REFINITIV

DELTA REPORT

10-Q

IPGP - IPG PHOTONICS CORP

10-Q - MARCH 31, 2024 COMPARED TO 10-Q - SEPTEMBER 30, 2023

The following comparison report has been automatically generated

TOTAL DELTAS	827
CHANGES	250
DELETIONS	308
ADDITIONS	269

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

(Mark One)

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

For the quarterly period ended September 30, 2023 March 31, 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

image.jpg

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 30, 2023 April 29, 2024, there were 46,922,454 45,568,197 shares of the registrant's common stock outstanding.

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PART I—FINANCIAL INFORMATION

ITEM 1. UNAUDITED INTERIM FINANCIAL STATEMENTS

IPG PHOTONICS CORPORATION
CONDENSED CONSOLIDATED BALANCE SHEETS

	September 30, 2023	December 31, 2022
	(In thousands, except share and per share data)	

	March 31, 2024		December 31, 2023
	(In thousands, except share and per share data)	March 31, 2024	(In thousands, except share and per share data)

ASSETS

Current assets:	Current assets:		
Cash and cash equivalents			
Cash and cash equivalents			
Cash and cash equivalents	Cash and cash equivalents	$ 528,284	$ 698,209
Short-term investments	Short-term investments	605,207	479,374

Accounts receivable, net	Accounts receivable, net	229,597	211,347
Inventories	Inventories	479,829	509,363
Prepaid income taxes	Prepaid income taxes	32,538	40,934
Prepaid expenses and other current assets	Prepaid expenses and other current assets	45,005	47,047
Total current assets			
Total current assets			
Total current assets	Total current assets	1,920,460	1,986,274
Deferred income taxes, net	Deferred income taxes, net	79,583	75,152
Goodwill	Goodwill	38,265	38,325
Intangible assets, net	Intangible assets, net	28,056	34,120
Property, plant and equipment, net	Property, plant and equipment, net	581,970	580,561
Other assets	Other assets	24,530	28,848
Total assets	Total assets	$2,672,864	$2,743,280
LIABILITIES AND EQUITY			
Current liabilities:	Current liabilities:		
Current portion of long-term debt		$ —	$ 16,031
Accounts payable			
Accounts payable			
Accounts payable	Accounts payable	33,126	46,233
Accrued expenses and other current liabilities	Accrued expenses and other current liabilities	174,517	202,764
Income taxes payable			
Income taxes payable			
Income taxes payable	Income taxes payable	12,066	9,618
Total current liabilities	Total current liabilities	219,709	274,646
Other long-term liabilities and deferred income taxes	Other long-term liabilities and deferred income taxes	69,204	83,274
Total liabilities	Total liabilities	288,913	357,920
Total liabilities			
Total liabilities			
Commitments and contingencies (Note 11)			
Commitments and contingencies (Note 10)			
Commitments and contingencies (Note 10)			

Commitments and contingencies (Note 10)			
IPG Photonics Corporation equity:	IPG Photonics Corporation equity:		
Common stock, $0.0001 par value, 175,000,000 shares authorized; 56,249,626 and 46,921,754 shares issued and outstanding, respectively, at September 30, 2023; 56,017,672 and 48,138,257 shares issued and outstanding, respectively, at December 31, 2022.		6	6
Treasury stock, at cost, 9,327,872 and 7,879,415 shares held at September 30, 2023 and December 31, 2022, respectively.		(1,097,537)	(938,009)
Common stock, $0.0001 par value, 175,000,000 shares authorized; 56,521,438 and 45,566,746 shares issued and outstanding, respectively, at March 31, 2024; 56,317,438 and 46,320,671 shares issued and outstanding, respectively, at December 31, 2023.			
Common stock, $0.0001 par value, 175,000,000 shares authorized; 56,521,438 and 45,566,746 shares issued and outstanding, respectively, at March 31, 2024; 56,317,438 and 46,320,671 shares issued and outstanding, respectively, at December 31, 2023.			
Common stock, $0.0001 par value, 175,000,000 shares authorized; 56,521,438 and 45,566,746 shares issued and outstanding, respectively, at March 31, 2024; 56,317,438 and 46,320,671 shares issued and outstanding, respectively, at December 31, 2023.			
Treasury stock, at cost, 10,954,692 and 9,996,767 shares held at March 31, 2024 and December 31, 2023, respectively.			
Additional paid-in capital	Additional paid-in capital	978,331	951,371
Retained earnings	Retained earnings	2,753,966	2,576,516
Accumulated other comprehensive loss	Accumulated other comprehensive loss	(250,815)	(204,524)

Total IPG Photonics Corporation equity			
Total equity		2,383,951	2,385,360
Total liabilities and equity	Total liabilities and equity	$2,672,864	$2,743,280
Total liabilities and equity			
Total liabilities and equity			

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,	
		2023	2022	2023	2022
		(In thousands, except per share data)			
		2024			
		2024			
		2024			
		(In thousands, except per share data)			
		(In thousands, except per share data)			
		(In thousands, except per share data)			
Net sales	Net sales	$ 301,401	$ 349,006	$ 988,546	$ 1,096,008
Cost of sales	Cost of sales	168,499	198,582	561,015	601,419
Cost of sales					
Cost of sales					
Gross profit					
Gross profit					
Gross profit	Gross profit	132,902	150,424	427,531	494,589
Operating expenses:	Operating expenses:				
Operating expenses:					
Operating expenses:					
Sales and marketing					
Sales and marketing					
Sales and marketing	Sales and marketing	22,243	19,383	63,518	58,767
Research and development	Research and development	24,708	25,436	70,990	89,494
Research and development					
Research and development					
General and administrative					
General and administrative					
General and administrative	General and administrative	30,958	33,813	90,746	97,888
Gain on divestiture		—	(21,748)	—	(21,748)
Impairment of long-lived assets		1,237	919	1,237	919
Restructuring charges (recoveries), net		(1,501)	—	(357)	—
(Gain) loss on foreign exchange		(449)	(541)	(1,798)	11,289
Gain on sale of assets					
Gain on sale of assets					

Gain on sale of assets					
Restructuring charges, net					
Restructuring charges, net					
Restructuring charges, net					
Loss (gain) on foreign exchange					
Loss (gain) on foreign exchange					
Loss (gain) on foreign exchange					
Total operating expenses					
Total operating expenses					
Total operating expenses	Total operating expenses	77,196	57,262	224,336	236,609
Operating income	Operating income	55,706	93,162	203,195	257,980
Operating income					
Operating income					
Other income, net:					
Other income, net:					
Other income, net:	Other income, net:				
Interest income, net	Interest income, net	11,569	3,625	28,366	4,732
Interest income, net					
Interest income, net					
Other income, net					
Other income, net					
Other income, net	Other income, net	545	301	1,161	683
Total other income	Total other income	12,114	3,926	29,527	5,415
Total other income					
Total other income					
Income before provision for income taxes					
Income before provision for income taxes					
Income before provision for income taxes	Income before provision for income taxes	67,820	97,088	232,722	263,395
Provision for income taxes	Provision for income taxes	12,826	20,390	55,272	59,738
Net income		54,994	76,698	177,450	203,657
Less: net income attributable to non-controlling interests		—	434	—	853
Provision for income taxes					
Provision for income taxes					
Net income attributable to IPG Photonics Corporation common stockholders					
Net income attributable to IPG Photonics Corporation common stockholders					
Net income attributable to IPG Photonics Corporation common stockholders	Net income attributable to IPG Photonics Corporation common stockholders	$ 54,994	$ 76,264	$ 177,450	$ 202,804
Net income attributable to IPG Photonics Corporation per common share:	Net income attributable to IPG Photonics Corporation per common share:				

Net income attributable to IPG Photonics Corporation per common share:					
Net income attributable to IPG Photonics Corporation per common share:					
Basic					
Basic					
Basic	Basic	$ 1.16	$ 1.48	$ 3.75	$ 3.94
Diluted	Diluted	$ 1.16	$ 1.47	$ 3.73	$ 3.93
Diluted					
Diluted					
Weighted average common shares outstanding:					
Weighted average common shares outstanding:					
Weighted average common shares outstanding:	Weighted average common shares outstanding:				
Basic	Basic	47,237	51,629	47,364	51,449
Basic					
Basic					
Diluted	Diluted	47,388	51,737	47,536	51,626
Diluted					
Diluted					

See notes to condensed consolidated financial statements.

IPG PHOTONICS CORPORATION

CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

	Three Months Ended March 31,	
	Three Months Ended March 31,	
	Three Months Ended March 31,	
	2024	
	2024	
	2024	
	(In thousands)	
	(In thousands)	
	(In thousands)	
Net income		
Other comprehensive (loss) income, net of tax:		
Other comprehensive (loss) income, net of tax:		
Other comprehensive (loss) income, net of tax:		
Foreign currency translation adjustments and other		
Foreign currency translation adjustments and other		
Foreign currency translation adjustments and other		
Unrealized loss on derivatives		
Unrealized loss on derivatives		
Unrealized loss on derivatives		

	Three Months Ended September 30,		Nine Months Ended September 30,	
Total other comprehensive (loss) income				
	2023	2022	2023	2022
	(In thousands)			
Net income	$ 54,994	$ 76,698	$ 177,450	$ 203,657
Other comprehensive (loss) income, net of tax:				
Foreign currency translation adjustments and other	(31,538)	(71,839)	(46,139)	(16,921)
Unrealized gain (loss) on derivatives	—	51	(152)	383
Total other comprehensive (loss) income				
Total other comprehensive loss	(31,538)	(71,788)	(46,291)	(16,538)
Comprehensive income	23,456	4,910	131,159	187,119
Less: comprehensive income attributable to non-controlling interests	—	428	—	924
Total other comprehensive (loss) income				
Comprehensive income attributable to IPG Photonics Corporation / Comprehensive income attributable to IPG Photonics Corporation	$ 23,456	$ 4,482	$ 131,159	$ 186,195
Comprehensive income attributable to IPG Photonics Corporation				
Comprehensive income attributable to IPG Photonics Corporation				

See notes to condensed consolidated financial statements.

