property and equipment, accrued but not paid	$ 122	$ 74
Issuance of common stock to settle convertible debt	$ —	$ 25
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	$ —
Transfer of assets for acquisition of property and equipment	$ 13	$ 37
Non-cash activities for leases:		
Operating lease right-of-use assets acquired by assuming related liabilities	$ 119	$ 128

See accompanying notes.

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

	Three Months Ended		Nine Months Ended	
	September 24, 2022	September 25, 2021	September 24, 2022	September 25, 2021
	(In millions)			
Capital stock:				
Common stock, par value				
Balance, beginning of period	$ 16	$ 12	$ 12	$ 12
Issuance of common stock as consideration for acquisition	—	—	4	—
Balance, end of period	$ 16	$ 12	$ 16	$ 12
Additional paid-in capital				
Balance, beginning of period	$ 57,297	$ 10,795	$ 11,069	$ 10,544
Common stock issued under employee equity plans	1	4	79	55
Stock-based compensation	275	99	765	267
Issuance of common stock to settle convertible debt	—	—	—	25
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	7	21	14
Balance, end of period	$ 57,581	$ 10,905	$ 57,581	$ 10,905
Treasury stock				
Balance, beginning of period	$ (1,893)	$ (401)	$ (2,130)	$ (131)
Repurchases of common stock	(617)	(750)	(3,452)	(1,006)
Common stock repurchases for tax withholding on employee equity plans	(305)	(205)	(371)	(219)
Reissuance of treasury stock as consideration for acquisition	—	—	3,138	—
Balance, end of period	$ (2,815)	$ (1,356)	$ (2,815)	$ (1,356)
Accumulated deficit:				
Balance, beginning of period	$ (218)	$ (3,348)	$ (1,451)	$ (4,605)
Cumulative effect of adoption of accounting standard	—	—	—	(8)
Net income	66	923	1,299	2,188
Balance, end of period	$ (152)	$ (2,425)	$ (152)	$ (2,425)
Accumulated other comprehensive income (loss):				
Balance, beginning of period	$ (33)	$ 7	$ (3)	$ 17
Other comprehensive loss	(55)	(7)	(85)	(17)
Balance, end of period	$ (88)	$ —	$ (88)	$ —
Total stockholders' equity	$ 54,542	$ 7,136	$ 54,542	$ 7,136

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), adaptive SoC products, and Adaptive Compute Acceleration Platform (ACAP) products. From time to time, the Company may also sell or license portions of its intellectual property (IP) portfolio.

On February 14, 2022 (the Xilinx Acquisition Date), the Company completed the acquisition of Xilinx, Inc. (Xilinx). On May 26, 2022 (the Pensando Acquisition Date), the Company completed the acquisition of Pensando Systems, Inc. (Pensando). See Note 5 - Business Combinations for additional information on these acquisitions.

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 24, 2022 shown in this report are not necessarily indicative of results to be expected for the full year ending December 31, 2022 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 25, 2021. Certain prior period amounts have been reclassified to conform to the 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 24, 2022 and September 25, 2021 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 and related carrying value adjustments, valuation and assessing potential impairment, if any, of goodwill and intangible assets, business combination accounting and deferred income tax assets.

Significant Accounting Policies. Except for the addition of business combinations, impairment of long-lived and intangible assets, and Global Intangible Low-Taxed Income (GILTI) accounting policies to the Company's significant accounting policies, there have been no material changes to the Company's significant accounting policies in Note 2 - Summary of Significant Accounting Policies, of the Notes to the Consolidated Financial Statements included in the Company's Annual Report on Form 10-K for the fiscal year ended December 25, 2021.

Business Combinations. The Company is required to use the acquisition method of accounting for business combinations. The acquisition method of accounting requires the Company to allocate the purchase consideration to the assets acquired and liabilities assumed from the acquiree based on their respective fair values as of the acquisition date. The excess of the fair value of purchase consideration over the fair value of these assets acquired and liabilities assumed is recorded as goodwill. When determining the fair values of assets acquired and liabilities assumed, management makes significant estimates and assumptions, especially with respect to intangible assets. Critical estimates in valuing intangible assets include, but are not limited to, expected future cash flows, which includes consideration of future revenue growth and margins, future changes in technology, expected cost and time to develop in-process research and development and discount rates. Fair value estimates are based on the assumptions that management believes a market participant would use in pricing the asset or liability. These estimates are inherently uncertain and, therefore, actual results may differ from the estimates made. As a result, during the measurement period of up to one year from the acquisition date, the Company may record adjustments to the assets acquired and liabilities assumed with the corresponding offset to goodwill. Upon the conclusion of the measurement period or final determination of the fair value of the purchase price of an acquisition, whichever comes first, any subsequent adjustments are recorded in the Consolidated Statements of Operations.

Impairment of Long-Lived and Intangible Assets. Long-lived and intangible assets to be held and used are reviewed for impairment if indicators of potential impairment exist and at least annually for indefinite-lived intangible assets. Impairment indicators are reviewed on a quarterly basis. Assets are grouped and evaluated for impairment at the lowest level of identifiable cash flows.

When indicators of impairment exist and assets are held for use, the Company estimates future undiscounted cash flows attributable to the related asset groups. In the event such cash flows are not expected to be sufficient to recover the recorded value of the assets, the assets are written down to their estimated fair values based on the expected discounted future cash flows attributable to the asset group or based on appraisals. Factors affecting impairment of assets held for use include the ability of the specific assets to generate separately identifiable positive cash flows.

When assets are removed from operations and held for sale, the Company estimates impairment losses as the excess of the carrying value of the assets over their fair value. Market conditions are among the factors affecting impairment of assets held for sale. Changes in any of these factors could necessitate impairment recognition in future periods for assets held for use or assets held for sale.

Global Intangible Low-Taxed Income (GILTI). In 2022, the Company elected to change its method of accounting for the United States GILTI tax from recording the tax impact in the period it is incurred to recognizing deferred taxes for temporary tax basis differences expected to reverse as GILTI tax in future years. The change is considered preferable based on the Company's facts and circumstances as it provides better and more timely information of expected future income tax liabilities arising from temporary tax differences primarily associated with the Xilinx acquisition. As a result of the acquisition, the Company recorded $27.3 billion of identified intangible assets (refer to Note 5 - Business Combinations), of which $16.9 billion are related to foreign operations which will be amortized to income from operations over the assets' estimated useful lives, but for which the Company will not receive a tax deduction under GILTI. Recognition of deferred taxes for the future GILTI impact of this amount is considered preferable as it provides better information about potential future tax liabilities of the Company based on current transactions. This accounting policy change resulted in the recording of $863 million of deferred tax liabilities in connection with the Xilinx acquisition as disclosed in Note 12 - Income Taxes. In addition, for the three and nine months ended September 24, 2022, it resulted in a decrease in the income tax provision with a corresponding increase to net income of $209 million and $346 million and an increase in basic and diluted earnings per share of $0.13 and $0.23 respectively, as compared to the computation under the previous accounting policy. This accounting policy change had no material impact on the Company's historical consolidated financial statements.

NOTE 3 – Supplemental Financial Statement Information

Accounts Receivable, net

As of September 24, 2022 and December 25, 2021, Accounts receivable, net included unbilled accounts receivable of $1.3 billion and $329 million, respectively. 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 24, 2022		December 25, 2021
		(In millions)		
Raw materials	$	207	$	82
Work in process		2,466		1,676
Finished goods		696		197
Total inventories	$	3,369	$	1,955

Prepaid Expenses and Other Current Assets		September 24, 2022		December 25, 2021
		(In millions)		
Prepaid supply agreements	$	719	$	74
Other		401		238
Total prepaid expenses and other current assets	$	1,120	$	312

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 24, 2022		December 25, 2021
		(In millions)		
Land	$	120	$	—
Building and leasehold improvements		596		206
Equipment		1,990		1,534
Construction in progress		176		96
Property and equipment, gross		2,882		1,836
Accumulated depreciation		(1,396)		(1,134)
Total property and equipment, net	$	1,486	$	702

Other Non-Current Assets		September 24, 2022		December 25, 2021
		(In millions)		
Long-term prepaid supply agreements	$	1,020	$	916
Software and technology licenses, net		552		328
Other		382		234
Total other non-current assets	$	1,954	$	1,478

Accrued Liabilities		September 24, 2022		December 25, 2021
		(In millions)		
Accrued marketing programs	$	900	$	933
Accrued compensation and benefits		749		705
Customer program liabilities		1,134		314
Other accrued and current liabilities		815		472
Total accrued liabilities	$	3,598	$	2,424

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 24, 2022, the aggregate transaction price allocated to remaining performance obligations under contracts with an original expected duration of more than one year was $302 million, of which $244 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 approximately 30% and 24% of the Company's revenue for the three and nine months ended September 24, 2022, respectively, and 22% for each of the three and nine months ended September 25, 2021.

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. In the second quarter of fiscal year 2022, the Company updated its segment reporting structure to align financial reporting with the manner in which the Company manages its business in strategic end markets. The Company's disclosed measure of segment operating results has been updated consistent with the revised manner in which the Company's CODM assesses the company's financial performance and allocates resources. All prior-period segment data have been retrospectively adjusted.

The Company's four reportable segments are:

- the Data Center segment, which primarily includes server microprocessors and GPUs, DPUs, FPGAs and adaptive SoC products for data centers;
- the Client segment, which primarily includes microprocessors, accelerated processing units that integrate microprocessors and graphics, 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 microprocessors and GPUs, FPGAs, adaptive SoC products, and ACAP 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.

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

	Three Months Ended September 24, 2022	Three Months Ended September 25, 2021	Nine Months Ended September 24, 2022	Nine Months Ended September 25, 2021
	(In millions)			
Net revenue:				
Data Center	$ 1,609	$ 1,108	$ 4,388	$ 2,531
Client	1,022	1,692	5,298	5,058
Gaming	1,631	1,434	5,161	3,844
Embedded	1,303	79	3,155	175
Total net revenue	$ 5,565	$ 4,313	$ 18,002	$ 11,608
Operating income (loss):				
Data Center	$ 505	$ 308	$ 1,404	$ 622
Client	(26)	490	1,342	1,558
Gaming	142	231	687	527
Embedded	635	23	1,553	26
All Other (1)	(1,320)	(104)	(3,573)	(292)
Total operating income (loss)	$ (64)	$ 948	$ 1,413	$ 2,441

(1) 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.

For the three and nine months ended September 25, 2021, all other operating losses primarily included $99 million and $267 million of stock-based compensation expense, and $8 million and $33 million of acquisition-related costs, respectively.

NOTE 5 – Business Combinations

Pensando Acquisition

On May 26, 2022, the Company completed the acquisition of all issued and outstanding shares of Pensando, a leader in next-generation distributed computing, for a transaction valued at approximately $1.9 billion. The recorded purchase consideration of $1.7 billion is net of deferred cash compensation requiring future services and other customary closing adjustments. The acquisition of Pensando and its leading distributed services platform expands the Company’s ability to offer leadership solutions for cloud, enterprise, and edge customers.

