

**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 April 4, 2021

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 April 30, 2021 was 166,266,321 shares.

TERADYNE, INC.

INDEX

[PART I. FINANCIAL INFORMATION](#)

Page No.

Item 1.	Financial Statements (Unaudited):	
	Condensed Consolidated Balance Sheets as of April 4, 2021 and December 31, 2020	1
	Condensed Consolidated Statements of Operations for the Three Months Ended April 4, 2021 and March 29, 2020	2
	Condensed Consolidated Statements of Comprehensive Income for the Three Months Ended April 4, 2021 and March 29, 2020	3
	Condensed Consolidated Statements of Shareholders' Equity for the Three Months Ended April 4, 2021 and March 29, 2020	4
	Condensed Consolidated Statements of Cash Flows for the Three Months Ended April 4, 2021 and March 29, 2020	5
	Notes to Condensed Consolidated Financial Statements	6
Item 2.	Management's Discussion and Analysis of Financial Condition and Results of Operations	26
Item 3.	Quantitative and Qualitative Disclosures about Market Risk	33
Item 4.	Controls and Procedures	33
	PART II. OTHER INFORMATION	
Item 1.	Legal Proceedings	34
Item 1A.	Risk Factors	34
Item 2.	Unregistered Sales of Equity Securities and Use of Proceeds	34
Item 4.	Mine Safety Disclosures	35
Item 6.	Exhibits	35

PART I

Item 1: Financial Statements

TERADYNE, INC.
CONDENSED CONSOLIDATED BALANCE SHEETS
(Unaudited)

	April 4, 2021	December 31, 2020
	(in thousands, except per share amount)	
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 831,149	\$ 914,121
Marketable securities	478,293	522,280
Accounts receivable, less allowance for credit losses of \$1,939 and \$2,034 at April 4, 2021 and December 31, 2020, respectively	581,509	497,506
Inventories, net	262,474	222,189
Prepayments and other current assets	347,678	259,338
Total current assets	2,501,103	2,415,434
Property, plant and equipment, net	402,465	394,800
Operating lease right-of-use assets, net	51,516	54,569
Marketable securities	115,620	117,980
Deferred tax assets	92,365	87,913
Retirement plans assets	17,255	17,468
Other assets	8,942	9,384
Acquired intangible assets, net	92,850	100,939
Goodwill	437,601	453,859
Total assets	<u>\$3,719,717</u>	<u>\$ 3,652,346</u>
LIABILITIES		
Current liabilities:		
Accounts payable	\$ 177,473	\$ 133,663
Accrued employees' compensation and withholdings	138,238	220,321
Deferred revenue and customer advances	144,812	134,662
Other accrued liabilities	105,238	77,581
Operating lease liabilities	19,675	20,573
Income taxes payable	90,349	80,728
Current debt	11,057	33,343
Total current liabilities	686,842	700,871
Retirement plans liabilities	152,508	151,140
Long-term deferred revenue and customer advances	55,138	58,359
Long-term contingent consideration	—	7,227
Long-term other accrued liabilities	18,982	19,352
Deferred tax liabilities	9,606	10,821
Long-term operating lease liabilities	39,048	42,073
Long-term incomes taxes payable	74,930	74,930
Debt	356,877	376,768
Total liabilities	1,393,931	1,441,541
Commitments and contingencies (See Note Q)		
Mezzanine equity:		
Convertible common shares	1,233	3,787
SHAREHOLDERS' EQUITY		
Common stock, \$0.125 par value, 1,000,000 shares authorized; 166,419 and 166,123 shares issued and outstanding at April 4, 2021 and December 31, 2020, respectively		
	20,802	20,765
Additional paid-in capital	1,765,971	1,765,323
Accumulated other comprehensive income	8,677	33,516
Retained earnings	529,103	387,414
Total shareholders' equity	2,324,553	2,207,018
Total liabilities, convertible common shares and shareholders' equity	<u>\$3,719,717</u>	<u>\$ 3,652,346</u>

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, 2020, are an integral part of the condensed consolidated financial statements.

TERADYNE, INC.

CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS
(Unaudited)

	For the Three Months Ended	
	April 4, 2021	March 29, 2020
	(in thousands, except per share amount)	
Revenues:		
Products	\$ 660,508	\$ 610,906
Services	121,098	93,449
Total revenues	<u>781,606</u>	<u>704,355</u>
Cost of revenues:		
Cost of products	267,784	259,996
Cost of services	52,204	38,809
Total cost of revenues (exclusive of acquired intangible assets amortization shown separately below)	<u>319,988</u>	<u>298,805</u>
Gross profit	461,618	405,550
Operating expenses:		
Selling and administrative	129,797	111,388
Engineering and development	100,402	85,159
Acquired intangible assets amortization	5,536	9,891
Restructuring and other	(7,130)	(7,606)
Total operating expenses	<u>228,605</u>	<u>198,832</u>
Income from operations	233,013	206,718
Non-operating (income) expense:		
Interest income	(808)	(2,751)
Interest expense	6,004	5,551
Other (income) expense, net	3,824	6,849
Income before income taxes	223,993	197,069
Income tax provision	18,481	20,878
Net income	<u>\$ 205,512</u>	<u>\$ 176,191</u>
Net income per common share:		
Basic	<u>\$ 1.23</u>	<u>\$ 1.06</u>
Diluted	<u>\$ 1.09</u>	<u>\$ 0.97</u>
Weighted average common shares—basic	<u>166,491</u>	<u>166,589</u>
Weighted average common shares—diluted	<u>187,740</u>	<u>180,736</u>
Cash dividend declared per common share	<u>\$ 0.10</u>	<u>\$ 0.10</u>

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, 2020, are an integral part of the condensed consolidated financial statements.

TERADYNE, INC.

CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
(Unaudited)

	<u>For the Three Months Ended</u>	
	<u>April 4,</u>	<u>March 29,</u>
	<u>2021</u>	<u>2020</u>
	<u>(in thousands)</u>	
Net income	\$ 205,512	\$ 176,191
Other comprehensive income, net of tax:		
Foreign currency translation adjustment, net of tax of \$0, \$0	(21,123)	(8,779)
Available-for-sale marketable securities:		
Unrealized (losses) gains on marketable securities arising during period, net of tax of \$(908), \$187, respectively	(3,270)	1,037
Less: Reclassification adjustment for gains included in net income, net of tax of \$(123), \$(145), respectively	(444)	(515)
	(3,714)	522
Defined benefit post-retirement plan:		
Amortization of prior service credit, net of tax of \$0, \$0, respectively	(2)	(2)
Other comprehensive loss	(24,839)	(8,259)
Comprehensive income	<u>\$ 180,673</u>	<u>\$ 167,932</u>

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

	Convertible Common Shares Value	Shareholders' Equity					Retained Earnings (Accumulated Deficit)	Total Shareholders' Equity
		Common Stock Shares	Common Stock Par Value	Additional Paid-in Capital	Accumulated Other Comprehensive Income (Loss)	(in thousands)		
Three Months Ended April 4, 2021								
Balance, December 31, 2020	\$ 3,787	166,123	\$ 20,765	\$ 1,765,323	\$ 33,516	\$ 387,414	\$ 2,207,018	
Net issuance of common stock under stock-based plans		670	84	(14,071)			(13,987)	
Stock-based compensation expense				13,359			13,359	
Repurchase of common stock		(374)	(47)			(47,141)	(47,188)	
Cash dividends (\$0.10 per share)						(16,682)	(16,682)	
Settlements of convertible notes		1,222	153	157,529			157,682	
Exercise of convertible notes hedge call options		(1,222)	(153)	(158,723)			(158,876)	
Convertible common shares	(2,554)			2,554			2,554	
Net income						205,512	205,512	
Other comprehensive loss					(24,839)		(24,839)	
Balance, April 4, 2021	<u>\$ 1,233</u>	<u>166,419</u>	<u>\$ 20,802</u>	<u>\$ 1,765,971</u>	<u>\$ 8,677</u>	<u>\$ 529,103</u>	<u>\$ 2,324,553</u>	
Three Months Ended March 29, 2020								
Balance, December 31, 2019	\$ —	166,410	\$ 20,801	\$ 1,720,129	\$ (18,854)	\$ (241,918)	\$ 1,480,158	
Net issuance of common stock under stock-based plans		872	109	(10,045)			(9,936)	
Stock-based compensation expense				11,283			11,283	
Repurchase of common stock		(1,344)	(168)			(81,897)	(82,065)	
Cash dividends (\$0.10 per share)						(16,699)	(16,699)	
Net income						176,191	176,191	
Other comprehensive loss					(8,259)		(8,259)	
Balance, March 29, 2020	<u>\$ —</u>	<u>165,938</u>	<u>\$ 20,742</u>	<u>\$ 1,721,367</u>	<u>\$ (27,113)</u>	<u>\$ (164,323)</u>	<u>\$ 1,550,673</u>	