IPG PHOTONICS CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

	Nine Months Ended September 30,	
	2023	2022
	(In thousands)	

	Three Months Ended March 31,		Three Months Ended March 31,
	2024	2024	2023
	(In thousands)		(In thousands)
Cash flows from operating activities: / **Cash flows from operating activities:**			
Net income / Net income	$177,450	$ 203,657	
Net income			
Net income			
Adjustments to reconcile net income to net cash provided by (used in) operating activities: / Adjustments to reconcile net income to net cash provided by (used in) operating activities:			
Depreciation and amortization			

Depreciation and amortization			
Depreciation and amortization	Depreciation and amortization	52,678	69,852
Deferred income taxes	Deferred income taxes	(4,835)	(21,550)
Stock-based compensation	Stock-based compensation	27,392	29,201
Impairment of long-lived assets and restructuring charges (recoveries), net		(486)	919
Unrealized (gain) loss on foreign currency transactions		(4,322)	8,355
Gain on divestiture		—	(21,748)
Unrealized gain on foreign currency transactions			
Unrealized gain on foreign currency transactions			
Unrealized gain on foreign currency transactions			
Provisions for inventory, warranty and bad debt	Provisions for inventory, warranty and bad debt	43,889	58,990
Provisions for inventory, warranty and bad debt			
Provisions for inventory, warranty and bad debt			
Amortization of premium/discount on investments			
Other	Other	(12,997)	4,195
Changes in assets and liabilities that (used) provided cash, net of acquisitions:			
Changes in assets and liabilities that provided (used) cash, net of acquisitions:			
Accounts receivable			
Accounts receivable			
Accounts receivable	Accounts receivable	(25,026)	42,517
Inventories	Inventories	(20,736)	(148,959)
Prepaid expenses and other assets	Prepaid expenses and other assets	(5,504)	6,584
Accounts payable	Accounts payable	(10,231)	(2,837)
Accrued expenses and other liabilities	Accrued expenses and other liabilities	(39,646)	(40,327)
Income and other taxes payable	Income and other taxes payable	12,298	(17,823)

Net cash provided by operating activities	Net cash provided by operating activities	189,924	171,026
Net cash provided by operating activities			
Net cash provided by operating activities			
Cash flows from investing activities:	**Cash flows from investing activities:**		
Purchases of and deposits on property, plant and equipment			
Purchases of and deposits on property, plant and equipment			
Purchases of and deposits on property, plant and equipment	Purchases of and deposits on property, plant and equipment	(85,256)	(84,552)
Proceeds from sales of property, plant and equipment	Proceeds from sales of property, plant and equipment	30,425	837
Proceeds from sales of property, plant and equipment			
Proceeds from sales of property, plant and equipment			
Purchases of short-term investments	Purchases of short-term investments	(898,455)	(914,598)
Proceeds from short-term investments	Proceeds from short-term investments	789,844	1,355,883
Acquisitions of businesses, net of cash acquired		—	(2,000)
Proceeds from divestiture, net of cash sold		—	52,141
Other	Other	446	(246)
Net cash (used in) provided by investing activities		(162,996)	407,465
Other			
Other			
Net cash provided by (used in) investing activities			
Cash flows from financing activities:	**Cash flows from financing activities:**		
Principal payments on long-term borrowings			
Principal payments on long-term borrowings			
Principal payments on long-term borrowings	Principal payments on long-term borrowings	(16,031)	(17,829)

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	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	(432)	2,353
Purchase of treasury stock, at cost	Purchase of treasury stock, at cost	(159,528)	(382,885)
Purchase of non-controlling interests		—	(2,500)
Purchase of treasury stock, at cost			
Purchase of treasury stock, at cost			
Net cash used in financing activities			
Net cash used in financing activities			
Net cash used in financing activities	Net cash used in financing activities	(175,991)	(400,861)
Effect of changes in exchange rates on cash and cash equivalents	Effect of changes in exchange rates on cash and cash equivalents	(20,862)	(17,461)
Net (decrease) increase in cash and cash equivalents		(169,925)	160,169
Net decrease in cash and cash equivalents			
Cash and cash equivalents — Beginning of period	Cash and cash equivalents — Beginning of period	698,209	709,105
Cash and cash equivalents — End of period	Cash and cash equivalents — End of period	$528,284	$ 869,274
Supplemental disclosure of cash flow information:	**Supplemental disclosure of cash flow information:**		
Cash paid for interest	Cash paid for interest	$ 1,110	$ 2,766
Cash paid for interest			
Cash paid for interest			
Cash paid for income taxes	Cash paid for income taxes	$ 55,001	$ 83,771
Non-cash transactions:	Non-cash transactions:		
Demonstration units transferred from inventory to other assets	Demonstration units transferred from inventory to other assets	$ 3,872	$ 3,520
Inventory transferred to machinery and equipment		$ 2,215	$ 2,439
Demonstration units transferred from inventory to other assets			

Demonstration units transferred from inventory to other assets		
Inventory transferred to (from) machinery and equipment		
Additions to property, plant and equipment included in accounts payable	$ 1,692	$ 1,989
Leased assets obtained in exchange for new operating lease liabilities	$ 2,053	$ 6,237

Additions to property, plant and equipment included in accounts payable
Leased assets obtained in exchange for new operating lease liabilities

See notes to condensed consolidated financial statements.

IPG PHOTONICS CORPORATION
CONDENSED CONSOLIDATED STATEMENTS OF EQUITY

Three Months Ended March 31,

Three Months Ended March 31,
Three Months Ended March 31,

(In thousands, except share data)	Common Stock	Common Stock	Treasury Stock	Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive (Loss) Income	Total Stockholders' Equity
Balance, January 1, 2024							
Vesting of RSUs and PSUs, net of shares withheld for taxes, and exercise of stock options							

Balance, January 1, 2024
Balance, January 1, 2024

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	Non-controlling Interest	Total Stockholders' Equity
Balance, July 1, 2023	47,364,320	$ 6	(8,878,184)	$(1,051,040)	$ 969,889	$ 2,698,972	$ (219,277)	$ —	$ 2,398,550
Exercise of stock options and vesting of RSUs and PSUs, net of shares withheld for taxes	7,122	—	—	—	300	—	—	—	300
Purchased common stock	(449,688)	—	(449,688)	(46,497)	—	—	—	—	(46,497)

Purchased common stock
Purchased common stock
Purchased common stock

Stock-based compensation	Stock-based compensation	—	—	—	—	8,142	—	—	—	8,142
Net income										
Net income										
Net income	Net income	—	—	—	—	—	54,994	—	—	54,994
Foreign currency translation adjustments and other	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**
Balance, March 31, 2024										
Balance, July 1, 2022		**50,206,255**	**$ 6**	**(5,760,999)**	**$ (750,109)**	**$ 930,950**	**$ 2,593,147**	**$ (134,778)**	**$ 1,135**	**$ 2,640,351**
Exercise of stock options and vesting of RSUs and PSUs, net of shares withheld for taxes		6,809	—	—	—	265	—	—	—	265
Balance, March 31, 2024										
Balance, March 31, 2024										
Balance, January 1, 2023										
Balance, January 1, 2023										
Balance, January 1, 2023										
Vesting of RSUs and PSUs, net of shares withheld for taxes, and exercise of stock options										
Purchased common stock										
Purchased common stock										
Purchased common stock	Purchased common stock	(819,422)	—	(819,422)	(71,279)	—	—	—	—	(71,279)
Stock-based compensation	Stock-based compensation	—	—	—	—	8,762	—	—	—	8,762
Net income	Net income	—	—	—	—	—	76,264	—	434	76,698
Foreign currency translation adjustments and other		—	—	—	—	—	—	(71,833)	(6)	(71,839)
Purchase of non-controlling interests		—	—	—	—	(937)	—	—	(1,563)	(2,500)
Unrealized gain on derivatives, net of tax		—	—	—	—	—	—	51	—	51
Balance, September 30, 2022		**49,393,642**	**$ 6**	**(6,580,421)**	**$ (821,388)**	**$ 939,040**	**$ 2,669,411**	**$ (206,560)**	**$ —**	**$ 2,580,509**

	Nine Months Ended September 30,								
	Common Stock		**Treasury Stock**		**Additional Paid In Capital**	**Retained Earnings**	**Accumulated Other Comprehensive (Loss) Income**	**Non-controlling Interest**	**Total Stockholders' Equity**
(In thousands, except share data)	**Shares**	**Amount**	**Shares**	**Amount**					
Balance, January 1, 2023	**48,138,257**	**$ 6**	**(7,879,415)**	**$ (938,009)**	**$ 951,371**	**$ 2,576,516**	**$ (204,524)**	**$ —**	**$ 2,385,360**
Exercise of stock options and vesting of RSUs and PSUs, net of shares withheld for taxes	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									
Net income Net income	—	—	—	—	—	177,450	—	—	177,450
Foreign currency translation adjustments and other Foreign currency translation adjustments and other	—	—	—	—	—	—	(46,139)	—	(46,139)
Unrealized loss on derivatives, net of tax Unrealized loss on derivatives, net of tax	—	—	—	—	—	—	(152)	—	(152)
Unrealized loss on derivatives, net of tax									
Unrealized loss on derivatives, net of tax									
Balance, September 30, 2023	**46,921,754**	**$ 6**	**(9,327,872)**	**$(1,097,537)**	**$ 978,331**	**$ 2,753,966**	**$ (250,815)**	**$ —**	**$ 2,383,951**
Balance, January 1, 2022	**53,010,265**	**$ 6**	**(2,777,981)**	**$ (438,503)**	**$ 908,423**	**$ 2,466,607**	**$ (189,951)**	**$ 639**	**$ 2,747,221**
Exercise of stock options and vesting of RSUs and PSUs, net of shares withheld for taxes	156,640	—	—	—	19	—	—	—	19
Common stock issued under employee stock purchase plan	29,177	—	—	—	2,334	—	—	—	2,334
Purchased common stock	(3,802,440)	—	(3,802,440)	(382,885)	—	—	—	—	(382,885)
Stock-based compensation	—	—	—	—	29,201	—	—	—	29,201
Balance, March 31, 2023									
Balance, March 31, 2023									
Balance, March 31, 2023									
Net income	—	—	—	—	—	202,804	—	853	203,657
Foreign currency translation adjustments and other	—	—	—	—	—	—	(16,992)	71	(16,921)
Purchase of non-controlling interests	—	—	—	—	(937)	—	—	(1,563)	(2,500)
Unrealized gain on derivatives, net of tax	—	—	—	—	—	—	383	—	383
Balance, September 30, 2022	**49,393,642**	**$ 6**	**(6,580,421)**	**$ (821,388)**	**$ 939,040**	**$ 2,669,411**	**$ (206,560)**	**$ —**	**$ 2,580,509**

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, 2022 December 31, 2023.

(In thousands, except share and per share data)

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.

Accounts Receivable and Allowance for Doubtful Accounts Credit Losses — The Company maintains an allowance for doubtful accounts to provide for the estimated amount of accounts receivable that will not be collected. The allowance is based upon an estimate of expected credit losses over the life of outstanding receivables. The estimate involves an assessment of customer creditworthiness, historical payment experience, an assumption of future expected credit losses, and the age of outstanding receivables.