The purchase consideration was preliminarily allocated as follows:

		(In millions)
Cash and cash equivalents	$	111
Accounts receivable		31
Inventory		66
Prepaid expenses and other current assets		43
Property and equipment		11
Deferred tax assets		22
Acquisition-related intangibles		349
Total Assets		**633**
Accounts payable		15
Accrued and other liabilities		61
Total Liabilities		**76**
Fair value of net assets acquired		557
Goodwill		1,098
Total purchase consideration	**$**	**1,655**

The Company allocated the purchase price to tangible and identified intangible assets acquired and liabilities assumed based on the preliminary estimates of their fair values, which were determined using generally accepted valuation techniques based on estimates and assumptions made by management. The fair values are subject to adjustment for up to one year after the close of the transaction as additional information is obtained. Any adjustments to the preliminary purchase price allocation identified during the measurement period are recognized in the period in which the adjustments are determined. Adjustments to the preliminary purchase price allocation since the completion of the acquisition resulted in an immaterial decrease to goodwill.

Goodwill arising from the Pensando acquisition was assigned to the Company's Data Center segment. Goodwill was primarily attributed to expanded market opportunities expected to be achieved from the integration of Pensando. Goodwill is not expected to be deductible for income tax purposes.

Following are details of the purchase consideration allocated to acquired intangible assets:

	Fair Value	Weighted-average estimated useful life
	(In millions)	(In years)
Developed technology [1]	$ 60	4 years
Customer relationships [2]	34	3 years
Customer backlog [3]	16	1 year
Product trademarks [4]	19	5 years
Identified intangible assets subject to amortization	129	
In-process research and development (IPR&D) not subject to amortization [5]	220	N/A
Total identified intangible assets acquired	$ 349	

1) The fair value of developed technology was determined using the income approach, specifically the multi-period excess earnings method.
2) Customer relationships represent the fair value of existing contractual relationships and customer loyalty determined based on existing relationships using the income approach, specifically the with and without method.
3) Customer backlog represents the fair value of non-cancellable customer contract orders using the income approach, specifically the multi-period excess earnings method.
4) Product trademarks primarily relate to the Pensando product-related trademarks, and the fair value was determined by applying the income approach, specifically the relief from royalty method.
5) The fair value of IPR&D was determined using the income approach, specifically the multi-period excess earnings method.

The fair value of the identified intangible assets subject to amortization are amortized over the assets' estimated useful lives based on the pattern in which the economic benefits are expected to be received to cost of sales and operating expenses.

IPR&D consists of projects that have not yet reached technological feasibility as of the acquisition date. Accordingly, the Company recorded an indefinite-lived intangible asset of $220 million for the fair value of these projects, which will initially not be amortized. Instead, these projects will be tested for impairment annually and whenever events or changes in circumstances indicate that these projects may be impaired. Once the project reaches technological feasibility, the Company will begin to amortize the intangible assets over their estimated useful lives.

From the Pensando Acquisition Date to September 24, 2022, the Condensed Consolidated Statements of Operations include immaterial revenue and operating results attributable to Pensando, which are reported under the Data Center segment.

During the three and nine months ended September 24, 2022, Pensando acquisition-related costs of $40 million and $64 million, respectively, were recorded under Cost of sales, Research and development, and Marketing, general and administrative expenses on the Company's Condensed Consolidated Statements of Operations. Acquisition-related costs are primarily comprised of direct transaction costs, fair value adjustments for acquired inventory and certain compensation charges. The Company may incur additional acquisition-related costs in the future related to the acquisition.

Xilinx Acquisition

On February 14, 2022, the Company completed the acquisition of all issued and outstanding shares of Xilinx, a leading provider of adaptive computing solutions, for a total purchase consideration of $48.8 billion ($46.4 billion, net of cash acquired of $2.4 billion). The acquisition of Xilinx expands the Company's product portfolio to include adaptable hardware platforms that enable hardware acceleration and rapid innovation across a variety of technologies. With the acquisition of Xilinx, the Company now offers FPGAs, adaptive SoC products and ACAP products. The purchase consideration consisted of $48.5 billion of fair value of 429 million shares of the Company's common stock issued to Xilinx stockholders and $275 million of fair value of replacement equity awards attributable to services rendered pre-combination. As the transaction closed prior to the opening of markets on the Xilinx Acquisition Date, the fair value of the common stock issued to Xilinx stockholders was based on the closing price of the Company's common stock on February 11, 2022 of $113.18 per share.

The financial results of Xilinx are included in the Company's condensed consolidated financial statements from the Xilinx Acquisition Date to September 24, 2022 and are reported under the Embedded and Data Center segments.

The purchase consideration was preliminarily allocated as follows:

		(In millions)
Cash and cash equivalents	$	2,366
Short-term investments		1,582
Accounts receivable		299
Inventories		539
Prepaid expenses and other current assets		61
Property and equipment		692
Operating lease right-of-use assets		61
Acquisition-related intangibles		27,308
Deferred tax assets		11
Other non-current assets		418
Total Assets		**33,337**
Accounts payable		116
Accrued liabilities		633
Other current liabilities		191
Long-term debt		1,474
Long-term operating lease liabilities		45
Deferred tax liabilities		4,346
Other long-term liabilities		533
Total Liabilities		**7,338**
Fair value of net assets acquired		25,999
Goodwill		22,794
Total purchase consideration	**$**	**48,793**

The Company allocated the purchase price to tangible and identified intangible assets acquired and liabilities assumed based on the preliminary estimates of their fair values, which were determined using generally accepted valuation techniques based on estimates and assumptions made by management. The fair values are subject to adjustment for up to one year after the close of the transaction as additional information is obtained. The primary items pending are related to income tax matters. Any adjustments to the preliminary purchase price allocation identified during the measurement period are recognized in the period in which the adjustments are determined.

Goodwill arising from the acquisition of Xilinx was assigned to the Embedded and Data Center segments. Goodwill was primarily attributed to increased synergies expected to be achieved from the integration of Xilinx. Goodwill is not expected to be deductible for income tax purposes.

Following are details of the purchase consideration allocated to acquired intangible assets:

	Fair Value	Weighted-average estimated useful life
	(In millions)	(In years)
Developed technology [1]	$ 12,295	16 years
Customer relationships [2]	12,290	14 years
Customer backlog [3]	793	1 year
Corporate trade name [4]	65	1 year
Product trademarks [4]	895	12 years
Identified intangible assets subject to amortization	26,338	
In-process research and development (IPR&D) not subject to amortization [5]	970	N/A
Total identified intangible assets acquired	$ 27,308	

(1) The fair value of developed technology was determined using the income approach, specifically, the multi-period excess earnings method.

(2) Customer relationships represent the fair value of existing contractual relationships and customer loyalty determined based on existing relationships using the income approach, specifically the with and without method.

(3) Customer backlog represents the fair value of non-cancellable customer contract orders using the income approach, specifically the multi-period excess earnings method.

(4) Corporate trade name and product trademarks primarily relate to the Xilinx brand and product-related trademarks, respectively, and the fair values were determined by applying the income approach, specifically the relief from royalty method.

(5) The fair value of IPR&D was determined using the income approach, specifically the multi-period excess earnings method.

The fair value of the identified intangible assets subject to amortization are amortized over the assets' estimated useful lives based on the pattern in which the economic benefits are expected to be received to cost of sales and operating expenses.

IPR&D consists of projects that have not yet reached technological feasibility as of the acquisition date. Accordingly, the Company recorded an indefinite-lived intangible asset of $970 million for the fair value of these projects, which will initially not be amortized. Instead, these projects will be tested for impairment annually and whenever events or changes in circumstances indicate that these projects may be impaired. Once the project reaches technological feasibility, the Company will begin to amortize the intangible assets over their estimated useful life.

The Company also assumed unvested restricted stock units with estimated fair value of $1.2 billion, of which $275 million was included as a component of the purchase consideration and $951 million will be recognized as expense subsequent to the acquisition.

The Condensed Consolidated Statements of Operations include the following revenue and operating income attributable to Xilinx for the three and nine months ended September 24, 2022:

	Three Months Ended September 24, 2022	Nine Months Ended September 24, 2022
	(In millions)	
Net revenue	$ 1,312	$ 3,122
Operating income	$ 644	$ 1,470

Operating income attributable to Xilinx recorded under the Embedded and Data Center segments does not include amortization of acquisition-related intangibles, employee stock-based compensation expense and acquisition-related costs, which are recorded under the "All Other" segment.

During the three and nine months ended September 24, 2022, Xilinx acquisition-related costs of $11 million and $336 million, respectively, were recorded under Cost of sales, Research and development, and Marketing, general and administrative expenses on the Company's Condensed Consolidated Statements of Operations. Acquisition-related costs are primarily comprised of direct transaction costs, fair value adjustments for acquired inventory and certain compensation charges. The Company may incur additional acquisition-related costs in the future related to the Xilinx acquisition.

Supplemental Unaudited Pro Forma Information

Following are the supplemental consolidated financial results of the Company, Xilinx and Pensando on an unaudited pro forma basis, as if the acquisitions had been consummated as of the beginning of the fiscal year 2021 (i.e., December 27, 2020).

	Three Months Ended		Nine Months Ended	
	September 24, 2022	September 25, 2021	September 24, 2022	September 25, 2021
	(In millions)			
Net revenue	$ 5,565	$ 5,258	$ 18,518	$ 14,290
Net income (loss)	$ 397	$ 224	$ 1,928	$ (369)

The Company's fiscal year ends on the last Saturday in December of each year, Xilinx's fiscal year ended on the Saturday nearest March 31 of each year and Pensando's fiscal year ended on January 31 of each year. The unaudited pro forma information above is presented on the basis of the Company's fiscal year and combines the historical results of the fiscal periods of the Company with the following historical results of Xilinx and Pensando: the three months ended September 24, 2022 includes Xilinx and Pensando results for the same period; the three months ended September 25, 2021 includes Xilinx results for the three months ended October 2, 2021 and Pensando results for the three months ended September 30, 2021; the nine months ended September 24, 2022 includes Xilinx results for the nine-month period beginning January 2, 2022 through September 24, 2022 and Pensando results for the nine-month period beginning January 1, 2022 through September 24, 2022; and the nine months ended September 25, 2021 includes Xilinx results for the nine months ended October 2, 2021 and Pensando results for the nine months ended September 30, 2021.

The unaudited pro forma financial information presented is for informational purposes only and is not necessarily indicative of the results of operations that would have been achieved if the Xilinx and Pensando acquisitions were completed at the beginning of fiscal year 2021 and are not indicative of the future operating results of the combined company. The pro forma results include adjustments related to purchase accounting, primarily amortization of acquisition-related intangible assets, fixed asset depreciation expense and expense from assumed stock-based compensation awards. The pro forma results also include amortization expense of acquired Xilinx inventory fair value step-up of $184 million in the first quarter of fiscal year 2021 and no Xilinx inventory fair value step-up expense in fiscal year 2022.

NOTE 6 – Acquisition-related Intangible Assets and Goodwill

Acquisition-related Intangible Assets

Acquisition-related intangibles as of September 24, 2022 were as follows:

		September 24, 2022		
	Weighted-average Remaining Useful Life	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
		(In millions)		
Developed technology	15 years	$ 12,360	$ (512)	$ 11,848
Customer relationships	14 years	12,324	(1,411)	10,913
Customer backlog	5 months	809	(494)	315
Corporate trade name	5 months	65	(40)	25
Product trademarks	11 years	914	(47)	867
Identified intangible assets subject to amortization		26,472	(2,504)	23,968
IPR&D not subject to amortization	N/A	1,194	—	1,194
Total acquisition-related intangible assets		$ 27,666	$ (2,504)	$ 25,162

Acquisition-related intangible asset balance as of September 25, 2021 was not material.

