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 June 30, 2024

OR

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

For the transition period from _____ to _____

Commission File No. 001-06462

TERADYNE, INC.
(Exact name of registrant as specified in its charter)

Massachusetts (State or Other Jurisdiction of Incorporation or Organization)	**04-2272148** (I.R.S. Employer Identification No.)
600 Riverpark Drive, North Reading, Massachusetts (Address of Principal Executive Offices)	**01864** (Zip Code)

978-370-2700
(Registrant's Telephone Number, Including Area Code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, par value $0.125 per share	**TER**	**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 the 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 (check one):

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Emerging growth company	☐
Smaller reporting company	☐		

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

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

The number of shares outstanding of the registrant's only class of Common Stock as of July 29, 2024, was 163,176,091 shares.

TERADYNE, INC.

INDEX

		Page No.
	PART I. FINANCIAL INFORMATION	
Item 1.	Financial Statements (Unaudited):	1
	Condensed Consolidated Balance Sheets as of June 30, 2024, and December 31, 2023	1
	Condensed Consolidated Statements of Operations for the Three and Six Months ended June 30, 2024 and July 2, 2023	2
	Condensed Consolidated Statements of Comprehensive Income for the Three and Six Months ended June 30, 2024, and July 2, 2023	3
	Condensed Statements of Shareholders' Equity for the Three and Six Months Ended June 30, 2024, and July 2, 2023	4
	Condensed Consolidated Statements of Cash Flows for the Six Months Ended June 30, 2024, and July 2, 2023	5
	Notes to Condensed Consolidated Financial Statements	6
Item 2.	Management's Discussion and Analysis of Financial Condition and Results of Operations	29
Item 3.	Quantitative and Qualitative Disclosures about Market Risk	39
Item 4.	Controls and Procedures	39
	PART II. OTHER INFORMATION	
Item 1.	Legal Proceedings	40
Item 1A.	Risk Factors	40
Item 2.	Unregistered Sales of Equity Securities and Use of Proceeds	41
Item 4.	Mine Safety Disclosures	41
Item 5.	Other Information	42
Item 6.	Exhibits	43

PART I

Item 1: Financial Statements

TERADYNE, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(Unaudited)

	June 30, 2024	December 31, 2023
	(in thousands, except per share amount)	
ASSETS		
Current assets:		
Cash and cash equivalents	$ 421,904	$ 757,571
Marketable securities	38,654	62,154
Accounts receivable, less allowance for credit losses of $1,944 and $1,988 at June 30, 2024 and December 31, 2023, respectively	470,297	422,124
Inventories, net	288,748	309,974
Prepayments	515,906	548,970
Other current assets	20,884	37,992
Current assets held for sale	—	23,250
Total current assets	1,756,393	2,162,035
Property, plant and equipment, net	472,457	445,492
Operating lease right-of-use assets, net	72,381	73,417
Marketable securities	123,723	117,434
Deferred tax assets	192,901	175,775
Retirement plans assets	11,293	11,504
Equity method investment	524,060	—
Other assets	47,923	38,580
Acquired intangible assets, net	25,465	35,404
Goodwill	405,110	415,652
Long-term assets held for sale	—	11,531
Total assets	$ 3,631,706	$ 3,486,824
LIABILITIES		
Current liabilities:		
Accounts payable	$ 160,808	$ 180,131
Accrued employees' compensation and withholdings	161,187	191,750
Deferred revenue and customer advances	102,988	99,804
Other accrued liabilities	108,746	114,712
Operating lease liabilities	18,280	17,522
Income taxes payable	74,365	48,653
Current liabilities held for sale	—	7,379
Total current liabilities	626,374	659,951
Retirement plans liabilities	135,167	132,090
Long-term deferred revenue and customer advances	36,146	37,282
Long-term other accrued liabilities	16,632	19,998
Deferred tax liabilities	96	183
Long-term operating lease liabilities	61,883	65,092
Long-term incomes taxes payable	24,596	44,331
Long-term liabilities held for sale	—	2,000
Total liabilities	900,894	960,927
Commitments and contingencies (Note R)		
SHAREHOLDERS' EQUITY		
Common stock, $0.125 par value, 1,000,000 shares authorized; 161,802 and 152,698 shares issued and outstanding at June 30, 2024, and December 31, 2023, respectively	20,225	19,087
Additional paid-in capital	1,865,351	1,827,274
Accumulated other comprehensive loss	(44,104)	(26,978)
Retained earnings	889,340	706,514
Total shareholders' equity	2,730,812	2,525,897
Total liabilities and shareholders' equity	$ 3,631,706	$ 3,486,824

The accompanying notes, together with the Notes to Consolidated Financial Statements included in Teradyne's Annual Report on Form 10-K for the year ended December 31, 2023, are an integral part of the condensed consolidated financial statements.

TERADYNE, INC.

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(Unaudited)

	For the Three Months Ended		For the Six Months Ended	
	June 30, 2024	July 2, 2023	June 30, 2024	July 2, 2023
	(in thousands, except per share amount)		(in thousands, except per share amount)	
Revenues:				
Products	$ 596,877	$ 540,375	$ 1,055,310	$ 1,013,793
Services	133,002	144,062	274,388	288,173
Total revenues	729,879	684,437	1,329,698	1,301,966
Cost of revenues:				
Cost of products	250,236	217,011	450,999	415,675
Cost of services	53,799	64,934	113,573	127,379
Total cost of revenues (exclusive of acquired intangible assets amortization shown separately below)	304,035	281,945	564,572	543,054
Gross profit	425,844	402,492	765,126	758,912
Operating expenses:				
Selling and administrative	154,470	145,695	303,658	296,650
Engineering and development	111,816	105,706	215,015	211,468
Acquired intangible assets amortization	4,664	4,825	9,361	9,627
Restructuring and other	2,012	6,358	6,440	8,395
Gain on sale of business	(57,486)	—	(57,486)	—
Total operating expenses	215,476	262,584	476,988	526,140
Income from operations	210,368	139,908	288,138	232,772
Non-operating (income) expense:				
Interest income	(6,715)	(6,354)	(14,582)	(11,613)
Interest expense	1,530	1,045	2,190	2,031
Other (income) expense, net	(3,850)	815	8,225	868
Income before income taxes	219,403	144,402	292,305	241,486
Income tax provision	33,130	24,352	41,835	37,905
Net income	$ 186,273	$ 120,050	$ 250,470	$ 203,581
Net income per common share:				
Basic	$ 1.18	$ 0.78	$ 1.61	$ 1.31
Diluted	$ 1.14	$ 0.73	$ 1.54	$ 1.23
Weighted average common shares—basic	157,804	154,760	155,426	155,332
Weighted average common shares—diluted	163,470	164,751	162,909	165,530

The accompanying notes, together with the Notes to Consolidated Financial Statements included in Teradyne's Annual Report on Form 10-K for the year ended December 31, 2023, are an integral part of the condensed consolidated financial statements.

TERADYNE, INC.

CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(Unaudited)

	For the Three Months Ended		For the Six Months Ended	
	June 30, 2024	July 2, 2023	June 30, 2024	July 2, 2023
	(in thousands)		(in thousands)	
Net income	$ 186,273	$ 120,050	$ 250,470	$ 203,581
Other comprehensive income (loss), net of tax:				
Foreign currency translation adjustment, net of tax of $0, $0, $0, and $0, respectively	(3,629)	2,943	(15,087)	12,250
Available-for-sale marketable securities:				
Unrealized (losses) gains on marketable securities arising during period, net of tax of $(183), $(180), $(404) and $323, respectively	(721)	(568)	(1,622)	1,726
Less: Reclassification adjustment for (gains) losses included in net income, net of tax of $(4), $8, $26, and $10, respectively	(13)	28	92	33
	(734)	(540)	(1,530)	1,759
Cash flow hedges:				
Unrealized gains arising during period, net of tax of $0, $920, $358, and $1,088, respectively	—	3,270	1,274	3,866
Less: Reclassification adjustment for losses (gains) included in net income, net of tax of $0, $91, $(500) and $428, respectively	—	323	(1,780)	1,524
	—	3,593	(506)	5,390
Defined benefit post-retirement plan:				
Amortization of prior service credit, net of tax of $0, $0, $(1), and $(1), respectively	(2)	(2)	(3)	(3)
Other comprehensive income (loss)	(4,365)	5,994	(17,126)	19,396
Comprehensive income	$ 181,908	$ 126,044	$ 233,344	$ 222,977

The accompanying notes, together with the Notes to Consolidated Financial Statements included in Teradyne's Annual Report on Form 10-K for the year ended December 31, 2023, are an integral part of the condensed consolidated financial statements.

TERADYNE, INC.
CONDENSED CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY
(Unaudited)

	Shareholders' Equity					
	Common Stock Shares	Common Stock Par Value	Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Retained Earnings	Total Shareholders' Equity
	(in thousands)					
For the Three Months Ended June 30, 2024						
Balance, March 31, 2024	153,757	$ 19,220	$ 1,848,088	$ (39,739)	$ 730,260	$ 2,557,829
Net issuance of common stock under stock-based plans	125	15	4,615			4,630
Stock-based compensation expense			13,660			13,660
Warrant exercises	7,998	1,000	(1,012)			(12)
Repurchase of common stock	(78)	(10)			(8,185)	(8,195)
Cash dividends ($0.12 per share)					(19,008)	(19,008)
Net income					186,273	186,273
Other comprehensive income (loss)				(4,365)		(4,365)
Balance, June 30, 2024	161,802	$ 20,225	$ 1,865,351	$ (44,104)	$ 889,340	$ 2,730,812
For the Three Months Ended July 2, 2023						
Balance, April 2, 2023	155,445	$ 19,431	$ 1,772,352	$ (36,466)	$ 694,145	$ 2,449,462
Net issuance of common stock under stock-based plans	52	7	161			168
Stock-based compensation expense			12,077			12,077
Repurchase of common stock	(1,349)	(169)			(135,668)	(135,837)
Cash dividends ($0.11 per share)					(17,031)	(17,031)
Settlements of convertible notes	50	6	(6)			—
Exercise of convertible notes hedge call options	(50)	(6)	6			—
Net income					120,050	120,050
Other comprehensive income (loss)				5,994		5,994
Balance, July 2, 2023	154,148	$ 19,269	$ 1,784,590	$ (30,472)	$ 661,496	$ 2,434,883

	Shareholders' Equity					
	Common Stock Shares	Common Stock Par Value	Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	Retained Earnings	Total Shareholders' Equity
	(in thousands)					
For the Six Months Ended June 30, 2024						
Balance, December 31, 2023	152,698	$ 19,087	$ 1,827,274	$ (26,978)	$ 706,514	$ 2,525,897
Net issuance of common stock under stock-based plans	591	73	8,373			8,446
Stock-based compensation expense			30,818			30,818
Warrant exercises	8,812	1,102	(1,114)			(12)
Repurchase of common stock	(299)	(37)			(30,253)	(30,290)
Cash dividends ($0.12 per share)					(37,391)	(37,391)
Net income					250,470	250,470
Other comprehensive income (loss)				(17,126)		(17,126)
Balance, June 30, 2024	161,802	$ 20,225	$ 1,865,351	$ (44,104)	$ 889,340	$ 2,730,812
For the Six Months Ended July 2, 2023						
Balance, December 31, 2022	155,759	$ 19,470	$ 1,755,963	$ (49,868)	$ 725,729	$ 2,451,294
Net issuance of common stock under stock-based plans	631	79	(3,782)			(3,703)
Stock-based compensation expense			32,409			32,409
Repurchase of common stock	(2,242)	(280)			(233,604)	(233,884)
Cash dividends ($0.11 per share)					(34,210)	(34,210)
Settlements of convertible notes	375	47	(47)			—
Exercise of convertible notes hedge call options	(375)	(47)	47			—
Net income					203,581	203,581
Other comprehensive income (loss)				19,396		19,396
Balance, July 2, 2023	154,148	$ 19,269	$ 1,784,590	$ (30,472)	$ 661,496	$ 2,434,883

The accompanying notes, together with the Notes to Consolidated Financial Statements included in Teradyne's Annual Report on Form 10-K for the year ended December 31, 2023, are an integral part of the condensed consolidated financial statements.

TERADYNE, INC.

CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)

	For the Six Months Ended	
	June 30, 2024	July 2, 2023
	(in thousands)	
Cash flows from operating activities:		
Net income	$ 250,470	$ 203,581
Adjustments to reconcile net income from operations to net cash provided by operating activities:		
Depreciation	48,927	45,231
Stock-based compensation	30,693	32,449
Losses (gains) on investments	13,090	(4,745)
Provision for excess and obsolete inventory	9,438	11,341
Amortization	9,397	9,580
Gain on sale of business	(57,486)	—
Deferred taxes	(16,830)	(13,571)
Retirement plan actuarial losses (gains)	(250)	—
Other	1,240	(92)
Changes in operating assets and liabilities		
Accounts receivable	(54,211)	(2,693)
Inventories	17,102	(13,845)
Prepayments and other assets	22,190	(29,584)
Accounts payable and other liabilities	(53,009)	(24,514)
Deferred revenue and customer advances	2,739	(34,938)
Retirement plans contributions	(2,774)	(2,482)
Income taxes	2,622	(13,614)
Net cash provided by operating activities	223,348	162,104
Cash flows from investing activities:		
Purchases of property, plant and equipment	(88,869)	(80,702)
Purchase of investment in a business	(524,653)	—
Purchases of marketable securities	(27,757)	(99,018)
Proceeds from the sale of a business, net of cash and cash equivalents sold	87,172	—
Proceeds from maturities of marketable securities	26,858	21,997
Proceeds from sales of marketable securities	21,289	35,577
Proceeds from insurance	873	460
Net cash used for investing activities	(505,087)	(121,686)
Cash flows from financing activities:		
Repayments of borrowings on revolving credit facility	(185,000)	—
Dividend payments	(37,370)	(34,184)
Repurchase of common stock	(30,306)	(227,845)
Payments related to net settlement of employee stock compensation awards	(13,434)	(20,308)
Payments of convertible debt principal	—	(17,458)
Proceeds from borrowings on revolving credit facility	185,000	—
Issuance of common stock under stock purchase and stock option plans	21,836	16,599
Net cash used for financing activities	(59,274)	(283,196)
Effects of exchange rate changes on cash and cash equivalents	5,346	1,213
Decrease in cash and cash equivalents	(335,667)	(241,565)
Cash and cash equivalents at beginning of period	757,571	854,773
Cash and cash equivalents at end of period	$ 421,904	$ 613,208
Non-cash investing activities:		
Capital expenditures incurred but not yet paid:	$ 3,124	$ 1,741

The accompanying notes, together with the Notes to Consolidated Financial Statements included in Teradyne's Annual Report on Form 10-K for the year ended December 31, 2023, are an integral part of the condensed consolidated financial statements.

A. THE COMPANY

Teradyne, Inc. ("Teradyne") is a leading global supplier of automated test equipment and robotics solutions. Teradyne designs, develops, manufactures and sells automated test systems and robotics products. Teradyne's automated test systems are used to test semiconductors, wireless products, data storage and complex electronics systems in many industries including consumer electronics, wireless, automotive, industrial, computing, communications, and aerospace and defense industries. Teradyne's robotics products include collaborative robotic arms, autonomous mobile robots, and advanced robotic control software used by global manufacturing, logistics and industrial customers to improve quality, increase manufacturing and material handling efficiency and decrease manufacturing and logistics costs. Teradyne's automated test equipment and robotics products and services include:

- semiconductor test ("Semiconductor Test") systems;
- storage and system level test ("Storage Test") systems, defense/aerospace ("Defense/Aerospace") test instrumentation and systems, and circuit-board test and inspection ("Production Board Test") systems (collectively these products represent "System Test");
- wireless test ("Wireless Test") systems; and
- robotics ("Robotics") products.