Activity related to the allowance for doubtful accounts was as follows:

		Three Months Ended September 30,		Nine Months Ended September 30,	
		2023	2022	2023	2022
		Three Months Ended March 31,			
		Three Months Ended March 31,			
		Three Months Ended March 31,			
		2024			
		2024			
		2024			
Balance, beginning of period					
Balance, beginning of period					
Balance, beginning of period	Balance, beginning of period	$ 2,169	$ 1,872	$ 2,639	$ 2,108
Provision for bad debts, net of (recoveries)	Provision for bad debts, net of (recoveries)	(58)	372	(209)	211
Provision for bad debts, net of (recoveries)					
Provision for bad debts, net of (recoveries)					
Uncollectible accounts written off					
Uncollectible accounts written off					
Uncollectible accounts written off	Uncollectible accounts written off	(483)	—	(724)	(79)
Foreign currency translation	Foreign currency translation	(41)	(125)	(119)	(121)
Foreign currency translation					
Foreign currency translation					
Balance, end of period	Balance, end of period	$ 1,587	$ 2,119	$ 1,587	$ 2,119
Balance, end of period					
Balance, end of period					

Comprehensive Income — 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 adjustment and unrealized gains or losses on derivatives. 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 on derivatives, net of tax	Total
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)

(In thousands, except share and per share data)

	Foreign currency translation adjustments and other	Unrealized gain (loss) on derivatives, net of tax	Total
Total other comprehensive loss	(31,538)	—	(31,538)
Balance, September 30, 2023	$ (250,815)	$ —	$ (250,815)
Balance, July 1, 2022	$ (134,926)	$ 148	$ (134,778)
Other comprehensive (loss) income, net of tax:			
Foreign currency translation adjustments and other before reclassification, net of tax benefit of $70	(72,041)	—	(72,041)
Reclassification for foreign currency translation adjustments and other included in net income	208	—	208
Unrealized gain on derivatives, net of tax expense of $14	—	51	51
Total other comprehensive (loss) income	(71,833)	51	(71,782)
Balance, September 30, 2022	$ (206,759)	$ 199	$ (206,560)

	Foreign currency translation adjustments and other	Unrealized (loss) gain on derivatives, net of tax	Total
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)
Balance, January 1, 2022	$ (189,767)	$ (184)	$ (189,951)
Other comprehensive (loss) income, net of tax:			
Foreign currency translation adjustments and other before reclassification, net of tax expense of $72	(17,200)	—	(17,200)
Reclassification for foreign currency translation adjustments and other included in net income	208	—	208
Unrealized gain on derivatives, net of tax expense of $117	—	383	383
Total other comprehensive (loss) income	(16,992)	383	(16,609)
Balance, September 30, 2022	$ (206,759)	$ 199	$ (206,560)

	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 loss, net of tax:			
Foreign currency translation adjustments and other, net of tax benefit of $33	(17,728)	—	(17,728)
Total other comprehensive loss	(17,728)	—	(17,728)
Balance, March 31, 2024	$ (230,258)	$ —	$ (230,258)
Balance, January 1, 2023	$ (204,676)	$ 152	$ (204,524)
Other comprehensive income (loss), net of tax:			
Foreign currency translation adjustments and other, net of tax expense of $35	481	—	481
Unrealized loss on derivatives, net of tax benefit of $26	—	(89)	(89)
Total other comprehensive income (loss)	481	(89)	392
Balance, March 31, 2023	$ (204,195)	$ 63	$ (204,132)

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 Company does not expect this standard to have a material impact.

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. The Company is evaluating the impact of this ASU and does not expect this standard will have a material impact.

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.

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

		Three Months Ended September 30,		Nine Months Ended September 30,	
		2023	2022	2023	2022
		Three Months Ended March 31,			
		Three Months Ended March 31,			
		Three Months Ended March 31,			
		2024			
		2024			
		2024			
Sales by Application					
Sales by Application					
Sales by Application	**Sales by Application**				
Materials processing	Materials processing	$ 265,226	$ 312,546	$ 892,379	$ 994,866
Materials processing					
Materials processing					
Other applications					
Other applications					
Other applications	Other applications	36,175	36,460	96,167	101,142
Total	Total	$ 301,401	$ 349,006	$ 988,546	$ 1,096,008
Total					
Total					
Sales by Product	**Sales by Product**				
Sales by Product					
Sales by Product					
High Power Continuous Wave ("CW") Lasers					
High Power Continuous Wave ("CW") Lasers					

High Power Continuous Wave ("CW") Lasers	High Power Continuous Wave ("CW") Lasers	$ 119,512	$ 152,767	$ 419,538	$ 483,455
Medium Power CW Lasers	Medium Power CW Lasers	20,937	20,639	57,146	63,230
Medium Power CW Lasers					
Medium Power CW Lasers					
Pulsed Lasers					
Pulsed Lasers					
Pulsed Lasers	Pulsed Lasers	41,420	55,216	150,569	192,000
Quasi-Continuous Wave ("QCW") Lasers	Quasi-Continuous Wave ("QCW") Lasers	10,856	11,353	35,978	38,212
Quasi-Continuous Wave ("QCW") Lasers					
Quasi-Continuous Wave ("QCW") Lasers					
Laser and Non-Laser Systems					
Laser and Non-Laser Systems					
Laser and Non-Laser Systems	Laser and Non-Laser Systems	37,493	35,930	117,064	108,970
Other Revenue including Amplifiers, Service, Parts, Accessories and Change in Deferred Revenue	Other Revenue including Amplifiers, Service, Parts, Accessories and Change in Deferred Revenue	71,183	73,101	208,251	210,141
Other Revenue including Amplifiers, Service, Parts, Accessories and Change in Deferred Revenue					
Other Revenue including Amplifiers, Service, Parts, Accessories and Change in Deferred Revenue					
Total	Total	$ 301,401	$ 349,006	$ 988,546	$ 1,096,008
Total					
Total					

Sales by Geography		
North America	$ 63,964	$ 76,080
Europe:		
Germany	20,019	19,833
Other Europe	59,497	80,420
Asia:		
China	62,730	101,287
Japan	16,698	21,618
Other Asia	24,978	43,654
Rest of World	4,123	4,282
Total	$ 252,009	$ 347,174

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Sales by Geography				
North America	$ 71,349	$ 82,119	$ 225,649	$ 247,495

Europe:				
Germany	23,423	20,622	72,218	70,831
Other Europe	71,946	72,332	225,231	227,739
Asia:				
China	84,408	117,952	284,262	385,080
Japan	15,829	11,220	54,196	38,847
Other	29,741	39,130	111,457	111,500
Rest of World	4,705	5,631	15,533	14,516
Total	$ 301,401	$ 349,006	$ 988,546	$ 1,096,008

Timing of Revenue Recognition	**Timing of Revenue Recognition**				
Timing of Revenue Recognition					
Timing of Revenue Recognition					
Goods and services transferred at a point in time					
Goods and services transferred at a point in time					
Goods and services transferred at a point in time	Goods and services transferred at a point in time	$ 289,477	$ 337,648	$ 952,173	$ 1,056,318
Goods and services transferred over time	Goods and services transferred over time	11,924	11,358	36,373	39,690
Goods and services transferred over time					
Goods and services transferred over time					
Total	Total	$ 301,401	$ 349,006	$ 988,546	$ 1,096,008
Total					
Total					

One of the Company's customers accounted for 16% 21% and 14% of the Company's net accounts receivable as of September 30, 2023 March 31, 2024 and December 31, 2022 December 31, 2023, respectively.

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.

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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 three months ended September 30, 2023 March 31, 2024 and 2022: 2023:

	March 31,						
		2024					
		2024					
		2024					
		September 30,	January 1,		September 30,	January 1,	
Contract assets							
		2023	2023	Change	2022	2022	Change
Contract assets							
Contract assets	**Contract assets**						
Contract assets	Contract assets	$ 5,623	$ 8,620	$ (2,997)	$ 8,995	$ 9,345	$ (350)
Contract assets							
Contract assets							
Contract liabilities							
Contract liabilities							
Contract liabilities	**Contract liabilities**						
Contract liabilities - current	Contract liabilities - current	66,961	80,068	(13,107)	81,868	89,659	(7,791)
Contract liabilities - current							
Contract liabilities - current							
Contract liabilities - long-term	Contract liabilities - long-term	2,851	3,142	(291)	2,711	2,691	20
Contract liabilities - long-term							
Contract liabilities - long-term							

During the three months ended September 30, 2023 March 31, 2024 and 2022 2023 the Company recognized revenue of $7,730 $30,500 and $31,213, respectively, that was included in contract liabilities at the beginning of each period. During the nine months ended September 30, 2023 and 2022 the Company recognized revenue of $51,173 and $65,743, $29,012, respectively, that was included in contract liabilities at the beginning of each period.

The following table represents the Company's remaining performance obligations from contracts that are recognized over time as of September 30, 2023 March 31, 2024:

		Remaining Performance Obligations													
		2023 (a)	2024	2025	2026	2027	Thereafter	Total							
	Remaining Performance Obligations								Remaining Performance Obligations						
	2024 (a)								2024 (a)	2025	2026	2027	2028	Thereafter	Total
Revenue expected to be recognized for extended warranty agreements	Revenue expected to be recognized for extended warranty agreements	$ 1,190	$ 2,376	$1,092	$819	$463	$ 88	$ 6,028							

(In thousands, except share and per share data)

Revenue to be earned over time from contracts to sell large scale materials processing systems	Revenue to be earned over time from contracts to sell large scale materials processing systems	10,661	9,321	—	—	—	—	19,982
Total	Total	$11,851	$11,697	$1,092	$819	$463	$ 88	$26,010

(a) For the three-month nine-month period beginning October 1, 2023 April 1, 2024.

3. 4. FAIR VALUE MEASUREMENTS

The Company's financial instruments consist of cash equivalents, short-term investments, accounts receivable, accounts payable, drawings on and revolving lines of credit, long-term debt and interest rate swaps. 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 with the exception of the interest rate swap, which was measured at fair value:

	Fair Value Measurements at September 30, 2023			
	Total	Level 1	Level 2	Level 3
Assets				
Cash equivalents:				
Money market fund deposits	$ 146,503	$ 146,503	$ —	$ —
Term deposits	67,047	—	67,047	—
Commercial paper	17,450	—	17,450	—
Corporate bonds	13,775	—	13,775	—
U.S. Treasury and agency obligations	4,966	—	4,966	—
Short-term investments:				
Commercial paper	283,788	—	283,788	—
U.S. Treasury and agency obligations	180,697	—	180,697	—
Corporate bonds	137,238	—	137,238	—
Term deposits	3,009	—	3,009	—
Total assets	$ 854,473	$ 146,503	$ 707,970	$ —

	Fair Value Measurements at December 31, 2022			
	Total	Level 1	Level 2	Level 3
Assets				
Cash equivalents:				
Money market fund deposits	$ 195,654	$ 195,654	$ —	$ —
Commercial paper	94,661	—	94,661	—
Term deposits	68,827	—	68,827	—
Corporate bonds	1,497	—	1,497	—

(In thousands, except share and per share data)

Short-term investments:								
Commercial paper		363,991		—		363,991		—
Corporate bonds		65,022		—		65,022		—
U.S. Treasury and agency obligations		39,611		—		39,611		—
Term deposits		10,113		—		10,113		—
Other assets:								
Interest rate swaps		198		—		198		—
Total assets	$	839,574	$	195,654	$	643,920	$	—
Liabilities								
Term debt	$	16,031	$	—	$	16,031	$	—
Total liabilities	$	16,031	$	—	$	16,031	$	—

Short-term investments consist of liquid investments with original maturities of greater than three months but less than one year and are recorded at amortized cost. There were no impairments for the investments considered held-to-maturity during the quarters ended September 30, 2023 and 2022. There were no current expected credit loss allowances for the investments considered held-to-maturity at September 30, 2023 and 2022. The Company holds highly-rated held-to-maturity instruments that are within one year of maturity.

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 March 31, 2024							
	Total		Level 1		Level 2		Level 3	
Assets								
Cash equivalents:								
Money market fund deposits	$	142,100	$	142,100	$	—	$	—
Term deposits		74,346		—		74,346		—
Corporate bonds		6,736		—		6,736		—
Total cash equivalents		223,182		142,100		81,082		—
Short-term investments:								
Commercial paper		282,078		—		282,078		—
Corporate bonds		227,995		—		227,995		—
U.S. Treasury and agency obligations		130,150		—		130,150		—
Term deposits		3,048		—		3,048		—
Total short-term investments		643,271		—		643,271		—
Total	$	866,453	$	142,100	$	724,353	$	—

	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 March 31, 2024 and 2023. There were no current expected credit loss allowances for the investments considered held-to-maturity at March 31, 2024 and 2023. The Company holds highly-rated held-to-maturity instruments that are within one year of maturity.