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 24, 2022, 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 2022	$ 1,044
2023	2,804
2024	2,286
2025	2,061
2026	1,951
2027 and thereafter	13,822
Total	$ 23,968

Goodwill

In the second quarter of fiscal year 2022, the Company reassigned goodwill balances among the updated reportable segments to reflect changes in its segment reporting structure. The Company performed a goodwill impairment test immediately prior to and after the segment change and determined that no indicators of impairment to goodwill existed.

The carrying amount of goodwill as of September 24, 2022 and December 25, 2021 was $24.2 billion and $289 million, respectively, and was assigned to reporting units within the following reportable segments:

	December 26, 2021	Acquisitions and related adjustments	Reassignment due to segment change	September 24, 2022
		(In millions)		
Reportable segments before segment change:				
Enterprise, Embedded and Semi-Custom	$ 289	$ —	$ (289)	$ —
Xilinx	—	22,794	(22,794)	—
Reportable segments after segment change:				
Data Center	—	1,104	1,782	2,886
Gaming	—	—	238	238
Embedded	—	—	21,063	21,063
Total	$ 289	$ 23,898	$ —	$ 24,187

NOTE 7 – 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 24, 2022 amounted to $455 million and $1.2 billion, respectively. The Company’s purchases from the ATMP JV during the three and nine months ended September 25, 2021 amounted to $259 million and $775 million, respectively. As of September 24, 2022 and December 25, 2021, the amounts payable to the ATMP JV were $397 million and $85 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 24, 2022 amounted to $5 million and $13 million, respectively. The Company’s resales to the ATMP JV during the three and nine months ended September 25, 2021 amounted to $6 million and $25 million, respectively. As of September 24, 2022 and December 25, 2021, the Company had receivables from the ATMP JV of $4 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 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. During the three and nine months ended September 25, 2021, the Company recorded a gain of $2 million and $6 million, respectively, in Equity income in investee on its condensed consolidated statements of operations. As of September 24, 2022 and December 25, 2021, the carrying value of the Company’s investment in the ATMP JV was $80 million and $69 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 24, 2022 and December 25, 2021, 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 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. During the three and nine months ended September 25, 2021, the Company recognized $3 million and $8 million, respectively, of licensing gain from royalty income, both associated with Licensed IP. As of both September 24, 2022 and December 25, 2021, 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 8 – Debt and Revolving Credit Facility

Debt

The Company’s total debt as of September 24, 2022 and December 25, 2021 consisted of the following:

	September 24, 2022	December 25, 2021
	(In millions)	
7.50% Senior Notes Due August 2022 (7.50% Notes)	$ —	$ 312
2.95% Senior Notes Due 2024 (Xilinx 2024 Notes)	750	—
2.125% Convertible Senior Notes Due 2026 (2.125% Notes)	1	1
2.375% Senior Notes Due 2030 (Xilinx 2030 Notes)	750	—
3.924% Senior Notes Due 2032 (3.924% Notes)	500	—
4.393% Senior Notes Due 2052 (4.393% Notes)	500	—
Total debt (principal amount)	2,501	313
Unamortized debt discount and issuance costs	(35)	—
Total debt (net)	2,466	313
Less: current portion of long-term debt	—	(312)
Total long-term debt	$ 2,466	$ 1

In August 2022, the Company repaid its $312 million 7.50% Senior Notes.

Assumed Xilinx Notes

In connection with the acquisition of Xilinx, the Company assumed $1.5 billion in aggregate principal of Xilinx’s 2.95% Notes and 2.375% Notes (together, the *Assumed Xilinx Notes*) which were recorded at fair value as of the Xilinx Acquisition Date. The difference between the fair value at the Xilinx Acquisition Date and the principal outstanding of the Assumed Xilinx Notes is being amortized through interest expense over the remaining term of the debt. The Assumed Xilinx Notes 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 Assumed Xilinx 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 24, 2022, 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% Notes

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

During the nine months ended September 25, 2021, holders of the 2.125% Notes converted $25 million principal amount of notes in exchange for approximately 3 million shares of the Company's common stock at the conversion price of $8.00 per share. The Company recorded a loss of $7 million from these conversions in Other income (expense), net on its condensed consolidated statements of operations.

Future Debt Payment Obligations

As of September 24, 2022, the Company's future debt payment obligations were as follows:

Fiscal Year	Principal (In millions)
2022	$ —
2023	—
2024	750
2025	—
2026	1
2027 and thereafter	1,750
Total	$ 2,501

Revolving Credit Facility

On April 29, 2022, the Company entered into a Credit Agreement (Revolving Credit Agreement) with Wells Fargo Bank, N.A. as administrative agent and the other banks identified therein as lenders. The Revolving Credit Agreement provides for a five-year revolving credit facility in an aggregate principal amount not to exceed $3.0 billion (subject to certain terms and conditions). As of September 24, 2022, the Company had no outstanding borrowings under this revolving credit facility but may borrow in the future and use the proceeds for payment of expenses in connection with working capital and general corporate expenses.

Revolving loans under the Revolving Credit Agreement can be 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 Rate plus a margin based on the Company's Debt Ratings (as defined in the Revolving Credit Agreement) from time to time of between 0.625% and 1.250%. Each Base Rate Loan will bear interest at a rate per annum equal to the Base Rate (as defined in the Revolving Credit Agreement) plus a margin based on the Company's Debt Ratings from time to time of between 0.000% and 0.250%. In addition, the Company has agreed to pay a commitment fee based on the Company's Debt Ratings from time to time of between 0.050% and 0.125% (as defined in the Revolving Credit Agreement). 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, and affirmative and negative covenants and events of default applicable to the Company and its subsidiaries. As of September 24, 2022, the Company was in compliance with these covenants.

NOTE 9 – 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.

Fair Value Hierarchy

The fair value framework requires the categorization of assets and liabilities into three levels based upon the assumptions (inputs) used to price the assets or liabilities. The guidance for fair value measurements requires that assets and liabilities carried at fair value be classified and disclosed in one of the following categories:

Level 1 — Quoted (unadjusted) prices in active markets for identical assets or liabilities.

Level 2 — Observable inputs other than quoted prices included in Level 1, such as quoted prices for similar assets or liabilities in active markets; quoted prices for identical or similar assets or liabilities in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the asset or liability.

Level 3 — Unobservable inputs to the valuation methodology that are supported by little or no market activity and that are significant to the measurement of the fair value of the assets or liabilities. Level 3 assets and liabilities include those whose fair value measurements are determined using pricing models, discounted cash flow methodologies or similar valuation techniques, as well as significant management judgment or estimation.

Financial Instruments Recorded at Fair Value on a Recurring Basis

	September 24, 2022			December 25, 2021		
(In millions)	**Level 1**	**Level 2**	**Total**	**Level 1**	**Level 2**	**Total**
Cash equivalents						
Money market funds	$ 2,616	$ —	$ 2,616	$ 4	$ —	$ 4
Commercial paper	—	—	—	—	45	45
U.S. Treasury and agency securities	—	15	15	—	—	—
Foreign government and agency securities	—	25	25	—	—	—
Short-term investments						
Commercial paper	—	868	868	—	880	880
Time deposits and certificates of deposits	—	50	50	—	193	193
Asset-backed and mortgage-backed securities	—	41	41	—	—	—
U.S. Treasury and agency securities	620	—	620	—	—	—
Foreign government and agency securities	—	617	617	—	—	—
Other non-current assets						
Time deposits and certificates of deposits	—	6	6	—	—	—
Equity investments	11	—	11	66	—	66
Deferred compensation plan investments	81	—	81	72	—	72
Total assets measured at fair value	$ 3,328	$ 1,622	$ 4,950	$ 142	$ 1,118	$ 1,260

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 24, 2022			
	Cost/ Amortized Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
	(in millions)			
Asset-backed and mortgage-backed securities	$ 44	$ —	$ (3)	$ 41
Commercial paper	869	—	(1)	868
Money market funds	2,616	—	—	2,616
Time deposits and certificates of deposits	50	—	—	50
U.S. Treasury and agency securities	640	—	(5)	635
Foreign government and agency securities	642	—	—	642
	$ 4,861	$ —	$ (9)	$ 4,852

As of September 24, 2022, 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 investments classified as available-for-sale are as follows:

	September 24, 2022		December 25, 2021	
	Amortized Cost	Fair Value	Amortized Cost	Fair Value
	(In millions)		(In millions)	
Due within 1 year	$ 2,101	$ 2,098	$ 1,118	$ 1,118
Due in 1 year through 5 years	107	104	—	—
Due in 5 years and later	43	40	—	—
	$ 2,251	$ 2,242	$ 1,118	$ 1,118

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 24, 2022		December 25, 2021	
	Carrying Amount	Estimated Fair Value	Carrying Amount	Estimated Fair Value
	(In millions)			
Current portion of long-term debt, net	$ —	$ —	$ 312	$ 326
Long-term debt, net of current portion	$ 2,466	$ 2,268	$ 1	$ 15

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

As of September 24, 2022, the Company had non-marketable securities in privately-held companies of $138 million, which were classified as Level 3 assets. 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. The balance of non-marketable securities in privately-held companies as of December 25, 2021 was not material.

During the three and nine months ended September 24, 2022, the Company recognized a net loss of $3 million and $57 million, respectively, in Other income (expense) due to decreases in fair value of equity investments and non-marketable securities in privately-held companies.

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 18 months and are designated as accounting hedges. As of September 24, 2022 and December 25, 2021, the notional value of the Company's outstanding foreign currency forward contracts designated as cash flow hedges was $1.7 billion and $894 million, respectively. The fair value of these contracts, recorded as a liability, was $89 million as of September 24, 2022. The fair value of these contracts as of December 25, 2021 was not material.

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 24, 2022 and December 25, 2021, the notional value of these outstanding contracts was $463 million and $291 million, respectively. The fair value of these contracts was not material as of September 24, 2022 and December 25, 2021.

NOTE 10 – Earnings Per Share

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

	Three Months Ended		Nine Months Ended	
	September 24, 2022	September 25, 2021	September 24, 2022	September 25, 2021
	(In millions, except per share amounts)			
Numerator				
Net income for basic earnings per share	$ 66	$ 923	$ 1,299	$ 2,188
Denominator				
Basic weighted average shares	1,615	1,214	1,542	1,214
Potentially dilutive shares from employee equity plans and warrants	10	16	13	17
Diluted weighted average shares	1,625	1,230	1,555	1,231
Earnings per share:				
Basic	$ 0.04	$ 0.76	$ 0.84	$ 1.80
Diluted	$ 0.04	$ 0.75	$ 0.84	$ 1.78

NOTE 11 – Common Stock and Employee Equity Plans

Common Stock

Shares of common stock outstanding were as follows:

	Three Months Ended		Nine Months Ended	
	September 24, 2022	September 25, 2021	September 24, 2022	September 25, 2021
	(In millions)			
Balance, beginning of period	1,612	1,213	1,207	1,211
Common stock issued in the acquisition of Xilinx	—	—	429	—
Common stock issued under employee equity plans	10	6	14	8
Common stock repurchases for tax withholding on equity awards	(3)	—	(5)	—
Issuance of common stock to settle convertible debt	—	—	—	3
Repurchases of common stock	(7)	(7)	(33)	(10)
Balance, end of period	1,612	1,212	1,612	1,212

Stock Repurchase Program

In May 2021, the Company's Board of Directors approved a stock repurchase program of up to $4 billion of the Company's common stock (Existing Repurchase Program). In February 2022, the Company's Board of Directors approved a new stock repurchase program in addition to the Existing Repurchase Program to purchase up to $8 billion of outstanding common stock in the open market (collectively referred to as the "Repurchase Program").