B. ACCOUNTING POLICIES

Basis of Presentation

The consolidated interim financial statements include the accounts of Teradyne and its wholly owned subsidiaries. All significant intercompany balances and transactions have been eliminated. These interim financial statements are unaudited and reflect all normal recurring adjustments that are, in the opinion of management, necessary for the fair statement of such interim financial statements. The December 31, 2023, condensed consolidated balance sheet data was derived from audited financial statements but does not include all disclosures required by United States of America generally accepted accounting principles ("U.S. GAAP") for complete financial statements. The accompanying financial information should be read in conjunction with the consolidated financial statements and notes thereto contained in Teradyne's Annual Report on Form 10-K, filed with the U.S. Securities and Exchange Commission ("SEC") on February 22, 2024, for the year ended December 31, 2023.

Preparation of Financial Statements and Use of Estimates

The preparation of consolidated financial statements requires management to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent liabilities. On an on-going basis, management evaluates its estimates, including those related to inventories, investments, goodwill, intangible and other long-lived assets, accounts receivable, income taxes, deferred tax assets and liabilities, pensions, warranties, contingent consideration liabilities, and loss contingencies. Management bases its estimates on historical experience and on appropriate and customary assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Management is not aware of any specific event or circumstance that would require an update to its estimates or judgments or a revision of the carrying value of its assets or liabilities as of the date of issuance of this Quarterly Report on Form 10-Q. These estimates may change, as new events occur, and additional information is obtained. Actual results may differ significantly from these estimates under different assumptions or conditions.

Equity Method Investments

The Company accounts for investments using the equity method of accounting when the Company has significant influence over the financial and operating policies, but not control, of the investee. The equity method investments are initially recorded at cost and included in 'Equity method investment' in the consolidated balance sheet. Teradyne will record its share of investee's net income or loss and other comprehensive income, and the amortization of equity method basis difference on a 3-month lag, which is applied consistently from period to period. These results will be reported in 'Equity in net earnings of affiliate' in the consolidated statement of operations. The Company monitors on an ongoing basis its equity method investments for indicators of other-than-temporary declines in fair value below carrying value.

C. RECENTLY ISSUED ACCOUNTING PRONOUNCEMENTS

In November 2023, the Financial Accounting Standards Board ("FASB") issued Accounting Standard Update ("ASU") No. 2023-07, *"Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures"*, which will require Teradyne to disclose significant segment expenses and other segment items used by the Chief Operating Decision Maker ("CODM") on an annual and interim basis as well as provide in interim periods all disclosures about a reportable segment's profit or loss and assets that are currently required annually. Additionally, Teradyne will be required to disclose the title and position of the CODM. The new standard is effective for fiscal years beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024, with early adoption permitted. This ASU will have no impact on results of operations, cash flows or financial condition. Upon adoption, Teradyne will apply the amendments in this ASU retrospectively to all prior period disclosures presented in the financial statements.

In December 2023, FASB issued ASU 2023-09, *"Income Taxes (Topic 740): Improvements to Income Tax Disclosures"*, which requires expanded disclosures relating to the tax rate reconciliation, income taxes paid, income (loss) before income tax expense (benefit) and income tax expense (benefit), requiring a greater disaggregation of information for each. The provisions of ASU 2023-09 are effective for fiscal years beginning after December 15, 2024. The amendments in this update should be applied on a prospective basis, but retrospective application is permitted. This ASU will have no impact on results of operations, cash flows or financial condition.

D. REVENUE

Disaggregation of Revenue

The following table provides information about disaggregated revenue by timing of revenue recognition, primary geographical market, and major product lines.

	Semiconductor Test		System Test	Robotics		Wireless Test	
	System on-a-Chip	Memory		Universal Robots	Mobile Industrial Robots		Total
				(in thousands)			
For the Three Months Ended June 30, 2024 (1)							
Timing of Revenue Recognition							
Point in Time	$ 343,536	$ 121,662	$ 43,519	$ 72,722	$ 15,495	$ 32,273	$ 629,207
Over Time	70,048	7,318	17,282	1,863	167	3,994	100,672
Total	$ 413,584	$ 128,980	$ 60,801	$ 74,585	$ 15,662	$ 36,267	$ 729,879
Geographical Market							
Asia Pacific	$ 381,631	$ 124,497	$ 21,259	$ 14,756	$ 5,447	$ 29,293	$ 576,883
Americas	20,211	3,254	28,684	29,900	5,110	4,901	92,060
Europe, Middle East and Africa	11,742	1,229	10,858	29,929	5,105	2,073	60,936
Total	$ 413,584	$ 128,980	$ 60,801	$ 74,585	$ 15,662	$ 36,267	$ 729,879
For the Three Months Ended July 2, 2023 (1)							
Timing of Revenue Recognition							
Point in Time	$ 282,080	$ 112,547	$ 76,801	$ 55,737	$ 12,770	$ 40,261	$ 580,196
Over Time	72,614	7,467	17,471	2,116	1,011	3,562	104,241
Total	$ 354,694	$ 120,014	$ 94,272	$ 57,853	$ 13,781	$ 43,823	$ 684,437
Geographical Market							
Asia Pacific	$ 303,062	$ 115,250	$ 41,644	$ 14,883	$ 2,291	$ 22,362	$ 499,492
Americas	32,191	4,286	40,163	22,832	6,086	19,491	125,049
Europe, Middle East and Africa	19,441	478	12,465	20,138	5,404	1,970	59,896
Total	$ 354,694	$ 120,014	$ 94,272	$ 57,853	$ 13,781	$ 43,823	$ 684,437
For the Six Months Ended June 30, 2024 (2)							
Timing of Revenue Recognition							
Point in Time	$ 573,127	$ 224,098	$ 101,592	$ 138,615	$ 34,785	$ 53,187	$ 1,125,405
Over Time	142,764	14,828	34,531	3,731	770	7,669	204,293
Total	$ 715,891	$ 238,926	$ 136,123	$ 142,346	$ 35,555	$ 60,856	$ 1,329,698
Geographical Market							
Asia Pacific	$ 652,197	$ 220,103	$ 47,040	$ 26,381	$ 8,401	$ 46,434	$ 1,000,557
Americas	42,762	12,306	65,278	49,905	19,735	10,725	200,711
Europe, Middle East and Africa	20,932	6,517	23,805	66,060	7,419	3,697	128,430
Total	$ 715,891	$ 238,926	$ 136,123	$ 142,346	$ 35,555	$ 60,856	$ 1,329,698
For the Six Months Ended July 2, 2023 (2)							
Timing of Revenue Recognition							
Point in Time	$ 555,354	$ 173,805	$ 133,658	$ 125,760	$ 28,735	$ 75,624	$ 1,092,937
Over Time	146,173	14,384	35,245	4,124	2,229	6,874	209,029
Total	$ 701,528	$ 188,189	$ 168,903	$ 129,884	$ 30,964	$ 82,498	$ 1,301,966
Geographical Market							
Asia Pacific	$ 586,321	$ 178,945	$ 81,234	$ 28,100	$ 3,793	$ 45,593	$ 923,986
Americas	73,759	7,230	69,143	43,273	17,898	32,337	243,640
Europe, Middle East and Africa	41,448	2,014	18,526	58,511	9,273	4,568	134,340
Total	$ 701,528	$ 188,189	$ 168,903	$ 129,884	$ 30,964	$ 82,498	$ 1,301,966

(1) Includes $0.8 million and $1.3 million in 2024 and 2023, respectively, for leases of Teradyne's systems recognized outside Accounting Standards Codification ("ASC") 606 *"Revenue from Contracts with Customers."*

(2) Includes $1.7 million and $2.5 million in 2024 and 2023, respectively, for leases of Teradyne's systems recognized outside Accounting Standards Codification ("ASC") 606 *"Revenue from Contracts with Customers."*

Contract Balances

During the three and six months ended June 30, 2024, Teradyne recognized $18.7 million and $46.9 million, respectively, that was included within the deferred revenue and customer advances balances at the beginning of the period. During the three and six months ended July 2, 2023, Teradyne recognized $27.3 million and $68.4 million, respectively, that was included within the deferred revenue and customer advances balances at the beginning of the period. This revenue primarily relates to undelivered hardware, extended warranties, training, application support, and post contract support. Each of these represents a distinct performance obligation. As of June 30, 2024, Teradyne had $1,049.9 million of unsatisfied performance obligations. Teradyne expects to recognize approximately 95% of the remaining performance obligations in the next 12 months and the remainder in 1-3 years.

Deferred revenue and customer advances consist of the following and are included in short and long-term deferred revenue and customer advances on the balance sheet:

	June 30, 2024	December 31, 2023
	(in thousands)	
Maintenance, service and training	$ 62,001	$ 66,458
Customer advances, undelivered elements and other	43,621	35,731
Extended warranty	33,512	34,897
Total deferred revenue and customer advances	$ 139,134	$ 137,086

Accounts Receivable

During the three and six months ended June 30, 2024, and July 2, 2023, Teradyne sold certain trade accounts receivables on a non-recourse basis to third-party financial institutions pursuant to factoring agreements. During the three months ended June 30, 2024, and July 2, 2023, total trade accounts receivable sold under the factoring agreements were $57.3 million and $59.3 million, respectively. During the six months ended June 30, 2024, and July 2, 2023, total trade accounts receivable sold under the factoring agreements were $80.7 million and $93.5 million, respectively. Factoring fees for the sales of receivables were recorded in interest expense and were not material. Teradyne accounted for these transactions as sales of receivables and presented cash proceeds as cash provided by operating activities in the consolidated statements of cash flows.

E. DISPOSITIONS

On May 27, 2024, Teradyne completed the sale of the Device Interface Solutions ("DIS") business, a component of the Semiconductor Test segment, to Technoprobe S.p.A. ("Technoprobe") for $85.0 million in cash, net of cash and cash equivalents sold, and a customary working capital adjustment. The sale resulted in a pre-tax gain of $57.5 million recorded as 'Gain on sale of business' in the consolidated statement of operations. The transaction did not meet the criteria to be classified as a discontinued operation, as it did not represent a strategic shift that will have a major effect on operations and financial results.

Assets and liabilities related to the DIS sale agreement met the criteria and were classified as held for sale in Teradyne's consolidated balance sheet as of December 31, 2023, as follows:

	December 31, 2023
Current assets:	
Inventories, net	$ 17,952
Prepayments	5,298
Total current assets held for sale	23,250
Property, plant and equipment, net	8,986
Operating lease right-of-use assets, net	2,545
Total assets held for sale	$ 34,781
Current liabilities:	
Accounts payable	$ 6,356
Other accrued liabilities	552
Operating lease liabilities	471
Total current liabilities held for sale	7,379
Long-term operating lease liabilities	2,000
Total liabilities held for sale	$ 9,379
Net assets held for sale	$ 25,402

F. EQUITY METHOD INVESTMENT

On May 27, 2024, Teradyne paid $524.1 million to purchase a combination of previously issued and outstanding shares and shares newly issued by Technoprobe, S.p.A. ("Technoprobe"). The shares purchased represent 10% of the issued and outstanding shares of Technoprobe. Teradyne was also granted a board seat as part of the purchase. Teradyne accounts for this investment using the equity method as a result of being able to exercise significant influence over the operating and financial decisions of Technoprobe. As of June 30, 2024, $524.1 million was recorded as 'Equity method investment', in the consolidated balance sheets.

Based on the quoted closing price as of June 30, 2024, the fair value of the publicly traded investment in Technoprobe was $643.3 million, and there was no other-than-temporary impairment identified.

Teradyne made an accounting policy election to report its share of Technoprobe's results on a 3-month lag, which will be applied consistently from period to period. Teradyne will record its share of Technoprobe's net income or loss and other comprehensive income, and the amortization of equity method basis difference, beginning in the third quarter of 2024.

G. INVENTORIES

Inventories, net consisted of the following at June 30, 2024, and December 31, 2023:

	June 30, 2024	December 31, 2023
	(in thousands)	
Raw material	$ 223,525	$ 258,422
Work-in-process	43,493	26,851
Finished goods	21,730	24,701
Total inventories, net (1)	$ 288,748	$ 309,974

(1) Inventories, net at December 31, 2023, excludes $18.0 million of primarily work-in-process inventories, net classified as assets held for sale. See Note E: "Dispositions" for additional information.

Inventory reserves at June 30, 2024, and December 31, 2023, were $134.0 million and $136.0 million, respectively.

H. FINANCIAL INSTRUMENTS

Cash Equivalents

Teradyne considers all highly liquid investments with maturities of 90 days or less at the date of acquisition to be cash equivalents.

Marketable Securities

Teradyne’s equity and debt mutual funds are classified as Level 1 and available-for-sale debt securities are classified as Level 2. The vast majority of Level 2 securities are fixed income securities priced by third party pricing vendors. These pricing vendors utilize the most recent observable market information in pricing these securities or, if specific prices are not available, use other observable inputs like market transactions involving identical or comparable securities.

During the three and six months ended June 30, 2024, and July 2, 2023, there were no transfers in or out of Level 1, Level 2, or Level 3 financial instruments.

Realized gains recorded in the three and six months ended June 30, 2024, were $0.3 million and $1.3 million, respectively. Realized gains recorded in the three and six months ended July 2, 2023, were $0.1 million and $0.4 million, respectively. Realized losses recorded in the three and six months ended June 30, 2024, were $0.1 million and $0.3 million, respectively. Realized losses recorded in the three and six months ended July 2, 2023, were $0.2 million. Realized gains and losses are included in 'Other (income) expense, net' in the consolidated statement of operations.

Unrealized gains on equity securities recorded in the three and six months ended June 30, 2024, were $0.6 million and $3.2 million, respectively. Unrealized gains on equity securities recorded in the three and six months ended July 2, 2023, were $2.6 million and $4.6 million, respectively. Unrealized gains and losses on equity securities are included in 'Other (income) expense, net' in the consolidated statement of operations.

Unrealized gains and losses on available-for-sale debt securities are included in 'Accumulated other comprehensive income (loss)' in the consolidated balance sheet.

The cost of securities sold is based on average cost.

The following tables set forth by fair value hierarchy Teradyne's financial assets and liabilities that were measured at fair value on a recurring basis as of June 30, 2024, and December 31, 2023.

	June 30, 2024			
	Quoted Prices in Active Markets for Identical Instruments (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
	(in thousands)			
Assets				
Cash	$ 199,227	$ —	$ —	$ 199,227
Cash equivalents	219,666	3,011	—	222,677
Available-for-sale securities:				
U.S. Treasury securities	—	40,563	—	40,563
Corporate debt securities	—	35,041	—	35,041
Certificates of deposit and time deposits	—	21,688	—	21,688
Debt mutual funds	8,704	—	—	8,704
U.S. government agency securities	—	3,905	—	3,905
Commercial paper	—	—	—	—
Non-U.S. government securities	—	767	—	767
Equity securities:				
Mutual funds	51,709	—	—	51,709
	$ 479,306	$ 104,975	$ —	$ 584,281
Derivative assets	—	2,067	—	2,067
Total	$ 479,306	$ 107,042	$ —	$ 586,348
Liabilities				
Derivative liabilities	—	1,352	—	$ 1,352
Total	$ —	$ 1,352	$ —	$ 1,352

Reported as follows:

	(Level 1)	(Level 2)	(Level 3)	Total
	(in thousands)			
Assets				
Cash and cash equivalents	$ 418,893	$ 3,011	$ —	$ 421,904
Marketable securities	—	38,654	—	38,654
Long-term marketable securities	60,413	63,310	—	123,723
Prepayments	—	2,067	—	2,067
Total	$ 479,306	$ 107,042	$ —	$ 586,348
Liabilities				
Other current liabilities	$ —	$ 1,352	$ —	$ 1,352
Total	$ —	$ 1,352	$ —	$ 1,352

	December 31, 2023			
	Quoted Prices in Active Markets for Identical Instruments (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)	Total
	(in thousands)			
Assets				
Cash	$ 298,156	$ —	$ —	$ 298,156
Cash equivalents	453,298	6,117	—	459,415
Available-for-sale securities:				
Corporate debt securities	—	52,734	—	52,734
U.S. Treasury securities	—	41,808	—	41,808
Certificates of deposit and time deposits	—	21,772	—	21,772
Debt mutual funds	8,773	—	—	8,773
U.S. government agency securities	—	4,892	—	4,892
Commercial paper	—	1,667	—	1,667
Non-U.S. government securities	—	810	—	810
Equity securities:				
Mutual Funds	47,132	—	—	47,132
	$ 807,359	$ 129,800	$ —	$ 937,159
Derivative assets	—	18,746	—	18,746
Total	$ 807,359	$ 148,546	$ —	$ 955,905
Liabilities				
Derivative liabilities	—	2,545	—	2,545
Total	$ —	$ 2,545	$ —	$ 2,545

Reported as follows:

	(Level 1)	(Level 2)	(Level 3)	Total
	(in thousands)			
Assets				
Cash and cash equivalents	$ 751,454	$ 6,117	$ —	$ 757,571
Marketable securities	—	62,154	—	62,154
Long-term marketable securities	55,905	61,529	—	117,434
Other current assets	—	18,746	—	18,746
Total	$ 807,359	$ 148,546	$ —	$ 955,905
Liabilities				
Other current liabilities	$ —	$ 2,545	$ —	$ 2,545
Total	$ —	$ 2,545	$ —	$ 2,545

The carrying amounts and fair values of Teradyne's financial instruments at June 30, 2024, and December 31, 2023, were as follows:

	June 30, 2024		December 31, 2023	
	Carrying Value	Fair Value	Carrying Value	Fair Value
	(in thousands)			
Assets				
Cash and cash equivalents	$ 421,904	$ 421,904	$ 757,571	$ 757,571
Marketable securities	162,377	162,377	179,588	179,588
Derivative assets	2,067	2,067	18,746	18,746
Liabilities				
Derivative liabilities	1,352	1,352	2,545	2,545

The fair values of accounts receivable, net and accounts payable approximate the carrying value due to the short-term nature of these instruments.

