Table of Contents

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549
FORM 10-Q

(Mark One)

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the quarterly period ended September 30, 2024

OR

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**
For the transition period from to .
Commission File Number 001-33155

IPG PHOTONICS CORPORATION
(Exact name of registrant as specified in its charter)

Delaware	**04-3444218**
(State or other jurisdiction of incorporation or organization)	*(I.R.S. Employer Identification Number)*
377 Simarano Drive, Marlborough, Massachusetts	**01752**
(Address of principal executive offices)	*(Zip code)*

Registrant's telephone number, including area code: **(508) 373-1100**

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

Title of each class	Trading Symbol	Name of each exchange on which registered
Common Stock, par value $0.0001 per share	**IPGP**	**The Nasdaq Stock Market LLC**

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data file required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

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

Large Accelerated Filer	☒	Accelerated Filer	☐
Non-Accelerated Filer	☐	Smaller Reporting Company	☐
Emerging Growth Company	☐		

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

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

As of October 28, 2024, there were 43,248,080 shares of the registrant's common stock outstanding.

TABLE OF CONTENTS

Part I. Financial Information 1
Item 1. Unaudited Interim Financial Statements 1
Condensed Consolidated Balance Sheets: September 30, 2024 and December 31, 2023 1
Condensed Consolidated Statements of Income: Three and Nine Months Ended September 30, 2024 and 2023 2
Condensed Consolidated Statements of Comprehensive Income: Three and Nine Months Ended September 30, 2024 and 2023 3
Condensed Consolidated Statements of Cash Flows: Nine Months Ended September 30, 2024 and 2023 4
Condensed Consolidated Statements of Equity: Three and Nine Months Ended September 30, 2024 and 2023 5
Notes to Condensed Consolidated Financial Statements 6
Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations 15
Item 3. Quantitative and Qualitative Disclosures About Market Risk 26
Item 4. Controls and Procedures 27
Part II. Other Information 28
Item 1. Legal Proceedings 28
Item 1A. Risk Factors 28
Item 2. Unregistered Sales of Equity Securities and Use of Proceeds 28
Item 3. Defaults Upon Senior Securities 28
Item 4. Mine Safety Disclosures 28
Item 5. Other Information 29
Item 6. Exhibits 29
Signatures 30

PART I—FINANCIAL INFORMATION

ITEM 1. UNAUDITED INTERIM FINANCIAL STATEMENTS

IPG PHOTONICS CORPORATION
CONDENSED CONSOLIDATED BALANCE SHEETS

	September 30, 2024	December 31, 2023
	(In thousands, except share and per share data)	
ASSETS		
Current assets:		
Cash and cash equivalents	$ 883,871	$ 514,674
Short-term investments	135,444	662,807
Accounts receivable, net	163,541	219,053
Inventories	320,723	453,874
Prepaid income taxes	27,115	26,038
Prepaid expenses and other current assets	39,720	38,208
Total current assets	1,570,414	1,914,654
Deferred income taxes, net	106,254	88,788
Goodwill	38,484	38,540
Intangible assets, net	22,054	26,234
Property, plant and equipment, net	589,559	602,257
Other assets	28,365	28,425
Total assets	$ 2,355,130	$ 2,698,898
LIABILITIES AND EQUITY		
Current liabilities:		
Accounts payable	$ 39,578	$ 28,618
Accrued expenses and other current liabilities	150,788	181,350
Income taxes payable	3,816	4,893
Total current liabilities	194,182	214,861
Other long-term liabilities and deferred income taxes	46,336	68,652
Total liabilities	240,518	283,513
Commitments and contingencies (Note 11)		
IPG Photonics Corporation equity:		
Common stock, $0.0001 par value, 175,000,000 shares authorized; 56,591,081 and 43,248,080 shares issued and outstanding, respectively, at September 30, 2024; 56,317,438 and 46,320,671 shares issued and outstanding, respectively, at December 31, 2023.	6	6
Treasury stock, at cost, 13,343,001 and 9,996,767 shares held at September 30, 2024 and December 31, 2023, respectively.	(1,447,984)	(1,161,505)
Additional paid-in capital	1,025,268	994,020
Retained earnings	2,606,053	2,795,394
Accumulated other comprehensive loss	(68,731)	(212,530)
Total IPG Photonics Corporation equity	2,114,612	2,415,385
Total liabilities and equity	$ 2,355,130	$ 2,698,898

See notes to condensed consolidated financial statements.

IPG PHOTONICS CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF INCOME

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2024	2023	2024	2023
	(In thousands, except per share data)			
Net sales	$ 233,143	$ 301,401	$ 742,797	$ 988,546
Cost of sales	179,054	168,499	494,986	561,015
Gross profit	54,089	132,902	247,811	427,531
Operating expenses:				
Sales and marketing	22,233	22,243	67,718	63,518
Research and development	27,177	24,708	84,045	70,990
General and administrative	32,660	30,958	95,420	90,746
Net loss from divestiture and sale of assets	197,651	—	190,201	—
Impairment of long-lived assets	26,566	1,237	26,566	1,237
Restructuring charges (recoveries), net	—	(1,501)	—	(357)
Loss (gain) on foreign exchange	1,148	(449)	6,067	(1,798)
Total operating expenses	307,435	77,196	470,017	224,336
Operating (loss) income	(253,346)	55,706	(222,206)	203,195
Other income, net:				
Interest income, net	11,103	11,569	38,058	28,366
Other (loss) income, net	(271)	545	248	1,161
Total other income	10,832	12,114	38,306	29,527
(Loss) income before provision for income taxes	(242,514)	67,820	(183,900)	232,722
Income tax (benefit) expense	(8,920)	12,826	5,441	55,272
Net (loss) income attributable to IPG Photonics Corporation common stockholders	$ (233,594)	$ 54,994	$ (189,341)	$ 177,450
Net (loss) income attributable to IPG Photonics Corporation per common share:				
Basic	$ (5.33)	$ 1.16	$ (4.22)	$ 3.75
Diluted	$ (5.33)	$ 1.16	$ (4.22)	$ 3.73
Weighted average common shares outstanding:				
Basic	43,837	47,237	44,901	47,364
Diluted	43,837	47,388	44,901	47,536

See notes to condensed consolidated financial statements.

IPG PHOTONICS CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2024	2023	2024	2023
	(In thousands)			
Net (loss) income	$ (233,594)	$ 54,994	$ (189,341)	$ 177,450
Other comprehensive income (loss), net of tax:				
Foreign currency translation adjustments and other	158,121	(31,538)	143,799	(46,139)
Unrealized loss on derivatives	—	—	—	(152)
Total other comprehensive income (loss)	158,121	(31,538)	143,799	(46,291)
Comprehensive (loss) income attributable to IPG Photonics Corporation	$ (75,473)	$ 23,456	$ (45,542)	$ 131,159

See notes to condensed consolidated financial statements.

IPG PHOTONICS CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

	Nine Months Ended September 30,	
	2024	2023
	(In thousands)	
Cash flows from operating activities:		
Net (loss) income	$ (189,341)	$ 177,450
Adjustments to reconcile net income to net cash provided by (used in) operating activities:		
Depreciation and amortization	46,623	52,678
Deferred income taxes	(18,763)	(4,835)
Stock-based compensation	29,378	27,392
Impairment of long-lived assets and restructuring charges (recoveries), net	26,566	(486)
Unrealized gain on foreign currency transactions	(118)	(4,322)
Net loss from divestiture and sale of assets	190,201	—
Provisions for inventory, warranty and bad debt	76,434	43,889
Amortization of premium/discount on investments	(15,676)	(17,761)
Other	2,841	4,764
Changes in assets and liabilities that provided (used) cash, net of acquisitions:		
Accounts receivable	51,884	(25,026)
Inventories	29,760	(20,736)
Prepaid expenses and other assets	(4,501)	(5,504)
Accounts payable	4,272	(10,231)
Accrued expenses and other liabilities	(36,743)	(39,646)
Income and other taxes payable	(18,705)	12,298
Net cash provided by operating activities	174,112	189,924
Cash flows from investing activities:		
Purchases of and deposits on property, plant and equipment	(75,358)	(85,256)
Proceeds from sales of property, plant and equipment	28,538	30,425
Purchases of short-term investments	(423,176)	(898,455)
Proceeds from short-term investments	966,214	789,844
Net cash outflow from divestiture	(25,324)	—
Other	385	446
Net cash provided by (used in) investing activities	471,279	(162,996)
Cash flows from financing activities:		
Principal payments on long-term borrowings	—	(16,031)
Proceeds from issuance of common stock under employee stock option and purchase plans less payments for taxes related to net share settlement of equity awards	1,870	(432)
Purchase of treasury stock, at cost	(286,479)	(159,528)
Net cash used in financing activities	(284,609)	(175,991)
Effect of changes in exchange rates on cash and cash equivalents	8,415	(20,862)
Net increase (decrease) in cash and cash equivalents	369,197	(169,925)
Cash and cash equivalents — Beginning of period	514,674	698,209
Cash and cash equivalents — End of period	$ 883,871	$ 528,284
Supplemental disclosure of cash flow information:		
Cash paid for interest	$ 95	$ 1,110
Cash paid for income taxes	$ 38,905	$ 55,001
Non-cash transactions:		
Demonstration units transferred from inventory to other assets	$ 4,384	$ 3,872
Inventory transferred to machinery and equipment	$ 1,816	$ 2,215
Additions to property, plant and equipment included in accounts payable	$ 3,037	$ 1,692
Leased assets obtained in exchange for new operating lease liabilities	$ 3,077	$ 2,053

See notes to condensed consolidated financial statements.