During the three and nine months ended September 24, 2022, the Company repurchased 6.9 million and 32.8 million shares of its common stock under the Repurchase Program for $617 million and $3.4 billion, respectively. As of September 24, 2022, $6.8 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 was recorded in the Condensed Consolidated Statements of Operations as follows:

	Three Months Ended		Nine Months Ended	
	September 24, 2022	September 25, 2021	September 24, 2022	September 25, 2021
	(In millions)			
Cost of sales	$ 8	$ 2	$ 20	$ 4
Research and development	185	63	478	171
Marketing, general and administrative	82	34	268	92
Total stock-based compensation expense before income taxes	275	99	766	267
Income tax benefit	(91)	(16)	(166)	(43)
Total stock-based compensation expense after income taxes	$ 184	$ 83	$ 600	$ 224

During the three and nine months ended September 24, 2022, the Company recorded $6 million and $63 million, respectively, of acquisition-related stock-based compensation expense under post-acquisition service conditions.

Xilinx Replacement Awards

In connection with the acquisition of Xilinx, the Company issued equity awards as replacement for assumed equity awards to Xilinx employees. The replacement awards include restricted stock units of approximately 12 million shares with a weighted average fair value of $103.35 per share and have terms that are substantially the same as the assumed Xilinx awards. The fair value of replacement awards related to services rendered up to the Xilinx Acquisition Date was recognized as a component of the total purchase consideration while the remaining fair value of replacement awards attributable to post-combination services is being recognized as stock-based compensation expense over the remaining post-acquisition vesting period.

NOTE 12 – Income Taxes

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, respectively, representing effective tax rates of 195.7% and 2.4%, respectively. The Company recorded an income tax provision of $82 million and $284 million for the three and nine months ended September 25, 2021, respectively, representing effective tax rates of 8.2% and 11.5%, respectively.

The determination of the Company’s income taxes for the three and nine months ended September 24, 2022 was based on applying the Company’s estimated annual effective tax rate to the year-to-date pre-tax book income adjusted for discrete tax items, such as excess tax benefits from stock-based compensation. The tax benefit for the three months ended September 24, 2022 was primarily due to lower year-to-date pre-tax book income. The difference between the U.S. federal statutory tax rate of 21% and the Company's effective tax rate was primarily due to year-to-date income tax benefit from income eligible for the foreign-derived intangible income (FDII) benefit and research tax credits.

The difference between the U.S. federal statutory tax rate of 21% and the Company's effective tax rate for the three and nine months ended September 25, 2021 was primarily due to a tax FDII benefit and research tax credits.

As of September 24, 2022, the Company continues to maintain valuation allowances for certain federal, state, and foreign tax attributes. The federal valuation allowance maintained is due to limitations under Internal Revenue Code Section 382 or 383, separate return loss year rules, or dual consolidated loss rules. Certain state and foreign valuation allowances maintained are due to a lack of sufficient sources of taxable income.

As of the nine months ended September 24, 2022, the liability for uncertain tax positions increased by $798 million primarily due to the utilization of certain tax attributes that may be subject to additional limitation.

As a result of the acquisition of Xilinx, the Company recorded $4.3 billion of net deferred tax liabilities primarily on the excess of book basis over the tax basis of the acquired intangible assets, including $863 million of GILTI net deferred tax liability. The Company also recorded $147 million of current tax payable as of the Xilinx Acquisition Date. Additionally, the Company assumed $ 204 million of liability for uncertain tax positions and $321 million of long-term liability for transition-tax, which is payable over the next three years.

NOTE 13 – Commitments and Contingencies

Commitments

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

Total future unconditional purchase commitments as of September 24, 2022 were as follows:

Fiscal Year		(In millions)
Remainder of 2022	$	4,925
2023		2,693
2024		1,020
2025		336
2026		169
2027 and thereafter		389
Total unconditional purchase commitments	$	9,532

Given the current market backdrop, the Company continues to work with suppliers on timing of deliveries of purchase commitments.

Contingencies

Quarterhill Inc. Litigation

On July 2, 2018, three entities named Aquila Innovations, Inc. (Aquila), Collabo Innovations, Inc. (Collabo), and Polaris Innovations, Ltd. (Polaris), filed separate patent infringement complaints against the Company in the United States District Court for the Western District of Texas. Aquila alleges that the Company infringes two patents (6,239,614 and 6,895,519) relating to power management; Collabo alleges that the Company infringes one patent (7,930,575) related to power management; and Polaris alleges that the Company infringes two patents (6,728,144 and 8,117,526) relating to control or use of dynamic random-access memory, or DRAM. Each of the three complaints seeks unspecified monetary damages, interest, fees, expenses, and costs against the Company; Aquila and Collabo also seek enhanced damages. Aquila, Collabo, and Polaris each appear to be related to a patent assertion entity named Quarterhill Inc. (formerly WiLAN Inc.). On May 14, 2020, at the request of Polaris, the Court dismissed all claims related to one of the two patents in suite in the Polaris case. On June 10, 2020, the Court granted AMD's motions to stay the Polaris and Aquila cases pending the completion of inter partes review (IPR) of each of the patents-in-suit in those cases by the Patent Trial and Appeal Board. On October 11, 2022, the Court dismissed the Aquila case as moot based on the cancellation of all asserted patent claims by the United States Patent and Trademark Office.

On February 22, 2021, February 26, 2021, and March 10, 2021, the Patent Trial and Appeal Board (PTAB) issued final written decisions in IPR invalidating all asserted claims of the remaining Polaris and Aquila patents. On May 10, 2021, Aquila filed a notice of appeal to the Court of Appeals for the Federal Circuit for the IPR decision regarding U.S. Patent No. 6,895,519. On April 12, 2022, the Federal Circuit affirmed the PTAB's decision. On April 30, 2021, Polaris filed a notice of appeal to the Court of Appeals for the Federal Circuit for the IPR decision regarding U.S. Patent No. 8,117,526. On May 14, 2021, AMD filed a notice of cross-appeal to the Court of Appeals for the Federal Circuit for the IPR decision regarding U.S. Patent No. 8,117,526. On July 18, 2022, the Court of Appeals for the Federal Circuit affirmed the USPTO's decision.

On February 8, 2022, Polaris filed a lawsuit against Xilinx, Inc. alleging infringement of four patents related to memory chips and memory interfaces. On February 22, 2022, the Company was served with the complaint. On April 14, 2022, the Company filed a motion to dismiss the complaint. On April 28, 2022, Polaris filed an amended complaint. On May 12, 2022, the Company filed an answer to the amended complaint.

On June 1, 2022, Polaris filed two lawsuits against the Company and Hewlett-Packard GmbH, HP Deutschland GmbH in the Hamburg and Munich Courts in Germany, alleging infringement of two patents related to memory chips and memory interfaces. On July 15, 2022, Polaris filed a lawsuit against the Company, ASUSTeK Computer Inc., and ASUS Computer GmbH, alleging infringement of a patent related to memory chips and memory interfaces.

Analog Devices Litigation

On December 5, 2019, Analog Devices, Inc. (ADI) filed a lawsuit against Xilinx alleging infringement of eight patents related to switching circuits, comparators, analog to digital convertors, signal conditioners, and switched capacitors. On January 21, 2020, Xilinx filed its answer and counterclaims alleging infringement by ADI of eight patents related to digital to analog converters, serializing data paths, transceivers, networks on chip, termination circuits, and data transmitters. On April 3, 2020, Xilinx filed amended counterclaims.

Between July 17 and December 4, 2020, Xilinx filed nine IPR petitions challenging the patentability of seven ADI asserted patents. Between August 31 and September 15, 2020, ADI filed eight IPR petitions challenging eight Xilinx asserted patents. Between January 5 and March 15, 2021, the USPTO entered decisions granting institution of IPR on six ADI asserted patents. On June 10, 2021, the USPTO entered a decision denying institution of IPR on one ADI asserted patent. Between April 8 and May 7, 2021, the USPTO entered decisions granting institution of IPR on all eight Xilinx asserted patents. On May 8, 2020, Xilinx filed a motion to strike ADI's affirmative defense of inequitable conduct, which the Court granted on February 9, 2021. On February 22, 2021, the Court issued an order staying the case until the issuance of the USPTO's Final Written Decision on the last-instituted of the parties' pending IPRs.

Between January 10 and March 11, 2022, the USPTO issued Final Written Decisions (FWDs) finding all challenged claims unpatentable in two ADI patents; finding some challenged claims unpatentable in three ADI patents and finding no challenged claims unpatentable in one ADI patent. Between April 1 and April 5, 2022, the USPTO issued three FWDs finding some challenged claims unpatentable in three Xilinx patents and finding no challenged claims unpatentable in one Xilinx patent. Between March 15, 2022 and April 11, 2022, ADI and the Company filed notices of appeal to the Court of Appeals for the Federal Circuit regarding adverse IPR decisions. On May 11, 2022, the Court continued the stay until July 14, 2022. Subsequently, the Court stayed the case until November 15, 2022.

Other Legal Matters

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.

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 together with the availability under that certain revolving credit facility (the Revolving Credit Agreement) made available to AMD and certain of its subsidiaries and our cash flows from operations 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 obtain sufficient external financing on favorable terms, or at all; AMD's expectation that based on management's current knowledge, the potential liability related to AMD's current litigation will not have a material adverse effect on its financial position, results of operation or cash flows; 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; revenue allocated to remaining performance obligations that are unsatisfied which will be recognized in the next 12 months; and a small number of customers will continue to account for a substantial part of AMD's revenue in the future. 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, AMD Instinct, AMD RDNA, EPYC, Radeon, Ryzen, Threadripper, Versal, Xilinx and combinations thereof are trademarks of Advanced Micro Devices, Inc. Microsoft and Xbox are trademarks or registered trademarks of Microsoft Corporation in the United States and other jurisdictions. PlayStation is a registered trademark or trademark of Sony Interactive Entertainment, 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 code name 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 25, 2021 and December 26, 2020, and for each of the three years for the period ended December 25, 2021 as filed in our Annual Report on Form 10-K for the fiscal year ended December 25, 2021.