The following table summarizes the composition of available-for-sale marketable securities at June 30, 2024:

	June 30, 2024				
	Available-for-Sale				
	Cost	Unrealized Gain	Unrealized (Loss)	Fair Market Value	Fair Market Value of Investments with Unrealized Losses
			(in thousands)		
Corporate debt securities	$ 39,750	$ 58	$ (4,767)	$ 35,041	$ 30,671
U.S. Treasury securities	45,305	—	(4,742)	40,563	40,563
Certificates of deposit and time deposits	21,688	—	—	21,688	—
Debt mutual funds	9,060	—	(356)	8,704	3,181
U.S. government agency securities	3,928	—	(23)	3,905	3,905
Commercial paper	—	—	—	—	—
Non-U.S. government securities	767	—	—	767	—
	$ 120,498	$ 58	$ (9,888)	$ 110,668	$ 78,320

Reported as follows:

	Cost	Unrealized Gain	Unrealized (Loss)	Fair Market Value	Fair Market Value of Investments with Unrealized Losses
			(in thousands)		
Marketable securities	$ 38,718	—	$ (64)	$ 38,654	$ 16,966
Long-term marketable securities	81,780	58	(9,824)	72,014	61,354
	$ 120,498	$ 58	$ (9,888)	$ 110,668	$ 78,320

The following table summarizes the composition of available-for-sale marketable securities at December 31, 2023:

	December 31, 2023				
	Available-for-Sale				
	Cost	Unrealized Gain	Unrealized (Loss)	Fair Market Value	Fair Market Value of Investments with Unrealized Losses
			(in thousands)		
Corporate debt securities	$ 56,458	$ 201	$ (3,925)	$ 52,734	$ 44,263
U.S. Treasury securities	45,725	14	(3,931)	41,808	35,080
Certificates of deposit and time deposits	21,772	—	—	21,772	—
Debt mutual funds	9,081	—	(308)	8,773	3,303
U.S. government agency securities	4,898	—	(6)	4,892	4,892
Commercial paper	1,633	34	—	1,667	—
Non-U.S. government securities	810	—	—	810	—
	$ 140,377	$ 249	$ (8,170)	$ 132,456	$ 87,538

Reported as follows:

	Cost	Unrealized Gain	Unrealized (Loss)	Fair Market Value	Fair Market Value of Investments with Unrealized Losses
			(in thousands)		
Marketable securities	$ 62,385	$ 36	$ (267)	62,154	$ 34,844
Long-term marketable securities	77,992	213	(7,903)	70,302	52,694
	$ 140,377	$ 249	$ (8,170)	$ 132,456	$ 87,538

As of June 30, 2024, the fair market value of investments with unrealized losses less than one year and greater than one year totaled $34.5 million and $43.8 million, respectively. As of December 31, 2023, the fair market value of investments with unrealized losses for less than one year and greater than one year totaled $22.3 million and $65.2 million, respectively.

Teradyne reviews its investments to identify and evaluate investments that have an indication of possible impairment. Based on this review, Teradyne determined that the unrealized losses related to these investments at June 30, 2024, and December 31, 2023, were not other than temporary.

The contractual maturities of investments in available-for-sale securities held at June 30, 2024, were as follows:

	June 30, 2024	
	Cost	Fair Market Value
	(in thousands)	
Due within one year	$ 38,718	$ 38,654
Due after 1 year through 5 years	27,821	27,285
Due after 5 years through 10 years	8,189	7,782
Due after 10 years	36,710	28,243
Total	$ 111,438	$ 101,964

Contractual maturities of investments in available-for-sale securities held at June 30, 2024, exclude debt mutual funds with a fair market value of $8.7 million as they do not have a contractual maturity date.

Derivatives

Teradyne conducts business in various foreign countries, with certain transactions denominated in local currencies. As a result, Teradyne is exposed to risks relating to changes in foreign currency exchange rates. Teradyne's foreign currency risk management objective is to minimize the effect of exchange rate fluctuations associated with the remeasurement of monetary assets and liabilities denominated in foreign currencies, and changes in its cash inflows attributable to the forecasted cash flows from certain foreign currency denominated revenues.

To minimize the effect of exchange rate fluctuations associated with the remeasurement of monetary assets and liabilities denominated in foreign currencies, Teradyne enters into foreign currency forward contracts. The change in fair value of these derivatives is recorded directly in earnings and is used to offset the change in value of monetary assets and liabilities denominated in foreign currencies.

Teradyne also enters into foreign currency forward and option contracts designated as cash flow hedges to hedge the risk of changes in its cash inflows attributable to changes in foreign currency exchange rates. The cash flow hedges have maturities of less than six months and mature in the period of revenue recognition for certain products and services in backlog and forecasted to be recognized in a future period. Teradyne evaluates cash flow hedges for effectiveness at inception based on the critical terms match method. The hedges are not expected to incur any ineffectiveness however a quarterly qualitative assessment of effectiveness is done to determine if the critical terms match method remains appropriate to use. The change in fair value of the contracts is recorded in accumulated other comprehensive income (loss) and reclassified to earnings at maturity date.

Teradyne does not use derivative financial instruments for speculative purposes.

At June 30, 2024, and December 31, 2023, Teradyne had the following contracts to buy and sell non-U.S. currencies for U.S. dollars and other non-U.S. currencies with the following notional amounts:

	Net Notional Value	
	June 30, 2024	December 31, 2023
	(in millions)	
Currency Hedged (Buy/Sell)		
U.S. dollar/Japanese yen	42.8	11.0
U.S. dollar/Taiwan dollar	33.6	42.7
U.S. dollar/Danish krone	32.1	36.0
U.S. dollar/Korean won	8.9	7.2
U.S. dollar/British pound sterling	0.3	1.5
Euro/U.S. dollar	24.1	25.3
Singapore dollar/U.S. dollar	18.8	16.6
Philippine peso/U.S. dollar	9.5	10.1
Chinese yuan/U.S. dollar	1.3	1.0
Danish krone/U.S. dollar	0.6	0.7
Total	$ 172.0	$ 152.1

The fair value of the outstanding contracts was a net gain of $0.7 million and a net loss of $1.8 million at June 30, 2024, and December 31, 2023, respectively.

Unrealized gains and losses on foreign currency forward contracts and foreign currency remeasurement gains and losses on monetary assets and liabilities are included in 'Other (income) expense, net' in the consolidated statement of operations.

At December 31, 2023, Teradyne had the following cash flow hedge contracts to buy and sell non-U.S. currencies for U.S. dollars with the following notional amounts:

	Net Notional Value	
	June 30, 2024	December 31, 2023
	(in millions)	
Currency Hedged (Buy/Sell)		
U.S. dollar/Japanese yen	$ —	$ 35.5
Total	$ —	$ 35.5

There were no outstanding cash flow hedge contracts at June 30, 2024. The fair value of the outstanding cash flow hedge contracts was a gain of $0.6 million at December 31, 2023.

Unrealized gains and losses on foreign currency cash flow hedge contracts are included in accumulated other comprehensive income (loss). At maturity, the gains or losses associated with cash flow hedge contracts are recorded to revenue.

On November 7, 2023, in connection with Teradyne's agreement to acquire 10% investment in Technoprobe S.p.A, Teradyne purchased a call option to buy 481.0 million Euros. The expiration date of the option was April 26, 2024. On April 12, 2024, Teradyne entered into a forward to buy 481.0 million Euros which expired on May 23, 2024. At December 31, 2023, the fair value of the outstanding contract was $17.4 million. For the three and six months ended June 30, 2024, a realized gain of $4.2 million and a realized loss of $9.8 million was recorded in 'Other (income) expense, net' in the consolidated statement of operations, respectively.

The following table summarizes the fair value of derivative instruments as of June 30, 2024, and December 31, 2023:

	Balance Sheet Location	June 30, 2024	December 31, 2023
		(in thousands)	
Derivatives not designated as hedging instruments:			
Foreign exchange forward contracts	Other current assets	2,067	733
Foreign exchange forward contracts	Other current liabilities	(1,352)	(2,545)
Foreign exchange option contracts	Other current assets	—	17,364
Derivatives designated as hedging instruments:			
Foreign exchange forward contracts	Other current assets	—	648
Total derivatives		$ 715	$ 16,200

The following table summarizes the effect of derivative instruments recognized in the statement of operations for the three and six months ended June 30, 2024, and July 2, 2023:

	Location of (Gains) Losses Recognized in Statement of Operations	For the Three Months Ended		For the Six Months Ended	
		June 30, 2024	July 2, 2023	June 30, 2024	July 2, 2023
		(in thousands)		(in thousands)	
Derivatives not designated as hedging instruments:					
Foreign exchange forward contracts (1)	Other (income) expense, net	$ (2,444)	$ (4,040)	$ (4,144)	$ (2,781)
Foreign exchange option contracts	Other (income) expense, net	(4,154)	—	9,764	—
Derivatives designated as hedging instruments:					
Foreign exchange forward and option contracts	Revenue	—	414	(2,280)	1,952
Total Derivatives		$ (6,598)	$ (3,626)	$ 3,340	$ (829)

(1) The table does not reflect the corresponding gains and losses from the remeasurement of the monetary assets and liabilities denominated in foreign currencies. For the three and six months ended June 30, 2024, net losses from remeasurement of monetary assets and liabilities denominated in foreign currencies were $3.3 million and $6.0 million, respectively. For the three and six months ended July 2, 2023, net losses from remeasurement of monetary assets and liabilities denominated in foreign currencies were $6.7 million and $7.0 million, respectively.

See Note I: “Debt” regarding derivatives related to the convertible senior notes.

I. DEBT

Convertible Senior Notes

On December 12, 2016, Teradyne completed a private offering of $460.0 million aggregate principal amount of 1.25% convertible senior unsecured notes (the “Notes”) and received net proceeds, after issuance costs, of approximately $450.8 million, $33.0 million of which was used to pay the net cost of the convertible note hedge transactions and $50.1 million of which was used to repurchase 2.0 million shares of Teradyne’s common stock under its existing stock repurchase program from purchasers of the Notes in privately negotiated transactions effected through one of the initial purchasers or its affiliates conducted concurrently with the pricing of the Note offering. The Notes bore interest at a rate of 1.25% per year payable semiannually in arrears on June 15 and December 15 of each year. The Notes matured on December 15, 2023.

Concurrent with the offering of the Notes, Teradyne entered into convertible note hedge transactions (the “Note Hedge Transactions”) with the initial purchasers or their affiliates (the “Option Counterparties”). The Note Hedge Transactions cover, subject to customary anti-dilution adjustments, the number of shares of the common stock that underlie the Notes. Separately and concurrent with the pricing of the Notes, Teradyne entered into warrant transactions with the Option Counterparties (the “Warrant Transactions”) in which it sold net-share-settled (or, at its election subject to certain conditions, cash-settled) warrants to the Option Counterparties. These transactions have been accounted for as an adjustment to Teradyne's shareholders’ equity. The Warrant Transactions, which began expiring March 18, 2024, and continued to expire through July 10, 2024, currently cover, subject to customary anti-dilution adjustments, approximately 1.3 million shares of common stock. During the three and six months ended June 30, 2024, 11.7 million and 13.4 million warrants expired, resulting in the issuance of 8.0 million and 8.8 million shares of Teradyne common stock,

respectively. As of June 30, 2024, the strike price of the warrants was approximately $39.35 per share. The strike price is subject to adjustment under certain circumstances. The Warrant Transactions resulted in additional shares of Teradyne's common stock being issued to the extent that the market price per share of Teradyne's common stock, as measured under the terms of the Warrant Transactions, exceeds the applicable strike price of the warrants.

The interest expense on Teradyne's senior notes for three and six months ended July 2, 2023, was as follows:

	For the Three Months Ended		For the Six Months Ended	
	June 30, 2024	July 2, 2023	June 30, 2024	July 2, 2023
	(in thousands)		(in thousands)	
Contractual interest expense on the coupon	$ —	$ 100	$ —	$ 238
Amortization of debt issuance fees recognized as interest expense	—	—	—	113
Total interest expense on the convertible debt	$ —	$ 100	$ —	$ 351

Revolving Credit Facility

On May 1, 2020, Teradyne entered into a credit agreement (the "Credit Agreement") with Truist Bank, as administrative agent and collateral agent, and the lenders party thereto. The Credit Agreement provided for a three-year, senior secured revolving credit facility of $400.0 million (the "Credit Facility").

On December 10, 2021, the Credit Agreement was amended to extend the maturity date of the Credit Facility to December 10, 2026. On October 5, 2022, the Credit Agreement was amended to increase the amount of the Credit Facility to $750.0 million from $400.0 million. On November 7, 2023, the Credit Agreement was amended to allow for the purchase of the shares of Technoprobe.

The Credit Agreement provides that, subject to customary conditions, Teradyne may seek to obtain from existing or new lenders the available incremental amount under the Credit Facility, not to exceed the greater of $200.0 million or 15% of consolidated EBIDTA. The interest rate applicable to loans under the Credit Facility are, at Teradyne's option, equal to either a base rate plus a margin ranging from 0.00% to 0.75% per annum or SOFR plus a margin ranging from 1.10% to 1.85% per annum, based on the consolidated leverage ratio of Teradyne. In addition, Teradyne will pay a commitment fee on the unused portion of the commitments under the Credit Facility ranging from 0.15% to 0.25% per annum, based on the then applicable consolidated leverage ratio.

Teradyne is not required to repay any loans under the Credit Facility prior to maturity, subject to certain customary exceptions. Teradyne is permitted to prepay all or any portion of the loans under the Credit Facility prior to maturity without premium or penalty, other than customary SOFR breakage costs.

The Credit Agreement contains customary events of default, representations, warranties and affirmative and negative covenants that, among other things, limit Teradyne's ability to sell assets, grant liens on assets, incur other secured indebtedness and make certain investments and restricted payments, all subject to exceptions set forth in the Credit Agreement. The Credit Agreement also requires Teradyne to satisfy two financial ratios measured at the end of each fiscal quarter: a consolidated leverage ratio and an interest coverage ratio.

The Credit Facility is guaranteed by certain of Teradyne's domestic subsidiaries and collateralized by assets of Teradyne and such subsidiaries, including a pledge of 65% of the capital stock of certain foreign subsidiaries.