IPG PHOTONICS CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF EQUITY

Three Months Ended September 30,

(In thousands, except share data)	Common Stock Shares	Common Stock Amount	Treasury Stock Shares	Treasury Stock Amount	Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive (Loss) Income	Total Stockholders' Equity
Balance, July 1, 2024	**44,225,282**	**$ 6**	**(12,358,941)**	**$ (1,373,525)**	**$ 1,014,094**	**$ 2,839,647**	**$ (226,852)**	**$ 2,253,370**
Vesting of RSUs and PSUs, net of shares withheld for taxes, and exercise of stock options	6,858	—	—	—	78	—	—	78
Purchased common stock	(984,060)	—	(984,060)	(74,459)	—	—	—	(74,459)
Stock-based compensation	—	—	—	—	11,096	—	—	11,096
Net loss	—	—	—	—	—	(233,594)	—	(233,594)
Foreign currency translation adjustments and other	—	—	—	—	—	—	158,121	158,121
Balance, September 30, 2024	**43,248,080**	**$ 6**	**(13,343,001)**	**$ (1,447,984)**	**$ 1,025,268**	**$ 2,606,053**	**$ (68,731)**	**$ 2,114,612**
Balance, July 1, 2023	**47,364,320**	**$ 6**	**(8,878,184)**	**$ (1,051,040)**	**$ 969,889**	**$ 2,698,972**	**$ (219,277)**	**$ 2,398,550**
Vesting of RSUs and PSUs, net of shares withheld for taxes, and exercise of stock options	7,122	—	—	—	300	—	—	300
Purchased common stock	(449,688)	—	(449,688)	(46,497)	—	—	—	(46,497)
Stock-based compensation	—	—	—	—	8,142	—	—	8,142
Net income	—	—	—	—	—	54,994	—	54,994
Foreign currency translation adjustments and other	—	—	—	—	—	—	(31,538)	(31,538)
Balance, September 30, 2023	**46,921,754**	**$ 6**	**(9,327,872)**	**$ (1,097,537)**	**$ 978,331**	**$ 2,753,966**	**$ (250,815)**	**$ 2,383,951**

Nine Months Ended September 30,

(In thousands, except share data)	Common Stock Shares	Common Stock Amount	Treasury Stock Shares	Treasury Stock Amount	Additional Paid In Capital	Retained Earnings	Accumulated Other Comprehensive (Loss) Income	Total Stockholders' Equity
Balance, January 1, 2024	**46,320,671**	**$ 6**	**(9,996,767)**	**$ (1,161,505)**	**$ 994,020**	**$ 2,795,394**	**$ (212,530)**	**$ 2,415,385**
Vesting of RSUs and PSUs, net of shares withheld for taxes, and exercise of stock options	238,801	—	—	—	(629)	—	—	(629)
Common stock issued under employee stock purchase plan	34,842	—	—	—	2,499	—	—	2,499
Purchased common stock	(3,346,234)	—	(3,346,234)	(286,479)	—	—	—	(286,479)
Stock-based compensation	—	—	—	—	29,378	—	—	29,378
Net loss	—	—	—	—	—	(189,341)	—	(189,341)
Foreign currency translation adjustments and other	—	—	—	—	—	—	143,799	143,799
Balance, September 30, 2024	**43,248,080**	**$ 6**	**(13,343,001)**	**$ (1,447,984)**	**$ 1,025,268**	**$ 2,606,053**	**$ (68,731)**	**$ 2,114,612**
Balance, January 1, 2023	**48,138,257**	**$ 6**	**(7,879,415)**	**$ (938,009)**	**$ 951,371**	**$ 2,576,516**	**$ (204,524)**	**$ 2,385,360**
Vesting of RSUs and PSUs, net of shares withheld for taxes, and exercise of stock options	201,551	—	—	—	(2,925)	—	—	(2,925)
Common stock issued under employee stock purchase plan	30,403	—	—	—	2,493	—	—	2,493
Purchased common stock	(1,448,457)	—	(1,448,457)	(159,528)	—	—	—	(159,528)
Stock-based compensation	—	—	—	—	27,392	—	—	27,392
Net income	—	—	—	—	—	177,450	—	177,450
Foreign currency translation adjustments and other	—	—	—	—	—	—	(46,139)	(46,139)
Unrealized loss on derivatives, net of tax	—	—	—	—	—	—	(152)	(152)
Balance, September 30, 2023	**46,921,754**	**$ 6**	**(9,327,872)**	**$ (1,097,537)**	**$ 978,331**	**$ 2,753,966**	**$ (250,815)**	**$ 2,383,951**

See notes to condensed consolidated financial statements.

IPG PHOTONICS CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(In thousands, except share and per share data)

1. BASIS OF PRESENTATION AND SIGNIFICANT ACCOUNTING POLICIES

Basis of Presentation — The accompanying unaudited condensed consolidated financial statements have been prepared by IPG Photonics Corporation, or "IPG", "its" or the "Company". Certain information and footnote disclosures normally included in financial statements prepared in accordance with accounting principles generally accepted in the United States of America have been condensed or omitted pursuant to the rules and regulations of the Securities and Exchange Commission ("SEC"). The condensed consolidated financial statements include the Company's accounts and those of its subsidiaries. All intercompany balances have been eliminated in consolidation. These condensed consolidated financial statements should be read in conjunction with the consolidated financial statements and notes thereto in the Company's Annual Report on Form 10-K for the year ended December 31, 2023.

In the opinion of the Company's management, the financial information for the interim periods presented reflects all adjustments necessary for a fair presentation of the Company's financial position, results of operations and cash flows. The results reported in these condensed consolidated financial statements are not necessarily indicative of results that may be expected for the entire year.

Subsequent Events — The Company has considered the impact of subsequent events through the filing date of these financial statements. There were no events through the filing date of these financial statements required to be disclosed.

2. RECENT ACCOUNTING PRONOUNCEMENTS

Adopted Pronouncements — In November 2023, the FASB issued ASU No. 2023-07, "Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures" ("ASU 2023-07"), which improves reportable segment disclosure requirements, primarily through enhanced disclosures about significant segment expenses on an annual and interim basis. Under the new guidance an entity is required to disclose the title and position of the chief operating decision maker ("CODM") and an explanation of how the CODM uses the reported measure(s) of segment profit or loss in assessing segment performance and deciding how to allocate resources. The ASU also requires that an entity that has a single reportable segment provide all the disclosures required by this ASU and all existing segment disclosures in Topic 280. ASU 2023-07 is effective for fiscal years beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024. The Company adopted this standard during fiscal year 2024, and will start disclosing the required information in fiscal year ending December 31, 2024. The adoption of this standard only impacts disclosures and is not expected to have a material impact on the Company's consolidated financial statements.

Pronouncements Currently Under Evaluation — In December 2023, the FASB issued ASU No. 2023-09, "Income Taxes (Topic 740): Improvements to Income Tax Disclosures" ("ASU 2023-09"), which requires an entity on an annual basis to disclose specific categories in the rate reconciliation and provide additional information for reconciling items that meet a quantitative threshold. The guidance also requires an entity to disclose on an annual basis information about income taxes paid. ASU 2023-09 is effective for fiscal years beginning after December 15, 2024, with early adoption permitted. The Company is evaluating the impact of this ASU. The adoption of this standard only impacts disclosures and is not expected to have a material impact on the Company's consolidated financial statements.

3. REVENUE FROM CONTRACTS WITH CUSTOMERS

Sales are derived from products for different applications: fiber lasers, diode lasers, systems and accessories for materials processing; fiber lasers, diodes and amplifiers for advanced applications; and fiber lasers, systems and fibers for medical applications.

The following tables represent a disaggregation of revenue from contracts with customers:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2024	2023	2024	2023
Sales by Application				
Materials processing	$ 207,063	$ 265,226	$ 659,201	$ 892,379
Other applications	26,080	36,175	83,596	96,167
Total	$ 233,143	$ 301,401	$ 742,797	$ 988,546

IPG PHOTONICS CORPORATION
NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS - (Continued)
(In thousands, except share and per share data)

Sales by Product				
High Power Continuous Wave ("CW") Lasers	$ 81,325	$ 119,512	$ 254,343	$ 419,538
Medium Power CW Lasers	15,110	20,937	47,082	57,146
Pulsed Lasers	33,470	41,420	110,825	150,569
Quasi-Continuous Wave ("QCW") Lasers	10,180	10,856	36,520	35,978
Laser and Non-Laser Systems	35,265	37,493	111,436	117,064
Other Revenue including Amplifiers, Service, Parts, Accessories and Change in Deferred Revenue	57,793	71,183	182,591	208,251
Total	$ 233,143	$ 301,401	$ 742,797	$ 988,546
Sales by Geography				
North America	$ 57,294	$ 71,349	$ 198,163	$ 225,649
Europe:				
Germany	25,787	23,423	66,615	72,218
Other Europe	41,485	71,946	154,704	225,231
Asia:				
China	61,769	84,408	189,374	284,262
Japan	14,495	15,829	41,408	54,196
Other Asia	29,470	29,741	82,091	111,457
Rest of World	2,843	4,705	10,442	15,533
Total	$ 233,143	$ 301,401	$ 742,797	$ 988,546

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2024	2023	2024	2023
Timing of Revenue Recognition				
Goods and services transferred at a point in time	$ 223,269	$ 289,477	$ 713,913	$ 952,173
Goods and services transferred over time	9,874	11,924	28,884	36,373
Total	$ 233,143	$ 301,401	$ 742,797	$ 988,546

One of the Company's customers accounted for 14% of the Company's net accounts receivable as of both September 30, 2024 and December 31, 2023.

The Company enters into contracts to sell lasers and spare parts, for which revenue is generally recognized upon shipment or delivery, depending on the terms of the contract. The Company also provides installation services and extended warranties. The Company frequently receives consideration from a customer prior to transferring goods to the customer under the terms of a sales contract. The Company records customer deposits related to these prepayments, which represent a contract liability. The Company also records deferred revenue related to installation services when consideration is received before the services have been performed. The standalone selling price for installation services is determined based on the estimated number of days of service technician time required for installation at standard service rates. The Company recognizes customer deposits and deferred revenue as net sales after control of the goods or services has been transferred to the customer and all revenue recognition criteria are met. The Company bills customers for extended warranties upon entering into the agreement with the customer, resulting in deferred revenue that is recognized over the period of the extended warranty contract. The Company recognizes revenue over time on contracts for the sale of large scale materials processing systems. The timing of customer payments on these contracts generally differs from the timing of revenue recognized. If revenue recognized exceeds customer payments, a contract asset is recorded and if customer payments exceed revenue recognized, a contract liability is recorded. Contract assets are included within prepaid expense and other current assets on the condensed consolidated balance sheets. Contract liabilities are included within accrued expenses and other current liabilities on the condensed consolidated balance sheets. Certain deferred revenues related to extended warranties in excess of one year from the balance sheet date are included within other long-term liabilities and deferred income taxes on the condensed consolidated balance sheets.

The following table reflects the changes in the Company's contract assets and liabilities for the nine months ended September 30, 2024 and 2023:

	September 30, 2024	January 1, 2024	Change	September 30, 2023	January 1, 2023	Change
Contract assets						
Contract assets	$ 10,835	$ 9,383	$ 1,452	$ 5,623	$ 8,620	$ (2,997)
Contract liabilities						
Contract liabilities - current	52,271	69,219	(16,948)	66,961	80,068	(13,107)
Contract liabilities - long-term	3,015	2,851	164	2,851	3,142	(291)

During the three months ended September 30, 2024 and 2023 the Company recognized revenue of $6,366 and $7,730, respectively, that was included in contract liabilities at the beginning of each year. During the nine months ended September 30, 2024 and 2023 the Company recognized revenue of $49,582 and $51,173 respectively, that was included in contract liabilities at the beginning of each year.

The following table represents the Company's remaining performance obligations from contracts that are recognized over time as of September 30, 2024:

	Remaining Performance Obligations						
	2024 [a]	2025	2026	2027	2028	Thereafter	Total
Revenue expected to be recognized for extended warranty agreements	$ 1,003	$ 2,184	$ 1,166	$ 866	$ 316	$ 145	$ 5,680
Revenue to be earned over time from contracts to sell large scale materials processing systems	6,538	8,168	1,586	—	—	—	16,292
Total	$ 7,541	$ 10,352	$ 2,752	$ 866	$ 316	$ 145	$ 21,972

[a] For the three-month period beginning October 1, 2024.