Overview and Recent Developments

We are a global semiconductor company primarily offering:

- server microprocessors and graphics processing units (GPUs), data processing units (DPUs), Field Programmable Gate Arrays (FPGAs) and adaptive System-on-Chip (SoC) products for data centers;
- microprocessors, accelerated processing units (APUs) that integrate microprocessors and graphics, and chipsets for desktop and notebook personal computers;
- discrete GPUs, semi-custom SoC products and development services; and
- embedded microprocessors and GPUs, FPGAs, adaptive SoC products, and Adaptive Compute Acceleration Platform (ACAP) 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 24, 2022 compared to the prior year period and an analysis of changes in our financial condition.

Net revenue for the three months ended September 24, 2022 was $5.6 billion, a 29% increase compared to the prior year period. The increase in net revenue was driven by a 45% increase in Data Center segment revenue primarily due to higher sales of our EPYC™ server processors, a 14% increase in Gaming segment revenue primarily due to higher semi-custom product sales, and a significant increase in Embedded segment revenue from the prior year period driven by the inclusion of Xilinx, Inc. (Xilinx) embedded product sales. These increases were partially offset by a 40% decrease in Client segment revenue primarily due to lower processor shipments driven by a weak PC market and significant inventory correction actions across the PC supply chain.

Gross margin for the three months ended September 24, 2022 was 42% compared to gross margin of 48% for the prior year period. The decrease in gross margin was primarily due to the amortization of acquisition-related intangible assets associated with the Xilinx acquisition. In addition, gross margin was impacted by $160 million of charges for inventory, pricing, and related reserves in the Gaming and Client segments, as we experienced softening gaming graphics and PC demand in the third quarter of 2022 due to weakened macroeconomic conditions.

Operating loss for the three months ended September 24, 2022 was $64 million compared to operating income of $948 million for the prior year period. The decrease in operating income was primarily driven by the amortization of intangible assets associated with the Xilinx acquisition and increased R&D investments.

Net income for the three months ended September 24, 2022 was $66 million compared to net income of $923 million for the prior year period. The decrease in net income was primarily driven by lower operating income.

As of September 24, 2022, our cash, cash equivalents and short-term investments were $5.6 billion, compared to $3.6 billion as of December 25, 2021. The increase in cash, cash equivalents and short-term investments was primarily as a result of the $2.4 billion of cash and $1.6 billion of short-term investments acquired from the Xilinx acquisition. As of September 24, 2022, the principal amount of our outstanding debt obligations was $2.5 billion, which primarily includes $1.5 billion of debt assumed from Xilinx and $1.0 billion of debt issued on June 9, 2022, compared to $313 million of debt as of December 25, 2021. We fully repaid the $312 million in aggregate principal of our 7.50% Senior Notes that matured in August 2022.

During the three months ended September 24, 2022, we repurchased 6.9 million shares of our common stock for $617 million under a stock repurchase program approved by our Board of Directors (Repurchase Program). As of September 24, 2022, $6.8 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.

We continued to achieve our technology roadmap milestones during the third quarter of 2022, as we launched the AMD Ryzen™ 7000 Series Desktop processors powered by our new “Zen 4” architecture, designed to advance gaming and content creation performance. We also announced the AMD Ryzen 7020 Series processors for mobile applications to bring high-end performance and battery life to everyday users.

During the third quarter of 2022, we experienced limited disruptions due to the COVID-19 pandemic. We continue to monitor our operations and public health measures implemented by governmental authorities in response to the pandemic. We are focused on the health and safety of our employees and are taking safety measures to protect our employees who are in the office and support those employees who work remotely.

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, intangibles 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. As a result of our acquisitions, we believe the following critical accounting estimates, in addition to those 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 25, 2021, are the most significant to the presentation of our financial statements and require the most difficult, subjective and complex judgments.

Except as noted below, management believes there have been no significant changes for the three and nine months ended September 24, 2022 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 25, 2021.

*Business Combinations***.** We allocate the fair value of purchase consideration to the tangible assets acquired, liabilities assumed, and intangible assets acquired based on their estimated fair values. The excess of the fair value of purchase consideration over the fair values of these identifiable assets and liabilities is recorded as goodwill. Such valuations require management to make significant estimates and assumptions, especially with respect to intangible assets. Significant estimates in valuing certain intangible assets include, but are not limited to, future expected cash flows from acquired technology and trade names, based on expected future revenue growth rates and margins, future changes in technology, useful lives, and discount rates.

Management's estimates of fair value are based upon assumptions believed to be reasonable, but which are inherently uncertain and unpredictable and, as a result, actual results may differ from estimates. Allocation of purchase consideration to identifiable assets and liabilities affects our amortization expense, as acquired finite-lived intangible assets are amortized over the useful life, whereas any indefinite lived intangible assets, including goodwill, are not amortized. During the measurement period, which is not to exceed one year from the acquisition date, we may record adjustments to the assets acquired and liabilities assumed, with the corresponding offset to goodwill. Upon the conclusion of the measurement period, any subsequent adjustments are recorded to earnings.

*Impairment of Long-Lived and Intangible Assets***.** Long-lived and intangible assets to be held and used are reviewed for impairment if indicators of potential impairment exist and at least annually for indefinite-lived intangible assets. Impairment indicators are reviewed on a quarterly basis. Assets are grouped and evaluated for impairment at the lowest level of identifiable cash flows.

When indicators of impairment exist and assets are held for use, we estimate future undiscounted cash flows attributable to the related asset groups. In the event such cash flows are not expected to be sufficient to recover the recorded value of the assets, the assets are written down to their estimated fair values based on the expected discounted future cash flows attributable to the asset group or based on appraisals. Factors affecting impairment of assets held for use include the ability of the specific assets to generate separately identifiable positive cash flows.

When assets are removed from operations and held for sale, we estimate impairment losses as the excess of the carrying value of the assets over their fair value. Market conditions are among the factors affecting impairment of assets held for sale. Changes in any of these factors could necessitate impairment recognition in future periods for assets held for use or assets held for sale.

Global Intangible Low-Taxed Income (GILTI). In 2022, we elected to change our method of accounting for the United States GILTI tax from recording the tax impact in the period it is incurred to recognizing deferred taxes for temporary tax basis differences expected to reverse as GILTI tax in future years. The change is considered preferable based on our facts and circumstances as it provides better and more timely information of expected future income tax liabilities arising from temporary tax differences primarily associated with the Xilinx acquisition. As a result of the acquisition, we recorded $27.3 billion of identified intangible assets (refer to Note 5 - Business Combinations), of which $16.9 billion are related to foreign operations which will be amortized to income from operations over the assets' estimated useful lives, but for which we will not receive a tax deduction under GILTI. Recognition of deferred taxes for the future GILTI impact of this amount is considered preferable as it provides better information about our potential future tax liabilities based on current transactions. This accounting policy change resulted in the recording of $863 million of deferred tax liabilities in connection with the Xilinx acquisition as disclosed in Note 12 - Income Taxes. In addition, for the three and nine months ended September 24, 2022, it resulted in a decrease in the income tax provision with a corresponding increase to net income of $209 million and $346 million and an increase in basic and diluted earnings per share of $0.13 and $0.23 respectively, as compared to the computation under the previous accounting policy. This accounting policy change had no material impact on our historical consolidated financial statements.

Results of Operations

During the second quarter of fiscal year 2022, we changed our reporting segments to align our financial reporting with how we manage our business in strategic end markets. This is consistent with how our CODM assesses our financial performance and allocates resources. As a result, we report our financial performance based on the following four reportable segments: Data Center, Client, Gaming, and Embedded. Additional information on our reportable segments is contained in Note 4—Segment Reporting of the Notes to Condensed Consolidated Financial Statements (Part I, Financial Information of this Form 10-Q). All prior-period segment data have been retrospectively adjusted.

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 24, 2022	September 25, 2021	September 24, 2022	September 25, 2021
	(In millions)			
Net revenue:				
Data Center	$ 1,609	$ 1,108	$ 4,388	$ 2,531
Client	1,022	1,692	5,298	5,058
Gaming	1,631	1,434	5,161	3,844
Embedded	1,303	79	3,155	175
Total net revenue	$ 5,565	$ 4,313	$ 18,002	$ 11,608
Operating income (loss):				
Data Center	$ 505	$ 308	$ 1,404	$ 622
Client	(26)	490	1,342	1,558
Gaming	142	231	687	527
Embedded	635	23	1,553	26
All Other	(1,320)	(104)	(3,573)	(292)
Total operating income (loss)	$ (64)	$ 948	$ 1,413	$ 2,441

Data Center

Data Center net revenue of $1.6 billion for the three months ended September 24, 2022 increased by 45%, compared to net revenue of $1.1 billion for the prior year period. Data Center net revenue of $4.4 billion for the nine months ended September 24, 2022 increased by 73%, compared to net revenue of $2.5 billion for the prior year period. The increase in both periods was driven by higher sales of our EPYC server processors.

Data Center operating income was $505 million for the three months ended September 24, 2022, compared to operating income of $308 million for the prior year period. Data Center operating income was $1.4 billion for the nine months ended September 24, 2022, compared to operating income of $622 million for the prior year period. The increase in operating income for both periods was primarily driven by higher revenue, partially offset by higher operating expenses. Operating expenses increased for the reasons outlined under “Expenses” below.

Client

Client net revenue of $1.0 billion for the three months ended September 24, 2022 decreased by 40%, compared to net revenue of $1.7 billion for the prior year period, primarily due to lower Client processor sales driven by a 43% decrease in unit shipments, partially offset by a 5% increase in average selling price compared with the prior year period. The decrease in unit shipments was due to challenging PC market conditions and significant inventory correction across the PC supply chain. The increase in average selling price was primarily driven by a richer mix of Ryzen desktop processor sales.

Client net revenue of $5.3 billion for the nine months ended September 24, 2022 increased by 5%, compared to net revenue of $5.1 billion for the prior year period, primarily due to higher Client processor sales driven by a 28% increase in average selling price, partially offset by an 18% decrease in unit shipments. The decrease in unit shipments was due to challenging PC market conditions and significant inventory correction across the PC supply chain. The increase in average selling price was primarily driven by a richer mix of Ryzen mobile processor sales.

Client operating loss was $26 million for the three months ended September 24, 2022, compared to operating income of $490 million for the prior year period. The decrease in operating income was primarily due to lower revenue.

Client operating income was $1.3 billion for the nine months ended September 24, 2022, compared to operating income of $1.6 billion for the prior year period. The decrease in operating income was primarily driven by higher operating expenses. Operating expenses increased for the reasons outlined under “Expenses” below.

Gaming

Gaming net revenue of $1.6 billion for the three months ended September 24, 2022 increased by 14%, compared to net revenue of $1.4 billion for the prior year period. Gaming net revenue of $5.2 billion for the nine months ended September 24, 2022 increased by 34%, compared to net revenue of $3.8 billion for the prior year period. The increase in net revenue for both periods was driven by higher semi-custom product sales due to higher demand for gaming console SoCs, partially offset by lower gaming graphics sales due to a decrease in unit shipments driven by soft consumer demand given weakened macroeconomic conditions.

Gaming operating income was $142 million for the three months ended September 24, 2022, compared to operating income of $231 million for the prior year period. The decrease in operating income was primarily driven by lower gaming graphics revenue and inventory, pricing and related reserves.

Gaming operating income was $687 million for the nine months ended September 24, 2022, compared to operating income of $527 million for the prior year period. The increase in operating income was primarily driven by higher revenue, partially offset by higher operating expenses. Operating expenses increased for the reasons outlined under “Expenses” below.