On May 16, 2024, Teradyne borrowed $185.0 million under the Credit Agreement to support the acquisition of 10% of the issued and outstanding shares of Technoprobe. Teradyne has fully repaid its borrowings on the revolving credit facility prior to June 30, 2024. There was no outstanding revolver balance as of June 30, 2024.

As of August 2, 2024, the Credit Agreement was undrawn, and Teradyne was in compliance with all covenants under the Credit Agreement.

J. PREPAYMENTS

Prepayments consist of the following:

	June 30, 2024	December 31, 2023
	(in thousands)	
Contract manufacturer and supplier prepayments	$ 473,446	$ 502,257
Prepaid maintenance and other services	20,443	17,592
Prepaid taxes	14,122	16,083
Other prepayments	7,895	13,038
Total prepayments (1)	$ 515,906	$ 548,970

(1) Excludes $5.3 million at December 31, 2023 of contract manufacturer and supplier prepayments, classified as assets held for sale. See Note E: "Dispositions" for additional information.

K. PRODUCT WARRANTY

Teradyne generally provides a one-year warranty on its products, commencing upon installation, acceptance or shipment. A provision is recorded upon revenue recognition to cost of revenues for estimated warranty expense based on historical experience. Related costs are charged to the warranty accrual as incurred. The balance below is included in other accrued liabilities.

	For the Three Months Ended		For the Six Months Ended	
	June 30, 2024	July 2, 2023	June 30, 2024	July 2, 2023
	(in thousands)		(in thousands)	
Balance at beginning of period	$ 15,324	$ 12,901	$ 15,698	$ 14,181
Accruals for warranties issued during the period	2,922	3,261	6,181	7,378
Accruals related to pre-existing warranties	(284)	(352)	(967)	(757)
Settlements made during the period	(2,718)	(3,267)	(5,668)	(8,259)
Balance at end of period	$ 15,244	$ 12,543	$ 15,244	$ 12,543

When Teradyne receives revenue for extended warranties, beyond one year, it is deferred and recognized on a straight-line basis over the contract period. Related costs are expensed as incurred. The balance below is included in short and long-term deferred revenue and customer advances.

	For the Three Months Ended		For the Six Months Ended	
	June 30, 2024	July 2, 2023	June 30, 2024	July 2, 2023
	(in thousands)		(in thousands)	
Balance at beginning of period	$ 34,509	$ 49,343	$ 34,897	$ 56,180
Deferral of new extended warranty revenue	5,688	4,467	12,602	8,881
Recognition of extended warranty deferred revenue	(6,685)	(9,388)	(13,987)	(20,639)
Balance at end of period	$ 33,512	$ 44,422	$ 33,512	$ 44,422

L. STOCK-BASED COMPENSATION

On February 1, 2023 (the "Retirement Date"), Mark E. Jagiela retired as Chief Executive Officer of Teradyne and a member of Teradyne's Board of Directors, and Teradyne entered into an agreement (the "Retirement Agreement") with Mr. Jagiela. Under the Retirement Agreement, Mr. Jagiela's unvested time-based restricted stock units and stock options granted prior to his Retirement Date were modified to allow continued vesting; and any vested options or options that vest during that period may be exercised for the remainder of the applicable option term. During the six months ended July 2, 2023, Teradyne recorded a stock-based compensation expense of $5.9 million related to the Retirement Agreement.

Under Teradyne's stock compensation plans, Teradyne grants time-based restricted stock units, performance-based restricted stock units and stock options, and employees are eligible to purchase Teradyne's common stock through its Employee Stock Purchase Plan ("ESPP").

Service-based restricted stock unit awards granted to employees vest in equal annual installments over four years. Restricted stock unit awards granted to non-employee directors vest after a one-year period, with 100% of the award vesting on the earlier of (a) the first anniversary of the grant date or (b) the date of the following year's Annual Meeting of Shareholders. Teradyne expenses the cost of the restricted stock unit awards subject to time-based vesting, which is determined to be the fair market value of the shares at the date of grant, ratably over the period during which the restrictions lapse.

Performance-based restricted stock units ("PRSUs") granted to Teradyne's executive officers may have a performance metric based on relative total shareholder return ("TSR"). Teradyne's three-year TSR performance is measured against the New York Stock Exchange ("NYSE") Composite Index. The final number of TSR PRSUs that vest will vary based upon the level of performance achieved from 0% to 200% of the target shares. The TSR PRSUs will vest upon the three-year anniversary of the grant date. The TSR PRSUs are valued using a Monte Carlo simulation model. The number of units expected to be earned, based upon the achievement of the TSR market condition, is factored into the grant date Monte Carlo valuation. Compensation expense is recognized on a straight-line basis over the shorter of the three-year service period or the period from the grant to the date described in the retirement provisions below. Compensation expense for executive officers meeting the retirement provisions prior to the grant date is recognized during the year following the grant. Compensation expense is recognized regardless of the eventual number of units that are earned based upon the market condition, provided the executive officer remains an employee at the end of the three-year period. Compensation expense is reversed if at any time during the three-year service period the executive officer is no longer an employee, subject to the retirement and termination eligibility provisions noted below.

PRSUs granted to Teradyne's executive officers may also have a performance metric based on three-year cumulative non-GAAP profit before interest and tax ("PBIT") as a percent of Teradyne's revenue. Non-GAAP PBIT is a financial measure equal to GAAP income from operations less restructuring and other, net; amortization of acquired intangible assets; acquisition and divestiture related charges or credits; pension actuarial gains and losses; non-cash convertible debt interest expense; and other non-recurring gains and charges. The final number of PBIT PRSUs that vest will vary based upon the level of performance achieved from 0% to 200% of the target shares. The PBIT PRSUs will vest upon the three-year anniversary of the grant date. Compensation expense is recognized on a straight-line basis over the shorter of the three-year service period or the period from the grant date to the date described in the retirement provisions below. Compensation expense for executive officers meeting the retirement provisions prior to the grant date is recognized during the year following the grant. Compensation expense is recognized based on the number of units that are earned based upon the three-year Teradyne PBIT as a percent of Teradyne's revenue, provided the executive officer remains an employee at the end of the three-year period subject to the retirement and termination eligibility provisions noted below.

If, after attaining both at least age sixty and at least ten years of service, a PRSU recipient's employment ends prior to the determination of the performance percentage due to (1) permanent disability or death or (2) retirement or termination other than for cause, then all or a portion of the recipient's PRSUs (based on the actual performance percentage achieved on the determination date) will vest on the date the performance percentage is determined. Except as set forth in the preceding sentence, no PRSUs will vest if the executive officer is no longer an employee at the end of the three-year period. Stock options to purchase Teradyne's common stock at 100% of the fair market value on the grant date vest in equal annual installments over four years from the grant date and have a maximum term of seven years.

On January 22, 2024, the Board enacted the Executive Retirement Policy for Restricted Stock Unit and Option Vesting (the "Retirement Policy"). Under the Retirement Policy, an executive officer that is over the age of 65 and has 10 or more years of service as of the effective date of his or her retirement will be eligible for continued vesting of his or her unvested time-based restricted stock units and stock options granted prior to his or her retirement date.

During the six months ended June 30, 2024, and July 2, 2023, Teradyne granted 0.5 million and 0.5 million of service-based restricted stock unit awards to employees at a weighted average grant date fair value of $95.06 and $102.30, respectively, and less than 0.1 million and 0.1 million of service-based restricted stock unit awards to non-employee directors at a weighted average grant date fair value of $120.38 and $90.50, respectively.

During the six months ended June 30, 2024, and July 2, 2023, Teradyne granted 0.1 million and 0.1 million of PBIT PRSUs with a weighted average grant date fair value of $94.51 and $102.23, respectively.

During the six months ended June 30, 2024, and July 2, 2023, Teradyne granted 0.1 million and 0.1 million of TSR PRSUs, with a weighted average grant date fair value of $102.51 and $137.64, respectively. The fair value was estimated using the Monte Carlo simulation model with the following assumptions:

	For the Six Months Ended	
	June 30, 2024	July 2, 2023
Risk-free interest rate	3.9%	3.9%
Teradyne volatility-historical	42.4%	50.2%
NYSE Composite Index volatility-historical	15.6%	24.8%
Dividend yield	0.5%	0.4%

Expected volatility was based on the historical volatility of Teradyne's stock and the NYSE Composite Index over the most recent three-year period. The risk-free interest rate was determined using the U.S. Treasury yield curve in effect at the time of grants. Dividend yield was based upon an estimated annual dividend amount of $0.48 per share divided by Teradyne's stock price on the grant dates, which have a weighted average grant date stock price of $95.83 for the 2024 grants, and an estimated annual dividend amount of $0.44 per share divided by Teradyne's stock price on the grant date of $103.44 for the 2023 grant.

During the six months ended June 30, 2024, and July 2, 2023, Teradyne granted 0.1 million and 0.1 million of service-based stock options to executive officers at a weighted average grant date fair value of $37.50 and $40.90, respectively.

The fair value of stock options was estimated using the Black-Scholes option-pricing model with the following assumptions:

	For the Six Months Ended	
	June 30, 2024	July 2, 2023
Expected life (years)	4.0	4.0
Risk-free interest rate	4.0%	3.7%
Volatility-historical	46.3%	46.7%
Dividend yield	0.5%	0.4%

Teradyne determined the stock options' expected life based upon historical exercise data for executive officers, the age of the executive officers and the terms of the stock option grant. Volatility was determined using historical volatility for a period equal to the expected life. The risk-free interest rate was determined using the U.S. Treasury yield curve in effect at the time of grant. Dividend yield was based upon an estimated annual dividend amount of $0.48 per share divided by Teradyne's stock price on the grant date of $95.14 for the 2024 grant and an estimated annual dividend amount of $0.44 per share divided by Teradyne's stock price on the grant date of $103.44 for the 2023 grant.

M. ACCUMULATED OTHER COMPREHENSIVE INCOME (LOSS)

Changes in accumulated other comprehensive income (loss), which are presented net of tax, consist of the following:

	Foreign Currency Translation Adjustment	Unrealized (Losses) Gains on Marketable Securities	Unrealized (Losses) Gains on Cash Flow Hedges	Retirement Plans Prior Service Credit	Total
			(in thousands)		
Six Months Ended June 30, 2024					
Balance at December 31, 2023, net of tax of $0, $(1,728), $142, $(1,132), respectively	$ (22,442)	$ (6,194)	$ 506	$ 1,152	$ (26,978)
Other comprehensive (loss) gain before reclassifications, net of tax of $0, $(404), $358, $0, respectively	(15,087)	(1,622)	1,274	—	(15,435)
Amounts reclassified from accumulated other comprehensive income (loss), net of tax of $0, $26, $(500), $(1), respectively	—	92	(1,780)	(3)	(1,691)
Net current period other comprehensive loss, net of tax of $0, $(378), $(142), $(1), respectively	(15,087)	(1,530)	(506)	(3)	(17,126)
Balance at June 30, 2024, net of tax of $0, $(2,106), $0, $(1,133), respectively	$ (37,529)	$ (7,724)	$ —	$ 1,149	$ (44,104)
Six Months Ended July 2, 2023					
Balance at December 31, 2022, net of tax of $0, $(2,308), ($708), $(1,130), respectively	$ (39,849)	$ (8,661)	$ (2,517)	$ 1,159	$ (49,868)
Other comprehensive (loss) gain before reclassifications, net of tax of $0, $323, $1,088, $0, respectively	12,250	1,726	3,866	—	17,842
Amounts reclassified from accumulated other comprehensive income (loss), net of tax of $0, $10, $428, $(1), respectively	—	33	1,524	(3)	1,554
Net current period other comprehensive gain (loss), net of tax of $0, $333, $1,516, $(1), respectively	12,250	1,759	5,390	(3)	19,396
Balance at July 2, 2023, net of tax of $0, $(1,975), $808, $(1,131), respectively	$ (27,599)	$ (6,902)	$ 2,873	$ 1,156	$ (30,472)

Reclassifications out of accumulated other comprehensive income (loss) to the statement of operations for the three and six months ended June 30, 2024, and July 2, 2023, were as follows:

Details about Accumulated Other Comprehensive Income (Loss) Components	For the Three Months Ended		For the Six Months Ended		Affected Line Item in the Statements of Operations
	June 30, 2024	July 2, 2023	June 30, 2024	July 2, 2023	
	(in thousands)		(in thousands)		
Available-for-sale marketable securities:					
Unrealized (losses) gains, net of tax of $4, $(8), $(26), $(10), respectively	$ 13	$ (28)	$ (92)	$ (33)	Other (income) expense, net
Cash flow hedges:					
Unrealized (losses) gains, net of tax of $0, $(91), $500, $(428), respectively	—	(323)	1,780	(1,524)	Revenue
Defined benefit pension and postretirement plans:					
Amortization of prior service credit, net of tax of $0, $0, $1, $1, respectively	2	2	3	3	(a)
Total reclassifications, net of tax of $4, $(99), $475, $(437), respectively	$ 15	$ (349)	$ 1,691	$ (1,554)	Net income

(a) The amortization of prior service credit is included in the computation of net periodic postretirement benefit cost. See Note Q: "Retirement Plans."

N. GOODWILL AND ACQUIRED INTANGIBLE ASSETS

Goodwill

Teradyne performs its annual goodwill impairment test as required under the provisions of ASC 350-10, *"Intangibles—Goodwill and Other"* on December 31 of each fiscal year unless interim indicators of impairment exist. In the six months ended June 30, 2024, there were no interim indicators of impairment. Goodwill is considered impaired when the net book value of a reporting unit exceeds its estimated fair value.

The changes in the carrying amount of goodwill by reportable segments for the six months ended June 30, 2024, were as follows:

	Robotics	Wireless Test	Semiconductor Test	System Test	Total
			(in thousands)		
Balance at December 31, 2023					
Goodwill	$ 395,463	$ 361,819	$ 262,237	$ 158,699	$ 1,178,218
Accumulated impairment losses	—	(353,843)	(260,540)	(148,183)	(762,566)
Total Goodwill	395,463	7,976	1,697	10,516	415,652
Foreign currency translation adjustment	(10,433)	—	(109)	—	(10,542)
Balance at June 30, 2024					
Goodwill	$ 385,031	$ 361,819	$ 262,128	$ 158,699	1,167,676
Accumulated impairment losses	—	(353,843)	(260,540)	(148,183)	(762,566)
Total Goodwill	$ 385,031	$ 7,976	$ 1,588	$ 10,516	$ 405,110

Intangible Assets

Teradyne reviews long-lived assets for impairment whenever events or changes in business circumstances indicate that the carrying amount of the assets may not be fully recoverable or that the useful lives of these assets are no longer appropriate.

Amortizable intangible assets consist of the following and are included in intangible assets, net on the balance sheet:

	Gross Carrying Amount	Accumulated Amortization	Foreign Currency Translation Adjustment	Net Carrying Amount
		(in thousands)		
Balance at June 30, 2024				
Developed technology	$ 267,706	$ (249,298)	$ (5,728)	$ 12,680
Customer relationships	52,109	(48,706)	197	3,600
Tradenames and trademarks	59,007	(48,407)	(1,415)	9,185
Total intangible assets	$ 378,822	$ (346,411)	$ (6,946)	$ 25,465
Balance at December 31, 2023				
Developed technology	$ 267,706	$ (243,191)	$ (5,343)	$ 19,172
Customer relationships	52,109	(47,850)	232	4,491
Tradenames and trademarks	59,007	(46,021)	(1,245)	11,741
Total intangible assets	$ 378,822	$ (337,062)	$ (6,356)	$ 35,404

Aggregate intangible asset amortization expense was $4.7 million and $9.4 million, respectively, for the three and six months ended June 30, 2024, and $4.8 million and $9.6 million, respectively, for the three and six months ended July 2, 2023.