4. LOSS ON DIVESTITURE AND IMPAIRMENT OF LONG-LIVED ASSETS

The Company recorded a loss on divestiture of $197,651 for the quarter ended September 30, 2024, which was included in Net loss from divestiture and sale of assets in the Company's Condensed Consolidated Statements of Income. As a result of the Russia-Ukraine conflict and related sanctions, the Company's ability to ship and receive components from its Russian operations was significantly curtailed. On August 29, 2024, the Company completed the sale of its Russian subsidiary, Scientific and Technical Association “IRE-Polus”, pursuant to a share purchase agreement with a purchaser entity associated with Softline Projects LLC and existing management of IRE-Polus for $51,096. The loss mainly consisted of $59,293 related to the carrying value of net assets of the Russian subsidiary that was in excess of net proceeds received on the sale and $135,346 related to the cumulative translation adjustment component of other comprehensive income that was previously included in stockholders' equity of the Company's Condensed Consolidated Balance Sheets.

Evaluation of Belarusian Operations — On June 29, 2024, the European Union (“EU”) issued new sanctions for Belarus. The sanctions, effective July 1 2024, allow shipments to our German operations related to existing contracts to continue through October 2, 2024. The Company completed fulfillment of existing contracts in September 2024. The Company is no longer able to continue to supply laser cabinets and other mechanical components from our factory in Belarus. As a result, the Company completed an impairment analysis of the assets in Belarus during the third quarter of 2024. The Company recorded $26,566 of impairment of long-lived assets, primarily fixed assets in the Company's Condensed Consolidated Statements of Income. The long-lived asset impairment charge was based on a probability-weighted average of valuations using the discounted cash flow method under the income approach to estimate the fair value of the long-lived assets in Belarus.

5. FAIR VALUE MEASUREMENTS

The Company's financial instruments consist of cash equivalents, short-term investments, accounts receivable, accounts payable, and revolving lines of credit.

The valuation techniques used to measure fair value are based upon observable and unobservable inputs. Observable inputs reflect market data obtained from independent sources, while unobservable inputs reflect internal market assumptions. These two types of inputs create the following fair value hierarchy: Level 1, defined as observable inputs such as quoted prices for identical instruments in active markets; Level 2, defined as inputs other than quoted prices in active markets that are either directly or indirectly observable; and Level 3, defined as unobservable inputs for which little or no market data exists, therefore requiring an entity to develop its own assumptions. The Company classifies its financial instruments according to the prescribed criteria.

The fair value of money market fund deposits, cash equivalent term deposits, accounts receivable, accounts payable and drawings on revolving lines of credit is reasonably close to their carrying amounts due to the short maturity of most of these instruments or as a result of the competitive market interest rates, which have been negotiated. The fair value of the Company's commercial paper, corporate bonds, U.S. Treasury and agency obligations and term deposits are based on Level 2 inputs.

The following table presents fair value information related to the Company's assets and liabilities measured at amortized cost on the condensed consolidated balance sheets:

	Fair Value Measurements at September 30, 2024			
	Total	Level 1	Level 2	Level 3
Assets				
Cash equivalents:				
Money market fund deposits	$ 185,862	$ 185,862	$ —	$ —
Commercial paper	156,412	—	156,412	—
U.S. Treasury and agency obligations	88,610	—	88,610	—
Term deposits	22,145	—	22,145	—
Corporate bonds	13,416	—	13,416	—
Total cash equivalents	466,445	185,862	280,583	—
Short-term investments:				
Commercial paper	75,523	—	75,523	—
U.S. Treasury and agency obligations	56,887	—	56,887	—
Term deposits	3,048	—	3,048	—
Total short-term investments	135,458	—	135,458	—
Total	$ 601,903	$ 185,862	$ 416,041	$ —

	Fair Value Measurements at December 31, 2023			
	Total	Level 1	Level 2	Level 3
Assets				
Cash equivalents:				
Money market fund deposits	$ 171,632	$ 171,632	$ —	$ —
Term deposits	83,965	—	83,965	—
Corporate bonds	23,516	—	23,516	—
Commercial paper	6,369	—	6,369	—
Total cash equivalents	285,482	171,632	113,850	—
Short-term investments:				
Commercial paper	244,571	—	244,571	—
Corporate bonds	243,915	—	243,915	—
U.S. Treasury and agency obligations	171,316	—	171,316	—
Term deposits	3,009	—	3,009	—
Total short-term investments	662,811	—	662,811	—
Total	$ 948,293	$ 171,632	$ 776,661	$ —

There were no impairments for the investments considered held-to-maturity during the quarters ended September 30, 2024 and 2023. There were no current expected credit loss allowances for the investments considered held-to-maturity at

September 30, 2024 and 2023. The Company holds highly-rated held-to-maturity instruments that are within one year of maturity.

The Company did not have any allowance for credit losses other than the allowance for uncollectible accounts receivable. As of September 30, 2024 and 2023, the allowance for credit losses on the trade receivables was $2,329 and $1,587, respectively.

The following table presents the effective maturity dates of debt investments, which are held-to-maturity:

	September 30, 2024		December 31, 2023	
	Book Value	Fair Value	Book Value	Fair Value
Investment maturity				
Less than 1 year	$ 135,444	$ 135,458	$ 662,807	$ 662,811

6. INVENTORIES

Inventories consist of the following:

	September 30, 2024	December 31, 2023
Components and raw materials	$ 170,905	$ 263,652
Work-in-process	30,013	47,997
Finished goods	119,805	142,225
Total	$ 320,723	$ 453,874

The Company recorded inventory provisions totaling $43,408 and $9,119 for the three months ended September 30, 2024 and 2023, respectively, and $70,259 and $32,434 for the nine months ended September 30, 2024 and 2023. These provisions relate to the recoverability of the value of inventories due to technological changes and excess quantities. For the three and nine months ended September 30, 2024, the Company recorded additional inventory provisions of $29,487 attributed to items previously considered safety stock and items that became technologically obsolete. These provisions are reported as a reduction to components and raw materials, work-in-process and finished goods.

7. GOODWILL AND INTANGIBLES

The following table sets forth the changes in the carrying amount of goodwill:

	Nine Months Ended September 30,
	2024
Balance, beginning of period	$ 38,540
Foreign exchange adjustment	(56)
Balance, end of period	$ 38,484

Intangible assets, subject to amortization, consisted of the following:

	September 30, 2024				December 31, 2023			
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Weighted-Average Lives	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Weighted-Average Lives
Customer relationships	$ 48,219	$ (28,787)	$ 19,432	11 years	$ 48,216	$ (25,973)	$ 22,243	11 years
Technology, trademark and trade name	26,990	(24,368)	2,622	7 years	29,903	(25,960)	3,943	7 years
Production know-how	9,172	(9,172)	—	7 years	9,155	(9,155)	—	7 years
Patents	8,034	(8,034)	—	8 years	8,035	(7,987)	48	8 years
Total	$ 92,415	$ (70,361)	$ 22,054		$ 95,309	$ (69,075)	$ 26,234	

Amortization expense for the three months ended September 30, 2024 and 2023 was $1,377 and $2,020, respectively. Amortization expense for the nine months ended September 30, 2024 and 2023 was $4,180 and $6,062, respectively. The estimated future amortization expense for intangibles for the remainder of 2024 and subsequent years is as follows:

2024 [a]	2025	2026	2027	2028	Thereafter	Total
$ 1,374	$ 4,979	$ 4,218	$ 4,006	$ 3,635	$ 3,842	$ 22,054

[a] For the three-month period beginning October 1, 2024.

8. OTHER LIABILITIES

Accrued expenses and other current liabilities consist of the following:

	September 30, 2024	December 31, 2023
Accrued compensation	$ 55,814	$ 67,053
Contract liabilities	52,271	69,219
Current portion of accrued warranty	23,261	27,283
Short-term lease liabilities	4,436	4,597
Other	15,006	13,198
Total	$ 150,788	$ 181,350

Other long-term liabilities and deferred income taxes consist of the following:

	September 30, 2024	December 31, 2023
Accrued warranty	$ 14,164	$ 19,926
Unrecognized tax benefits	14,389	17,176
Long-term lease liabilities	12,026	13,664
Deferred income taxes	4	1,508
Transition tax related to 2017 U.S. tax reform act	—	11,009
Other	5,753	5,369
Total	$ 46,336	$ 68,652

9. PRODUCT WARRANTIES

The Company typically provides one to five years parts and service warranties on lasers, laser and non-laser systems, and amplifiers. Most of the Company's sales offices provide support to customers in their respective geographic areas. Warranty reserves have generally been sufficient to cover product warranty repair and replacement costs.

Activity related to the warranty accrual was as follows:

	Nine Months Ended September 30,	
	2024	2023
Balance, beginning of period	$ 47,209	$ 52,862
Provision for warranty accrual	4,603	9,874
Warranty claims	(12,902)	(13,792)
Warranty related to business divested	(1,603)	—
Foreign currency translation	118	(850)
Balance, end of period	$ 37,425	$ 48,094

Accrued warranty reported in the accompanying condensed consolidated financial statements as of September 30, 2024 and December 31, 2023 consist of $23,261 and $27,283 in accrued expenses and other current liabilities, respectively, and $14,164 and $19,926 in other long-term liabilities and deferred income taxes, respectively.

10. FINANCING ARRANGEMENTS

Revolving Line of Credit Facilities:

The Company maintains a $75,000 U.S. revolving line of credit, which is available to certain foreign subsidiaries and allows for borrowings in the local currencies of those subsidiaries. At September 30, 2024 and December 31, 2023, there were no amounts drawn on the U.S. line-of-credit, and there were $1,888 and $2,487, respectively, of guarantees issued against the facility, which reduce the amount of the facility available to draw. After providing for the guarantees used, the remaining availability under this line was $73,112 at September 30, 2024. In addition, the Company maintains Euro lines of credit facilities with a total principal amount of €6,500 ($7,254 and $7,173 as of September 30, 2024 and December 31, 2023, respectively), which are available to certain European subsidiaries. At September 30, 2024 and December 31, 2023, there were no amounts drawn on the Euro lines of credit, and there were $1,611 and $1,180, respectively, of guarantees issued against the facility, which reduce the amount of the facility available to draw.

11. COMMITMENTS AND CONTINGENCIES

From time to time, the Company may be involved in legal disputes and other proceedings in the ordinary course of its business. These matters may include allegations of infringement of intellectual property, commercial disputes and employment matters. As of September 30, 2024 and through the filing date of these condensed consolidated financial statements, the Company is aware of no ongoing legal proceedings that management estimates could have a material effect on the Company's condensed consolidated financial statements.

The Company provides product warranties on its lasers, laser and non-laser systems, and amplifiers. Refer to Note 9, "Product Warranties" for information related to the Company's warranty accrual.

12. ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)

Comprehensive income includes charges and credits to equity that are not the result of transactions with stockholders. Included within comprehensive income is the cumulative foreign currency translation adjustments. These adjustments are accumulated within the condensed consolidated statements of comprehensive income.