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TERADYNE, INC.
**CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS
(Unaudited)**

	For the Three Months Ended	
	April 4, 2021	March 29, 2020
	(in thousands)	
Cash flows from operating activities:		
Net income	\$ 205,512	\$ 176,191
Adjustments to reconcile net income from operations to net cash provided by operating activities:		
Depreciation	23,910	18,489
Stock-based compensation	12,232	10,460
Amortization	9,822	13,391
Loss on convertible debt conversion	4,069	—
Provision for excess and obsolete inventory	2,285	4,057
Contingent consideration adjustment	(7,227)	(10,020)
(Gains) losses on investments	(2,491)	4,657
Deferred taxes	(1,057)	(1,825)
Other	200	503
Changes in operating assets and liabilities, net of businesses acquired:		
Accounts receivable	(87,512)	(126,779)
Inventories	(35,870)	15,818
Prepayments and other assets	(86,131)	(39,620)
Accounts payable and other liabilities	(10,571)	(35,323)
Deferred revenue and customer advances	7,952	(913)
Retirement plans contributions	(1,925)	(1,262)
Income taxes	4,941	15,278
Net cash provided by operating activities	38,139	43,102
Cash flows from investing activities:		
Purchases of property, plant and equipment	(39,250)	(36,700)
Purchases of marketable securities	(211,604)	(187,119)
Proceeds from maturities of marketable securities	194,228	98,457
Proceeds from sales of marketable securities	61,293	15,005
Acquisition of businesses, net of cash acquired	—	149
Net cash provided by (used for) investing activities	4,667	(110,208)
Cash flows from financing activities:		
Issuance of common stock under stock purchase and stock option plans	17,144	12,752
Payments of convertible debt principal	(51,275)	—
Repurchase of common stock	(45,188)	(79,039)
Dividend payments	(16,667)	(16,686)
Payments related to net settlement of employee stock compensation awards	(30,675)	(22,070)
Payments of contingent consideration	—	(8,852)
Net cash used for financing activities	(126,661)	(113,895)
Effects of exchange rate changes on cash and cash equivalents	883	571
Decrease in cash and cash equivalents	(82,972)	(180,430)
Cash and cash equivalents at beginning of period	914,121	773,924
Cash and cash equivalents at end of period	<u>\$ 831,149</u>	<u>\$ 593,494</u>
Non-cash investing activities:		
Capital expenditures incurred but not yet paid:	\$ 3,840	\$ 5,357

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, 2020, are an integral part of the condensed consolidated financial statements.

TERADYNE, INC.

NOTES TO CONDENSED CONSOLIDATED FINANCIAL STATEMENTS
(Unaudited)

A. THE COMPANY

Teradyne, Inc. (“Teradyne”) is a leading global supplier of automation equipment for test and industrial applications. Teradyne designs, develops, manufactures and sells automatic test systems 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 industrial automation products include collaborative robotic arms, autonomous mobile robots, and advanced robotic control software used by global manufacturing, logistics and light industrial customers to improve quality, increase manufacturing and material handling efficiency and decrease manufacturing and logistics costs. Teradyne’s automatic test equipment and industrial automation 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
- industrial automation (“Industrial Automation”) 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. Certain prior year amounts were reclassified to conform to the current year presentation. The December 31, 2020 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, 2021, for the year ended December 31, 2020.

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 of assets, liabilities, revenues and expenses, and related disclosures 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 judgements about the carrying values of assets and liabilities that are not readily apparent from other sources. Due to the COVID-19 pandemic, there has been uncertainty and disruption in the global economy and our markets. 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 May 7, 2021, 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.

C. RECENTLY ISSUED ACCOUNTING PRONOUNCEMENTS

In August 2020, the FASB issued ASU 2020-06 – “Debt—Debt with Conversion and Other Options and Derivatives and Hedging - Contracts in Entity’s Own Equity,” which simplifies the accounting for convertible debt instruments by reducing the number of accounting models and the number of embedded conversion features that could be recognized separately from the primary contract. This ASU requires a convertible debt instrument to be accounted for as a single liability measured at its amortized cost, as long as no other features require bifurcation and recognition as derivatives. This ASU requires an entity to use the if-converted method in the diluted earnings per share calculation for convertible instruments. This ASU will be effective for Teradyne on January 1, 2022. This ASU permits the use of either the modified retrospective or fully retrospective method of transition. Teradyne is evaluating the effects of the adoption of this ASU on its financial statements.