Estimated intangible asset amortization expense for each of the five succeeding fiscal years and thereafter is as follows:

Year	Amortization Expense
	(in thousands)
2024	$ 9,303
2025	11,254
2026	2,356
2027	1,140
2028	1,059
Thereafter	353

O. NET INCOME PER COMMON SHARE

The following table sets forth the computation of basic and diluted net income per common share:

	For the Three Months Ended		For the Six Months Ended	
	June 30, 2024	July 2, 2023	June 30, 2024	July 2, 2023
	(in thousands, except per share amounts)		(in thousands, except per share amounts)	
Net income for basic and diluted net income per share	$ 186,273	$ 120,050	$ 250,470	$ 203,581
Weighted average common shares-basic	157,804	154,760	155,426	155,332
Effect of dilutive potential common shares:				
Convertible note hedge warrant shares (1)	4,930	8,876	6,896	8,929
Restricted stock units	726	323	573	389
Stock options	9	43	12	45
Employee stock purchase plan	1	7	2	7
Incremental shares from assumed conversion of convertible notes (2)	—	742	—	828
Dilutive potential common shares	5,666	9,991	7,483	10,198
Weighted average common shares-diluted	163,470	164,751	162,909	165,530
Net income per common share-basic	$ 1.18	$ 0.78	$ 1.61	$ 1.31
Net income per common share-diluted	$ 1.14	$ 0.73	$ 1.54	$ 1.23

(1) Convertible notes hedge warrant shares were calculated using the difference between the average Teradyne stock price for the period and the warrant price, multiplied by the number of warrant shares. The result of this calculation, representing the total intrinsic value of the warrant, was divided by the average Teradyne stock price for the period.

(2) Incremental shares from assumed conversion of the convertible notes were calculated using the difference between the average Teradyne stock price for the period and the conversion price, multiplied by the number of convertible notes shares. The result of this calculation, representing the total intrinsic value of the convertible notes, was divided by the average Teradyne stock price for the period.

The computation of diluted net income per common share for the three and six months ended June 30, 2024, excludes the effect of the potential vesting of 0.1 million and 0.5 million, respectively, of restricted stock units because the effect would have been anti-dilutive.

The computation of diluted net income per common share for the three and six months ended July 2, 2023, excludes the effect of the potential vesting of 0.4 million and 0.5 million, respectively, of restricted stock units because the effect would have been anti-dilutive.

P. RESTRUCTURING AND OTHER

During the three months ended June 30, 2024, Teradyne recorded $2.0 million of severance charges related to headcount reductions of 35 people, primarily in Robotics.

During the three months ended July 2, 2023, Teradyne recorded $5.1 million of severance charges related to headcount reductions of 112 people, principally in Semiconductor Test and Robotics, which included charges related to a voluntary early retirement program for employees meeting certain conditions and a charge of $1.1 million for an increase in environmental liability.

During the six months ended June 30, 2024, Teradyne recorded $2.2 million of acquisition and divestiture expenses related to the Technoprobe transactions, and $4.2 million of severance and other charges, primarily related to headcount reductions of 66 people, primarily in Robotics and Semiconductor Test, which included charges related to a voluntary early retirement program for employees meeting certain conditions.

During the six months ended July 2, 2023, Teradyne recorded $7.2 million of severance charges related to headcount reductions of 179 people, primarily in Semiconductor Test and Robotics, which included charges related to a voluntary early retirement program for employees meeting certain conditions and a charge of $1.1 million for an increase in environmental liability.

Q. RETIREMENT PLANS

ASC 715, “Compensation—Retirement Benefits,” requires an employer with defined benefit plans or other postretirement benefit plans to recognize an asset or a liability on its balance sheet for the overfunded or underfunded status of the plans as defined by

ASC 715. The pension asset or liability represents a difference between the fair value of the pension plan's assets and the projected benefit obligation at December 31. Teradyne uses a December 31 measurement date for all its plans.

Defined Benefit Pension Plans

Teradyne has defined benefit pension plans covering a portion of domestic employees and employees of certain non-U.S. subsidiaries. Benefits under these plans are based on employees' years of service and compensation. Teradyne's funding policy is to make contributions to these plans in accordance with local laws and to the extent that such contributions are tax deductible. The assets of the U.S. qualified pension plan consist primarily of fixed income and equity securities. In addition, Teradyne has an unfunded supplemental executive defined benefit plan in the United States to provide retirement benefits in excess of levels allowed by the Employment Retirement Income Security Act ("ERISA") and the Internal Revenue Code (the "IRC"), as well as unfunded qualified foreign plans.

In the six months ended June 30, 2024, and July 2, 2023, Teradyne contributed $1.6 million and $1.5 million, respectively, to the U.S. supplemental executive defined benefit pension plan, and $0.5 million and $0.6 million, respectively, to certain qualified pension plans for non-U.S. subsidiaries.

For the three and six months ended June 30, 2024, and July 2, 2023, Teradyne's net periodic pension cost was comprised of the following:

	For the Three Months Ended			
	June 30, 2024		July 2, 2023	
	United States	Foreign	United States	Foreign
	(in thousands)			
Service cost	$ 217	$ 114	$ 272	**$ 110**
Interest cost	1,646	243	1,714	**263**
Expected return on plan assets	(1,265)	(18)	(1,286)	**(9)**
Net actuarial loss (gain)	111	(242)	24	—
Settlement loss (gain)	—	(24)	—	—
Total net periodic pension cost	$ 709	$ 73	$ 724	$ 364

	For the Six Months Ended			
	June 30, 2024		July 2, 2023	
	United States	Foreign	United States	Foreign
	(in thousands)			
Service cost	$ 448	$ 231	$ 543	**$ 220**
Interest cost	3,293	489	3,425	**526**
Expected return on plan assets	(2,533)	(34)	(2,571)	**(18)**
Net actuarial loss (gain)	111	(242)	24	—
Settlement loss (gain)	—	(24)	—	—
Total net periodic pension cost	$ 1,319	$ 420	$ 1,421	$ 728

Postretirement Benefit Plan

In addition to receiving pension benefits, Teradyne employees in the United States who meet early retirement eligibility requirements as of their termination dates may participate in Teradyne's Welfare Plan, which includes medical and dental benefits up to age 65. Death benefits provide a fixed sum to retirees' survivors and are available to all retirees. Substantially all of Teradyne's current U.S. employees could become eligible for these benefits and the existing benefit obligation relates predominantly to those employees. During the three and six months ended June 30, 2024, Teradyne recorded special termination benefit charges associated with a voluntary early retirement program.

For the three and six months ended June 30, 2024, and July 2, 2023, Teradyne's net periodic postretirement benefit cost was comprised of the following:

	For the Three Months Ended		For the Six Months Ended	
	June 30, 2024	July 2, 2023	June 30, 2024	July 2, 2023
	(in thousands)		(in thousands)	
Service cost	$ 9	$ 8	$ 18	$ 17
Interest cost	72	60	145	121
Amortization of prior service credit	(2)	(2)	(4)	(4)
Special termination benefits	170	369	462	369
Net actuarial loss (gain)	(94)	30	(94)	30
Total net periodic postretirement benefit cost	$ 155	$ 465	$ 527	$ 533

R. COMMITMENTS AND CONTINGENCIES

Purchase Commitments

As of June 30, 2024, Teradyne had entered into purchase commitments for certain components and materials. The purchase commitments covered by the agreements aggregate to approximately $402.2 million, of which $386.5 million is for less than one year.

Legal Claims

Teradyne is subject to various legal proceedings and claims which have arisen in the ordinary course of business such as, but not limited to, patent, employment, commercial and environmental matters. Teradyne believes that it has meritorious defenses against all pending claims and intends to vigorously contest them. While it is not possible to predict or determine the outcomes of any pending claims or to provide possible ranges of losses that may arise, Teradyne believes the potential losses associated with all of these actions are unlikely to have a material adverse effect on its business, financial position or results of operations.

Guarantees and Indemnification Obligations

Teradyne provides indemnification, to the extent permitted by law, to its officers, directors, employees and agents for liabilities arising from certain events or occurrences, while the officer, director, employee, or agent, is or was serving, at Teradyne's request in such capacity. Teradyne may enter into indemnification agreements with certain of its officers and directors. With respect to acquisitions, Teradyne provides indemnifications to or assumes indemnification obligations for the current and former directors, officers and employees of the acquired companies in accordance with the acquired companies' by-laws and charter. As a matter of practice, Teradyne has maintained directors' and officers' liability insurance coverage including coverage for directors and officers of acquired companies.

Teradyne enters into agreements in the ordinary course of business with customers, resellers, distributors, integrators and suppliers. Most of these agreements require Teradyne to defend and/or indemnify the other party against intellectual property infringement claims brought by a third party with respect to Teradyne's products. From time to time, Teradyne also indemnifies customers and business partners for damages, losses and liabilities they may suffer or incur relating to personal injury, personal property damage, product liability, breach of confidentiality obligations and environmental claims relating to the use of Teradyne's products and services or resulting from the acts or omissions of Teradyne, its employees, authorized agents or subcontractors. On occasion, Teradyne has also provided guarantees to customers regarding the delivery and performance of its products in addition to the warranty described below.

As a matter of ordinary course of business, Teradyne warrants that its products will substantially perform in accordance with its standard published specifications in effect at the time of delivery. Most warranties have a one-year duration commencing from installation. A provision is recorded upon revenue recognition to cost of revenues for estimated warranty expense based upon historical experience. When Teradyne receives revenue for extended warranties beyond the standard duration, the revenue is deferred and recognized on a straight-line basis over the contract period. Related costs are expensed as incurred. As of June 30, 2024, and December 31, 2023, Teradyne had a product warranty accrual of $15.2 million and $15.7 million, respectively, included in other accrued liabilities and revenue deferrals related to extended warranties of $33.5 million and $34.9 million, respectively, included in short and long-term deferred revenue and customer advances.

In addition, in the ordinary course of business, Teradyne provides minimum purchase guarantees to certain vendors to ensure continuity of supply against the market demand. Although some of these guarantees provide penalties for cancellations and/or modifications to the purchase commitments as the market demand decreases, most of the guarantees do not. Therefore, as the market demand decreases, Teradyne re-evaluates these guarantees and determines what charges, if any, should be recorded.

With respect to its agreements covering product, business or entity divestitures and acquisitions, Teradyne provides certain representations, warranties and covenants to purchasers and agrees to indemnify and hold such purchasers harmless against breaches of such representations, warranties and covenants. Many of the indemnification claims have a definite expiration date while some remain in force indefinitely. With respect to its acquisitions, Teradyne may, from time to time, assume the liability for certain events or occurrences that took place prior to the date of acquisition.

As a matter of ordinary course of business, Teradyne occasionally guarantees certain indebtedness obligations of its subsidiary companies, limited to the borrowings from financial institutions, purchase commitments to certain vendors and lease commitments to landlords.

Based on historical experience and information known as of June 30, 2024, and December 31, 2023, except for product warranty, Teradyne has not recorded any liabilities for these guarantees and obligations because the amount would be immaterial.

S. INCOME TAXES

A reconciliation of the United States federal statutory corporate tax rate to Teradyne's effective tax rate was as follows:

	For the Three Months Ended		For the Six Months Ended	
	June 30, 2024	July 2, 2023	June 30, 2024	July 2, 2023
U.S. statutory federal tax rate	21.0%	21.0%	21.0%	21.0%
Tax credits	(2.7)	(2.4)	(2.8)	(2.4)
Foreign taxes	(2.5)	(1.0)	(2.4)	(0.8)
International provisions of the U.S. Tax Cuts and Jobs Act of 2017	(1.0)	(2.5)	(1.3)	(2.8)
Discrete benefit related to equity compensation	(0.6)	(0.1)	(0.7)	(1.4)
Other, net	0.9	1.9	0.5	2.1
Effective tax rate	15.1%	16.9%	14.3%	15.7%

On a quarterly basis, Teradyne evaluates the realizability of the deferred tax assets by jurisdiction and assesses the need for a valuation allowance. As of June 30, 2024, Teradyne believes that it will ultimately realize the deferred tax assets recorded on the condensed consolidated balance sheet. However, should Teradyne believe that it is more-likely-than-not that the deferred tax assets would not be realized, the tax provision would increase in the period in which Teradyne determined that the realizability was not likely. Teradyne considers the probability of future taxable income and historical profitability, among other factors, in assessing the realizability of the deferred tax assets.

As of June 30, 2024, and December 31, 2023, Teradyne had $15.9 million and $18.6 million, respectively, of reserves for uncertain tax positions. The $2.7 million net decrease in reserves for uncertain tax positions is related to the settlement of an audit.

As of June 30, 2024, Teradyne estimates that it is reasonably possible that the balance of unrecognized tax benefits may decrease approximately $8.1 million in the next twelve months because of a lapse of statutes of limitation. The estimated decrease relates to transfer pricing and U.S. federal and state research and development credits.

Teradyne recognizes interest and penalties related to income tax matters in income tax expense. As of June 30, 2024, and December 31, 2023, $0.8 million and $1.3 million, respectively, of interest and penalties were accrued for uncertain tax positions. For the six months ended June 30, 2024, and July 2, 2023, a benefit of $0.5 million and expense of $0.1 million, respectively, were recorded for interest and penalties related to income tax items.

Teradyne qualifies for a tax holiday in Singapore by fulfilling the requirements of an agreement with the Singapore Economic Development Board under which certain headcount and spending requirements must be met. The tax savings due to the tax holiday for the six months ended June 30, 2024, was $4.9 million, or $0.03 per diluted share. The tax savings due to the tax holiday for the six months ended July 2, 2023, was $1.0 million, or $0.01 per diluted share. In November 2020, Teradyne entered into an agreement with the Singapore Economic Development Board which extended Teradyne's Singapore tax holiday under substantially similar terms to the agreement which expired on December 31, 2020. The new tax holiday is scheduled to expire on December 31, 2025.

In the quarter ended June 30, 2024, Teradyne recognized a $57.5 million gain on the sale of the Device Interface Solutions business which resulted in $10.7 million of income tax expense that was recognized as a discrete expense in the quarter.

On August 16, 2022, the Inflation Reduction Act of 2022 (“IRA”) was signed into law. The IRA introduced a 15% alternative minimum tax based on the financial statement income of certain large corporations (“CAMT”), effective January 1, 2023. Teradyne currently does not expect the CAMT to have a material impact on its financial results.

On December 15, 2022, the European Union ("EU") Member States formally adopted the EU’s Pillar Two Directive, which generally provides for a minimum effective tax rate of 15%, as established by the Organization for Economic Co-operation and Development ("OECD") Pillar Two Framework. The EU’s Pillar Two Directive effective dates are January 1, 2024, and January 1, 2025, for different aspects of the directive. On July 17, 2023, the OECD published Administrative Guidance proposing certain safe harbor rules that effectively extend certain effective dates to January 1, 2027. Certain EU Member States where Teradyne has a legal presence have recently enacted the directive and administrative guidance into their local tax legislation. Additionally, countries outside the EU where Teradyne has a legal presence have enacted similar language as the EU Members States in their local tax legislation. Teradyne is closely monitoring these developments and evaluating the potential financial impact on income tax expense. As of June 30, 2024, the effective tax rate was impacted by legislative changes that went into effect for Pillar Two in some of the Company's foreign jurisdictions, but it did not have a material impact on our financial statements.

T. SEGMENT INFORMATION

Teradyne has four reportable segments (Semiconductor Test, System Test, Wireless Test and Robotics). Each of the reportable segments represents an individual operating segment.

The Semiconductor Test segment includes operations related to the design, manufacturing and marketing of semiconductor test products and services. The System Test segment includes operations related to the design, manufacturing and marketing of products and services for storage and system level test, defense/aerospace instrumentation test, and circuit-board test. The Wireless Test segment includes operations related to the design, manufacturing and marketing of wireless test products and services. The Robotics segment includes operations related to the design, manufacturing and marketing of collaborative robotic arms, autonomous mobile robots and advanced robotic control software. Each operating segment has a segment manager who is accountable to and maintains regular contract with Teradyne’s chief operating decision maker (Teradyne’s chief executive officer) to discuss operating activities, financial results, forecasts, and plans for the segment.

Teradyne evaluates performance based on several factors, of which the primary financial measure is business segment income (loss) before income taxes. The accounting policies of the business segments are the same as those described in Note B: “Accounting Policies” in Teradyne’s Annual Report on Form 10-K for the year ended December 31, 2023.