Total components of accumulated other comprehensive loss were as follows:

	Foreign currency translation adjustments and other	Unrealized gain (loss) on derivatives, net of tax	Total
Balance, July 1, 2024	$ (226,852)	$ —	$ (226,852)
Other comprehensive income, net of tax:			
Foreign currency translation adjustments and other before reclassification, net of tax expense of $237	21,451	—	21,451
Reclassification of foreign currency translation adjustments related to the divestiture of Russian operations to net loss, net of tax expense of $1,324	136,670	—	136,670
Total other comprehensive income	158,121	—	158,121
Balance, September 30, 2024	$ (68,731)	$ —	$ (68,731)
Balance, July 1, 2023	$ (219,277)	$ —	$ (219,277)
Other comprehensive loss, net of tax:			
Foreign currency translation adjustments and other, net of tax benefit of $94	(31,538)	—	(31,538)
Total other comprehensive loss	(31,538)	—	(31,538)
Balance, September 30, 2023	$ (250,815)	$ —	$ (250,815)

	Foreign currency translation adjustments and other	Unrealized gain (loss) on derivatives, net of tax	Total
Balance, January 1, 2024	$ (212,530)	$ —	$ (212,530)
Other comprehensive income, net of tax:			
Foreign currency translation adjustments and other before reclassification, net of tax expense of $112	7,129	—	7,129
Reclassification of foreign currency translation adjustments related to the divestiture of Russian operations to net loss, net of tax expense of $1,324	136,670	—	136,670
Total other comprehensive income	143,799	—	143,799
Balance, September 30, 2024	$ (68,731)	$ —	$ (68,731)
Balance, January 1, 2023	$ (204,676)	$ 152	$ (204,524)
Other comprehensive loss, net of tax:			
Foreign currency translation adjustments and other, net of tax expense of $10	(46,139)	—	(46,139)
Unrealized loss on derivatives, net of tax benefit of $46	—	(152)	(152)
Total other comprehensive loss	(46,139)	(152)	(46,291)
Balance, September 30, 2023	$ (250,815)	$ —	$ (250,815)

13. INCOME TAXES

The provision for income taxes was a benefit of $8,920 and a tax expense of $5,441, for the three and nine months ended September 30, 2024, respectively. The effective tax rate was 3.7% for the three months ended September 30, 2024. For the nine months ended September 30, 2024, there was tax expense provided on the Loss before provision for income taxes.

This compares to the three and nine months ended September 30, 2023, where the provisions for income taxes were tax expenses of $12,826 and $55,272, respectively. The effective tax rates for the three and nine months ended September 30, 2023, were a tax expense of 18.9% and 23.8%, respectively.

There was a tax detriment for both periods in 2024 related primarily to $41,482 of losses not benefitted from the loss on divestiture of Russian operations, which occurred in the three months ended September 30, 2024. Excluding the divestiture of Russian operations, the other discrete tax items for the three months ended September 30, 2024 did not have a significant effect on the Company's tax rate. Excluding the divestiture of Russian operations, the other discrete tax detriment of $1,435 for the nine months ended September 30, 2024, related primarily to equity-based compensation which was partially offset by a benefit related to reductions of tax reserves.

There were net discrete tax detriments of $169 and $390 for the three and nine months ended September 30, 2023, respectively. The discrete detriments in 2023 did not have a significant effect on the Company's tax rate. Excluding discrete items, the overall effective tax rate in 2024 decreased as compared to 2023 due the decrease of income before provision for income taxes in 2024 as compared to 2023.

The Company accounts for its uncertain tax positions in accordance with the accounting standards for income taxes. The Company classifies interest and penalties related to unrecognized tax benefits as a component of the provision for income taxes.

The following is a summary of the activity of the Company's unrecognized tax benefits for the nine months ended September 30, 2024 and 2023:

	Nine Months Ended September 30,	
	2024	2023
Balance, beginning of period	$ 17,176	$ 15,841
Change in prior period positions	(3,130)	(1,274)
Additions for tax positions in current period	249	3,738
Foreign currency translation	94	(527)
Balance, end of period	$ 14,389	$ 17,778

The liability for uncertain tax benefits is included in other long-term liabilities and deferred income taxes at September 30, 2024 and December 31, 2023. Substantially all of the liability for uncertain tax benefits related to various federal, state and foreign income tax matters would benefit the Company's effective tax rate, if the tax benefits are recognized.

14. NET INCOME ATTRIBUTABLE TO IPG PHOTONICS CORPORATION PER COMMON SHARE

The following table sets forth the computation of diluted net income attributable to IPG Photonics Corporation per common share following the treasury stock method:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2024	2023	2024	2023
Net (loss) income attributable to IPG Photonics Corporation common stockholders	$ (233,594)	$ 54,994	$ (189,341)	$ 177,450
Basic weighted average common shares	43,837,357	47,236,901	44,901,247	47,363,974
Dilutive effect of common stock equivalents	—	151,218	—	171,661
Diluted weighted average common shares	43,837,357	47,388,119	44,901,247	47,535,635
Basic net (loss) income attributable to IPG Photonics Corporation per common share	$ (5.33)	$ 1.16	$ (4.22)	$ 3.75
Diluted net (loss) income attributable to IPG Photonics Corporation per common share	$ (5.33)	$ 1.16	$ (4.22)	$ 3.73

The computation of diluted weighted average common shares excludes common stock equivalents including non-qualified stock options, performance stock units ("PSUs"), restricted stock units ("RSUs") and employee stock purchase plan ("ESPP") because the effect of including them would be anti-dilutive. The weighted average anti-dilutive shares outstanding for the three and nine months ended September 30, 2024 and 2023 were as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2024	2023	2024	2023
Non-qualified stock options	672,225	529,228	603,058	537,065
Restricted stock units	202,368	55,201	232,622	376,382
Performance stock units	87,662	—	58,872	53,470
Employee stock purchase plan	10,494	—	41,977	—
Total weighed average anti-dilutive shares outstanding	972,749	584,429	936,529	966,917

On February 13, 2024, the Company announced that its Board of Directors has authorized the purchase of up to $300,000 of IPG common stock. This authorization is in addition to the Company's stock repurchase programs authorized in May 2023.

For the three months ended September 30, 2024, the Company repurchased 984,060 shares under the February 2024 authorization with a weighted average price of $74.90 per share in the open market. For the nine months ended September 30, 2024, the Company repurchased 3,346,234 shares under the May 2023 authorization and February 2024 authorization with a weighted average price of $84.79 per share in the open market. The impact on the reduction of weighted average shares for the three and nine months ended September 30, 2024 was 391,942 shares and 1,607,958 shares, respectively. As of September 30, 2024, the Company had $106,781 remaining under the February 2024 authorization.

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

You should read the following discussion in conjunction with our condensed consolidated financial statements and related notes included elsewhere in this Quarterly Report on Form 10-Q. This discussion contains forward looking statements that are based on management's current expectations, estimates and projections about our business and operations. Our actual results may differ materially from those currently anticipated and expressed in such forward-looking statements. See "Cautionary Statement Regarding Forward-Looking Statements."

Overview

We develop, manufacture and sell high-performance fiber lasers and diode lasers that are used for diverse applications, primarily in materials processing. We also manufacture and sell complementary products used with our lasers including optical delivery cables, fiber couplers, beam switches, optical processing heads, in-line sensors and chillers. In addition, we offer laser-based and non-laser based systems for certain markets and applications. Our portfolio of laser solutions is used in materials processing, medical, and advanced applications. We sell our products globally to original equipment manufacturers ("OEMs"), system integrators and end users. We market our products internationally, primarily through our direct sales force. Our major manufacturing facilities are located in the United States and Germany. In response to the risks from the Russia-Ukraine conflict, have ceased new investment in our Belarusian operations and expanded our manufacturing operations in Germany, the United States and Italy, and have added manufacturing capacity in Poland to meet the demand for our products and our sales and support needs. We have sales and service offices and applications laboratories worldwide.

We are vertically integrated such that we design and manufacture most of the key components used in our finished products, from semiconductor diodes to optical fiber preforms, finished fiber lasers and complementary products. Our vertically integrated operations allow us to reduce manufacturing costs, control quality, rapidly develop and integrate advanced products and protect our proprietary technology.

Factors and Trends That Affect Our Operations and Financial Results

In reading our financial statements, you should be aware of the following factors and trends that our management believes are important in understanding our financial performance.

Sale of our Russian Operations. On August 29, 2024, we completed the sale of our Russian subsidiary, Scientific and Technical Association “IRE-Polus”, pursuant to a share purchase agreement with a purchaser entity associated with Softline Projects LLC and existing management of IRE-Polus for $51.1 million. We recorded a loss on divestiture of $197.7 million for the quarter ended September 30, 2024, which was included in Net loss from divestiture and sale of assets in our Condensed Consolidated Statements of Income. The loss included $59.3 million related to the carrying value of net assets of our Russian subsidiary that was in excess of net proceeds received on the sale. Included in the net assets sold was cash and cash equivalents of $74.0 million. Also included in the loss was $135.3 million related to the cumulative translation adjustment component of other comprehensive income that was previously included in Stockholders' equity of our Condensed Consolidated Balance Sheets. As a result of the Russia-Ukraine conflict and related sanctions, our ability to ship and receive components from our Russian operations was significantly curtailed. In response, we expanded our manufacturing capacity in Germany, the United States and Italy, and added new manufacturing capacity in Poland which effectively offset our inability to utilize the Russian operations.

Belarusian Operations. We manufacture laser cabinets and other mechanical components in Belarus. In response to the Russia-Ukraine conflict, the EU issued additional sanctions impacting commerce with Belarus on June 29, 2024, which restricted the supply of laser cabinets and other mechanical components from our factory in Belarus to our Germany operations after October 2, 2024. As a result of the sanctions and their impact on our Belarus operations, we completed an impairment analysis of our Belarus assets during the third quarter of 2024 and recorded $26.6 million of impairment of long-lived asset in our Condensed Consolidated Statements of Income. At September 30, 2024, the remaining value of the long-lived assets in Belarus was $3.8 million, net working capital excluding cash was $0.4 million and cash was $5.8 million. The net asset value of our Belarus subsidiary has been reduced by $17.9 million due to the cumulative translation effect of the Belarusian ruble compared to the U.S. dollar, which is included in the accumulated other comprehensive loss component of stockholders' equity. We may incur additional asset impairment charges related to the Belarus operations and the other comprehensive loss that is currently in the equity section of our condensed consolidated balance sheets could be charged to our condensed consolidated statements of income.

We continue to review our operations in Belarus including potential strategic alternatives. We have qualified third party vendors to supply components previously supplied from Belarus and have begun purchasing from them. Our Board of Directors monitors and continues to assess risks associated with our Belarusian operations.

Supply chain and inventory balances. Because of disruptions to our supply chain caused by the COVID-19 pandemic and Russia-Ukraine related sanctions, we increased our inventory safety stocks and placed non-cancellable orders for long lead time items. These caused our inventory levels and our days inventory on hand to increase. During the third quarter of 2024, we undertook an analysis of the safety stock and recorded additional provisions for excess inventory reserves of approximately $20.7 million. In addition, we recorded $8.8 million of inventory reserves related to inventory that became obsolete due to the launch of new components.