[Table of Contents](#)

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	Industrial Automation			Wireless Test	Corporate and Other	Total
	System on-a-Chip	Memory		Universal Robots	Mobile Industrial Robots	AutoGuide			
(in thousands)									
For the Three Months Ended April 4, 2021 (1)									
<i>Timing of Revenue Recognition</i>									
Point in Time	\$364,190	\$101,892	\$119,314	\$64,007	\$14,064	\$ (120)	\$37,880	\$ (143)	\$701,084
Over Time	56,040	5,941	13,523	1,594	67	339	3,018	—	80,522
Total	\$420,230	\$107,833	\$132,837	\$65,601	\$14,131	\$219	\$40,898	\$ (143)	\$781,606
<i>Geographical Market</i>									
Asia Pacific	\$387,236	\$104,049	\$99,520	\$17,833	\$3,447	\$—	\$33,532	\$—	\$645,617
Americas	20,779	3,420	27,659	18,153	5,153	219	5,769	(143)	81,010
Europe, Middle East and Africa	12,215	364	5,658	29,615	5,531	—	1,597	—	54,980
Total	\$420,230	\$107,833	\$132,837	\$65,601	\$14,131	\$219	\$40,898	\$ (143)	\$781,606
For the Three Months Ended March 29, 2020 (1)									
<i>Timing of Revenue Recognition</i>									
Point in Time	\$348,044	\$79,398	\$100,712	\$47,502	\$9,097	\$1,124	\$41,056	\$—	\$626,933
Over Time	52,095	4,952	15,364	2,195	41	346	2,429	—	77,422
Total	\$400,139	\$84,350	\$116,076	\$49,697	\$9,138	\$1,470	\$43,485	\$—	\$704,355
<i>Geographical Market</i>									
Asia Pacific	\$362,732	\$76,110	\$80,017	\$10,917	\$1,593	\$—	\$37,805	\$—	\$569,174
Americas	17,386	6,896	28,291	14,743	3,465	1,470	4,688	—	76,939
Europe, Middle East and Africa	20,021	1,344	7,768	24,037	4,080	—	992	—	58,242
Total	\$400,139	\$84,350	\$116,076	\$49,697	\$9,138	\$1,470	\$43,485	\$—	\$704,355

(1) Includes \$3.1 million and \$1.8 million in 2021 and 2020, respectively, for leases of Teradyne's systems recognized outside Accounting Standards Codification ("ASC") 606 "Revenue from Contracts with Customers."

Contract Balances

For the three months ended April 4, 2021 and March 29, 2020, Teradyne recognized \$27.8 million and \$39.5 million, respectively, that was previously 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 April 4, 2021, Teradyne has \$1,456.0 million of unsatisfied performance obligations. Teradyne expects to recognize 95% of the remaining performance obligations in the next 12 months, 4% in 1-3 years, and the remainder thereafter.

Accounts Receivable

Teradyne sells certain trade accounts receivables on a non-recourse basis to third-party financial institutions pursuant to factoring agreements. Teradyne accounts for these transactions as sales of receivables and presents cash proceeds as cash provided by operating activities in the consolidated statements of cash flows. Total trade accounts receivable sold under the factoring agreements were \$7.3 million and \$46.8 million for the three months ended April 4, 2021 and March 29, 2020, respectively. Factoring fees for the sales of receivables were recorded in interest expense and were not material.

[Table of Contents](#)

E. INVENTORIES

Inventories, net consisted of the following at April 4, 2021 and December 31, 2020:

	April 4, 2021	December 31, 2020
	(in thousands)	
Raw material	\$ 117,552	\$ 114,133
Work-in-process	32,772	25,408
Finished goods	112,150	82,648
	<u>\$262,474</u>	<u>\$ 222,189</u>

Inventory reserves at April 4, 2021 and December 31, 2020 were \$107.8 million and \$110.6 million, respectively.

F. FINANCIAL INSTRUMENTS

Cash Equivalents

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

Marketable Securities

Teradyne's available-for-sale debt securities are classified as Level 2 and equity and debt mutual funds are classified as Level 1. Contingent consideration is classified as Level 3. 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 months ended April 4, 2021 and March 29, 2020, there were no transfers in or out of Level 1, Level 2, or Level 3 financial instruments.