Segment information for the three and six months ended June 30, 2024, and July 2, 2023, is as follows:

	Semiconductor Test	System Test	Robotics	Wireless Test	Segment Total	Corporate and Eliminations	Consolidated
				(in thousands)			
Three Months Ended June 30, 2024							
Revenues	$ 542,564	$ 60,801	$ 90,247	$ 36,267	$ 729,879	$ —	$ 729,879
Income (loss) before income taxes (1)(2)	158,284	5,224	(17,916)	9,970	$ 155,562	63,841	$ 219,403
Total assets (3)	1,306,390	175,567	731,264	83,262	$ 2,296,483	1,335,223	$ 3,631,706
Three Months Ended July 2, 2023							
Revenues	$ 474,708	$ 94,272	$ 71,634	$ 43,823	$ 684,437	$ —	$ 684,437
Income (loss) before income taxes (1)(2)	129,040	28,599	(26,401)	12,020	$ 143,258	1,144	$ 144,402
Total assets (3)	1,416,109	191,002	685,132	88,869	$ 2,381,112	1,013,784	$ 3,394,896
Six Months Ended June 30, 2024							
Revenues	$ 954,817	$ 136,123	$ 177,901	$ 60,856	$ 1,329,698	$ —	$ 1,329,698
Income (loss) before income taxes (1)(2)	237,698	23,615	(31,892)	9,076	$ 238,497	53,808	$ 292,305
Total assets (3)	1,306,390	175,567	731,264	83,262	$ 2,296,483	1,335,223	$ 3,631,706
Six Months Ended July 2, 2023							
Revenues	$ 889,717	$ 168,903	$ 160,848	$ 82,498	$ 1,301,966	$ —	$ 1,301,966
Income (loss) before income taxes (1)(2)	225,225	43,874	(44,891)	21,372	$ 245,580	(4,094)	$ 241,486
Total assets (3)	1,416,109	191,002	685,132	88,869	$ 2,381,112	1,013,784	$ 3,394,896

(1) Included in Corporate and Eliminations are: interest income, interest expense, net foreign exchange gains (losses), intercompany eliminations, severance charges, pension, acquisition and divestiture related fees, and an expense for the modification of outstanding equity awards.

(2) Included in income (loss) before taxes are charges related to restructuring and other, expense for the modification of outstanding equity awards, and inventory charges.
(3) Total assets are attributable to each segment. Corporate assets consist of cash and cash equivalents, marketable securities, and certain other assets.

Included in each segment are charges and credits in the following line items in the statements of operations:

	For the Three Months Ended		For the Six Months Ended	
	June 30, 2024	July 2, 2023	June 30, 2024	July 2, 2023
	(in thousands)		(in thousands)	
Semiconductor Test:				
Cost of revenues—inventory charge	$ 2,408	$ 4,184	$ 7,364	$ 7,952
Restructuring and other—employee severance	—	2,485	1,130	3,279
System Test:				
Cost of revenues—inventory charge	$ —	$ —	$ 720	$ 1,113
Restructuring and other—employee severance	—	—	—	642
Robotics:				
Restructuring and other—employee severance	$ 1,308	$ 1,638	$ 1,537	$ 2,071
Cost of revenues—inventory charge	—	769	534	1,551
Wireless Test:				
Cost of revenues—inventory charge	$ —	$ —	$ 820	$ 725
Corporate and Eliminations:				
Restructuring and other—acquisition & divestiture related expenses	$ —	$ —	$ 2,214	$ —
Selling and administrative —equity modification	—	—	1,469	5,889
Restructuring and other—other	—	1,100	—	1,100
Restructuring and other—employee severance	—	—	—	1,124

U. SHAREHOLDERS' EQUITY

Stock Repurchase Program

In January 2023, Teradyne's Board of Directors cancelled its January 2021 repurchase program and approved a new repurchase program for up to $2.0 billion of common stock. As of January 1, 2023, share repurchases in excess of issuances are subject to a 1% excise tax, which is included as part of the cost basis of the shares acquired. Teradyne intends to repurchase up to $90.0 million of its common stock in 2024 based on market conditions.

During the six months ended June 30, 2024, Teradyne repurchased 0.3 million shares of common stock for a total cost of $30.3 million at an average price of $101.40 per share. The cumulative repurchases under the January 2023 repurchase program as of June 30, 2024, were 4.2 million shares of common stock for $430.8 million at an average price per share of $102.39.

During the six months ended July 2, 2023, Teradyne repurchased 2.2 million shares of common stock for a total cost of $229.5 million at an average price of $102.35 per share.

The total cost of shares acquired includes commissions and related excise tax, and is recorded as a reduction to retained earnings.

Dividend

Holders of Teradyne's common stock are entitled to receive dividends when they are declared by Teradyne's Board of Directors.

In January 2024 and May 2024, Teradyne's Board of Directors declared a quarterly cash dividend of $0.12 per share. Dividend payments for the three and six months ended June 30, 2024, were $19.0 million and $37.4 million, respectively.

In January 2023 and May 2023, Teradyne's Board of Directors declared a quarterly cash dividend of $0.11 per share. Dividend payments for the three and six months ended July 2, 2023, were $17.0 million and $34.2 million, respectively.

Item 2: Management's Discussion and Analysis of Financial Condition and Results of Operations

Statements in this Quarterly Report on Form 10-Q which are not historical facts, so called "forward-looking statements," are made pursuant to the safe harbor provisions of Section 21E of the Securities Exchange Act of 1934, as amended. Investors are cautioned that all forward-looking statements involve risks and uncertainties, including those detailed in our filings with the Securities and Exchange Commission. See also Part II, Item 1A of this Quarterly Report on Form 10-Q and Part I, Item 1A "Risk Factors" in our Annual Report on Form 10-K for the year ended December 31, 2023. Readers are cautioned not to place undue reliance on these forward-looking statements which reflect management's analysis only as of the date hereof. We assume no obligation to update these forward-looking statements to reflect actual results or changes in factors or assumptions affecting forward-looking statements, except as may be required by law.

Overview

We are a leading global supplier of automated test equipment and robotics products. We design, develop, manufacture and sell automatic test systems and robotics products. Our automatic test systems are used to test semiconductors, wireless products, data storage and complex electronics systems in many industries including the consumer electronics, wireless, automotive, industrial, computing, communications, and aerospace and defense industries. Our robotics products include collaborative robotic arms and autonomous mobile robots ("AMRs") used by global manufacturing, logistics and industrial customers to improve quality, increase manufacturing and material handling efficiency and decrease manufacturing and logistics costs. Our automatic test equipment and robotics products and services include:

- semiconductor test ("Semiconductor Test") systems;
- storage and system level test ("Storage Test") systems, defense/aerospace ("Defense/Aerospace") test instrumentation and systems, and circuit-board test and inspection ("Production Board Test") systems (collectively these products represent "System Test");
- wireless test ("Wireless Test") systems; and
- robotics ("Robotics") products.

The market for our test products is concentrated with a limited number of significant customers accounting for a substantial portion of the purchases of test equipment. A few customers drive significant demand for our test products both through direct sales and sales to the customers' supply partners. We expect that sales of our test products will continue to be concentrated with a limited number of significant customers for the foreseeable future.

In the second quarter of 2024, we saw strength in Semiconductor Test performance driven by the compute, advanced driver-assistance system ("ADAS"), and memory markets. We expect compute and memory applications to continue to drive meaningful demand in the second half of 2024, helping to offset weakness in the mobility test market. We anticipate an eventual upturn in mobility in 2025.

Our Robotics segment consists of Universal Robots A/S ("UR"), a leading supplier of collaborative robotic arms, and Mobile Industrial Robots A/S ("MiR"), a leading maker of AMRs for industrial automation. The market for our Robotics segment products is dependent on the adoption of new automation technologies by large manufacturers as well as small and medium enterprises ("SMEs") throughout the world. Robotics results in the second quarter of 2024 were in line with our revenue forecast, putting us in position for full year growth due to new product offerings and expansion of our Original Equipment Manufacturer ("OEM") and large account channels, along with increasing recurring revenue through new service and software offerings.

On November 7, 2023, we and Technoprobe S.p.A, ("Technoprobe"), a leader in the design and production of probe cards, announced the establishment of a strategic partnership that will seek to accelerate growth for both companies and enable higher performance semiconductor test interfaces for customers worldwide. As part of the partnership, on May 27, 2024, we made an investment of $524.1 million in exchange for 10% of the issued and outstanding shares of Technoprobe, and we sold our Device Interface Solutions ("DIS") business to Technoprobe in exchange for $85.0 million, net of cash and cash equivalents sold, and a customary working capital adjustment.

Our financial statements are denominated in U.S. dollars. While revenues in our test businesses are predominantly in U.S. dollars, the majority of our Robotics revenue is denominated in foreign currencies. Strengthening of the U.S. dollar would negatively affect Robotics revenue growth in 2024.

Our corporate strategy continues to focus on profitably gaining market share in our test businesses through the introduction of differentiated products that target expanding segments and accelerating growth through continued investment in our Robotics businesses. We have strategically increased engineering and go-to-market spending, primarily in Semiconductor Test and Storage Test, in order to support market share gains. We plan to execute on our strategy while balancing capital allocations between returning capital to our shareholders through stock repurchases and dividends and using capital for opportunistic accretive acquisitions.

Critical Accounting Policies and Estimates

We have identified the policies which are critical to understanding our business and our results of operations. There have been no significant changes during the six months ended June 30, 2024, to the items disclosed as our critical accounting policies and estimates in Management's Discussion and Analysis of Financial Condition and Results of Operations in our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, except as noted below.

Equity method investments

We account for investments using the equity method of accounting when we have significant influence over the financial and operating policies, but not control, of the investee. The equity method investments are initially recorded at cost and included in 'Equity method investment' in the consolidated balance sheet. Teradyne will record its share of investee's net income or loss and other comprehensive income, and the amortization of equity method basis difference on a 3-month lag, which is applied consistently from period to period. These results will be reported in 'Equity in net earnings of affiliate' in the consolidated statement of operations. We monitor on an ongoing basis our equity method investments for indicators of other-than-temporary declines in fair value below carrying value.

Critical accounting estimates are complex and may require significant judgment by management. Changes to the underlying assumptions may have a material impact on our financial condition and results of operations. These estimates may change, as new events occur, and additional information is obtained. Actual results could differ significantly from these estimates under different assumptions or conditions.

Preparation of Financial Statements and Use of Estimates

The preparation of consolidated financial statements requires management to make estimates and judgments that affect the amounts reported in the financial statements. Actual results may differ significantly from these estimates under different assumptions or conditions.

SELECTED RELATIONSHIPS WITHIN THE CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS

	For the Three Months Ended		For the Six Months Ended	
	June 30, 2024	July 2, 2023	June 30, 2024	July 2, 2023
Percentage of revenues:				
Revenues:				
Products	82%	79%	79%	78%
Services	18	21	21	22
Total revenues	100	100	100	100
Cost of revenues:				
Cost of products	34	32	34	32
Cost of services	7	9	9	10
Total cost of revenues (exclusive of acquired intangible assets amortization shown separately below)	42	41	42	42
Gross profit	58	59	58	58
Operating expenses:				
Selling and administrative	21	21	23	23
Engineering and development	15	15	16	16
Acquired intangible assets amortization	1	1	1	1
Restructuring and other	—	1	—	1
Gain on sale of business	(8)	—	(4)	—
Total operating expenses	30	38	36	40
Income from operations	29	20	22	18
Non-operating (income) expense:				
Interest income	(1)	(1)	(1)	(1)
Interest expense	—	—	—	—
Other (income) expense, net	(1)	—	1	—
Income before income taxes	30	21	22	19
Income tax provision	5	4	3	3
Net income	26%	18%	19%	16%

Results of Operations

Second Quarter 2024 Compared to Second Quarter 2023

Revenues

Revenues by our reportable segments were as follows:

	For the Three Months Ended		
	June 30, 2024	July 2, 2023	Dollar Change
		(in millions)	
Semiconductor Test	$ 542.6	$ 474.7	$ 67.9
System Test	60.8	94.3	(33.5)
Robotics	90.2	71.6	18.6
Wireless Test	36.3	43.8	(7.5)
Corporate and Eliminations	—	—	—
	$ 729.9	$ 684.4	$ 45.5

The increase in Semiconductor Test revenues of $67.9 million, or 14.3%, was driven primarily by higher tester sales for computing, ADAS, and memory applications. The decrease in System Test revenues of $33.5 million, or 35.5%, was due principally to lower sales in Storage Test of system level and hard disk drive testers, and reduced sales of Defense/Aerospace and Commercial Board testers. The increase in Robotics revenues of $18.6 million, or 26.0%, was driven predominantly by higher demand for UR's collaborative robotic arms and MiR's autonomous mobile robots. The decrease in Wireless Test revenues of $7.5 million, or 17.1% was primarily due to a decrease in cellular and ultra-wide band test products.

Revenues by country as a percentage of total revenues were as follows (1):

	For the Three Months Ended	
	June 30, 2024	July 2, 2023
Korea	29%	15%
Taiwan	21	15
China	13	13
United States	11	17
Japan	9	13
Europe	8	9
Singapore	2	3
Thailand	2	4
Malaysia	1	5
Philippines	1	4
Rest of World	3	2
	100%	100%

(1) Revenues attributable to a country are based on location of customer site.

Gross Profit

Our gross profit was as follows:

	For the Three Months Ended		
	June 30, 2024	July 2, 2023	Dollar/Point Change
		(in millions)	
Gross profit	$ 425.8	$ 402.5	$ 23.3
Percent of total revenues	58.3%	58.8%	(0.5)

Gross profit as a percent of revenue decreased by 0.5 points, primarily due to product mix.

Selling and Administrative

Selling and administrative expenses were as follows:

	For the Three Months Ended		
	June 30, 2024	July 2, 2023	Dollar Change
	(in millions)		
Selling and administrative	$ 154.5	$ 145.7	$ 8.8
Percent of total revenues	21.2 %	21.3 %	

The increase of $8.8 million in selling and administrative expenses was primarily due to higher spending in Semiconductor Test.

Engineering and Development

Engineering and development expenses were as follows:

	For the Three Months Ended		
	June 30, 2024	July 2, 2023	Dollar Change
	(in millions)		
Engineering and development	$ 111.8	$ 105.7	$ 6.1
Percent of total revenues	15.3 %	15.4 %	

The increase of $6.1 million in engineering and development expenses was primarily due to higher spending in Semiconductor Test.

Restructuring and Other

During the three months ended June 30, 2024, we recorded $2.0 million of severance charges related to headcount reductions of 35 people, primarily in Robotics.

During the three months ended July 2, 2023, we recorded $5.1 million of severance charges related to headcount reductions of 112 people, primarily in Semiconductor Test and Robotics, which included charges related to a voluntary early retirement program for employees meeting certain conditions and a charge of $1.1 million for an increase in environmental liability.

Gain on Sale of Business

During the three months ended June 30, 2024, we recorded a gain of $57.5 million associated with the sale of DIS to Technoprobe.

Interest and Other

	For the Three Months Ended		
	June 30, 2024	July 2, 2023	Dollar Change
	(in millions)		
Interest income	$ (6.7)	$ (6.4)	$ (0.3)
Interest expense	1.5	1.0	$ 0.5
Other (income) expense, net	(3.9)	0.8	$ (4.7)

Other (income) expense, net reflects a net change of $4.7 million primarily due to the settlement of our call option purchased in connection with the investment in 10% of Technoprobe.

Income (Loss) Before Income Taxes

	For the Three Months Ended		
	June 30, 2024	July 2, 2023	Dollar Change
		(in millions)	
Semiconductor Test	$ 158.3	$ 129.0	$ 29.3
System Test	5.2	28.6	(23.4)
Wireless Test	10.0	12.0	(2.0)
Robotics	(17.9)	(26.4)	8.5
Corporate and Eliminations (1)	63.8	1.1	62.7
	$ 219.4	$ 144.4	$ 75.0

(1) Included in Corporate and Eliminations are: interest income, interest expense, net foreign exchange gains (losses), intercompany eliminations, severance charges, pension, acquisition and divestiture related fees, gain on sale of business, and an expense for the modification of outstanding equity awards.