Net sales. Our net sales have historically fluctuated from quarter to quarter. The increase or decrease in sales from a prior quarter can be affected by the timing of orders received from customers, the timing of shipments, the mix of OEM orders and one-time orders for products with large purchase prices, competitive pressures, acquisitions, economic and political conditions in a certain country or region and seasonal factors such as the purchasing patterns and levels of activity throughout the year in the regions where we operate. Net sales can be affected by the time taken to qualify our products for use in new applications in the end markets that we serve. Our sales cycle varies substantially, ranging from a period of a few weeks to as long as one year or more, but is typically several months. The adoption of our products by a new customer or qualification in a new application can lead to an increase in net sales for a period, which may then slow until we penetrate new markets or obtain new customers. Foreign exchange rates also affect our net sales, due to changes in the U.S. dollar value of sales made in foreign currencies.

Our business depends substantially upon capital expenditures by end users, particularly by manufacturers using our products for materials processing, which includes general manufacturing, automotive including electric vehicles ("EV"), other transportation, aerospace, heavy industry, consumer, semiconductor and electronics. Approximately 89% of our revenues for the first three quarters of 2024, and 90% of the full fiscal year of 2023 were from customers using our products for materials processing. Although applications within materials processing are broad, the capital equipment market in general is cyclical and historically has experienced sudden and severe downturns. For the foreseeable future, our operations will continue to depend upon capital expenditures by end users of materials processing equipment and will be subject to the broader fluctuations of capital equipment spending.

In response to inflation in recent years, some global central banks have adopted less accommodating monetary policy and have increased benchmark interest rates in several major global economies. The increase in interest rates is intended to dampen demand that could lead to regional or global recession that may reduce demand for our products. In addition, an increase in interest rates would increase the cost of equipment financed with leases or debt. As we start to see inflation moderate in the second half of 2024, global central banks may adopt more accommodating monetary policy and reduce benchmark interest rates.

In recent years, our net sales and margins have been negatively impacted by tariffs and trade policy. New tariffs and other changes in U.S. trade policy could trigger retaliatory actions by affected countries, and certain foreign governments.

We are also susceptible to global or regional disruptions such as political instability, geopolitical conflicts, acts of terrorism, significant fluctuations in currency values, natural disasters and pandemics to the extent that they affect macroeconomic conditions, global supply chains or individual IPG locations.

The average selling prices of our products generally decrease as the products mature. These decreases result from factors such as increased competition, decreased manufacturing costs and increased unit volumes. We may also reduce selling prices in order to penetrate new markets and applications. Furthermore, we may negotiate discounted selling prices from time to time with certain customers that place high unit-volume orders.

The secular shift to fiber laser technology in large materials processing applications, such as welding and cutting applications, had a positive effect on our sales trends in the past such that our sales trends were often better than other capital equipment manufacturers in both positive and negative economic cycles. As the secular shift to fiber laser technology matures in such applications, our sales trends are more susceptible to economic cycles, which can broadly affect the demand for capital equipment including machine tools and industrial lasers, and competition from other fiber laser manufacturers.

Gross margin. Our total gross margin in any period can be significantly affected by a number of factors, including net sales, production volumes, competitive factors, product mix, and by other factors such as changes in foreign exchange rates relative to the U.S. dollar, tariffs and shipping costs. Many of these factors are not under our control. The following are examples of factors affecting gross margin:

- As our products mature, we can experience additional competition which tends to decrease average selling prices and affects gross margin;

- Our gross margin can be significantly affected by product mix. Within each of our product categories, the gross margin is generally higher for devices with greater average power. These higher power products often have better performance, more difficult specifications to attain and fewer competing products in the marketplace;
- Higher power lasers also use a greater number of optical components, improving absorption of fixed overhead costs and enabling economies of scale in manufacturing;
- The gross margin for certain specialty products may be higher because there are fewer or sometimes no equivalent competing products;
- Customers that purchase devices in greater unit volumes generally are provided lower prices per device than customers that purchase fewer units. In general, lower selling prices to high unit volume customers reduce gross margin although this may be partially offset by improved absorption of fixed overhead costs associated with larger product volumes, which drive economies of scale;
- Gross margin on systems can be lower than gross margin for our lasers and sub-systems, depending on the configuration, volume and competitive forces, among other factors;
- Persistent inflation leading to increases in average manufacturing salaries as well as an increase in the purchase price of components including, but not limited to, electronic components and metal parts could negatively impact gross margin if we are not able to pass those increases on to customers by increasing the selling price of our products;
- Changes in relative exchange rates between currencies we receive when selling our products and currencies we use to pay our manufacturing expenses; and finally,
- Our gross margin from products on new manufacturing lines can be lower due to production inefficiencies and high scrap costs.

We expect that some new technologies, products and systems will have returns above our cost of capital but may have gross margins below our corporate average. If we are able to develop opportunities that are significant in size, competitively advantageous or leverage our existing technology base and leadership, our current gross margin levels may not be maintained. Instead, we aim to deliver industry-leading levels of gross margins by growing sales, by taking market share in existing markets, or by developing new applications and markets we address, by reducing the cost of our products and by optimizing the efficiency of our manufacturing operations.

A high proportion of our costs is fixed so costs are generally difficult to adjust or may take time to adjust in response to changes in demand. In addition, our fixed costs increase as we expand our capacity. If we expand capacity faster than is required by sales growth, gross margins could be negatively affected. Gross margins generally decline if production volumes are lower as a result of a decrease in sales or a reduction in inventory because the absorption of fixed manufacturing costs will be reduced. Gross margins generally improve when the opposite occurs. If both sales and inventory decrease in the same period, the decline in gross margin may be greater if we cannot reduce fixed costs or choose not to reduce fixed costs to match the decrease in the level of production. If we experience a decline in sales that reduces absorption of our fixed costs, or if we have production issues, our gross margins will be negatively affected.

We also regularly review our inventory for items that are slow-moving, have been rendered obsolete or are determined to be excess. Any provision for such slow-moving, obsolete or excess inventory affects our gross margins. For example, we recorded provisions for slow-moving, obsolete or excess inventory totaling $43.4 million and $9.1 million for the three months ended September 30, 2024 and 2023, respectively, and $70.3 million and $32.4 million for the nine months ended September 30, 2024 and 2023, respectively. For the three months ended September 30, 2024, we recorded additional inventory provisions of $29.5 million attributed to items previously considered safety stock and items that became technologically obsolete.

Selling and general and administrative expenses. In the past, we invested in selling and general and administrative costs in order to support continued growth in the Company. As the secular shift to fiber laser technology matures, our sales growth becomes more susceptible to the cyclical trends typical of capital equipment manufacturers. Accordingly, our future management of and investments in selling and general and administrative expenses will also be influenced by these trends, although we may still invest in selling or general and administrative functions to support certain initiatives even in economic down cycles. Certain general and administrative expenses are not related to the level of sales and may vary quarter to quarter based primarily upon the level of acquisitions, litigation and project related consulting expenses.

Research and development expenses. We plan to continue to invest in research and development to improve our existing components and products and develop new components, products, systems and applications technology. We believe that these

investments will sustain our position as a leader in the fiber laser industry and will support development of new products that can address new markets and growth opportunities. The amount of research and development expense we incur may vary from period to period.

Goodwill and long-lived assets impairments. We review our intangible assets and property, plant and equipment for impairment when events or changes in circumstances indicate the carrying value may not be recoverable. Goodwill is required to be tested for impairment at least annually. Negative industry or economic trends, including reduced estimates of future cash flows, disruptions to our business, slower growth rates, lack of growth in our relevant business units, differences in the estimated product acceptance rates, or market prices below the carrying value of long-lived assets evaluated for sale could lead to impairment charges against our long-lived assets, including goodwill and other intangible assets.

As noted above, we recorded $26.6 million impairment of long-lived assets included in Impairment of long-lived assets in our Condensed Consolidated Statements of Income. After impairment, the remaining carrying value of the long-lived assets in Belarus is $3.8 million.

Our valuation methodology for assessing impairment requires management to make significant judgments and assumptions based on historical experience and to rely heavily on projections of future operating performance at many points during the analysis. Also, the process of evaluating the potential impairment of goodwill is subjective. We operate in a highly competitive environment and projections of future operating results and cash flows may vary significantly from actual results. If our analysis indicates potential impairment to goodwill in one or more of our reporting units, we may be required to record charges to earnings in our financial statements, which could negatively affect our results of operations.

Foreign exchange. Because we are a U.S.-based company doing business globally, we have both translational and transactional exposure to fluctuations in foreign currency exchange rates. Changes in the relative exchange rate between the U.S. dollar and the foreign currencies in which our subsidiaries operate directly affects our sales, costs and earnings. Differences in the relative exchange rates between where we sell our products and where we incur manufacturing and other operating costs (primarily in the U.S. and Germany) also affects our costs and earnings. Certain currencies experiencing significant exchange rate fluctuations like the euro, the Russian ruble, the Chinese yuan and Japanese yen have had and could have an additional significant impact on our sales, costs and earnings. For the quarter ended September 30, 2024, the foreign exchange loss was primarily attributed to the appreciation of the euro as compared to the U.S. dollar. Our European subsidiaries have certain net assets denominated in U.S. dollars. Our ability to adjust the foreign currency selling prices of products in response to changes in exchange rates is limited and may not offset the impact of the changes in exchange rates on the translated value of sales or costs. In addition, if we increase the selling price of our products in local currencies, this could have a negative impact on the demand for our products.

Income taxes. We are evaluating the impact of countries adopting tax legislation in accordance with the proposals presented by the OECD (Pillars 1 and 2). Based on the current drafts of the proposals, the tax impact in most countries will not be significant in 2024 due to an effective tax rate in those countries in excess of 15% or as a result of the transition rules that are proposed.

Major customers. While we have historically depended on a few customers for a large percentage of our annual net sales, the composition of this group can change from period to period. Net sales derived from our five largest customers as a percentage of our net sales was 12% for the nine months ended September 30, 2024 and 13%, and 15% for the full years 2023 and 2022, respectively. One of our customers accounted for 14% of our net accounts receivable as of both September 30, 2024 and December 31, 2023. We seek to add new customers and to expand our relationships with existing customers. We anticipate that the composition of our significant customers will continue to change. We generally do not enter into agreements with our customers obligating them to purchase a fixed number or large volume of our products. If any of our significant customers substantially reduced their purchases from us, our results would be adversely affected.

Results of Operations for the Three Months Ended September 30, 2024 Compared to the Three Months Ended September 30, 2023

Net sales. Net sales decreased by $68.3 million, or 22.6%, to $233.1 million for the three months ended September 30, 2024 from $301.4 million for the three months ended September 30, 2023.