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

	March 31, 2024	March 31, 2024		December 31, 2023	
	Book Value	Book Value	Fair Value	Book Value	Fair Value
Investment maturity					
Less than 1 year					

	September 30, 2023		December 31, 2022	
	Book Value	Fair Value	Book Value	Fair Value
Investment maturity				
Less than 1 year				
Less than 1 year Less than 1 year	$605,207	$604,732	$479,374	$478,737

4.

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5. INVENTORIES

Inventories consist of the following:

	September 30, 2023	December 31, 2022	March 31, 2024	March 31, 2024	December 31, 2023
Components and raw materials Components and raw materials	$279,309	$322,506			
Work-in-process Work-in-process	62,414	18,911			
Finished goods Finished goods	138,106	167,946			
Total Total	$479,829	$509,363			

The Company recorded inventory provisions totaling $9,119 $12,842 and $12,883 $12,096 for the three months ended September 30, 2023 March 31, 2024 and 2022, respectively, and $32,434 and $38,363 for the nine months ended September 30, 2023 and 2022. 2023, respectively. These provisions relate to the recoverability of the value of inventories due to technological changes and excess quantities. These provisions are reported as a reduction to components and raw materials, work-in-process and finished goods.

5. RESTRUCTURING 6. GOODWILL AND IMPAIRMENT OF LONG-LIVED ASSETS INTANGIBLES

In The following table sets forth the fourth quarter changes in the carrying amount of 2022, goodwill:

	Three Months Ended March 31,	
	2024	2023
Balance, beginning of period	$ 38,540	$ 38,325
Foreign exchange adjustment	(189)	63
Balance, end of period	$ 38,351	$ 38,388

(In thousands, except share and per share data)

Intangible assets, subject to amortization, consisted of the Company implemented a restructuring program at its Russian subsidiary. In the third quarter of 2023, the Company substantially completed the restructuring program. As a result, the remaining restructuring accrual was substantially recovered. This resulted in net restructuring recoveries of $1,501 and $357 following:

	March 31, 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	$ 48,161	$ (26,861)	$ 21,300	11 years	$ 48,216	$ (25,973)	$ 22,243	11 years
Technology, trademark and trade name	29,828	(26,326)	3,502	7 years	29,903	(25,960)	3,943	7 years
Production know-how	9,122	(9,122)	—	7 years	9,155	(9,155)	—	7 years
Patents	8,034	(8,034)	—	8 years	8,035	(7,987)	48	8 years
Total	$ 95,145	$ (70,343)	$ 24,802		$ 95,309	$ (69,075)	$ 26,234	

Amortization expense for the three and nine months ended September 30, 2023, March 31, 2024 and 2023 was $1,425 and $2,021, respectively. There was no restructuring related activity The estimated future amortization expense for intangibles for the three or nine months ended September 30, 2022.

The remaining restructuring accrual was included in accrued expenses remainder of 2024 and other current liabilities in the Company's condensed consolidated balance sheets. Activity related to the restructuring accrual was subsequent years is as follows:

	Nine Months Ended September 30,
	2023
Balance, beginning of period	$ 4,869
Charges	1,367
Cash payments	(3,630)
Recoveries	(1,724)
Foreign exchange adjustment	(864)
Balance, end of period	$ 18

2024 (a)	2025	2026	2027	2028	Thereafter	Total
$ 4,129	$ 4,977	$ 4,217	$ 4,005	$ 3,632	$ 3,842	$ 24,802

The non-cash long-lived asset impairment charges of $1,237 for both(a) For the three and nine months ended September 30, 2023, and $919 for both the three and nine months ended September 30, 2022, related to the right-of-use ("ROU") asset for a leased building associated with the Company's Submarine Network Division business that was previously divested. Attempts to sublease the space have been unsuccessful. As of September 30, 2023, the ROU asset related to this lease has been reduced to zero. nine-month period beginning April 1, 2024.

6. GOODWILL AND INTANGIBLES

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

	Nine Months Ended September 30,	
	2023	2022
Balance, beginning of period	$ 38,325	$ 38,609
Goodwill arising from business combinations	—	1,000
Goodwill written off related to divestiture	—	(796)
Foreign exchange adjustment	(60)	(850)
Balance, end of period	$ 38,265	$ 37,963

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

	September 30, 2023	December 31, 2022

	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Weighted-Average Lives	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Weighted-Average Lives
Customer relationships	$ 48,124	$ (24,875)	$ 23,249	11 years	$ 48,155	$ (21,734)	$ 26,421	11 years
Technology, trademark and trade name	29,790	(25,140)	4,650	7 years	30,360	(23,189)	7,171	7 years
Production know-how	9,091	(9,029)	62	7 years	9,109	(8,818)	291	7 years
Patents	8,034	(7,939)	95	8 years	8,034	(7,797)	237	8 years
Total	$ 95,039	$ (66,983)	$ 28,056		$ 95,658	$ (61,538)	$ 34,120	

Amortization expense for the three months ended September 30, 2023 and 2022 was $2,020 and $2,447, respectively. Amortization expense for the nine months ended September 30, 2023 and 2022 was $6,062 and $8,377, respectively. The estimated future amortization expense for intangibles for the remainder of 2023 and subsequent years is as follows:

2023 (a)	2024	2025	2026	2027	Thereafter	Total
$ 1,833	$ 5,553	$ 4,977	$ 4,216	$ 4,004	$ 7,473	$ 28,056

(a) For the three-month period beginning October 1, 2023.

7. OTHER LIABILITIES

Accrued expenses and other current liabilities consist of the following:

	September 30, 2023	December 31, 2022
Contract liabilities	$ 66,961	$ 80,068
Accrued compensation	64,060	78,251
Current portion of accrued warranty	27,280	28,504
Short-term lease liabilities	4,401	5,234
Other	11,815	10,707
Total	$ 174,517	$ 202,764

	March 31, 2024	December 31, 2023
Contract liabilities	$ 60,171	$ 69,219
Accrued compensation	55,322	67,053
Current portion of accrued warranty	25,916	27,283
Short-term lease liabilities	4,574	4,597
Other	17,028	13,198
Total	$ 163,011	$ 181,350

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

	September 30, 2023	December 31, 2022
Accrued warranty	$ 20,814	$ 24,358

	March 31, 2024	March 31, 2024	December 31, 2023
Accrued warranty			

Transition tax related to 2017 U.S. tax reform act	Transition tax related to 2017 U.S. tax reform act	11,010	19,874
Long-term lease liabilities	Long-term lease liabilities	13,199	16,787
Unrealized tax benefits		17,778	15,841
Unrecognized tax benefits			
Deferred income taxes	Deferred income taxes	1,256	1,469
Other	Other	5,147	4,945
Total	Total	$ 69,204	$83,274

8. 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,	
		2023	2022
	Three Months Ended March 31,	Three Months Ended March 31,	
	2024	2024	2023
Balance, beginning of period	Balance, beginning of period	$52,862	$49,864
Provision for warranty accrual	Provision for warranty accrual	9,874	18,280
Warranty claims	Warranty claims	(13,792)	(13,968)
Foreign currency translation	Foreign currency translation	(850)	(4,198)
Balance, end of period	Balance, end of period	$48,094	$49,978

Accrued warranty reported in the accompanying condensed consolidated financial statements as of September 30, 2023 March 31, 2024 and December 31, 2022 December 31, 2023 consist of $27,280 $25,916 and $28,504 $27,283 in accrued expenses and other current liabilities, respectively, and $20,814 $17,718 and $24,358 $19,926 in other long-term liabilities and deferred income taxes, respectively.

9. 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. The Company also maintains a €1,500 ($1,586) Italian overdraft facility. The German €50,000 line-of-credit expired on July 31, 2023.

At September 30, 2023 March 31, 2024 and December 31, 2022 December 31, 2023, there were no amounts drawn on the U.S. line-of-credit, and there were $2,474 $2,711 and $2,396, $2,487, respectively, of guarantees issued against the facility, which reduce the amount of the facility available to draw. At September 30, 2023 and December 31, 2022, there were no amounts drawn on the euro overdraft facility. After providing for the guarantees used, the total unused lines-of-credit and overdraft facility were $74,112 at September 30, 2023. remaining

(In thousands, except share and per share data)

10. DERIVATIVE FINANCIAL INSTRUMENTS

The Company's previous outstanding derivative financial instrument availability under this line was an interest rate swap that was classified $72,289 at March 31, 2024. In addition, the Company maintains Euro lines of credit facilities with a total principal amount of €6,500 ($7,014as a cash flow hedge of its variable rate debt. The interest rate swap matured with the long-term note in May 2023.

The derivative gains and losses in the condensed consolidated financial statements related March 31, 2024), which are available to the Company's previous interest rate swap contract were as follows:

	Three Months Ended September 30,		Nine Months Ended September 30,	
	2023	2022	2023	2022
Effective portion recognized in other comprehensive income, pretax:				
Interest rate swap	$ —	$ 65	$ (198)	$ 500

certain European subsidiaries.

11. 10. 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, 2023 March 31, 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.

12. 11. INCOME TAXES

The effective tax rates were 18.9% 28.3% and 21.0% 27.8% for the three months ended September 30, 2023 March 31, 2024 and 2022, respectively, and 23.8% and 22.7% for the nine months ended September 30, 2023 and 2022 2023, respectively. There was a net discrete tax detriment of $169 $1,997 for the three months ended September 30, 2023 March 31, 2024 and a net discrete tax benefit of $3,644 for the three months ended September 30, 2022. In the third quarter of 2023, the impact of relatively lower profits in high tax jurisdictions helped to reduce the third quarter tax rate by more than the impact of the reduced discrete benefits. There was a net discrete tax detriment of $390 and a net discrete tax benefit of $6,806 for the nine months ended September 30, 2023 and 2022, respectively. The discrete detriment $1,972 for the three and nine months ended September 2023 did not have a significant effect on March 31, 2023. The detriment in 2024 relates primarily to the Company's tax rate. The 2022 discrete items include a reduction in taxes as a result of filing amended returns to obtain foreign tax incentives for capital investments in prior years and to changes increase in tax position agreed to with tax authorities for prior year audits which were partly offset by the impact from tax deductions expense for equity-based compensation that were less than expense reflected in financial statement income in excess of the deductions allowed for tax purposes. This item was partially offset by a decrease in uncertain tax positions due to the conclusion of tax audits. There was a similar but smaller detriment for equity base compensation expense recognized for books. in 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 three months ended September 30, 2023 March 31, 2024 and 2022: 2023:

		Nine Months Ended September 30,	
		2023	2022
	Three Months Ended March 31,	Three Months Ended March 31,	
	2024	2024	2023
Balance, beginning of period	Balance, beginning of period	$15,841	$19,209
Change in prior period positions	Change in prior period positions	(1,274)	(603)
Additions for tax positions in current period	Additions for tax positions in current period	3,738	—

(In thousands, except share and per share data)

Foreign currency translation	Foreign currency translation	(527)	865
Balance, end of period	Balance, end of period	$17,778	$19,471

The liability for uncertain tax benefits is included in other long-term liabilities and deferred income taxes at September 30, 2023 March 31, 2024 and December 31, 2022 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 recognized.