Embedded

Embedded net revenue of $1.3 billion for the three months ended September 24, 2022 increased significantly, compared to net revenue of $79 million for the prior year period. Embedded net revenue of $3.2 billion for the nine months ended September 24, 2022 increased significantly, compared to net revenue of $175 million for the prior year period. The significant increase in net revenue for both periods was primarily driven by the inclusion of Xilinx embedded product revenue.

Embedded operating income was $635 million for the three months ended September 24, 2022, compared to operating income of $23 million for the prior year period. Embedded operating income was $1.6 billion for the nine months ended September 24, 2022, compared to operating income of $26 million for the prior year period. The significant increase in operating income for both periods was primarily driven by the inclusion of Xilinx embedded product revenue.

All Other

All Other operating loss of $1.3 billion for the three months ended September 24, 2022 primarily consisted of $1 billion of amortization of acquisition-related intangibles, $275 million of stock-based compensation expense, and $51 million of acquisition-related costs, which primarily include transaction costs, certain compensation charges related to the acquisitions of Xilinx and Pensando, and depreciation related to the acquired fixed assets fair value step-up adjustment, and licensing gain. All Other operating loss of $104 million for the prior year period primarily consisted of $99 million of stock-based compensation expense and $8 million of acquisition-related costs.

All Other operating loss of $3.6 billion for the nine months ended September 24, 2022 primarily consisted of $2.5 billion of amortization of acquisition-related intangibles, $766 million of stock-based compensation expense, and $400 million of acquisition-related costs, which primarily include transaction costs, amortization of Xilinx inventory fair value step-up adjustment, and depreciation related to the Xilinx fixed assets fair value step-up adjustment, certain compensation charges related to the acquisitions of Xilinx and Pensando, and licensing gain. All Other operating loss of $292 million for the prior year period primarily consisted of $267 million of stock-based compensation expense and $33 million of acquisition-related costs.

International Sales

International sales as a percentage of net revenue were 62% and 67% for the three months ended September 24, 2022 and September 25, 2021, respectively. International sales as a percentage of net revenue were 67% and 72% for the nine months ended September 24, 2022 and September 25, 2021, respectively. 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 24, 2022	September 25, 2021	September 24, 2022	September 25, 2021
	(In millions except for percentages)			
Net revenue	$ 5,565	$ 4,313	$ 18,002	$ 11,608
Cost of sales	2,799	2,227	8,797	6,105
Amortization of acquisition-related intangibles	412	—	1,005	—
Gross profit	2,354	2,086	8,200	5,503
Gross margin	42 %	48 %	46 %	47 %
Research and development	1,279	765	3,639	2,034
Marketing, general and administrative	557	376	1,746	1,036
Amortization of acquisition-related intangibles	590	—	1,499	—
Licensing gain	(8)	(3)	(97)	(8)
Interest expense	(31)	(7)	(69)	(26)
Other income (expense), net	22	62	(24)	51
Income tax provision (benefit)	(135)	82	32	284
Equity income in investee	4	2	11	6

Gross Margin

Gross margin was 42% and 48% for the three months ended September 24, 2022 and September 25, 2021, respectively. The decrease in gross margin was primarily due to the amortization of acquisition-related intangible assets associated with the Xilinx acquisition. In addition, gross margin was impacted by $160 million of charges for inventory, pricing, and related reserves to address challenging market conditions in the Gaming and Client segments.

Gross margin was 46% and 47% for the nine months ended September 24, 2022 and September 25, 2021, respectively. The decrease in gross margin was primarily due to an increase in the amortization of acquisition-related intangible assets associated with the Xilinx acquisition, partially offset by an increase in margin driven by higher Embedded and Data Center segment revenue.

Expenses

Research and Development Expenses

Research and development expenses of $1.3 billion for the three months ended September 24, 2022 increased by $514 million, or 67%, compared to $765 million for the prior year period. Research and development expenses of $3.6 billion for the nine months ended September 24, 2022 increased by $1.6 billion, or 79%, compared to $2.0 billion for the prior year period. The increase in both periods was primarily driven by an increase in headcount through acquisitions and organic growth, and product development costs.

Marketing, General and Administrative Expenses

Marketing, general and administrative expenses of $557 million for the three months ended September 24, 2022 increased by $181 million, or 48%, compared to $376 million for the prior year period. Marketing, general and administrative expenses of $1.7 billion for the nine months ended September 24, 2022 increased by $710 million, or 69%, compared to $1.0 billion for the prior year period. The increase in both periods was due to an increase in headcount through acquisitions and organic growth, go-to-market activities, and acquisition-related costs.

Amortization of Acquisition-Related Intangibles

For the three months ended September 24, 2022, cost of sales and operating expense included $412 million and $590 million, respectively, of amortization expense from intangible assets acquired. For the nine months ended September 24, 2022, cost of sales and operating expense included $1.0 billion and $1.5 billion, respectively, of amortization expense from intangible assets acquired.

Licensing Gain

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, respectively, both associated with Licensed IP. During the three and nine months ended September 25, 2021, we recognized $3 million and $8 million, respectively of licensing gain from royalty income, both associated with Licensed IP.

Interest Expense

Interest expense for the three months ended September 24, 2022 was $31 million compared to $7 million for the prior year period. Interest expense for the nine months ended September 24, 2022 was $69 million compared to $26 million for the prior year period. The increase for both periods was primarily due to interest expense from the 2.95% Senior Notes due 2024, the 2.375% Senior Notes due 2030 (together, the Assumed Xilinx Notes), the 3.924% Notes and the 4.393% Notes.

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 months ended September 24, 2002 was $22 million, primarily due to interest income driven by rising interest rates. Other income, net for the prior year period was $62 million, primarily due to a $60 million gain from an increase in fair value of an equity investment.

Other expense, 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 $33M of interest income driven by rising interest rates. Other income, net for the prior year period was $51 million, primarily due to a $60 million gain from an increase in fair value of an equity investment.

Income Tax Provision (Benefit)

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, respectively, representing effective tax rates of 195.7% and 2.4%, respectively. We recorded an income tax provision of $82 million and $284 million for the three and nine months ended September 25, 2021, respectively, representing effective tax rates of 8.2% and 11.5%, respectively.

The determination of our income tax expense for the three and nine months ended September 24, 2022 was based on applying our estimated annual effective tax rate to the year-to-date pre-tax book income adjusted for discrete tax items, such as excess tax benefits from stock-based compensation. The tax benefit for the three months ended September 24, 2022 was primarily due to lower year-to-date pre-tax book income. The difference between the U.S. federal statutory tax rate of 21% and our effective tax rate was primarily due to year-to-date income tax benefit from income eligible for the foreign-derived intangible income (FDII) benefit and research tax credits.

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 25, 2021 was primarily due to a tax FDII benefit and research tax credits.

As of September 24, 2022, we continue to maintain valuation allowances for certain federal, state, and foreign tax attributes. The federal valuation allowance maintained is due to limitations under Internal Revenue Code Section 382 or 383, separate return loss year rules, or dual consolidated loss rules. Certain state and foreign valuation allowances maintained are due to lack of sufficient sources of taxable income.

As of the nine months ended September 24, 2022, the liability for uncertain tax positions increased by $798 million primarily due to the utilization of certain tax attributes that may be subject to additional limitation.

As a result of the acquisition of Xilinx, we recorded $4.3 billion of net deferred tax liabilities primarily on the excess of book basis over the tax basis of the acquired intangible assets, including $863 million of GILTI net deferred tax liability. We also recorded $147 million of current tax payable as of the Xilinx Acquisition Date. Additionally, we assumed $204 million of liability for uncertain tax positions and $321 million of long-term liability for transition tax, which is payable over the next three years.

FINANCIAL CONDITION

Liquidity and Capital Resources

As of September 24, 2022, our cash, cash equivalents and short-term investments were $5.6 billion, compared to $3.6 billion as of December 25, 2021. The increase in cash, cash equivalents and short-term investments was primarily driven by the $2.4 billion of cash, $1.6 billion of short-term investments acquired from Xilinx, $1.0 billion from debt issuance, and cash flows from operations, partially offset by stock repurchases and cash paid for the acquisition of Pensando. The percentage of cash, cash equivalents and short-term investments held domestically as of September 24, 2022 and December 25, 2021 were 76% and 91%, respectively.

Our operating, investing and financing activities for the nine months ended September 24, 2022 compared to the prior year period are as described below:

	Nine Months Ended	
	September 24, 2022	September 25, 2021
	(In millions)	
Net cash provided by (used in):		
Operating activities	$ 2,998	$ 2,699
Investing activities	932	(686)
Financing activities	(3,067)	(1,168)
Net increase in cash and cash equivalents	$ 863	$ 845

As of September 24, 2022, our principal debt obligations were $2.5 billion, which primarily included $1.5 billion of the Assumed Xilinx Notes and $1.0 billion of newly issued 3.924% Notes and 4.393% Notes, compared to $313 million as of December 25, 2021. We repaid our $312 million 7.50% Senior Notes that matured in August 2022.

On April 29, 2022, we entered into a revolving credit agreement (Revolving Credit Agreement) with Wells Fargo Bank, N.A. as administrative agent and other banks identified therein as lenders. The Revolving Credit Agreement provides for a five-year unsecured revolving credit facility in the aggregate principal amount of $3.0 billion.

We believe our cash, cash equivalents, short-term investments and cash flows from operations along with our Revolving Credit Agreement 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 $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.

Net cash provided by operating activities was $2.7 billion in the nine months ended September 25, 2021, primarily due to our net income of $2.2 billion, adjusted for non-cash and non-operating charges of $769 million and net cash inflows of $258 million from changes in our operating assets and liabilities. The primary drivers of the changes in operating assets and liabilities included a $504 million increase in inventories driven by an increase in product build in support of customer demand, and a $284 million increase in prepaid expenses and other assets driven primarily by prepayments of long-term supply agreements, partially offset by a $526 million increase in accounts payable due to an increase in inventory purchases.

Investing Activities

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 in the acquisition and $2.9 billion of proceeds from the maturity of short-term investments, partially offset by cash used in the acquisition of Pensando of $1.6 billion, purchases of short-term investments of $2.4 billion and purchases of property and equipment of $326 million.

Net cash used in investing activities was $686 million for the nine months ended September 25, 2021 which primarily consisted of $1.9 billion for purchases of short-term investments and $215 million for purchases of property and equipment, partially offset by $1.4 billion for maturities of short-term investments.

Financing Activities

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, 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.

Net cash used in financing activities was $1.2 billion for the nine months ended September 25, 2021, which primarily consisted of common stock repurchases of $1.0 billion and repurchases for tax withholding on employee equity plans of $219 million, partially offset by a cash inflow of $55 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 25, 2021.

There have not been any material changes in interest rate risk, default risk or foreign exchange risk since December 25, 2021.

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 and Chief Financial Officer 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 24, 2022, 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 Chief Executive Officer and Chief Financial Officer, of the effectiveness of the design and operation of our disclosure controls and procedures. Based on the foregoing, our Chief Executive Officer and Chief Financial Officer concluded that our disclosure controls and procedures were effective at the reasonable assurance level.