The table below sets forth sales by application:

	Three Months Ended September 30,					
	2024		2023		Change	
	(In thousands, except for percentages)					
Sales by Application		% of Total		% of Total		
Materials processing	$ 207,063	88.8 %	$ 265,226	88.0 %	$ (58,163)	(21.9)%
Other applications	26,080	11.2 %	36,175	12.0 %	(10,095)	(27.9)%
Total	$ 233,143	100.0 %	$ 301,401	100.0 %	$ (68,258)	(22.6)%

The table below sets forth sales by type of product and other revenue:

	Three Months Ended September 30,					
	2024		2023		Change	
	(In thousands, except for percentages)					
Sales by Product		% of Total		% of Total		
High Power Continuous Wave ("CW") Lasers	$ 81,325	34.9 %	$ 119,512	39.7 %	$ (38,187)	(32.0)%
Medium Power CW Lasers	15,110	6.5 %	20,937	6.9 %	(5,827)	(27.8)%
Pulsed Lasers	33,470	14.3 %	41,420	13.8 %	(7,950)	(19.2)%
Quasi-Continuous Wave ("QCW") Lasers	10,180	4.4 %	10,856	3.6 %	(676)	(6.2)%
Laser and Non-Laser Systems	35,265	15.1 %	37,493	12.4 %	(2,228)	(5.9)%
Other Revenue including Amplifiers, Service, Parts, Accessories and Change in Deferred Revenue	57,793	24.8 %	71,183	23.6 %	(13,390)	(18.8)%
Total	$ 233,143	100.0 %	$ 301,401	100.0 %	$ (68,258)	(22.6)%

Materials processing

Sales for materials processing applications decreased due to lower sales of high power CW lasers, medium power CW lasers, pulsed lasers, QCW lasers, laser and non-laser systems and other laser products and services.

- High power CW laser sales decreased due to lower sales for cutting and welding applications. Within cutting applications, the decrease in sales was attributable to softer industrial demand primarily in Europe and the U.S., increased competition from Chinese fiber laser suppliers and inventory management by OEM customers, while welding applications were primarily impacted by a delay in e-mobility investments in China and soft general industrial demand in Europe.
- Medium power CW laser sales decreased due to lower demand in welding, partially offset by an increase in 3D printing applications.
- Pulsed laser sales, including high power pulsed lasers, decreased due to lower demand for foil cutting and cleaning and stripping applications.
- QCW laser sales decreased due to lower demand in general industrial applications.
- Laser and non-laser systems sales decreased, partially offset by higher demand for LightWELD systems.

Other Applications

Sales from other applications decreased due to decreased demand for lasers used in medical procedures and advanced applications.

Cost of sales and gross margin. Cost of sales increased by $10.6 million, or 6.3%, to $179.1 million for the three months ended September 30, 2024 from $168.5 million for the three months ended September 30, 2023. Our gross margin decreased to 23.2% for the three months ended September 30, 2024 from 44.1% for the three months ended September 30, 2023. The decrease in gross margin was driven primarily by increased provisions for excess and obsolete inventory. For the three months

ended September 30, 2024, we recorded additional inventory provisions of $29.5 million attributed to items previously considered safety stock and items that became technologically obsolete. In addition to provisions for inventory reserves, gross margin declined due to an increase in unabsorbed manufacturing costs, partially offset by a decrease in shipping costs and tariffs, as a percentage of sales.

Sales and marketing expense. Sales and marketing expense were $22.2 million for both the three months ended September 30, 2024 and the three months ended September 30, 2023. Increases in personnel and related expenses were fully offset by reductions in depreciation and amortization expense. As a percentage of sales, sales and marketing expense increased to 9.5% from 7.4% for the three months ended September 30, 2024 and 2023, respectively.

Research and development expense. Research and development expense increased by $2.5 million, or 10.1%, to $27.2 million for the three months ended September 30, 2024, compared to $24.7 million for the three months ended September 30, 2023. The increase is due to an increase in personnel and related expenses as well as an increase in premises expense. As a percentage of sales, research and development expense increased to 11.7% from 8.2% for the three months ended September 30, 2024 and 2023, respectively.

General and administrative expense. General and administrative expense increased by $1.7 million, or 5.5%, to $32.7 million for the three months ended September 30, 2024 from $31.0 million for the three months ended September 30, 2023. The increase was due to increases in personnel and related expenses and bad debt provision. As a percentage of sales, general and administrative expense increased to 14.0% from 10.3% for the three months ended September 30, 2024 and 2023, respectively.

Net loss from divestiture and sale of assets. During the three months ended September 30, 2024, we divested our Russia operations for $51.1 million. The divestiture resulted in a loss of $197.7 million.

Impairment of long-lived assets. During the three months ended September 30, 2024, we completed an impairment analysis of the assets in Belarus as a result of new EU sanctions that will limit our ability to supply laser cabinets and other mechanical components from our factory in Belarus. We recorded $26.6 million of impairment of long-lived assets.

Effect of exchange rates on net sales, gross profit and operating expenses. If exchange rates relative to the U.S. dollar had been the same as one year ago, which were on average euro 0.92, Russian ruble 94, Japanese yen 145 and Chinese yuan 7.24, respectively, we estimate that net sales for the three months ended September 30, 2024 would have been $0.5 million lower, gross profit would have been $0.7 million higher and total sales and marketing, research and development, and general and administrative expenses would have been $0.1 million lower.

Loss on foreign exchange. We incurred a foreign exchange transaction loss of $1.1 million for the three months ended September 30, 2024 as compared to a $0.4 million gain for the three months ended September 30, 2023. Our European subsidiaries have certain net assets denominated in U.S. dollars, and our Chinese subsidiary has certain net liabilities denominated in U.S. dollars. The foreign exchange loss for the three months ended September 30, 2024 was primarily attributable to an appreciation of the euro as compared to the U.S. dollar.

Interest income, net. Interest income, net was $11.1 million for the three months ended September 30, 2024 as compared to $11.6 million of income for three months ended September 30, 2023. The change in interest income, net was due to holding fewer short term investments in the current period as compared to the prior year.

Provision for income taxes. Provision for income taxes was $8.9 million benefit for the three months ended September 30, 2024 compared to $12.8 million expense for the three months ended September 30, 2023. The effective tax rates were 3.7% and 18.9% for the three months ended September 30, 2024 and 2023, respectively. The decrease in tax expense was primarily due to a decrease of income before provision for income taxes for the three months ended September 30, 2024 as compared to the three months ended September 30, 2023. There was a net discrete tax detriment for the three months ended September 30, 2024 related primarily to $41.5 million losses not benefitted from the loss on divestiture of the Russian operations. The other discrete tax items for the three months ended September 30, 2024 did not have a significant effect on our tax rate. The discrete detriment for the three months ended September 30, 2023 did not have a significant effect on our tax rate.

Net (loss) income attributable to IPG Photonics Corporation. Net (loss) income attributable to IPG Photonics Corporation decreased by $288.6 million to a net loss of $233.6 million for the three months ended September 30, 2024 compared to a net income of $55.0 million for the three months ended September 30, 2023 due to the factors described above.

Results of Operations for the Nine Months Ended September 30, 2024 Compared to the Nine Months Ended September 30, 2023

Net sales. Net sales decreased by $245.7 million, or 24.9% to $742.8 million for the nine months ended September 30, 2024 from $988.5 million for the nine months ended September 30, 2023.

The table below sets forth sales by application:

	Nine Months Ended September 30,					
	2024		2023		Change	
	(In thousands, except for percentages)					
Sales by Application		% of Total		% of Total		
Materials processing	$ 659,201	88.7 %	$ 892,379	90.3 %	$ (233,178)	(26.1)%
Other applications	83,596	11.3 %	96,167	9.7 %	(12,571)	(13.1)%
Total	$ 742,797	100.0 %	$ 988,546	100.0 %	$ (245,749)	(24.9)%

The table below sets forth sales by type of product and other revenue:

	Nine Months Ended September 30,					
	2024		2023		Change	
	(In thousands, except for percentages)					
Sales by Product		% of Total		% of Total		
High Power CW Lasers	$ 254,343	34.2 %	$ 419,538	42.4 %	$ (165,195)	(39.4)%
Medium Power CW Lasers	47,082	6.3 %	57,146	5.8 %	(10,064)	(17.6)%
Pulsed Lasers	110,825	14.9 %	150,569	15.2 %	(39,744)	(26.4)%
QCW Lasers	36,520	4.9 %	35,978	3.6 %	542	1.5 %
Laser and Non-Laser Systems	111,436	15.0 %	117,064	11.9 %	(5,628)	(4.8)%
Other Revenue including Amplifiers, Service, Parts, Accessories and Change in Deferred Revenue	182,591	24.7 %	208,251	21.1 %	(25,660)	(12.3)%
Total	$ 742,797	100.0 %	$ 988,546	100.0 %	$ (245,749)	(24.9)%

Materials processing

Sales for materials processing applications decreased due to decreases in sales of high power CW lasers, medium power CW lasers, pulsed lasers, laser and non-laser systems and other laser products and service.

- High power CW laser sales decreased due to lower sales for cutting and welding applications. Within cutting applications, the decrease in sales was attributable to softer industrial demand primarily in Europe and the U.S., increased competition from Chinese fiber laser suppliers and inventory management by OEM customers, while welding application was primarily impacted by a delay in e-mobility investments.
- Medium power CW laser sales decreased due to a decrease in demand in welding, partially offset by growth in 3D printing applications.
- Pulsed laser sales decreased due to lower demand in micro material processing applications and foil cutting applications.
- Laser and non-laser systems sales decreased driven by lower demand for non-laser systems.
- Other revenue for materials processing decreased due to lower sales of accessories and parts and service.

Other Applications

Sales from other applications decreased due to decreased demand for lasers used in medical procedures and advanced applications.

Cost of sales and gross margin. Cost of sales decreased by $66.0 million, or 11.8%, to $495.0 million for the nine months ended September 30, 2024 from $561.0 million for the nine months ended September 30, 2023. Our gross margin decreased to 33.4% for the nine months ended September 30, 2024 from 43.2% for the nine months ended September 30, 2023. Gross margin decreased mainly driven by increased provisions for excess and obsolete inventory. For the nine months ended September 30, 2024, we recorded additional inventory provisions of $29.5 million attributed to items previously considered safety stock and items that became technologically obsolete. In addition to provisions for inventory reserves, gross margin declined due to an increase in unabsorbed manufacturing costs, partially offset by a decrease in shipping costs and tariffs, as a percentage of sales.

Sales and marketing expense. Sales and marketing expense increased by $4.2 million, or 6.6%, to $67.7 million for the nine months ended September 30, 2024 compared with $63.5 million for the nine months ended September 30, 2023. The increase is due to higher personnel and related expenses and premises expenses, partially offset by lower depreciation and amortization expenses. As a percentage of sales, sales and marketing expense increased to 9.1% from 6.4% for the nine months ended September 30, 2024 and 2023, respectively.

Research and development expense. Research and development expense increased by $13.0 million, or 18.3%, to $84.0 million for the nine months ended September 30, 2024, compared to $71.0 million for the nine months ended September 30, 2023. The increase is due to higher personnel and related expenses and premises expenses. As a percentage of sales, research and development expense increased to 11.3% from 7.2% for the nine months ended September 30, 2024 and 2023, respectively.