13. 12. 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,	
		2023	2022	2023	2022
		Three Months Ended March 31,			
		Three Months Ended March 31,			
		Three Months Ended March 31,			
		2024			
		2024			
		2024			
Net income attributable to IPG Photonics Corporation common stockholders					
Net income attributable to IPG Photonics Corporation common stockholders					
Net income attributable to IPG Photonics Corporation common stockholders	Net income attributable to IPG Photonics Corporation common stockholders	$ 54,994	$ 76,264	$ 177,450	$ 202,804
Basic weighted average common shares	Basic weighted average common shares	47,236,901	51,628,701	47,363,974	51,449,367
Basic weighted average common shares					
Basic weighted average common shares					
Dilutive effect of common stock equivalents					
Dilutive effect of common stock equivalents					
Dilutive effect of common stock equivalents	Dilutive effect of common stock equivalents	151,218	108,289	171,661	176,565
Diluted weighted average common shares	Diluted weighted average common shares	47,388,119	51,736,990	47,535,635	51,625,932
Diluted weighted average common shares					

Diluted weighted average common shares					
Basic net income attributable to IPG Photonics Corporation per common share					
Basic net income attributable to IPG Photonics Corporation per common share					
Basic net income attributable to IPG Photonics Corporation per common share	Basic net income attributable to IPG Photonics Corporation per common share	$ 1.16	$ 1.48	$ 3.75	$ 3.94
Diluted net income attributable to IPG Photonics Corporation per common share	Diluted net income attributable to IPG Photonics Corporation per common share	$ 1.16	$ 1.47	$ 3.73	$ 3.93
Diluted net income attributable to IPG Photonics Corporation per common share					
Diluted net income attributable to IPG Photonics Corporation per common share					

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, 2023 March 31, 2024 and 2022 2023 were as follows:

		Three Months Ended September 30,		Nine Months Ended September 30,	
		2023	**2022**	**2023**	**2022**
		Three Months Ended March 31,			
		Three Months Ended March 31,			
		Three Months Ended March 31,			
		2024			
		2024			
		2024			
Non-qualified stock options					
Non-qualified stock options					
Non-qualified stock options	Non-qualified stock options	529,228	672,539	537,065	604,394
Restricted stock units	Restricted stock units	55,201	373,646	376,382	340,924
Restricted stock units					
Restricted stock units					
Performance stock units	Performance stock units	—	91,920	53,470	78,999
Performance stock units					
Performance stock units					
Employee stock purchase plan					
Employee stock purchase plan					

Employee stock purchase plan					
Total weighed average anti-dilutive shares outstanding	Total weighed average anti-dilutive shares outstanding	584,429	1,138,105	966,917	1,024,317
Total weighed average anti-dilutive shares outstanding					
Total weighed average anti-dilutive shares outstanding					

On May 2, 2023 February 13, 2024, the Company announced that its Board of Directors has authorized the purchase of up to $200,000 $300,000 of IPG common stock. This authorization is in addition to the Company's stock repurchase programs authorized in August 2022. May 2023.

For the three months ended September 30, 2023 March 31, 2024, the Company repurchased 449,688 957,925 under the May 2023 authorization with a weighted average price of $102.37 per share in the open market.For the nine months ended September 30, 2023, the Company repurchased 1,448,457 shares of common stock under the May 2023 authorization and August 2022 authorization with a weighted average price of $109.21 $92.73 per share in the open market. The impact on the reduction of weighted average shares for the three and nine months ended September 30, 2023 March 31, 2024 was 131,533 shares and 932,015 shares, respectively.436,884 shares.

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, advanced applications and advanced applications. communications. 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, we have substantially reduced our reliance on our Russian operations, and have ceased new investments in our Russian and Belarus operations. We have and will continue to expand our manufacturing operations in Germany and the United States, and have added manufacturing capacity in Italy Poland and Poland expanded capacity in Italy 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.

On April 30, 2024, we announced that Mark Gitin has been appointed Chief Executive Officer effective June 5, 2024. Dr. Gitin will succeed Dr. Eugene Scherbakov who will remain a member of the Board of Directors and will serve as an advisor to Dr. Gitin. Dr. Gitin has more than 30 years of experience in the lasers and optics sector, most recently overseeing the Photonics Solutions Division at MKS Instruments.

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.

Russia-Ukraine Conflict. The Russia-Ukraine conflict and the sanctions imposed in response to this crisis have significantly curtailed our ability to use our manufacturing operations in Russia to supply other IPG operations outside of Russia. The conflict and the risk of additional sanctions has also increased the levels of uncertainty and risks facing the Company due to our manufacturing operations in Belarus. Since the start of the conflict, we have been executing on plans to reduce our reliance on our Russia and Belarus operations by adding capacity in other countries, increasing inventories worldwide and qualifying third-party suppliers. In Since 2022, we began have been hiring and training additional employees, expanding capacity for increased production, and running additional shifts in the U.S. and Germany and adding additional manufacturing capacity in Italy and Poland.

We believe the contingency measures outlined above that we have already put in place mitigate substantially all the effects of the recent sanctions on our ability to supply finished products to customers. If we have not fully mitigated the effect of these and other trade restrictions, or if new sanctions are adopted, our ability to supply finished products to customers could be impacted. Although we believe our contingency plans mitigate the risk of our ability to supply customers with finished product, these plans require additional investments in facilities outside of Russia and Belarus in the near term as well as additional ongoing operating costs, primarily associated with the higher cost of labor outside of Russia and Belarus. While we have sufficient financial resources to make these investments and expenditures, our gross margins and financial results have been and will be adversely impacted by increased operating costs associated with these transitions. Over time, we intend to mitigate some of these increases by producing components in countries with lower labor costs than the United States and Germany, with ongoing product expense reduction initiatives, higher productivity from automation, improved yields and product specifications. We are also continuing to review our operations in Russia and Belarus. For additional information regarding the risks and potential impacts of the Russia-Ukraine conflict, see "*Risk Factors – The ongoing conflict between Russia and*

Ukraine may adversely affect our business and results of operations" in Item 1A of Part II I of Form 10-K for the year ended December 31, 2022 December 31, 2023.

We evaluated the recoverability of certain assets located in Russia during the fourth quarter of 2022 and incurred impairment charges that reduced the value of fixed assets, inventory and other current assets. We also incurred restructuring charges in 2022 and 2023. As of September 30, 2023 December 31, 2023, we have substantially completed the restructuring program in Russia and recovered the majority of the remaining restructuring charges accrual. Refer to Note 5 "Restructuring and Impairment of Long-lived Assets" in the notes to the condensed consolidated financial statements for further information. Russia.

Sales to third-parties in Russia were approximately 3% 4% of our revenue for both the first three quarters quarter of 2023 2024, and 3% for the full year ended December 31, 2022 December 31, 2023. Our Russian subsidiary has historically supplied finished goods for our China market. Sanctions have limited our ability to provide components to Russia for the completion of finished lasers. Although our Russian operation has built safety stock in anticipation of this situation, we are also producing more finished lasers for China at other IPG locations. The total value of product shipped to the Chinese market from Russia was approximately $13.3 $3.8 million for the nine three months ended September 30, 2023 March 31, 2024 and $61.5 $15.8 million for the full year ended December 31, 2022 December 31, 2023.

At September 30, 2023 March 31, 2024, we had working capital excluding cash and cash equivalents of $21.2 $29.1 million in Russia of which $18.1 $22.2 million is inventory. We had $63.7 $73.6 million of cash and cash equivalents in Russia. The net asset value of our Russian subsidiary was $87.9 $104.5 million. In addition to the impairment charges referenced above, the net value of assets in Russia has been reduced by $146.2 $141.6 million due to the cumulative translation effect of the Russian ruble compared to the U.S. dollar, which is included in the accumulated other comprehensive loss component of stockholders' equity. Depending upon the outcome of our review of our Russian operations, we may incur additional asset impairment charges and the cumulative translation effect of foreign exchange fluctuations other comprehensive loss that is currently included in accumulated other comprehensive loss on the equity section of our condensed consolidated balance sheets may be charged to our condensed consolidated statements of income.

We continue to manufacture laser cabinets and other mechanical components in Belarus. Trade sanctions to date have not significantly affected our ability to supply these items from Belarus to other manufacturing locations. The value of the long lived assets in Belarus was $31.3 $30.6 million at September 30, 2023 March 31, 2024, and we had working capital excluding cash of $4.9 $3.9 million in Belarus of which $4.5 $3.8 million is inventory. In addition, we had $5.1 $3.5 million of cash in Belarus. If additional sanctions are imposed on Belarus or Belarus places restrictions on our operations there, it could trigger an asset impairment evaluation and may result in impairment charges in the future.

COVID-19. Global demand trends have Our Board of Directors has been impacted by the ongoing COVID-19 pandemic. While business conditions generally improved from the severe contraction experienced in 2020, it is difficult monitoring and continues to predict whether conditions could change if there are additional restrictions imposed as a result of a resurgence in COVID-19 infections. To date, we have been able to accommodate these changes assess and monitor risks to our business associated with the Russia-Ukraine conflict and our Russian and Belarus operations. Our Directors request and receive management reports from management regarding our Russian and Belarus operations, contingency planning and continue to meet customer demand. If guidelines or mandates from relevant authorities becomes more restrictive due to a resurgence of COVID-19 in a particular region, the effect execution, and impacts on our operations could be more significant. business at its quarterly and special meetings.

Supply Chain. We 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 customers are experiencing increased lead times days inventory on hand to increase. Our ability to reduce inventory will depend on sales volume and demand for the items we have on stock. If inventory on hand becomes excess or obsolete, our inventory reserves may increase. We may also be affected by changes in freight costs for certain components purchased from third party suppliers; particularly electronic components. We, our customers and our suppliers continue to face constraints related to as a result of other global supply chain and logistics, including availability of capacity, materials, air cargo space, sea containers and higher freight rates. While supply chain and logistics constraints have moderated, they have not yet fully returned disruptions that may occur from time to pre-pandemic conditions. Supply chain constraints have not significantly affected our business but they have moderately increased our freight costs, caused us to carry higher levels of safety stock for certain inventory items, and increased the cost of certain electronic components. time.

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 90% of our revenues for both the first three quarters quarter of 2023 2024 and the full 2022 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 are adopting have adopted less accommodative accommodating monetary policy and have or expect to increase increased benchmark interest rates. An rates in several major global economies. The increase in interest rates could impact global is intended to dampen demand and/or that could lead to a regional or global recession that may reduce the demand for our products. In addition, an increase in interest rates would increase the cost of equipment financed with leases or debt. If inflation starts to moderate in 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 macroeconomic concerns and the impact of the COVID-19 outbreak that affect the level of capital expenditures or global commerce. With respect pandemics to the COVID-19 outbreak specifically, the possible effect over the longer term remains uncertain and dependent on future developments extent that cannot be accurately predicted at this time, such as the severity and transmission rate of COVID-19 they affect macroeconomic conditions, global supply chains or new variants, the extent and effectiveness of containment actions taken, the approval, effectiveness, timing and widespread vaccination of the global population, and the impact of these and other factors on our customer base and general commercial activity. 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 other the demand for capital equipment manufacturers broadly and the including machine tool tools and industrial lasers, and competition from other fiber laser industries more specifically. 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 laser, 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; and finally,
- Changes in relative exchange rates between currencies we receive when selling our products and currencies we use to pay our manufacturing expenses. 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 $9.1 million $12.8 million and $12.9 million $12.1 million for the three months ended September 30, 2023 March 31, 2024 and 2022, respectively, and $32.4 million and $38.4 million for the nine months ended September 30, 2023 and 2022, 2023, respectively.