There was no change in our internal controls over financial reporting for the three months ended September 24, 2022 that materially affected, or is reasonably likely to materially affect, our internal controls over financial reporting. We are currently in the process of integrating the Xilinx operations, control processes and information systems into our systems and control environment. We believe that we have taken the necessary steps to monitor and maintain appropriate internal controls over financial reporting during this integration.

PART II. OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

For a discussion of our legal proceedings, refer to Note 13—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.
- Global 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 novel coronavirus (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 compromise our intellectual property or other sensitive information, be costly to remediate or cause significant damage to our business, reputation and operations.
- We may encounter difficulties in upgrading and operating our new 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 is dependent upon 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 administration 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, such as Xilinx and Pensando, could disrupt our business and/or dilute or adversely affect the price of our common stock.
- Any impairment of the combined company’s tangible, definite-lived intangible or indefinite-lived intangible assets, including goodwill, may adversely impact the combined company’s 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 (Assumed 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. Also, 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.

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 goodwill and technology license purchases.
- Our inability to continue to attract and retain qualified personnel may hinder our business.
- Our stock price is subject to volatility.
- Worldwide political conditions may adversely affect demand for our products.

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 Corporation (Intel) has been the market share leader for microprocessors for many years. Intel's market share, margins and significant financial resources enable it to market 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 exerts substantial influence over computer manufacturers and their channels of distribution through various brand and other marketing programs. As a result of Intel's position in the microprocessor market, Intel has been able to control x86 microprocessor and computer system standards and benchmarks and to dictate the type of products the microprocessor market requires of us. Intel also dominates the computer system platform, which includes core logic chipsets, graphics chips, networking devices (wired and wireless), non-volatile storage and other components necessary to assemble a computer system. Additionally, Intel 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.

As long as Intel remains in this dominant position, 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; exclusivity payments to its current and potential customers, retailers and channel partners; de facto control over industry standards, and heavy influence on PC manufacturers and other PC industry participants, including motherboard, memory, chipset and basic input/output system (BIOS) suppliers and software companies as well as the graphics interface for Intel platforms; and marketing and advertising expenditures in support of positioning the Intel brand over the brand of its original equipment manufacturer (OEM) customers and retailers.

Intel has substantially greater financial resources than we do and accordingly spends substantially greater amounts on marketing and research and development than we do. We expect Intel to continue to invest 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.

Intel could also take actions that place our discrete graphics processing units (GPUs) at a competitive disadvantage, including giving one or more of our competitors in the graphics market, such as NVIDIA Corporation, preferential access to its proprietary graphics interface or other useful information or restricting access to external companies. Also, Intel has developed and released their own high-end discrete GPUs, including gaming focused discrete GPUs and announced plans for further releases in 2022. With our acquisition of Xilinx, we now compete with Intel in field programmable gate arrays (FPGAs) and adaptive SoC products. Intel's position in the microprocessor and integrated graphics chipset markets, its introduction of competitive new products, its existing relationships with top-tier OEMs, and its aggressive marketing and pricing strategies could result in lower unit sales and lower average selling prices for our products, which could have a material adverse effect on us.

Global economic and market uncertainty may adversely impact our business and operating results.

In the third quarter of 2022, 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. Uncertain global economic conditions have and may in the future adversely impact our business. Uncertainty in the worldwide economic environment or other unfavorable changes in economic conditions, such as inflation, interest rates or recession, may negatively impact consumer confidence and spending causing our customers to postpone purchases. In addition, 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. In addition, uncertain economic conditions may make it more difficult for us to raise funds through borrowings or private or public sales of debt or equity securities.

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 recent 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 (such as PCs) that incorporate our products; and excess inventory levels.

Industry-wide fluctuations in the computer marketplace have materially adversely affected us in the past and 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. Our financial performance has been, and may in the future be, negatively affected by these downturns. In the third quarter of 2022, 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.

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. Our Client segment revenue is focused on the consumer desktop and notebook PC segments, which in the third quarter of 2022 experienced a decline as a result of weak PC market macroeconomic conditions and inventory correction actions across the PC supply chain. 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. The success of our semi-custom SoC products is dependent on securing customers for our semi-custom design pipeline and consumer market conditions, including the success of the Sony PlayStation® 5, Microsoft® Xbox™ Series S and Microsoft® Xbox™ Series X game console systems and next generation consoles for Sony and Microsoft, worldwide. In addition, the GPU market has at times seen elevated demand due to the application of GPU products to cryptocurrency mining. For example, our GPU revenue has been affected in part by the volatility of the cryptocurrency mining market. Demand for cryptocurrency has changed and is likely to continue to change quickly. For example, China has banned such activities, and corresponding interest in mining of such currencies are subject to significant fluctuations. Alternatively, countries have created and may continue to create their own cryptocurrencies or equivalents that could also impact interest in mining. If we are unable to manage the risks related to the volatility of the cryptocurrency mining market, our GPU business could be materially adversely affected.

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, or if one of these customers materially reduces its operations or its demand for our products, our business would be materially adversely affected.

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

The COVID-19 pandemic has caused government authorities to implement numerous public health measures, including at various times vaccination and testing requirements and recordkeeping, quarantines, business closures, travel bans, and restrictions related to social gathering and mobility, to contain the virus. Various state and federal rules are issued and updated on an ongoing basis, at times in conflict and/or with minimal notice. We have experienced and expect to continue to experience disruptions to our business as these changing measures have, and will continue to have, an effect on our business operations and practices.

While our employees gradually return to office, we continue to monitor our operations and public health measures implemented by governmental authorities in response to COVID-19. Although some public health measures have eased, our efforts to reopen our offices safely may not be successful and could expose our employees to health risks. It is uncertain as to when all health measures put in place to attempt to contain the spread of COVID-19 will be lifted. If there are further waves of the virus, health measures may be reimplemented and we may need to further limit operations or modify our business practices in a manner that may impact our business. If our employees are not able to perform their job duties due to self-isolation, quarantine, lockdown measures, unavailability of COVID 19 tests, travel restrictions or illness, a reluctance or refusal to vaccinate, or are unable to perform them as efficiently at home for an extended period of time, 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. Even when COVID-19 health measures are lifted or modified, our employees' ability or willingness to return to work may delay the return of our full workforce and the resumption of normal business operations.

COVID-19 continues to impact the global supply chain causing disruptions to service providers, logistics and the flow and availability of supplies and products. We have experienced some disruptions to parts of our supply chain as a result of COVID-19 and we adjust our supply chain requirements based on changing customer needs and demands. We have taken efforts to maintain a stable supply of materials to meet our production requirements through long-term purchase commitments and prepayment arrangements with some of our suppliers. If we are unable to procure a stable supply of equipment, materials or substrates at a reasonable cost, it could have a material adverse effect on our business. We may also assess our product schedules and roadmaps to make any adjustments that may be necessary to support remote working requirements and address the geographic and market demand shifts caused by COVID-19. If the supply of our products to customers is delayed, reduced or canceled due to disruptions encountered by our third-party manufacturers, back-end manufacturers, warehouses, partners, suppliers or vendors as a result of facility closures, border and port restrictions or closures, transportation delays, lockdown measures, labor shortages or workforce mobility limitations, it could have a material adverse effect on our business.

COVID-19 has in the short-term and may in the long-term adversely impact the global economy, creating uncertainty and potentially leading to an economic downturn. This could negatively impact consumer confidence and spending causing our customers to postpone or cancel purchases, or delay paying or default on payment of outstanding amounts due to us, which may have a material adverse effect on our business. Even in times of robust demand for our products, as we are currently experiencing across certain of our business segments, the worldwide economic environment remains uncertain due to COVID-19 and such demand may not be sustainable over the longer term.

COVID-19 has also led to a disruption and volatility in the global capital and financial markets. While we believe our cash, cash equivalents and short-term investments along with our Revolving Credit Agreement and cash flows from operations will be sufficient to fund operations, including capital expenditures, and purchase commitments, over the next 12 months and beyond, to the extent we may require additional funding to finance our operations and capital expenditures and such funding may not be available to us as a result of contracting capital and financial markets resulting from COVID-19, it may have an adverse effect on our business.

The extent to which COVID-19 impacts our business and financial results will depend on future developments, which are unpredictable and highly uncertain, including the continued spread, duration and severity of the outbreak, the appearances of new variants of COVID-19, the breadth and duration of business disruptions related to COVID-19, the availability and distribution of effective treatments and vaccines, and public health measures and actions taken throughout the world to contain COVID-19. The prolonged effect of COVID-19 could materially adversely impact our business, financial condition and results of operations.

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

The markets in which our products are sold are very 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 enabling state-of-the-art visual and virtual reality experiences), 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, 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 segments, which may negatively impact our ability to compete in these computing segments. We also face competition from companies that use competing computing architectures and platforms like the ARM architecture. Increased adoption of ARM-based semiconductor designs could lead to further growth and development of the ARM ecosystem.

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.

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. Also, due to measures to slow down the spread of COVID-19, various patent offices and courts have been adversely impacted and there is a potential for delay or disruptions that might affect certain of our patent rights.

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, 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 social 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. In May 2021, we entered into an amendment to the WSA, and in December 2021, we further amended these terms (the Amendment). Under the Amendment, GF will provide a minimum annual capacity allocation to us for years 2022 through 2025 and AMD has 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 AMD is obligated to pre-pay GF certain amounts for those wafers in 2022 and 2023. The Amendment no longer includes any exclusivity commitments and provides us with 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 integrated circuit 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 equipment, materials or substrates on an ongoing basis and at reasonable costs to meet our production requirements, we could experience a shortage in 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, obtain or successfully implement leading-edge 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. As consumers have new product feature preferences or have different requirements than those consumers in the PC market, PC sales could be negatively impacted, which could adversely impact our business. Our product roadmap includes our next-generation AMD Ryzen™, AMD Radeon™, and AMD EPYC™ processors and FPGAs. 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 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.

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 compromise our intellectual property or other sensitive information, be costly to remediate or cause significant damage to our business, reputation and operations.

In the ordinary course of our business, we maintain sensitive data on our information technology (IT) assets, and also may maintain sensitive information on our business partners' and third-party providers' IT assets, including our intellectual property and proprietary or confidential business information relating to our business and that of our customers and business partners. The White House, SEC and other regulators have also increased their focus on companies' cybersecurity vulnerabilities and risks. Maintaining the security of this information is important to our business and reputation. AMD and companies like AMD and our vendors and customers have been increasingly subject to cybersecurity attempts. The increased prevalence of work-from-home arrangements at AMD and our providers has presented additional operational risks and cybersecurity attack vectors to our IT systems. These threats can come from a variety of sources, all ranging in sophistication from an individual hacker or insider threat to a state-sponsored attack. Cyber threats may be generic, or they may be custom-crafted against our information systems. Cyber threats have and may come into our network through malicious code that is added to widely available open-source software, compromised commercial software or security vulnerabilities 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 system through the compromise of our users' 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. Cyber-attacks have become increasingly more prevalent and much harder to detect, defend against or prevent and have and may cause a disruption to our business. 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.