General and administrative expense. General and administrative expense increased by $4.7 million, or 5.2%, to $95.4 million for the nine months ended September 30, 2024 from $90.7 million for the nine months ended September 30, 2023, primarily as a result of increases in consultant, legal, and information system expenses. As a percentage of sales, general and administrative expense increased to 12.8% from 9.2% for the nine months ended September 30, 2024 and 2023, respectively.

Net loss from divestiture and sale of assets. During the nine months ended September 30, 2024 we incurred a net loss of $190.2 million. The loss was primarily related to the divestiture of our Russian operations for $197.7 million, partially offset by a gain on sale of assets of $7.5 million related to the sales of a building and land in the U.S. and a building in the U.K.

Impairment of long-lived assets. During the nine months ended September 30, 2024, we completed an impairment analysis of the assets in Belarus as a result of new EU sanctions that will limit our ability to supply laser cabinets and other mechanical components from our factory in Belarus. We recorded $26.6 million of impairment of long-lived asset.

Effect of exchange rates on net sales, gross profit and operating expenses. We estimate that, if exchange rates relative to the U.S. dollar had been the same as one year ago, which were on average euro 0.92, Russian ruble 83, Japanese yen 138 and Chinese yuan 7.03, respectively, we would have expected net sales for the nine months ended September 30, 2024 to be $13.2 million higher, gross profit to be $8.2 million higher and total sales and marketing, research and development, and general and administrative expenses would have been $2.9 million higher.

Loss on foreign exchange. We incurred a foreign exchange transaction loss of $6.1 million for the nine months ended September 30, 2024 as compared to a gain of $1.8 million for the nine months ended September 30, 2023. Our European subsidiaries have certain net assets denominated in U.S. dollars, and our Chinese subsidiary has certain net liabilities denominated in U.S. dollars. The loss for the nine months ended September 30, 2024 was primarily attributable to loss from the depreciation of the Chinese yuan for most of the year and appreciation of the euro, as compared to the U.S. dollar.

Interest income, net. Interest income, net, was $38.1 million for the nine months ended September 30, 2024 as compared to $28.4 million of income for the nine months ended September 30, 2023. The increase in interest income, net, was due to an increase in yields on cash equivalents and short-term investments that resulted from higher market interest rates as compared to prior year rates.

Provision for income taxes. Provision for income taxes was $5.4 million for the nine months ended September 30, 2024 compared to $55.3 million for the nine months ended September 30, 2023. There was tax expense provided on the Loss before provision for income taxes for the nine months ended September 30, 2024. The effective tax rate was 23.8% for the nine months ended September 30, 2023. The decrease in tax expense was primarily due to a decrease of income before provision for income taxes for the nine months ended September 30, 2024 as compared to the nine months ended September 30, 2023. There was a tax detriment of $41.5 million primarily from the loss on divestiture of Russian operations for the nine months ended

September 30, 2024. The other discrete tax items for the nine months ended September 30, 2024 were $1.4 million tax detriment primarily related to the increase in tax expense for equity-based compensation which was partially offset by the reductions in tax reserves. The discrete detriment for the nine months ended September 2023 did not have a significant effect on our tax rate.

Net (loss) income attributable to IPG Photonics Corporation. Net (loss) income attributable to IPG Photonics Corporation decreased by $366.8 million to a net loss of $189.3 million for the nine months ended September 30, 2024 compared to a net income of $177.5 million for the nine months ended September 30, 2023, due to the factors described above.

Liquidity and Capital Resources

We believe that our existing cash and cash equivalents, short-term investments, our cash flows from operations and our existing lines of credit provide us with the financial flexibility to meet our liquidity and capital needs. We expect to continue making investments in capital expenditures, to assess acquisition opportunities and to repurchase shares of our stock in accordance with our repurchase program. The extent and timing of such expenditures may vary from period to period. Our future long-term capital requirements will depend on many factors including our level of sales, the impact of the economic environment on our growth, the timing and extent of spending to support development efforts, expansion of global sales and marketing activities, government regulation including trade sanctions, the timing and introductions of new products, the need to ensure access to adequate manufacturing capacity and the continuing market acceptance of our products. In the near term, we will incur capital expenditures related to the expansion of capacity outside of Russia and Belarus. As of September 30, 2024, we had no off-balance sheet arrangements that have, or are reasonably likely to have, a current or future material effect on our consolidated financial condition, results of operations, liquidity, capital expenditures or capital resources.

Included in cash and cash equivalents are $5.8 million of cash located in Belarus, as of September 30, 2024.

The following table presents our principal sources of liquidity:

	September 30, 2024	December 31, 2023
	(In thousands)	
Cash and cash equivalents	$ 883,871	$ 514,674
Short-term investments	135,444	662,807
Unused credit lines and overdraft facilities	78,755	78,506
Working capital (excluding cash, cash equivalents and short-term investments)	356,917	522,312

Short-term investments at September 30, 2024 consist of liquid investments including commercial paper, corporate bonds, U.S. Treasury and agency obligations and term deposits with original maturities of greater than three months but less than one year. See Note 5, "Fair Value Measurements" in the notes to the condensed consolidated financial statements for further information about our short-term investments.

The following table details our line-of-credit facilities as of September 30, 2024:

Description	Total Facility	Interest Rate	Maturity	Security
U.S. Revolving Line of Credit [1]	$75.0 million	BSBY plus 0.8% to 1.2%, depending on our performance	April 2025	Unsecured
Euro Credit Facility (Germany) [2]	Euro 5.0 million ($5.6 million)	€STR rate plus 0.97%	December 2028	Unsecured, guaranteed by parent company
Euro Facility [3]	Euro 1.5 million ($1.7 million)	Euribor plus 1.25%	December 2024	Common pool of assets of Italian subsidiary

[1] This facility is available to certain foreign subsidiaries in their respective local currencies. At September 30, 2024, there were no amounts drawn on this line; however, there were $1.9 million of guarantees issued against the line which reduces total availability.
[2] This facility is available to certain foreign subsidiaries in their respective local currencies. At September 30, 2024, there were no amounts drawn on this line; however, there were $1.6 million of guarantees issued against the line which reduces total availability.
[3] At September 30, 2024, there were no drawings.

At September 30, 2024, our committed credit line is with Bank of America N.A. in the amount of $75.0 million and it is not syndicated. We are required to meet certain financial covenants associated with this credit line. These covenants, tested quarterly, include an interest coverage ratio and a funded debt to earnings before interest, taxes, depreciation and amortization ("EBITDA") ratio. The interest coverage covenant requires that we maintain a trailing twelve-month ratio of EBITDA to interest on all obligations that is at least 3.0:1.0. The funded debt to EBITDA covenant requires that the sum of all indebtedness for borrowed money on a consolidated basis be less than three times our trailing twelve months EBITDA. Funded debt is decreased by our cash and available marketable securities not classified as long-term investments in the U.S.A. in excess of $50 million up to a maximum of $500 million. We were in compliance with all such financial covenants as of and for the three months ended September 30, 2024.

The financial covenants in our loan documents may cause us to not make or to delay investments and actions that we might otherwise undertake because of limits on capital expenditures and amounts that we can borrow or lease. In the event that we do not comply with any one of these covenants, we would be in default under the loan agreement or loan agreements, which may result in acceleration of the debt, cross-defaults on other debt or a reduction in available liquidity, any of which could harm our results of operations and financial condition.

See Note 10, "Financing Arrangements" in the notes to the condensed consolidated financial statements for further information about our facilities.

The following table presents cash flow activities:

	Nine Months Ended September 30,	
	2024	2023
	(In thousands)	
Cash provided by operating activities	$ 174,112	$ 189,924
Cash provided by (used in) investing activities	471,279	(162,996)
Cash used in financing activities	(284,609)	(175,991)

Operating activities. Net cash provided by operating activities decreased by $15.8 million to $174.1 million for the nine months ended September 30, 2024 from $189.9 million for the nine months ended September 30, 2023, primarily due to a decrease in sales, partially offset by an increase in cash provided by working capital. Our largest working capital items typically are inventory and accounts receivable. Items such as accounts payable to third parties, prepaid expenses and other current assets and accrued expenses and other liabilities are not as significant as our working capital investment in accounts receivable and inventory because of the amount of value added within IPG due to our vertically integrated structure. Accruals and payables for personnel costs including bonuses and income and other taxes payable are largely dependent on the timing of payments for those items. The decrease in cash flow from operating activities in 2024 primarily resulted from:

- a decrease in cash provided by net income after adjusting for non-cash operating activities, mainly due to lower sales; and

- an increase in cash used by income and other taxes payable due to the timing of estimated tax payments made and refunds received from filing tax returns, including an installment due on our transition tax liability from the Tax Reform Act of 2017.

The decreases in cash provided by operating activities were partially offset by:

- an increase in cash provided by accounts receivable due to timing of collection and lower accounts receivable resulting from lower sales;
- an increase in cash provided by inventory, as we moderate investment in safety stock related to supply chain disruptions for third party electronic parts and internally manufactured components and reduce inventory levels;
- an increase in cash provided by accounts payable due to timing of payments;
- a decrease in cash used by accrued expenses and other liabilities due to timing of billings in excess of costs and estimated earnings on custom systems and less cash used for personnel accruals, partially offset by an increase in cash used by customer deposits and deferred revenue due to lower sales; and
- a decrease in cash used by prepaid expenses and other assets due to timing of bank acceptance drafts and costs and earnings in excess of billings on custom systems.

Investing activities. Net cash provided by investing activities was $471.3 million for the nine months ended September 30, 2024 as compared to cash used in investing activities of $163.0 million in 2023. The cash provided by investing activities in 2024 related to $543.0 million of net proceeds of short-term investments and $28.5 million of cash provided by sales of property, plant and equipment; partially offset by $75.4 million of cash used for capital expenditures, and $25.3 million of net cash outflow from the divestiture of our Russian operation. The cash proceeds from the sale of our Russian operation were lower than the cash and cash equivalents on hand, resulting in a cash outflow from divestiture. The cash used in investing activities in 2023 related to $108.6 million of net purchases of short-term investments and $85.3 million of cash used for capital expenditures; partially offset by $30.4 million of cash provided by sales of property, plant and equipment.

In 2024, we expect to invest approximately $100 million net of proceeds from sale of fixed assets. Capital expenditures include investments in property, facilities and equipment to replace capacity in Russia and upgrade or replace equipment at other facilities that is beyond its useful life. Capital expenditures also include investments to increase vertical integration, increase redundant manufacturing capacity for critical components and enhance research and development capabilities. The timing and extent of any capital expenditures in and between periods can have a significant effect on our cash flow. If we obtain financing for certain projects, our cash expenditures would be reduced in the year of expenditure. Many of the capital expenditure projects that we undertake have long lead times and are difficult to cancel or defer to a later period. We intend to finance our capital expenditures with existing cash, cash equivalents and short term investments as well as with cash generated from operations.

Financing activities. Net cash used in financing activities was $284.6 million for the nine months ended September 30, 2024 as compared to net cash used of $176.0 million in 2023. The cash used in financing activities in 2024 primarily related to the purchase of treasury stock of $286.5 million. The cash used in financing activities in 2023 primarily related to the purchase of treasury stock of $159.5 million and principal payments on our long-term borrowings of $16.0 million.