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, divestitures litigation and litigation. 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. We have long-lived assets in Belarus with a carrying value of $31.3 $30.6 million. If sanctions increase or if the geopolitical situation changes such that we can no longer use Belarus as a source of supply for our laser cabinets and other mechanical components, we may need to evaluate those assets for impairment, which may result in impairment charges.

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, and 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, 2023 March 31, 2024, the foreign exchange gain loss was primarily created by the depreciation of the euro and the Russian ruble partially offset by a foreign exchange loss created by the depreciation of the Chinese yuan as compared to the U.S. dollar. Our European and Russian subsidiaries have certain net assets denominated in U.S. dollars, and our Chinese subsidiary has certain net liabilities 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 14% 13% for the nine three months ended September 30, 2023 March 31, 2024 and 15% 13%, and 19% 15% for the full years 2022 2023 and 2021, 2022, respectively. One of our customers accounted for 16% 21% and 14% of our net accounts receivable at September 30, 2023 March 31, 2024 and December 31, 2022 December 31, 2023, respectively. 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, 2023 March 31, 2024 Compared to the Three Months Ended September 30, 2022 March 31, 2023

Net sales. Net sales decreased by $47.6 million $95.2 million, or 13.6% 27.4%, to $301.4 million $252.0 million for the three months ended September 30, 2023 March 31, 2024 from $349.0 million $347.2 million for the three months ended September 30, 2022 March 31, 2023.

The table below sets forth sales by application:

	Three Months Ended September 30,		Change
	2023	2022	
	(In thousands, except for percentages)		

	Three Months Ended March 31,
	2024

		2024														
		2024										2023				
		(In thousands, except for percentages)														
Sales by Application	**Sales by Application**		% of Total		% of Total											
Sales by Application																
Sales by Application																
Materials processing																
Materials processing																
Materials processing	Materials processing	$265,226	88.0 %	$312,546	89.6 %	$(47,320)	(15.1)%	$ 226,365	89.8	89.8	%	$312,969	90.1	90.1	%	
Other applications	Other applications	36,175	12.0 %	36,460	10.4 %	(285)	(0.8)%	Other applications	25,644	10.2	10.2 %		34,205	9.9	9.9 %	
Total	Total	$301,401	100.0 %	$349,006	100.0 %	$(47,605)	(13.6)%	Total	$252,009	100.0	100.0 %		$347,174	100.0	100.0 %	

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

		Three Months Ended September 30,													
		2023				2022				Change					
		(In thousands, except for percentages)													
		Three Months Ended March 31,													
		2024													
		2024													
		2024													
		(In thousands, except for percentages)													
Sales by Product	**Sales by Product**			% of Total				% of Total							
Sales by Product															
Sales by Product															
High Power Continuous Wave ("CW") Lasers															
High Power Continuous Wave ("CW") Lasers															
High Power Continuous Wave ("CW") Lasers	High Power Continuous Wave ("CW") Lasers	$	119,512	39.7	%	$	152,767	43.8	%	$	(33,255)	(21.8)	%	$	90,793
Medium Power CW Lasers	Medium Power CW Lasers		20,937	6.9	%		20,639	5.9	%		298	1.4	%	Medium Power CW Lasers	
Pulsed Lasers	Pulsed Lasers		41,420	13.8	%		55,216	15.8	%		(13,796)	(25.0)	%	Pulsed Lasers	
Quasi-Continuous Wave ("QCW") Lasers	Quasi-Continuous Wave ("QCW") Lasers		10,856	3.6	%		11,353	3.3	%		(497)	(4.4)	%	Quasi-Continuous Wave ("QCW") Lasers	

Laser and Non-Laser Systems	Laser and Non-Laser Systems		37,493	12.4	%		35,930	10.3	%		1,563	4.4	%	Laser and Non-Laser Systems	
Other Revenue including Amplifiers, Service, Parts, Accessories and Change in Deferred Revenue	Other Revenue including Amplifiers, Service, Parts, Accessories and Change in Deferred Revenue		71,183	23.6	%		73,101	20.9	%		(1,918)	(2.6)	%	Other Revenue including Amplifiers, Service, Parts, Accessories and Change in Deferred Revenue	
Total	Total	$	301,401	100.0	%	$	349,006	100.0	%	$	(47,605)	(13.6)	%	Total	$

Materials processing

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

- 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 and inventory management by OEM customers while welding was primarily impacted by a slowdown in China and Europe as well as increased competition in China. the e-mobility investments.

- Medium power CW laser sales increased driven by higher demand in welding and additive manufacturing applications.
- Pulsed laser sales, including high power pulsed lasers, decreased due to lower sales for solar cell manufacturing, and marking and engraving, and foil cutting applications.
- QCW laser sales decreased due to lower increased driven by higher demand in fine processing for consumer electronics applications.
- Laser and non-laser systems sales benefited from higher declined due to lower demand for LightWELD.

Other Applications

Sales from other applications decreased due to decreased demand for lasers used in advanced applications and a decrease in telecom sales due to the divestiture of the telecommunications transmission product line in the third quarter of 2022. medical procedures applications.

Cost of sales and gross margin. Cost of sales decreased by $30.1 million $45.7 million, or 15.2% 22.8%, to $168.5 million $154.5 million for the three months ended September 30, 2023 March 31, 2024 from $198.6 million $200.2 million for the three months ended September 30, 2022 March 31, 2023. Our gross margin increased decreased to 44.1% 38.7% for the three months ended September 30, 2023 March 31, 2024 from 43.1% 42.3% for the three months ended September 30, 2022 March 31, 2023. The increase decrease in gross margin was driven by continued focus on an increase in unabsorbed manufacturing costs and efficiency, an increase in inventory provisions as a percentage of sales. The decrease in gross margin was partially offset by a decrease in cost of product sold due to product mix and shipping costs and tariffs, and a decrease in provisions for excess and obsolete inventory as a percentage of sales. The strong U.S. dollar has negatively affected gross margin because a disproportionate amount of our manufacturing costs are denominated in U.S. dollars as compared to our sales which are predominantly denominated in foreign currencies.

Sales and marketing expense. Sales and marketing expense increased by $2.8 million $1.9 million, or 14.4% 9.0%, to $22.2 million $23.0 million for the three months ended September 30, 2023 March 31, 2024 compared with $19.4 million $21.1 million for the three months ended September 30, 2022 March 31, 2023. The increase is due to higher personnel and related costs and premises costs. As a percentage of sales, sales and marketing expense increased to 7.4% 9.1% from 5.6% 6.1% for the three months ended September 30, 2023 March 31, 2024 and 2022, 2023, respectively.

Research and development expense. Research and development expense decreased increased by $0.7 million $6.6 million, or 2.8% 28.9%, to $24.7 million $29.4 million for the three months ended September 30, 2023 March 31, 2024, compared to $25.4 million $22.8 million for the three months ended September 30, 2022 March 31, 2023. Decreases in amortization of production licenses and other R&D expense are primarily the result of the divestiture of our telecommunications transmission product line in the third quarter of 2022. Further, depreciation expense decreased primarily as a result of the impairment of Russian long-lived assets in the fourth quarter of 2022. The decrease in expense increase is partially offset by an increase in due to higher personnel and related costs. costs, premises costs and expense for materials used for research and development projects. As a percentage of sales, research and development expense increased to 8.2% 11.7% for the three months ended September 30, 2023 March 31, 2024 from 7.3% 6.6% for the three months ended September 30, 2022 March 31, 2023.

General and administrative expense. General and administrative expense decreased increased by $2.8 million $1.1 million, or 8.3% 3.7%, to $31.0 million $31.2 million for the three months ended September 30, 2023 March 31, 2024 from $33.8 million $30.1 million for the three months ended September 30, 2022 March 31, 2023. This change The increase was primarily a result of lower depreciation due to an increase in expenses which were driven related to information systems, premises and accounting costs, partially offset by the impairment of Russian long-lived assets and the sale of our corporate aircraft in the fourth quarter of 2022, and lower personnel and related costs. The expense reductions were partially offset by a net loss of $1.3 million related to the sales of our buildings in Alabama and California in the third quarter of 2023. As a percentage of sales, general and administrative expense increased to 10.3% 12.4% from 9.7% 8.7% for the three months ended September 30, 2023 March 31, 2024 and 2022, 2023, respectively.

Gain on sale of assets. The gain on sale of assets of $6.8 million for the three months ended March 31, 2024 was related to the sales of a building in the U.S. and a building in the U.K.

Effect of exchange rates on net sales, gross profit and operating expenses. We estimate that, if If exchange rates relative to the U.S. dollar had been the same as one year ago, which were on average euro 0.99, 0.93, Russian ruble 59, 73, Japanese yen 138 132 and Chinese yuan 6.85, 6.84, respectively, we estimate that net sales for the three months ended September 30, 2023 March 31, 2024 would have been $5.7 million $7.8 million higher, gross profit would have been $4.4 million $4.7 million higher and total operating expenses would have been $1.2 million $1.9 million higher.

Impairment of long-lived assets. We recorded a non-cash long-lived asset impairment charge of $1.2 million for the three months ended September 30, 2023 as compared to $0.9 million for the three months ended September 30, 2023, related to the right-of-use ("ROU") asset for a leased building associated with our Submarine Network Division business that was previously divested. Attempts to sublease the space have been unsuccessful. As of September 30, 2023, the ROU asset related to this lease has been reduced to zero.

Restructuring charges (recoveries), net. In the third quarter of 2023, we substantially completed the restructuring program at our Russian subsidiary. As a result, we released $1.5 million that had been accrued in relation to restructuring expenses.

Gain Loss on foreign exchange. We incurred a foreign exchange transaction gain loss of $0.4 million $1.7 million for the three months ended September 30, 2023 March 31, 2024 as compared to a $0.5 million $2.7 million gain for the three months ended September 30, 2022 March 31, 2023. Our European and Russian 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 gain loss for the three months ended September 30, 2023 March 31, 2024 was primarily attributable to gain from the depreciation of euro and the Russian ruble, partially offset by a loss from related to the depreciation of the Chinese yuan as compared to the U.S. dollar.

Interest income, net. Interest income, net was $11.6 million $14.2 million for the three months ended September 30, 2023 March 31, 2024 as compared to $3.6 million $7.5 million of income for three months ended September 30, 2022 March 31, 2023. The change 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 $12.8 million $9.5 million for the three months ended September 30, 2023 March 31, 2024 compared to $20.4 million $23.2 million for the three months ended September 30, 2022 March 31, 2023, representing an effective tax rate of 18.9% 28.3% and 21.0% 27.8% for the three months ended September 30, 2023 March 31, 2024 and 2022, 2023, respectively. The decrease in tax expense was primarily due to a decrease income before provision for income taxes for 2024 as compared to 2023.There were net discrete tax detriments of $0.2 million $2.0 million for the three months ended September 30, 2023 March 31, 2024 and net discrete benefits detriment of $3.6 million $2.0 million for the three months ended September 30, 2022 March 31, 2023. In the third quarter of Both 2024 and 2023 the impact of relatively lower profits discrete items included an increase in high tax jurisdictions helped to reduce the third quarter tax rate by more than the impact expense from equity-based compensation expense reflected in financial statement income in excess of the reduced deductions allowed for tax purposes.However, the 2024 discrete benefits. The 2022 discrete items include tax detriment from equity-based compensation was partially offset by a reduction decrease in taxes as a result uncertain tax positions due the conclusion of filing amended returns to obtain foreign tax incentives for capital investments in prior years. audits.