It is often difficult to anticipate or immediately detect such incidents and the damage caused by such incidents. It also may not be possible to determine the root cause of such incidents or mitigate quickly enough to stop an attack. These data breaches and any unauthorized access, misuse or disclosure of our information or intellectual property could compromise our intellectual property and expose sensitive business information or personally identifiable information. Cyber-attacks on us or our customers, business partners or third-party providers could also cause us to incur significant remediation costs, result in product development delays, disrupt key business operations and divert attention of management and key information technology resources. These incidents could also subject us to liability, expose us to significant expense and cause significant harm to our reputation and business.

We also maintain confidential and personally identifiable information about our workers and consumers. The confidentiality and integrity of our worker and consumer data is important to our business and our workers and consumers have a high expectation that we adequately protect their personal information. In addition, many governments have enacted laws around personally identifiable information, such as the European Union's General Data Protection Regulation and the California Consumer Privacy Act, and failure to comply or a breach of personally identifiable information could result in sanctions or other actions by the governments or litigation by other entities.

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; mitigating reputational harm; and complying with external regulations.

We often partner with third-party providers for certain worker services and we may provide certain limited worker information to such third parties based on the scope of the services provided to us. We also provide sensitive information to vendors, customers and contractors. If these third parties fail to adopt or adhere to adequate data security practices, or in the event of a breach of their networks, our workers' data and sensitive information may be improperly accessed, used or disclosed.

A breach of data privacy may cause significant disruption of our business operations. Failure to adequately maintain and update our security systems could materially adversely affect our operations and our ability to maintain worker confidence. Failure to prevent unauthorized access to electronic and other confidential information, IT outages, data loss and data breaches could materially adversely affect our financial condition, our competitive position and operating results.

We may encounter difficulties in upgrading and operating our new enterprise resource planning system, which could materially adversely affect us.

We are currently upgrading our enterprise resource planning (ERP) system to help us manage our operations and financial reporting. The adoption of a new ERP system is a major undertaking and poses several challenges, both financially and from a management and personnel perspective. Costs and risks inherent in the conversion to our upgraded and new system may include disruptions to business continuity, difficulty in maintaining effective internal controls, administrative and technical problems, interruptions or delays in sales processes, expenditure overruns, and data migration issues. If we do not properly address or mitigate these issues it could result in increased costs and the diversion of management's attention and resources, negatively impacting our operating results and ability to effectively manage our business. Moreover, once our ERP system is upgraded, it may not operate as we expect it to and cause disruption to our operations. There are no assurances that our new ERP system will be successfully implemented and the failure to do so could have a material adverse effect on our business.

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 even 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. For instance, we have experienced and continue to experience increased demand for our products. 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, in the third quarter of 2022, 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. Other factors that may result in excess or obsolete inventory include, 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 is dependent upon 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. 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, 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, 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 to the other party. 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. In addition, if we are unable to collect accounts receivable from our significant distributors and/or AIB partners, 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, 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 administration 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. In October 2019, the BIS added additional Chinese entities to the Entity List. Also, the United States administration has called for changes to domestic and foreign policy. Specifically, United States-China trade relations remain uncertain. There is also a possibility of future tariffs, trade protection measures, import or export regulations or other restrictions imposed on our products or on our customers 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. Recently, the United States and other countries and coalitions have issued sanctions and revisions to export control and other regulations against Russia, Belarus or the DNR or LNR regions of Ukraine, due to the conflict in Ukraine. Further, BIS has issued new requirements that prevent us from shipping MI250 and MI250X integrated circuits to China and Russia without a license, and BIS may possibly issue new licensing requirements 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.

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 and ITAR govern the export and re-export of certain AMD products, including FPGAs, and the transfer of related technologies, whether in the U.S. or abroad, and the provision of services. 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, any of which 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.

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 net income 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 13 - 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 manufacturing processes, discharge of pollutants into the environment, the treatment, transport, storage and disposal of solid and hazardous wastes and remediation of contamination. These laws and regulations require our suppliers to obtain permits for operations making our products, 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 former facilities or other environmental or natural resource damage. While we have budgeted for foreseeable associated expenditures, we cannot assure you 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 two 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 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.

Certain environmental laws, including the United States Comprehensive, Environmental Response, Compensation and Liability Act of 1980, or the Superfund Act, impose strict or, under certain circumstances, joint and several liability on current and previous owners or operators of real property for the cost of removal or remediation of hazardous substances and impose liability for damages to natural resources. These laws often impose liability even if the owner or operator did not know of, or was not responsible for, the release of such hazardous substances.

These environmental laws also assess liability on persons who arrange for hazardous substances to be sent to disposal or treatment facilities when such facilities are found to be contaminated. Such persons can be responsible for cleanup costs even if they never owned or operated the contaminated facility. We have been named as a responsible party at three Superfund sites in Sunnyvale, California. Although we have not yet been, we could be named a potentially responsible party at other Superfund or contaminated sites in the future. In addition, contamination that has not yet been identified could exist at our other facilities.

Under the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010, the SEC adopted disclosure and reporting requirements for companies that use “conflict” minerals originating from the Democratic Republic of Congo or adjoining countries. We continue to incur additional costs associated with complying with these requirements, such as costs related to developing internal controls for the due diligence process, determining the source of any conflict minerals used in our products, auditing the process and reporting to our customers and the SEC. In addition to the SEC regulation, the European Union, 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 those 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.

Customers, governments and authorities are increasingly focused on eliminating forced labor in supply chains which may increase the cost of our compliance program. For example, in June 2022, the United States Uyghur Forced Labor Prevent Act came into force prohibiting goods mined, produced or manufactured wholly or in part in the Xinjiang Uyghur Autonomous Region of the People’s Republic of China, or by certain entities, from entering the United States under the presumption of being made with forced labor. Germany’s federal procurement office, in collaboration with the Bitkom trade association, issued new supply chain labor requirements. In addition, the United Kingdom, Australia and the State of California have previously issued laws that require us to disclose our policy and practices for identifying and eliminating forced labor and human trafficking in our supply chain. Several customers have also issued expectations to eliminate these practices 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.

Merger, Acquisition and Integration Risks

Acquisitions, joint ventures and/or investments, including our acquisitions of Xilinx and Pensando, 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.

For example, on February 14, 2022, we completed our acquisition of Xilinx and on May 26, 2022, we completed our acquisition of Pensando. While we believe these acquisitions will result in certain benefits, including certain operational synergies and cost efficiencies, and drive product innovations, achieving these anticipated benefits will depend on successfully combining our and the acquired companies' businesses together. It is not certain that the acquired companies can 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 and intangible assets requires significant use of judgment and assumptions, particularly as it relates to the determination of fair value. 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 intangible assets, including goodwill, 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 Assumed 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 Assumed Xilinx Notes pursuant to which all obligations of Xilinx under the Assumed Xilinx Notes are unconditionally guaranteed on a senior unsecured basis by us. The indentures governing the Assumed 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 a five-year 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 agreements governing our notes and our Revolving Credit Agreement contain cross-default provisions whereby a default under certain agreements with respect to other indebtedness would result in cross defaults under the indentures or the Revolving Credit Agreement. For example, the occurrence of a default with respect to any indebtedness or any failure to repay indebtedness when due in an amount in excess of (i) $50 million would cause a cross default under the indentures (to the extent such default would result in the acceleration of such indebtedness) governing our 2.125% Convertible Senior Notes due 2026 (2.125% Notes), and (ii) $500 million would cause a cross default under the Revolving Credit Agreement (to the extent such default (other than the failure to repay indebtedness) would result in the acceleration of such indebtedness). The occurrence of a default under any of these borrowing arrangements would permit the applicable note holders or the lenders under our Revolving Credit Agreement to declare all amounts outstanding under the indentures or the Revolving Credit Agreement to be immediately due and payable. If the note holders or the trustee under the indentures governing our 2.125% Notes or 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 24, 2022 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 may not be able to generate sufficient cash to meet our working capital requirements. Also, 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.

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.

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 62% for the three months ended September 24, 2022. 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 or the DNR or 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.

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, 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. 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 personally identifiable information, such as the European Union's general Data Protection Regulation and the California Consumer Privacy Act, and the failure to comply could result in sanctions or other actions by the governments. The European Union's General Data Protection Regulation imposes significant requirements on how we collect, process and transfer personal data, as well as significant fines for non-compliance.

Any of the above risks, should they occur, could result in an increase in the cost of components, production and shipment delays, general business interruptions, the inability to obtain, or delays from difficulties 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 goodwill and technology license purchases.

We perform our annual goodwill impairment analysis as of the first day of the fourth quarter of each year. 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. The occurrence of any of these events may require us to record future goodwill impairment charges.

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 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.

In May 2021, our Board of Directors approved a stock repurchase program of up to $4 billion of our common stock (Existing Repurchase Program). In February 2022, our Board of Directors approved a new stock repurchase program in addition to our Existing Repurchase Program to purchase up to $8 billion of our outstanding common stock in the open market (collectively referred to as 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.

Worldwide political conditions may adversely affect demand for our products.

Worldwide political conditions may create uncertainties that could adversely affect our business. 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.

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

On August 17, 2022, we issued 209,452 shares of AMD's common stock pursuant to an exercise in full by a commercial partner of warrants to purchase up to 297,075 shares of AMD's common stock at an exercise price of $25.4994 per share (the Warrants). As a result, the Warrants are no longer outstanding. The commercial partner acquired the Warrants on September 19, 2019, September 30, 2019 and December 30, 2019 pursuant to a strategic arrangement with such partner. The shares of common stock were issued pursuant to Section 3(a)(9) of the Securities Act of 1933.

We also issued warrants dated September 26, 2022 to purchase 458,479 shares of our common stock to the same commercial partner pursuant to a strategic arrangement with such partner. The warrants have an exercise price of $25.4994 per share and expire on September 26, 2025. The warrants were issued pursuant to Section 4(a)(2) of the Securities Act of 1933, as amended.

Issuer Purchases of Equity Securities

In May 2021, our Board of Directors approved a stock repurchase program of up to $4 billion of our common stock (Existing Repurchase Program). In February 2022, our Board of Directors approved a new stock repurchase program in addition to our Existing Repurchase Program to purchase up additional $8 billion of our outstanding common stock in the open market (collectively referred to as the Repurchase Program). We expect to fund repurchases through cash generated from operations, which have been strengthened by our strong operational results. 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 24, 2022:

	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, except shares and per share data)			
June 26, 2022 - July 30, 2022	—	$ —	—	$ 7,407
July 31, 2022 - Aug 20, 2022	1,140,527	$ 97.58	1,140,527	$ 7,296
Aug 21, 2022 - Sept 24, 2022	5,755,445	$ 87.92	5,755,445	$ 6,790
Total	6,895,972			

Equity Award Share Withholding

During the three months ended September 24, 2022, we paid $305 million in employee withholding taxes due upon the vesting of net settled equity awards. We withheld approximately 3.4 million shares of common stock from employees in connection with such net share settlement at an average price of $90.45 per share. These shares may be deemed to be "issuer purchases" of shares.

ITEM 6. EXHIBITS

*10.1	Outside Director Equity Compensation Policy, as amended and restated, dated as of August 10, 2022.
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

* Management contracts and compensatory plans or arrangements.

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 2, 2022	By:	*/s/ Devinder Kumar*
	Name:	Devinder Kumar
	Title:	Executive Vice President, Chief Financial Officer and Treasurer Signing on behalf of the Registrant as the Principal Financial Officer