Cautionary Statement Regarding Forward-Looking Statements

This Quarterly Report on Form 10-Q contains certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934, and we intend that such forward-looking statements be subject to the safe harbors created thereby. For this purpose, any statements contained in this Quarterly Report on Form 10-Q except for historical information are forward-looking statements. Without limiting the generality of the foregoing, words such as "may," "will," "expect," "believe," "anticipate," "intend," "could," "estimate," or "continue" or the negative or other variations thereof or comparable terminology are intended to identify forward-looking statements. In addition, any statements that refer to projections of our future financial performance, trends in our businesses, or other characterizations of future events or circumstances are forward-looking statements.

The forward-looking statements included herein are based on current expectations of our management based on available information and involve a number of risks and uncertainties, all of which are difficult or impossible to accurately predict and many of which are beyond our control. As such, our actual results may differ significantly from those expressed in any forward-looking statements. Factors that may cause or contribute to such differences include, but are not limited to, those discussed in more detail in Item 1, "Business" and Item 1A, "Risk Factors" of Part I of the Form 10-K filed with the SEC for the year ended December 31, 2023 (the "Annual Report"). Readers should carefully review these risks, as well as the additional risks described in other documents we file from time to time with the Securities and Exchange Commission. In light of the significant risks and uncertainties inherent in the forward-looking information included herein, the inclusion of such information should not be

regarded as a representation by us or any other person that such results will be achieved, and readers are cautioned not to rely on such forward-looking information. We undertake no obligation to revise the forward-looking statements contained herein to reflect events or circumstances after the date hereof or to reflect the occurrence of unanticipated events.

Recent Accounting Pronouncements

See Note 2 in the Notes to Condensed Consolidated Financial Statements for a full description of recent accounting pronouncements, including the respective dates of adoption or expected adoption and effects on our condensed consolidated financial statements contained in Item 1 of this Quarterly Report.

ITEM 3. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

We are exposed to market risk in the ordinary course of business, which consists primarily of interest rate risk associated with our cash and cash equivalents and foreign exchange rate risk.

Interest rate risk. Certain interest rates are variable and fluctuate with current market conditions. Our investments have limited exposure to market risk. We maintain a portfolio of cash, cash equivalents and short-term investments consisting primarily of bank deposits, money market funds, certificates of deposit, commercial paper, corporate bonds and U.S treasury and agency obligations. None of these investments have a maturity date in excess of one year. Because of the short-term nature of these instruments, a sudden change in market interest rates would not be expected to have a material impact on our financial condition or results of operations.

We are also exposed to market risk as a result of increases or decreases in the amount of interest expense we must pay on our borrowings on our bank credit facilities. Although our U.S. revolving line of credit have variable rates, we do not believe that a 10% change in market interest rates would have a material impact on our financial position or results of operations.

Exchange rates. Due to our international operations, a significant portion of our net sales, cost of sales and operating expenses are denominated in currencies other than the U.S. dollar, principally the euro, the Russian ruble, and the Chinese yuan. Changes in the exchange rate of the U.S. dollar versus the functional currencies of our subsidiaries affect the translated value and relative level of sales and net income that we report from one period to the next. In addition, our subsidiaries may have assets or liabilities denominated in a currency other than their functional currency which results in foreign exchange transaction gains and losses due to changes in the value of the functional currency versus the currency the assets and liabilities are denominated in. The loss on foreign exchange transactions totaled $1.1 million for the three months ended September 30, 2024 compared to a gain of $0.4 million for the three months ended September 30, 2023. Management attempts to minimize these exposures by partially or fully off-setting foreign currency denominated assets and liabilities at our subsidiaries that operate in different functional currencies. The effectiveness of this strategy can be limited by the volume of underlying transactions at various subsidiaries and by our ability to accelerate or delay inter-company cash settlements. As a result, we are unable to create a perfect offset of the foreign currency denominated assets and liabilities. As a result of the divestiture of our Russian operation, our exposure to the Russian ruble in future periods is not expected to be significant.

At September 30, 2024, our material foreign currency exposure is net U.S. dollar denominated assets at subsidiaries where the euro is the functional currency and U.S. dollar denominated liabilities where the Chinese yuan is the functional currency. The net U.S. dollar denominated assets are comprised of cash, third party receivables and inter-company receivables offset by third party and inter-company payables denominated in U.S. dollar. The U.S. dollar denominated liabilities are comprised of inter-company payables. A 5% change in the relative exchange rate of the U.S. dollar to the euro as of September 30, 2024 applied to the net U.S. dollar asset balances, would result in a foreign exchange gain of $3.7 million if the U.S. dollar appreciated and a $3.9 million foreign exchange loss if the U.S. dollar depreciated. A 5% change in the relative exchange rate of the U.S. dollar to the Chinese yuan as of September 30, 2024 applied to the net U.S. dollar liabilities balances, would result in a foreign exchange loss of $0.8 million if the U.S. dollar appreciated and a $0.8 million foreign exchange gain if the U.S. dollar depreciated.

In addition, we are exposed to foreign currency translation risk for those subsidiaries whose functional currency is not the U.S. dollar as changes in the value of their functional currency relative to the U.S. dollar affect the translated amounts of our assets and liabilities. Changes in the translated value of assets and liabilities due to changes in functional currency exchange rates relative to the U.S. dollar result in foreign currency translation adjustments that are a component of other comprehensive income or loss on the Condensed Consolidated Statements of Comprehensive Income.

Foreign currency derivative instruments can also be used to hedge exposures and reduce the risks of certain foreign currency transactions; however, these instruments provide only limited protection and can carry significant cost. We have no foreign currency derivative instruments as of September 30, 2024. We will continue to analyze our exposure to currency

exchange rate fluctuations and may engage in financial hedging techniques in the future to attempt to minimize the effect of these potential fluctuations. Exchange rate fluctuations may adversely affect our financial results in the future.

ITEM 4. CONTROLS AND PROCEDURES

Evaluation of Disclosure Controls and Procedures

Under the supervision of our chief executive officer and our chief financial officer, our management has evaluated the effectiveness of the design and operation of our "disclosure controls and procedures" (as defined in Rules 13a-15(e) and 15d-15(e) promulgated under the Securities Exchange Act of 1934, as amended (the "Exchange Act")), as of the end of the period covered by this Quarterly Report on Form 10-Q (the "Evaluation Date"). Based upon that evaluation, our chief executive officer and our chief financial officer have concluded that, as of the Evaluation Date, our disclosure controls and procedures are effective.

Changes in Internal Controls

There was no change in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) promulgated under the Exchange Act) that occurred during the quarter ended September 30, 2024 that has materially affected, or is reasonably likely to materially affect, our internal control over financial reporting.

PART II—OTHER INFORMATION

ITEM 1. LEGAL PROCEEDINGS

Information with respect to this item may be found in Note 11, "Commitments and Contingencies" in the Notes to Condensed Consolidated Financial Statements in Part I, Item 1 of this Quarterly Report and is incorporated herein by reference.

ITEM 1A. RISK FACTORS

In addition to the other information in this Quarterly Report on Form 10-Q, you should carefully consider the factors discussed in Item 1A of Part I of our Annual Report on Form 10-K for the year ended December 31, 2023, which could materially and adversely affect our financial condition, results of operations or cash flows, or cause our actual results to differ materially from those projected in any forward-looking statements. We may also face other risks and uncertainties that are not presently known, are not currently believed to be material, or are not identified in our Annual Report or Quarterly Reports because they are common to all businesses.

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

Recent Sales of Unregistered Securities; Use of Proceeds from Registered Securities

There have been no sales of unregistered securities for the three months ended September 30, 2024.

Issuer Purchases of Equity Securities

The following table reflects issuer purchases of equity securities for the three months ended September 30, 2024:

	Total Number of Shares (or Units) Purchased (1)	Average Price Paid per Share (or Unit)	Total Number of Shares (or Units) Purchased as Part of Publicly Announced Plans or Programs (2)	Maximum Number (or Approximate Dollar Value) of Shares (or Units) that May Yet Be Purchased Under the Plans or Programs
July 1, 2024 — July 31, 2024	349,348	$ 87.26	349,348	150,000
August 1, 2024 — August 31, 2024	701	69.27	—	150,000
September 1, 2024 — September 30, 2024	635,155	68.09	634,712	106,781
Total	985,204	$ 74.89	984,060	$ 106,781

(1) Total number of shares (or units) purchased includes shares repurchased as part of publicly announced plans or programs and "withhold to cover" tax liabilities upon vesting of restricted stock awards. For the three months ended September 30, 2024, a total of 1,144 shares were withheld to cover at an average price of $66.78.

(2) On February 13, 2024, we announced that our Board of Directors authorized the purchase of up to $300 million of IPG common stock (the "February 2024 authorization"), exclusive of any fees, commissions or other expenses. Share repurchases under these purchase authorization were made periodically in open-market transactions using our working capital, and were subject to market conditions, legal requirements and other factors. The share purchase program authorizations did not obligate us to repurchase any dollar amount or number of our shares, and repurchases could be commenced or suspended from time to time without prior notice.

We repurchased 984,060 shares in the third quarter of 2024 under the February 2024 authorization.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

None of our directors or officers adopted or terminated a "Rule 10b5-1 trading arrangement" or "non-Rule 10b5-1 trading arrangement," in each case as defined in Item 408 of Regulation S-K, during the quarter ended September 30, 2024.

ITEM 6. EXHIBITS

(a) Exhibits

Exhibit No.	Description
10.1	Services Agreement dated August 15, 2024 between the Registrant and Dr. Alexander Ovtchinnikov (incorporated by reference to Exhibit 10.1 to the Registrant's Current Report on Form 8-K filed with the Commission on August 16, 2024)
31.1	Certification of Chief Executive Officer pursuant to Rule 13a-14(a)
31.2	Certification of Chief Financial Officer pursuant to Rule 13a-14(a)
32	Certification of Chief Executive Officer and Chief Financial Officer pursuant to Section 1350
101.INS	Instance Document - the instance document does not appear in the Interactive Data File because its XBRL tags are embedded within the Inline XBRL document
101.SCH	XBRL Taxonomy Extension Schema
101.CAL	XBRL Taxonomy Extension Calculation Linkbase
101.LAB	XBRL Taxonomy Extension Label Linkbase
101.PRE	XBRL Taxonomy Extension Presentation Linkbase
101.DEF	XBRL Taxonomy Extension Definition Linkbase
104	Cover Page Interactive Data File (formatted as inline XBRL and contained in Exhibit 101)

SIGNATURES

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

IPG PHOTONICS CORPORATION

Date: October 29, 2024

By: /s/ Mark M. Gitin

Mark M. Gitin
Chief Executive Officer
(Principal Executive Officer)

Date: October 29, 2024

By: /s/ Timothy P.V. Mammen

Timothy P.V. Mammen
Senior Vice President and Chief Financial Officer
(Principal Financial Officer)