Net income attributable to IPG Photonics Corporation. Net income attributable to IPG Photonics Corporation decreased by $21.3 million $36.0 million to $55.0 million $24.1 million for the three months ended September 30, 2023 March 31, 2024 compared to $76.3 million $60.1 million for the three months ended September 30, 2022 March 31, 2023. Net income attributable to IPG Photonics Corporation as a percentage of our net sales decreased by 3.7 7.7 percentage points to 18.2% 9.6% for the three months ended September 30, 2023 March 31, 2024 from 21.9% 17.3% for the three months ended September 30, 2022 March 31, 2023 due to the factors described above.

Results of Operations for the Nine Months Ended September 30, 2023 Compared to the Nine Months Ended September 30, 2022

Net sales. Net sales decreased by $107.5 million, or 9.8% to $988.5 million for the nine months ended September 30, 2023 from $1,096.0 million for the nine months ended September 30, 2022.

The table below sets forth sales by application:

	Nine Months Ended September 30,								
	2023			2022			Change		
	(In thousands, except for percentages)								
Sales by Application			% of Total			% of Total			
Materials processing	$	892,379	90.3 %	$	994,866	90.8 %	$	(102,487)	(10.3)%

Other applications		96,167	9.7 %		101,142	9.2 %		(4,975)	(4.9)%
Total	$	988,546	100.0 %	$	1,096,008	100.0 %	$	(107,462)	(9.8)%

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

	Nine Months Ended September 30,						Change		
	2023			2022					
	(In thousands, except for percentages)								
Sales by Product			% of Total			% of Total			
High Power CW Lasers	$	419,538	42.4 %	$	483,455	44.1 %	$	(63,917)	(13.2)%
Medium Power CW Lasers		57,146	5.8 %		63,230	5.8 %		(6,084)	(9.6)%
Pulsed Lasers		150,569	15.2 %		192,000	17.5 %		(41,431)	(21.6)%
QCW Lasers		35,978	3.6 %		38,212	3.5 %		(2,234)	(5.8)%
Laser and Non-Laser Systems		117,064	11.9 %		108,970	9.9 %		8,094	7.4 %
Other Revenue including Amplifiers, Service, Parts, Accessories and Change in Deferred Revenue		208,251	21.1 %		210,141	19.2 %		(1,890)	(0.9)%
Total	$	988,546	100.0 %	$	1,096,008	100.0 %	$	(107,462)	(9.8)%

Materials processing

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

- High power CW laser sales decreased due to lower sales for cutting applications due to softer demand in China and Europe and increased competition in China.
- The decrease in medium power CW sales related to a decrease in demand for micromaterial processing and cutting, partially offset by additive manufacturing.
- Pulsed laser sales, including high power pulsed lasers, decreased due to a decrease in sales for marking and engraving, and foil cutting applications, and lower demand for green pulsed lasers used for solar cell manufacturing applications, partially offset by growth in sales for cleaning and ablation applications.
- QCW laser sales decreased due to lower demand in fine processing for consumer electronics applications.
- Laser and non-laser systems sales increased driven by higher demand for LightWELD, partially offset by lower demand for other laser and non-laser systems.

Other Applications

Sales from other applications decreased due to decreased sales in telecommunications products, as a result of the business divestiture during the third quarter of 2022, and decreased demand for lasers used in medical procedures, partially offset by increased demand for lasers used in advanced applications.

Cost of sales and gross margin. Cost of sales decreased by $40.4 million, or 6.7%, to $561.0 million for the nine months ended September 30, 2023 from $601.4 million for the nine months ended September 30, 2022. Our gross margin decreased to 43.2% for the nine months ended September 30, 2023 from 45.1% for the nine months ended September 30, 2022. Gross margin decreased mainly due to an increase in cost of product sold from inventory, partially offset by decreases in shipping costs and tariffs and inventory provisions for excess and obsolete inventory as a percentage of sales. The strong U.S. dollar has negatively affected gross margin because a disproportionate amount of our manufacturing costs are denominated in U.S. dollar as compared to our sales which are predominantly denominated in foreign currencies.

Sales and marketing expense. Sales and marketing expense increased by $4.7 million, or 8.0%, to $63.5 million for the nine months ended September 30, 2023 compared with $58.8 million for the nine months ended September 30, 2022. The increase is due to higher personnel and related costs and travel and entertainment costs, offset by lower depreciation and amortization expenses. As a percentage of sales, sales and marketing expense increased to 6.4% from 5.4% for the nine months ended September 30, 2023 and 2022, respectively.

Research and development expense. Research and development expense decreased by $18.5 million, or 20.7%, to $71.0 million for the nine months ended September 30, 2023, compared to $89.5 million for the nine months ended September 30, 2022. Decreases in personnel and related costs, amortization of production licenses, and other R&D expense are primarily the result of the divestiture of our telecommunications transmission product line in the third quarter of 2022. Further, depreciation expenses decreased primarily as a result of the impairment of Russian long-lived assets in 2022. Lastly, we incurred lower information systems and contractor expenses compared to the nine months ended September 30, 2022. As a percentage of sales, research and development expense decreased to 7.2% for the nine months ended September 30, 2023 from 8.2% for the nine months ended September 30, 2022.

General and administrative expense. General and administrative expense decreased by $7.2 million, or 7.4%, to $90.7 million for the nine months ended September 30, 2023 from $97.9 million for the nine months ended September 30, 2022, primarily as a result of decreases in consultant costs, repairs and maintenance costs, and depreciation expenses.

The expense reductions were partially offset by a net loss of $1.3 million related to the sales of our buildings in Alabama and California in the third quarter of 2023. As a percentage of sales, general and administrative expense increased to 9.2% for the nine months ended September 30, 2023 from 8.9% for the nine months ended September 30, 2022.

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 0.94, Russian ruble 70, Japanese yen 128 and Chinese yuan 6.60, respectively, we would have expected net sales for the nine months ended September 30, 2023 to be $29.8 million higher, gross profit to be $17.6 million higher and total operating expenses would have been $3.3 million higher.

Impairment of long-lived assets. We recorded a non-cash long-lived asset impairment charge of $1.2 million for the nine months ended September 30, 2023 as compared to $0.9 million for the nine months ended September 30, 2022, related to the ROU asset for a leased building associated with our Submarine Network Division business that was previously divested. Attempts to sublease the space have been unsuccessful. As of September 30, 2023, the ROU asset related to this lease has been reduced to zero.

Restructuring charges (recoveries), net. In the third quarter of 2023, we substantially completed the restructuring program at our Russian subsidiary. As a result, we released $1.5 million that had been accrued in relation to restructuring expenses.

Gain on foreign exchange. We benefited from a foreign exchange transaction gain of $1.8 million for the nine months ended September 30, 2023 as compared to a loss of $11.3 million for the nine months ended September 30, 2022. Our European and Russian subsidiaries have certain net assets denominated in U.S. dollars, and our Chinese subsidiary has certain net liabilities denominated in U.S. dollars. The gain for the nine months ended September 30, 2023 was primarily attributable to gain from the depreciation of the Russian ruble, partially offset by loss from the depreciation of Chinese yuan and euro as compared to the U.S. dollar.

Interest income, net. Interest income, net, was $28.4 million for the nine months ended September 30, 2023 as compared to $4.7 million of income for the nine months ended September 30, 2022. 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 $55.3 million for the nine months ended September 30, 2023 compared to $59.7 million for the nine months ended September 30, 2022, representing an effective tax rate of 23.8% and 22.7% for the nine months ended September 30, 2023 and 2022, respectively. There was a net discrete tax detriment of $0.4 million and a net discrete tax benefit of $6.8 million for the nine months ended September 30, 2023 and 2022, respectively. The discrete detriment for the nine months ended September 2023 did not have a significant effect on our tax rate. The 2022 discrete items include a reduction in taxes as a result of filing amended returns to obtain foreign tax incentives for capital investments in prior years and to changes in tax position agreed to with tax authorities for prior year audits which was partly offset by the impact from tax deductions for equity-based compensation that were less than the compensation expense recognized for books.

Net income attributable to IPG Photonics Corporation. Net income attributable to IPG Photonics Corporation decreased by $25.3 million to $177.5 million for the nine months ended September 30, 2023 compared to $202.8 million for the nine months ended September 30, 2022. Net income attributable to IPG Photonics Corporation as a percentage of our net sales decreased by 0.5 percentage point to 18.0% for the nine months ended September 30, 2023 from 18.5% for the nine months ended September 30, 2022 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 line 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 because of the reduction in manufacturing activity and capacity at our Russian factory that we can access due to sanctions. As of September 30, 2023 March 31, 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 $63.7 million $73.6 million of cash and cash equivalents located in Russia, and $5.1 million $3.5 million of cash and cash equivalents located in Belarus, as of September 30, 2023 March 31, 2024. Cash and cash equivalents in Russia are subject to capital controls that prevent repatriation by dividend or distribution of capital. There are currently no restrictions on our ability to use cash and cash equivalents in Russia for operating purposes including converting cash to foreign currency for the payment of goods received from vendors outside of Russia. The Russian operations are self-funding. Approximately 5% 6% of our consolidated working capital including cash, cash equivalents and short-term investments is located in Russia. We are making no new investments in Russia.

The following table presents our principal sources of liquidity:

		September 30, 2023	December 31, 2022
		(In thousands)	
	March 31, 2024	March 31, 2024	December 31, 2023
		(In thousands)	(In thousands)
Cash and cash equivalents	Cash and cash equivalents	$528,284	$698,209
Short-term investments	Short-term investments	605,207	479,374
Unused credit lines and overdraft facilities	Unused credit lines and overdraft facilities	74,112	125,965
Working capital (excluding cash, cash equivalents and short-term investments)	Working capital (excluding cash, cash equivalents and short-term investments)	567,260	534,045

Short-term investments at September 30, 2023 March 31, 2024 consist of liquid investments including commercial paper, corporate bonds, U.S. Treasury and agency obligations corporate bonds and term deposits with original maturities of greater than three months but less than one year. See Note 3, 4, "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, 2023 March 31, 2024:

Description	Total Facility / Total Facility/ Note	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 ($5.4 million)	€STR rate plus 0.97%	December 2028		
Euro Facility (2) (3)	Euro 1.5 million ($1.6 million)	Euribor plus 1.25%	5.40% June 2024	December 2023	Common pool of assets of Italian subsidiary

(1) This facility is available to certain foreign subsidiaries in their respective local currencies. At September 30, 2023 March 31, 2024, there were no amounts drawn on this line; however, there were $2.5 million $2.7 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 March 31, 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, 2023 March 31, 2024, there were no drawings.

At September 30, 2023 March 31, 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, 2023 March 31, 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 9, "Financing Arrangements" in the notes to the condensed consolidated financial statements for further information about our facilities and term debt.

facilities.