The change in income before income taxes in Semiconductor Test, System Test, Wireless Test, and Robotics were driven primarily by fluctuations in revenue within each of the businesses. The gain before income taxes in Corporate and Eliminations was primarily due to the sale of DIS to Technoprobe.

Income Taxes

The effective tax rate for the three months ended June 30, 2024, and July 2, 2023, was 15.1% and 16.9%, respectively. The decrease in the effective tax rate from the three months ended July 2, 2023, to the three months ended June 30, 2024, primarily resulted from the benefit of a projected shift in the geographic distribution of income, an increase in benefit related to equity compensation and a reduction in expense related to non-deductible executive compensation. These benefits were partially offset by an increase in expense related to the international provision of the U.S. Tax Cuts and Jobs Act of 2017.

Six Months 2024 Compared to Six Months 2023

Revenues

Revenues by our reportable segments were as follows:

	For the Six Months Ended		
	June 30, 2024	July 2, 2023	Dollar Change
		(in millions)	
Semiconductor Test	$ 954.8	$ 889.7	$ 65.1
System Test	136.1	168.9	(32.8)
Robotics	177.9	160.8	17.1
Wireless Test	60.9	82.5	(21.6)
Corporate and Eliminations	—	—	—
	$ 1,329.7	$ 1,302.0	$ 27.7

The increase in Semiconductor Test revenues of $65.1 million, or 7.3%, was driven primarily by higher tester sales for computing, ADAS, and memory applications. The decrease in System Test revenues of $32.8 million, or 19.4%, was due principally to lower sales in Storage Test of system level and hard disk drive testers. The increase in Robotics revenues of $17.1 million or 10.6%, was predominantly from higher demand for UR's collaborative robotic arms and MiR's autonomous mobile robots. The decrease in Wireless Test revenues of $21.6 million, or 26.2%, was primarily due to a decrease in cellular and ultra-wide band test products.

Revenues by country as a percentage of total revenues were as follows (1):

	For the Six Months Ended	
	June 30, 2024	July 2, 2023
Korea	28 %	14 %
Taiwan	17	16
United States	14	17
Japan	10	11
China	10	12
Europe	9	10
Philippines	2	5
Singapore	2	5
Malaysia	2	4
Thailand	2	3
Rest of World	4	3
	100 %	100 %

(1) Revenues attributable to a country are based on location of customer site.

Gross Profit

Our gross profit was as follows:

	For the Six Months Ended		
	June 30, 2024	July 2, 2023	Dollar/Point Change
		(in millions)	
Gross profit	$ 765.1	$ 758.9	$ 6.2
Percent of total revenues	57.54 %	58.29 %	(0.748)

Gross profit as a percent of revenue decreased by 0.7 points, primarily due to product mix.

Selling and Administrative

Selling and administrative expenses were as follows:

	For the Six Months Ended		
	June 30, 2024	July 2, 2023	Dollar Change
		(in millions)	
Selling and administrative	$ 303.7	$ 296.7	$ 7.0
Percent of total revenues	22.8 %	22.8 %	

The increase of $7.0 million in selling and administrative expenses was primarily due to higher spending in Semiconductor Test.

Engineering and Development

Engineering and development expenses were as follows:

	For the Six Months Ended		
	June 30, 2024	July 2, 2023	Dollar Change
		(in millions)	
Engineering and development	$ 215.0	$ 211.5	$ 3.5
Percent of total revenues	16.2 %	16.2 %	

The increase of $3.5 million in engineering and development expenses was primarily due to higher spending in Semiconductor Test.

Restructuring and Other

During the six months ended June 30, 2024, we recorded $2.2 million of acquisition and divestiture expenses related to the Technoprobe transactions, and $4.2 million of severance and other charges, primarily related to headcount reductions of 66 people, principally in Robotics and Semiconductor Test, which included charges related to a voluntary early retirement program for employees meeting certain conditions.

During the six months ended July 2, 2023, we recorded $7.2 million of severance charges related to headcount reductions of 179 people, primarily in Semiconductor Test and Robotics which included charges related to a voluntary early retirement program for employees meeting certain conditions and a charge of $1.1 million for an increase in environmental liability.

Gain on Sale of Business

During the six months ended June 30, 2024, we recorded a gain of $57.5 million associated with the sale of DIS to Technoprobe.

Interest and Other

	For the Six Months Ended		
	June 30, 2024	July 2, 2023	Dollar Change
		(in millions)	
Interest income	$ (14.6)	$ (11.6)	$ (3.0)
Interest expense	2.2	2.0	0.2
Other (income) expense, net	8.2	0.9	7.3

Other (income) expense, net increased $7.3 million primarily due to the settlement of our call option purchased in connection with the investment in 10% of Technoprobe.

Income (Loss) Before Income Taxes

	For the Six Months Ended		
	June 30, 2024	July 2, 2023	Dollar Change
		(in millions)	
Semiconductor Test	$ 237.7	$ 225.2	$ 12.5
System Test	23.6	43.9	(20.3)
Wireless Test	9.1	21.4	(12.3)
Robotics	(31.9)	(44.9)	13.0
Corporate and Eliminations (1)	53.8	(4.1)	57.9
	$ 292.3	$ 241.5	$ 50.8

(1) Included in Corporate and Eliminations are: interest income, interest expense, net foreign exchange gains (losses), intercompany eliminations, severance charges, pension, acquisition and divestiture related fees, gain on sale of business, and an expense for the modification of outstanding equity awards.

The change in income before income taxes in Semiconductor Test, System Test, Wireless Test, and Robotics were driven primarily by fluctuations in revenue within each of the businesses. The gain before income taxes in Corporate and Eliminations was primarily due to the sale of DIS to Technoprobe.

Income Taxes

The effective tax rate for the six months ended June 30, 2024, and July 2, 2023, was 14.3% and 15.7%, respectively. The decrease in the effective tax rate from the six months ended July 2, 2023, to the six months ended June 30, 2024, primarily resulted from the benefit of a projected shift in the geographic distribution of income and a reduction in expense related to non-deductible

executive compensation. These benefits were partially offset by an increase in expense related to the international provision of the U.S. Tax Cuts and Jobs Act of 2017 and a decrease in benefit related to equity compensation.

Contractual Obligations

There have been no changes outside of the ordinary course of business to our contractual obligations as disclosed in our Annual Report on Form 10-K for the year ended December 31, 2023.

Liquidity and Capital Resources

Our cash, cash equivalents and marketable securities balances decreased by $352.9 million in the six months ended June 30, 2024, to $584.3 million.

Operating activities during the six months ended June 30, 2024, provided cash of $223.3 million. Changes in operating assets and liabilities used cash of $65.3 million due to a $14.9 million increase in operating assets and a $50.4 million decrease in operating liabilities.

The increase in operating assets was primarily due to a $54.2 million increase in accounts receivable driven by higher sales in the second quarter of 2024, partially offset by decreases in other assets and inventory of $22.2 million and $17.1 million, respectively.

The decrease in operating liabilities was due to a $30.0 million decrease in accrued employee compensation, $22.0 million decrease in accounts payable, $2.8 million decrease in retirement plans, and $1.0 million decrease in accrued other, partially offset by a $2.7 million increase in deferred revenue and customer advances and a $2.6 million increase in income taxes.

Investing activities during the six months ended June 30, 2024, used cash of $505.1 million due to $524.7 million used for the purchases of investment, $88.9 million used for the purchase of property, plant and equipment, $27.8 million used for the purchase of marketable securities, partially offset by $87.2 million in proceeds from the sale of a business, $26.9 million and $21.3 million in proceeds from the sale of maturities and marketable securities, respectively, and $0.9 million in proceeds from life insurance.

Financing activities during the six months ended June 30, 2024, used cash of $59.3 million due to $185.0 million used for proceeds from borrowings on revolving credit facility of which $185.0 million in payments were paid back in full during the quarter, $37.4 million used for dividend payment, $30.3 million used for the repurchase of 0.3 million shares of common stock at an average price of $101.40 per shares and $13.4 million used for payment related to net settlements of employee stock compensation awards, partially offset by $21.8 million from the issuance of common stock under employee stock purchase and stock option plans.

Operating activities during the six months ended July 2, 2023, provided cash of $162.1 million. Changes in operating assets and liabilities used cash of $121.7 million due to a $46.1 million increase in operating assets and $75.5 million decrease in operating liabilities.

The increase in operating assets was primarily due to a $29.6 million increase in prepayments and other assets due to prepayments to our contract manufacturers, a $13.8 million increase in inventories and a $2.7 million increase in accounts receivable.

The decrease in operating liabilities was due to a $48.9 million decrease in accrued employee compensation, a $34.9 million decrease in deferred revenue and customer advance payments, a $13.6 million decrease in income taxes, and $2.5 million of retirement plan contributions, partially offset by $13.0 million increase in accounts payable and an $11.4 million increase in other accrued liabilities.

Investing activities during the six months ended July 2, 2023, used cash of $121.7 million due to $99.0 million used for purchases of marketable securities and $80.7 million used for purchases of property, plant and equipment, partially offset by $35.6 million and $22.0 million in proceeds from sales and maturities of marketable securities, respectively, and $0.5 million in proceeds from the cancellation of Teradyne owned life insurance policies related to the cash surrender value.

Financing activities during the six months ended July 2, 2023, used cash of $283.2 million due to $227.8 million used for the repurchase of 2.2 million shares of common stock at an average price of $102.35 per share, $20.3 million used for payment related to net settlements of employee stock compensation awards, $34.2 million used for dividend payments, and $17.5 million used for payments of convertible debt principal, partially offset by $16.6 million from the issuance of common stock under employee stock purchase and stock option plans.

In January 2024 and May 2024, our Board of Directors declared a quarterly cash dividend of $0.12 per share. Dividend payments for the three months ended June 30, 2024, were $19.0 million and $37.4 million, respectively.

In January 2023 and May 2023, our Board of Directors declared a quarterly cash dividend of $0.11 per share. Dividend payments for the three months ended July 2, 2023, were $17.0 million and $34.2 million, respectively.

In January 2023, our Board of Directors cancelled the 2021 repurchase program and approved a new repurchase program for up to $2.0 billion of common stock.

During the six months ended June 30, 2024, we repurchased 0.3 million shares of common stock for $30.3 million, which excludes related excise tax, at an average price of $101.40 per share. We intend to repurchase up to $90.0 million of common stock in 2024 subject to market conditions. The cumulative repurchases under the 2023 repurchase program as of June 30, 2024, were 4.2 million shares of common stock for $430.8 million, which excludes related excise tax, at an average price per share of $102.39. During the six months ended July 2, 2023, we repurchased 2.2 million shares of common stock for $227.8 million, which excludes related excise tax, at an average price of $107.50 per share.

While we have previously declared a quarterly cash dividend and authorized a share repurchase program, we may reduce or eliminate the cash dividend or share repurchase program in the future. Cash dividends and stock repurchases are subject to the discretion of our Board of Directors, which will consider, among other things, our earnings, capital requirements and financial condition.

On May 1, 2020, we entered into a credit agreement providing a three-year, senior secured revolving credit facility of $400.0 million. On December 10, 2021, the credit agreement was amended to extend the senior secured revolving credit facility to December 10, 2026. On October 5, 2022, the credit agreement was amended to increase the amount of the credit facility to $750.0 million from $400.0 million. On November 7, 2023, the Credit Agreement was amended to allow for the purchase of the shares of Technoprobe. On May 16, 2024, the Company borrowed $185.0 million under the credit agreement to fund the acquisition of 10% of the issued and outstanding shares of Technoprobe. The Company has fully repaid its borrowings on the revolving credit facility prior to June 30, 2024. As of August 2, 2024, there are no outstanding borrowings under the credit facility.

We believe our cash, cash equivalents, marketable securities and senior secured revolving credit facility will be sufficient to pay our quarterly dividend and meet our working capital and expenditure needs for at least the next twelve months. Inflation has not had a significant long-term impact on earnings.

Equity Compensation Plans

In addition to our 1996 Employee Stock Purchase Program as discussed in Note Q: “Stock-Based Compensation” in our 2023 Annual Report on Form 10-K, we have a 2006 Equity and Cash Compensation Incentive Plan (the “2006 Equity Plan”).

The purpose of the 1996 Employee Stock Purchase Plan is to encourage stock ownership by all eligible employees of Teradyne. The purpose of the 2006 Equity Plan is to provide equity ownership and compensation opportunities in Teradyne to our employees, officers and directors. Both plans were approved by our shareholders.

Recently Issued Accounting Pronouncements

In November 2023, the Financial Accounting Standards Board ("FASB") issued Accounting Standard Update ("ASU") No. 2023-07, *"Segment Reporting (Topic 280): Improvements to Reportable Segment Disclosures"*, which will require us to disclose significant segment expenses and other segment items used by the Chief Operating Decision Maker ("CODM") on an annual and interim basis as well as provide in interim periods all disclosures about a reportable segment’s profit or loss and assets that are currently required annually. Additionally, we will be required to disclose the title and position of the CODM. The new standard is effective for fiscal years beginning after December 15, 2023, and interim periods within fiscal years beginning after December 15, 2024, with early adoption permitted. This ASU will have no impact on our results of operations, cash flows or financial condition. Upon adoption, we will apply the amendments in this ASU retrospectively to all prior period disclosures presented in the financial statements.

In December 2023, FASB issued ASU 2023-09, *“Income Taxes (Topic 740): Improvements to Income Tax Disclosures”*, which requires expanded disclosures relating to the tax rate reconciliation, income taxes paid, income (loss) before income tax expense (benefit) and income tax expense (benefit), requiring a greater disaggregation of information for each. The provisions of ASU 2023-09 are effective for fiscal years beginning after December 15, 2024. The amendments in this update should be applied on a prospective

basis, but retrospective application is permitted. This ASU will have no impact on results of operations, cash flows or financial condition.

Item 3: Quantitative and Qualitative Disclosures about Market Risks

For “Quantitative and Qualitative Disclosures about Market Risk” affecting Teradyne, see Part 2 Item 7A, “Quantitative and Qualitative Disclosures about Market Risks,” in our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, filed with the SEC on February 22, 2024. There were no material changes in our exposure to market risk from those set forth in our Annual Report on Form 10-K for the fiscal year ended December 31, 2023.

Item 4: Controls and Procedures

As of the end of the period covered by this report, our management, with the participation of our Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of our disclosure controls and procedures pursuant to Rule 13a-15(b) or Rule 15d-15(f) promulgated under the Exchange Act. Based upon that evaluation, our Chief Executive Officer and Chief Financial Officer concluded that, as of the end of the period covered by this report, our disclosure controls and procedures were effective in ensuring that material information required to be disclosed in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC’s rules and forms, including ensuring that such material information is accumulated and communicated to our management, including our Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

There have been no changes in our internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the three months ended June 30, 2024, that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II. OTHER INFORMATION

Item 1: Legal Proceedings

We are subject to various legal proceedings and claims which have arisen in the ordinary course of business such as, but not limited to, patent, employment, commercial and environmental matters. Teradyne believes that it has meritorious defenses against all pending claims and intends to vigorously contest them. While it is not possible to predict or determine the outcomes of any pending claims or to provide possible ranges of losses that may arise, Teradyne believes the potential losses associated with all of these actions are unlikely to have a material adverse effect on its business, financial position or results of operations.

Item 1A: Risk Factors

In addition to other information set forth in this Form 10-Q, including the risk discussed below, you should carefully consider the factors discussed in Part I, “Item 1A: Risk Factors” in our Annual Report on Form 10-K for the year ended December 31, 2023, filed with the SEC on February 22, 2024, which could materially affect our business, financial condition or future results. The risk factors described in our Annual Report on Form 10-K for the fiscal year ended December 31, 2023, remain applicable to our business.

The risks described in our Annual Report on Form 10-K are not the only risks that we face. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial also may materially adversely affect our business, financial condition and/or operating results.