The following table presents cash flow activities:

	Nine Months Ended September 30,	
	2023	2022
	(In thousands)	
	Three Months Ended March 31,	Three Months Ended March 31,
	2024	2024 / 2023
	(In thousands)	(In thousands)
Cash provided by operating activities / Cash provided by operating activities	$ 189,924	$171,026
Cash (used in) provided by investing activities	(162,996)	407,465
Cash provided by (used in) investing activities		
Cash used in financing activities / Cash used in financing activities	(175,991)	(400,861)

Operating activities. Net cash provided by operating activities increased by $18.9 million $17.3 million to $189.9 million $54.6 million for the nine three months ended September 30, 2023 March 31, 2024 from $171.0 million $37.3 million for the nine three months ended September 30, 2022 March 31, 2023, primarily due to a decrease an increase in cash used in 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 increase in cash flow from operating activities in 2023 2024 primarily resulted from:

- a decrease an increase in cash used provided by accounts receivable due to timing of collection;
- 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 components internally manufactured by our factory in Russia; components;
- an increase a decrease in cash provided used by income and other taxes payable driven by lower taxable income and the timing of estimated tax payments made and refunds received from filing tax returns;
- an increase in cash provided by accounts payable due to timing of payments; and
- a decrease in cash used by accrued prepaid expenses and other assets due to lower bonus payments, partially offset by an increase in cash used by contract liabilities, timing of bank acceptance drafts and billings in excess of costs and estimated earning and accounting and legal accruals. on custom systems.

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

- an increase in cash used by accounts receivable due to timing of collection;
- a decrease in cash provided by net income after adjusting for non-cash operating activities;
- an increase in cash used by prepaid expenses and other assets activities, mainly due to timing of bank acceptance drafts, insurance prepayments and billings on custom systems; lower sales; and
- an increase in cash used by accounts payable accrued expenses due to timing of an increase in cash used by contract liabilities, partially offset by lower accrual related to personnel payments.

Investing activities. Net cash provided by investing activities was $23.7 million for the three months ended March 31, 2024 as compared to cash used in investing activities was $163.0 million for the nine months ended September 30, 2023 as compared to of $96.0 million in 2023. The cash provided by investing activities in 2024 related to $26.4 million of $407.5 million in 2022. net proceeds of short-term investments and $25.3 million of cash provided by sales of property, plant and equipment; partially offset by $28.1 million of cash used for capital expenditures. The cash used in investing activities in 2023 related to $108.6 million $64.3 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. The cash provided by investing activities in 2022 related to $441.3 million of net proceeds from short-term investments, and $52.1 million of proceeds received from the divestiture of the telecommunications transmission product lines, net of cash sold; partially offset by $84.6 million $33.4 million of cash used for capital expenditures.

In 2023, 2024, we expect to invest approximately $100 million $120 million to $110 million $130 million in capital expenditures, excluding acquisitions. net of asset divestitures. Capital expenditures include investments in property, facilities and equipment to add replace capacity worldwide in Russia that we can no longer use to support anticipated revenue growth, manufacture optical components and finished goods 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 once a project has been started. 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 $176.0 $90.8 million for the nine three months ended September 30, 2023 March 31, 2024 as compared to net cash used of $400.9 million $117.2 million in 2022. 2023. The cash used in financing activities in 2024 primarily related to the purchase of treasury stock of $89.6 million. The cash used in financing activities in 2023 primarily related to the purchase of treasury stock of $159.5 million $113.1 million and principal payments on our long-term borrowings the net cash outflow of $16.0 million. The cash used $3.8 million from the issuance of common stock under the

employee stock purchase plan and the exercise of stock options net of amounts disbursed in financing activities in 2022 primarily related relation to shares withheld to cover employee income taxes due upon the purchase vesting and release of treasury restricted stock of $382.9 million, and $17.8 million of principal payments on our long-term borrowings. units.

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, 2022 December 31, 2023 (the "Annual Report") and in Item 1A, "Risk Factors" of Part II of Quarterly Report for the quarter ended March 31, 2023. 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

None. 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 gain loss on foreign exchange transactions totaled $0.4 million $1.7 million for the three months ended September 30, 2023 March 31, 2024 compared to a gain of $0.5 million $2.7 million for the three months ended September 30, 2022 March 31, 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.

At September 30, 2023 March 31, 2024, our material foreign currency exposure is net U.S. dollar denominated assets at subsidiaries where the euro or the Russian ruble 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. receivables offset by third party and inter-company U.S. dollar denominated payables. 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, 2023 March 31, 2024 applied to the net U.S. dollar asset balances, would result in a foreign exchange gain of $1.4 $1.0 million if the U.S. dollar appreciated and a $1.5 $1.0 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 Russian ruble as of September 30, 2023 March 31, 2024 applied to the net U.S. dollar asset balances, would result in a foreign exchange gain of $0.2 $0.1 million if the U.S. dollar appreciated and a $0.2 $0.1 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, 2023 March 31, 2024 applied to the net U.S. dollar liabilities balances, would result in a foreign exchange loss of $1.1 $0.9 million if the U.S. dollar appreciated and a $1.1 $0.9 million foreign exchange gain if the U.S. dollar depreciated. Volatility between the U.S. dollar and the currencies to which we are exposed may be increased by the COVID-19 pandemic, sanctions on the Russian government and changes in central bank policy. policy, primarily, related to interest rates..

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. 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, 2023 March 31, 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, 2023 March 31, 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, 10, "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, 2022, and in Item 1A of Part II of our Quarterly Report on Form 10-Q for the quarterly period ended March 31, 2023 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, 2023 March 31, 2024.

Issuer Purchases of Equity Securities

The following table reflects issuer purchases of equity securities for the three months ended September 30, 2023 March 31, 2024:

	Total Number of Shares (or Units) Purchased		Average Price Paid per Share (or Unit)	Total Number of Shares (or Units) Purchased as Part of Publicly Announced Plans or Programs	Maximum Number (or Approximate Dollar Value) of Shares (or Units) that May Yet Be Purchased Under the Plans or Programs
July 1, 2023 — July 31, 2023	—		$ —	—	$ 200,000
August 1, 2023 — August 31, 2023	210,173	(1), (2)	104.07	209,754	178,173
September 1, 2023 — September 30, 2023	240,377	(1), (2)	100.90	239,934	153,966
Total	450,550		$ 102.38	449,688	$ 153,966

	Total Number of Shares (or Units) Purchased		Average Price Paid per Share (or Unit)	Total Number of Shares (or Units) Purchased as Part of Publicly Announced Plans or Programs	Maximum Number (or Approximate Dollar Value) of Shares (or Units) that May Yet Be Purchased Under the Plans or Programs
January 1, 2024 — January 31, 2024	263,535	(2)	$ 100.18	263,535	$ 64,117
February 1, 2024 — February 29, 2024	334,844	(2)	90.88	334,844	333,686
March 1, 2024 — March 31, 2024	430,738	(1), (2)	88.76	359,546	301,694
Total	1,029,117		$ 92.37	957,925	$ 301,694

(1) In 2012, our Board of Directors approved "withhold to cover" as a tax payment method for vesting of restricted stock awards for certain employees. Pursuant to the "withhold to cover" method, we withheld from such employees the shares noted in the table above to cover tax withholding related to the vesting of their awards. For the three months ended September 30, 2023 March 31, 2024, a total of 862 71,192 shares were withheld at an average price of $107.26. $87.67.

(2) On May 2, 2023, we announced that our Board of Directors authorized the purchase of up to $200 million of IPG common stock (the "May 2023 authorization"), exclusive of any fees, commissions or other expenses. On February 13, 2024, we announced that our Board of Directors authorized the purchase of up to $300 million of IPG common stock, exclusive of any fees, commissions or other expenses. Share repurchases under this 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 449,688 957,925 shares in the third first quarter of 2023 2024 under the May 2023 authorization.

ITEM 3. DEFAULTS UPON SENIOR SECURITIES

None.

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

ITEM 5. OTHER INFORMATION

None. During the Registrant’s last fiscal quarter, the following officer of the Registrant adopted a Rule 10b5-1 trading arrangement plan intended to satisfy the affirmative defense conditions of Rule 10b5-1(c) (the “Rule 10b5-1 trading arrangement”):

- on March 12, 2024, Angelo P. Lopresti, Senior Vice President, General Counsel and Corporate Secretary, adopted a Rule 10b5-1 trading arrangement for the sale of up to 10,000 shares, over a period beginning June 13, 2024 and ending June 12, 2025 on the open market at prevailing prices, subject to minimum price thresholds.

ITEM 6. EXHIBITS

(a) Exhibits

Exhibit No.	Description
10.1	Amendment to Dr. Scherbakov Service Agreement (incorporated by reference to Exhibit 10.1 to IPG Photonics Corporation's Current Report on Form 8-K filed with the Commission on September 1, 2023)
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 31, 2023 April 30, 2024	By:	/s/ Eugene A. Scherbakov
		Eugene A. Scherbakov
		Chief Executive Officer (Principal Executive Officer)
Date: October 31, 2023 April 30, 2024	By:	/s/ Timothy P.V. Mammen
		Timothy P.V. Mammen
		Senior Vice President and Chief Financial Officer (Principal Financial Officer)

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Exhibit 31.1

Certification of Chief Executive Officer

Pursuant to Rule 13a – 14(a) or Rule 15d – 14(a) of the Securities Exchange Act of 1934

I, Eugene A. Scherbakov, certify that:

1. I have reviewed this quarterly report on Form 10-Q of IPG Photonics Corporation;

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

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

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

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

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

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

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

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

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

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

Date: October 31, 2023 April 30, 2024

By: /s/ Eugene A. Scherbakov

Eugene A. Scherbakov

Chief Executive Officer (Principal Executive Officer)

Exhibit 31.2

Certification of Chief Financial Officer

Pursuant to Rule 13a – 14(a) or Rule 15d – 14(a) of the Securities Exchange Act of 1934

I, Timothy P.V. Mammen, certify that:

1. I have reviewed this quarterly report on Form 10-Q of IPG Photonics Corporation;

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

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

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

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

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

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

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

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

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

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

Date: October 31, 2023 April 30, 2024

By: /s/ Timothy P.V. Mammen

Timothy P.V. Mammen

Senior Vice President and Chief Financial Officer (Principal Financial Officer)

Exhibit 32

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350, AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the filing of the Quarterly Report on Form 10-Q for the fiscal quarter ended September 30, 2023 March 31, 2024 (the "Report") by IPG Photonics Corporation (the "Company"), Eugene A. Scherbakov, as the Chief Executive Officer of the Company, and Timothy P.V. Mammen, as the Chief Financial Officer of the Company, each hereby certifies pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that, to the best of his knowledge:

1 the Report fully complies with the requirements of Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934; and

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

Date: October 31, 2023 April 30, 2024

/s/ Eugene A. Scherbakov

Eugene A. Scherbakov

Chief Executive Officer

/s/ Timothy P.V. Mammen

Timothy P.V. Mammen

Senior Vice President and Chief Financial Officer

A signed original of this written statement required by 18 U.S.C. Section 1350 has been provided to IPG Photonics Corporation and will be retained by IPG Photonics Corporation and furnished to the Securities and Exchange Commission or its staff upon request.

DISCLAIMER