Item 2: Unregistered Sales of Equity Securities and Use of Proceeds

In January 2023, Teradyne's Board of Directors cancelled our 2021 repurchase program and approved a new repurchase program for up to $2.0 billion of common stock. During the six months ended June 30, 2024, we repurchased 0.3 million shares of common stock for a total cost of $30.3 million at an average price of $101.40 per share. We record share repurchases at cost, which includes broker commissions and related excise taxes. During the six months ended July 2, 2023, we repurchased 2.2 million shares of common stock for $229.5 million at an average price of $102.35 per share.

The following table includes information with respect to repurchases we made of our common stock during the three months ended June 30, 2024, (in thousands except per share price):

Period	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 (2)
April 1, 2024 - April 28, 2024	66		$ 100.70		65	$ 1,570,824
April 29, 2024 - May 26, 2024	14		$ 123.17		13	$ 1,569,191
May 27, 2024 - June 30, 2024	1		$ 141.02		-	$ 1,569,191
	81	(1)	105.11	(1)	78	

(1) Includes approximately three thousand shares at an average price of $124.53 withheld from employees for the payment of taxes.
(2) As of January 1, 2023, share repurchases net of share issuances are subject to a 1% excise tax under the Inflation Reduction Act. Excise tax incurred is included as part of the cost basis of shares repurchased in the Condensed Consolidated Statements of Convertible Common Shares and Stockholders' Equity.

We satisfy U.S. federal and state minimum withholding tax obligations due upon the vesting and the conversion of restricted stock units into shares of our common stock, by automatically withholding from the shares being issued, a number of shares with an aggregate fair market value on the date of such vesting and conversion that would satisfy the minimum withholding amount due.

Item 4: Mine Safety Disclosures

Not Applicable

Item 5: Other Information

10b 5-1 Trading Plans

Our officers (as defined in Rule 16a-1(f) under the Securities Exchange Act of 1934, as amended (the "Exchange Act")) ("Section 16 Officers") and directors from time to time enter into contracts, instructions or written plans for the purchase or sale of our securities that are intended to satisfy the conditions specified in Rule 10b5-1(c) under the Exchange Act for an affirmative defense against liability for trading in securities on the basis of material nonpublic information. We refer to these contracts, instructions, and written plans as "Rule 10b5-1 trading plans" and each one as a "Rule 10b5-1 trading plan." During our fiscal quarter ended June 30, 2024, the following Section 16 Officers or directors adopted, modified or terminated Rule 10b5-1 trading plans:

Sanjay Mehta, **Chief Financial Officer and Treasurer**

Sanjay Mehta, our Vice President, Chief Financial Officer and Treasurer, entered into a new Rule 10b5-1 trading plan on May 20, 2024. The Rule 10b5-1 trading plan provides that Mr. Mehta, acting through a broker, may sell up to an aggregate of 28,049 shares. Subject to price limits, the first trade under Mr. Mehta's Rule 10b5-1 trading plan is scheduled for August 20, 2024. Mr. Mehta's plan is scheduled to terminate on May 19, 2025, subject to earlier termination upon the sale of all shares subject to the plan, upon termination by Mr. Mehta or the broker, or as otherwise provided in the plan.

Gregory Smith, President and Chief Executive Officer

Gregory Smith, our President and Chief Executive Officer, entered into a new Rule 10b5-1 trading plan on June 7, 2024. The Rule 10b5-1 trading plan provides that Mr. Smith, acting through a broker, may sell up to an aggregate of 15,400 shares. Subject to price limits, the first trade under Mr. Smith's Rule 10b5-1 trading plan is scheduled for September 6, 2024. Mr. Smith's plan is scheduled to terminate on January 31, 2025, subject to earlier termination upon the sale of all shares subject to the plan, upon termination by Mr. Smith or the broker, or as otherwise provided in the plan.

Item 6: Exhibits

Exhibit Number	Description
10.1	Third Amendment to Credit Agreement dated November 7, 2023 among Teradyne, Inc., Truist Bank, as the administrative agent, issuing bank and swingline lender, and other lenders party thereto (filed herewith)
31.1	Certification of Principal Executive Officer, pursuant to Rule 13a-14(a) of Securities and Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith)
31.2	Certification of Principal Financial Officer, pursuant to Rule 13a-14(a) of Securities and Exchange Act of 1934, as adopted pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith)
32.1	Certification of Principal Executive Officer pursuant to 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (furnished herewith)
32.2	Certification of Principal Financial Officer pursuant to 18 U.S.C. 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (furnished herewith)
101.INS	Inline XBRL Instance Document
101.SCH	Inline XBRL Taxonomy Extension Schema With Embedded Linkbase Documents
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.

TERADYNE, INC.
Registrant

/s/ SANJAY MEHTA

Sanjay Mehta
Vice President,
Chief Financial Officer and Treasurer
(Duly Authorized Officer
and Principal Financial Officer)
August 2, 2024

Exhibit 10.1

THIRD AMENDMENT TO CREDIT AGREEMENT

This **THIRD AMENDMENT TO CREDIT AGREEMENT**, dated as of November 7, 2023 (this "Third Amendment"), is entered into among **TERADYNE, INC.**, a Massachusetts corporation (the "Borrower"), the Lenders (as defined below) party hereto and the Administrative Agent (as defined below), and modifies that certain Credit Agreement, dated as of May 1, 2020 (as amended by that certain First Amendment to Credit Agreement, dated as of December 10, 2021 and that certain Second Amendment to Credit Agreement, dated as of October 5, 2022, and as further amended, restated, amended and restated, supplemented or otherwise modified in writing from time to time and in effect immediately prior to the effectiveness of this Third Amendment, the "Existing Credit Agreement" and the Existing Credit Agreement, as amended by this Third Amendment, the "Amended Credit Agreement"), among the Borrower, the lenders from time to time party thereto (each a "Lender", and collectively, the "Lenders"), and **TRUIST BANK**, as administrative agent for the Lenders (in such capacity, including any successor thereto, the "Administrative Agent"), as Issuing Bank and as Swingline Lender. Capitalized terms used herein and not defined herein shall have the meaning assigned to such terms in the Amended Credit Agreement.

PRELIMINARY STATEMENTS

A. The Borrower has requested that the Administrative Agent and the Required Lenders under the Existing Credit Agreement agree to amend certain of the terms and provisions of the Existing Credit Agreement, as specifically set forth in this Third Amendment.

B. Each Lender under the Existing Credit Agreement that executes and delivers a signature page to this Third Amendment hereby agrees to the terms and conditions of this Third Amendment, and such Lenders constitute not less than the Required Lenders under the Existing Credit Agreement.

Accordingly, in consideration of the premises and other good and valuable consideration, the parties hereto hereby agree as follows:

1. **Amendments to the Existing Credit Agreement**. The Existing Credit Agreement is hereby amended as follows:

(a) Section 1.1 of the Existing Credit Agreement is amended to:

(i) insert the following new definition in alphabetical order:

"'Project Providence Investment' means the minority investment by the Borrower or any of its Subsidiaries in a semiconductor company headquartered in Europe in an aggregate amount not to exceed $625,000,000."

(ii) delete the definition of "Sanctioned Country" in its entirety and replace it with the following:

"'Sanctioned Country' means, at any time, a country, region or territory that is, or whose government is, the subject or target of any Sanctions, including, without limitation, Cuba, Iran, North Korea, Syria and the regions of Ukraine referred to as Crimea, the Donetsk People's Republic and the Luhansk People's Republic."

(b) Section 7.6 of the Existing Credit Agreement is amended to (i) delete the text "and" at the end of Section 7.6(n), (ii) to delete the period at the end of Section 7.6(o) and replace it with the text "; and" and (iii) insert a new clause (p) to read as follows:

"(p) (x) the Project Providence Investment and (y) intercompany Investments made in connection with funding the Project Providence Investment."

2. **Conditions Precedent to Third Amendment**. This Third Amendment shall become effective as of the date first written above (the "Third Amendment Effective Date") upon the receipt by the Administrative Agent of this Third Amendment, duly executed by the Borrower and the Required Lenders.

3. **Representations and Warranties**. The Borrower hereby represents and warrants to the Administrative Agent, each Lender and the Issuing Bank as of the Third Amendment Effective Date as follows:

(a) Authorization; Enforceability. The Borrower has the power and authority, and the legal right, to make, deliver and perform this Third Amendment. The Borrower has taken all necessary organizational action to authorize the execution, delivery and performance of this Third Amendment. No consent or authorization of, filing with, notice to or other act by or in respect of, any Governmental Authority or any other Person is required in connection with the execution, delivery, performance, validity or enforceability of this Third Amendment or the Amended Credit Agreement except (i) consents, authorizations, filings and notices have been obtained or made and are in full force and effect, and (ii) filings required under the Exchange Act in respect of the transactions contemplated by this Third Amendment. This Third Amendment has been duly executed and delivered on behalf of the Borrower. Each of this Third Amendment and the Amended Credit Agreement constitutes a legal, valid and binding obligation of the Borrower, enforceable against the Borrower in accordance with its terms, except as enforceability may be limited by applicable bankruptcy, insolvency, reorganization, moratorium or similar laws affecting the enforcement of creditors' rights generally and by general equitable principles (whether enforcement is sought by proceedings in equity or at law).

(b) No Legal Bar. The execution, delivery and performance of this Third Amendment and the Amended Credit Agreement will not violate any Requirement of Law, any Loan Party's organizational documents, or any material Contractual Obligation of any Loan Party, except for violations that would not reasonably be expected to have a Material Adverse Effect, and will not result in, or require, the creation or imposition of any Lien on any of their respective properties or revenues pursuant to any Requirement of Law or any such Contractual Obligation (other than the Liens created by the Loan Documents).

(c) Representations and Warranties. The representations and warranties of the Loan Parties contained in each Loan Document are true and correct in all material respects on and as of the Third Amendment Effective Date as though made on and as of such date (except to the extent any such representation or warranty expressly relates to an earlier date, in which case such representation and warranty shall have been true and correct in all material respects as of such earlier date); provided that any representation or warranty that is qualified as to "materiality", "Material Adverse Effect" or similar language shall be true and correct in all respects on such respective dates.

(a) No Default. No Default or Event of Default exists on and as of the Third Amendment Effective Date.

4. **Survival**. All representations and warranties made by the Borrower (on behalf of itself or the other Loan Parties) in this Third Amendment or any other Loan Document and in the certificates, reports, notices or other instruments delivered in connection with or pursuant to this Third Amendment shall be considered to have been relied upon by the other parties hereto and shall survive the execution and delivery of this Third Amendment, regardless of any investigation made by any such other party or on its behalf and notwithstanding that the Administrative Agent, the Issuing Bank or any Lender may have had notice or knowledge of any Default or incorrect representation or warranty at the time any credit is extended hereunder, and shall continue in full force and effect as long as the principal of or any accrued interest on any Loan or any fee or any other amount payable under the Amended Credit Agreement is outstanding and unpaid or any Letter of Credit is outstanding and so long as the Commitments have not expired or terminated.

5. **Third Amendment as a Loan Document**. This Third Amendment constitutes a "Loan Document" under the Amended Credit Agreement.

6. **Effect on Loan Documents**. After giving effect to this Third Amendment on the Third Amendment Effective Date, the Amended Credit Agreement and the other Loan Documents shall be and remain in full force and effect in accordance with their terms and are hereby ratified and confirmed by the Borrower in all respects. The execution, delivery, and performance of this Third Amendment shall not operate as a waiver of any right, power, or remedy of the Administrative Agent or the Lenders under the Existing Credit Agreement or the other Loan Documents. The Borrower hereby acknowledges and agrees that, after giving effect to this Third Amendment, all of its obligations and liabilities under the Existing Credit Agreement and the other Loan Documents to which it is a party, as such obligations and liabilities have been amended by this Third Amendment, are reaffirmed and remain in full force and effect. All references to the Existing Credit Agreement in any Loan Document or other document or instrument delivered in connection therewith shall be deemed to refer to the Amended Credit Agreement. Nothing contained herein shall be construed as a novation of the Obligations outstanding under and as defined in the Existing Credit Agreement, which shall remain in full force and effect, except as modified hereby.

7. **Limited Effect**. This Third Amendment relates only to the specific matters expressly covered herein, shall not be considered to be an amendment or waiver of any rights or remedies that the Administrative Agent or any Lender may have under the Existing Credit Agreement or any other Loan Document (except as expressly set forth herein) or under applicable law, and shall not be considered to create a course of dealing or to otherwise obligate in any respect the Administrative Agent or any Lender to execute similar or other amendments or waivers or grant any amendments or waivers under the same or similar or other circumstances in the future.

8. **Governing Law**. This Third Amendment and any claims, controversy, dispute or cause of action (whether in contract or tort or otherwise) based upon, arising out of or relating to this Third Amendment and the transactions contemplated hereby shall be construed in accordance with and be governed by the law (without giving effect to the conflict of law principles thereof) of the State of New York.

9. **Counterparts; Electronic Signatures**. This Third Amendment may be executed by one or more of the parties to this Third Amendment on any number of separate counterparts, and all of such counterparts taken together shall be deemed to constitute one and the same agreement. Delivery of an executed counterpart of a signature page of this Third Amendment by facsimile or other electronic imaging means (*e.g.*, via electronic mail in .pdf form) shall be effective as delivery of a manually executed counterpart of this Third Amendment. The words "execution," "execute," "signed," "signature," and words of like import in or related to this Third Amendment or any other document to be signed in connection with this Third Amendment and the transactions contemplated hereby shall be deemed to include electronic signatures, the electronic matching of assignment terms and contract formations on electronic platforms approved by the Administrative Agent, or the keeping of records in electronic form, each of which shall be of the same legal effect, validity or enforceability as a manually executed signature or the use of a paper-based recordkeeping system, as the case may be, to the extent and as provided for in any applicable law, including the Federal Electronic Signatures in Global and National Commerce Act, the New York State Electronic Signatures and Records Act, or any other similar state laws based on the Uniform Electronic Transactions Act; provided that, notwithstanding anything contained herein to the contrary, the Administrative Agent is under no obligation to agree to accept electronic signatures in any form or in any format unless expressly agreed to by the Administrative Agent pursuant to procedures approved by it.

[*Signature Pages Follow*]

IN WITNESS WHEREOF, the parties hereto have caused this Third Amendment to the Credit Agreement to be executed and delivered as of the date first above written.

TERADYNE, INC.

By: /s/ Sanjay Mehta
Name: Sanjay Mehta
Title: Vice President and Chief Financial Officer

TRUIST BANK, as Administrative Agent and as a Lender

By: /s/ Alfonso Brigham
Name: Alfonso Brigham
Title: Director

[Lender Signature Pages on File with Administrative Agent]

Exhibit 31.1

CERTIFICATIONS

I, Gregory S. Smith, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Teradyne, Inc.;

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

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

4. The registrant's other certifying officer 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: August 2, 2024

By: /s/ GREGORY S. SMITH

Gregory S. Smith
Chief Executive Officer

Exhibit 31.2

CERTIFICATIONS

I, Sanjay Mehta, certify that:

1. I have reviewed this quarterly report on Form 10-Q of Teradyne, Inc.;

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

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

4. The registrant's other certifying officer 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: August 2, 2024

By: /s/ SANJAY MEHTA

Sanjay Mehta
Chief Financial Officer

Exhibit 32.1

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 Quarterly Report of Teradyne, Inc. (the "Company") on Form 10-Q for the period ended June 30, 2024, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Gregory S. Smith, Chief Executive Officer of the Company, certify 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 my knowledge:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company as of the dates and for the periods expressed in the Report.

/s/ GREGORY S. SMITH

Gregory S. Smith
Chief Executive Officer
August 2, 2024

Exhibit 32.2

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 Quarterly Report of Teradyne, Inc. (the "Company") on Form 10-Q for the period ended June 30, 2024, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Sanjay Mehta, Chief Financial Officer of the Company, certify 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 my knowledge:

(1) The Report fully complies with the requirements of section 13(a) or 15(d) of the Securities Exchange Act of 1934, as amended; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company as of the dates and for the periods expressed in the Report.

/s/ SANJAY MEHTA

Sanjay Mehta
Chief Financial Officer
August 2, 2024