Realized gains recorded in the three months ended April 4, 2021 and March 29, 2020 were \$1.2 million and \$1.4 million, respectively. Realized losses recorded in the three months ended March 29, 2020 were \$0.1 million. Realized gains and losses are included in other (income) expense, net.

Unrealized gains on equity securities recorded in the three months ended April 4, 2021, were \$1.4 million. Unrealized losses on equity securities recorded in the three months ended March 29, 2020 were \$6.0 million. Unrealized gains and losses on equity securities are included in other (income) expense, net. Unrealized gains and losses on available-for-sale debt securities are included in accumulated other comprehensive income (loss).

The cost of securities sold is based on average cost.

The following table sets forth by fair value hierarchy Teradyne's financial assets and liabilities that were measured at fair value on a recurring basis as of April 4, 2021 and December 31, 2020.

[Table of Contents](#)

	April 4, 2021			
	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	\$ 417,888		\$ —	\$ 417,888
Cash equivalents	386,694	26,567	—	413,261
Available-for-sale securities:				
Commercial paper	—	306,715	—	306,715
U.S. Treasury securities	—	155,190	—	155,190
Corporate debt securities	—	83,372	—	83,372
Debt mutual funds	9,288	—	—	9,288
U.S. government agency securities	—	4,612	—	4,612
Certificates of deposit and time deposits	—	966	—	966
Non-U.S. government securities	—	619	—	619
Equity securities:				
Mutual funds	33,151	—	—	33,151
	<u>\$ 847,021</u>	<u>\$ 578,041</u>	<u>\$ —</u>	<u>\$ 1,425,062</u>
Derivative assets	—	16	—	16
Total	<u>\$ 847,021</u>	<u>\$ 578,057</u>	<u>\$ —</u>	<u>\$ 1,425,078</u>
Liabilities				
Derivative liabilities	\$ —	\$ 393	\$ —	\$ 393
Total	<u>\$ —</u>	<u>\$ 393</u>	<u>\$ —</u>	<u>\$ 393</u>

Reported as follows:

	(Level 1)	(Level 2)	(Level 3)	Total
	(in thousands)			
Assets				
Cash and cash equivalents	\$ 804,582	\$ 26,567	\$ —	\$ 831,149
Marketable securities	—	478,293	—	478,293
Long-term marketable securities	42,439	73,181	—	115,620
Prepayments and other current assets	—	16	—	16
Total	<u>\$ 847,021</u>	<u>\$ 578,057</u>	<u>\$ —</u>	<u>\$ 1,425,078</u>
Liabilities				
Other current liabilities	\$ —	\$ 393	\$ —	\$ 393
Total	<u>\$ —</u>	<u>\$ 393</u>	<u>\$ —</u>	<u>\$ 393</u>

December 31,
2020

	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	\$ 443,166	\$ —	\$ —	443,166
Cash equivalents	347,768	123,187	—	470,955
Available-for-sale securities:				—
U.S. Treasury securities	—	258,304	—	258,304
Commercial paper	—	254,413	—	254,413
Corporate debt securities	—	83,615	—	83,615
Debt mutual funds	8,565	—	—	8,565
U.S. government agency securities	—	4,339	—	4,339
Certificates of deposit and time deposits	—	979	—	979
Non-U.S. government securities	—	625	—	625
Equity securities:				
Equity mutual funds	29,420	—	—	29,420
	<u>\$ 828,919</u>	<u>\$ 725,462</u>	<u>\$ —</u>	<u>\$ 1,554,381</u>
Derivative assets	—	95	—	95
Total	<u>\$ 828,919</u>	<u>\$ 725,557</u>	<u>\$ —</u>	<u>\$ 1,554,476</u>
Liabilities				
Contingent consideration	\$ —	\$ —	\$ 7,227	\$ 7,227
Derivative liabilities	—	504	—	504
Total	<u>\$ —</u>	<u>\$ 504</u>	<u>\$ 7,227</u>	<u>\$ 7,731</u>

Reported as follows:

	(Level 1)	(Level 2)	(Level 3)	Total
	(in thousands)			
Assets				
Cash and cash equivalents	\$ 790,934	\$ 123,187	\$ —	\$ 914,121
Marketable securities	—	522,280	—	522,280
Long-term marketable securities	37,985	79,995	—	117,980
Prepayments and other current assets	—	95	—	95
Total	<u>\$ 828,919</u>	<u>\$ 725,557</u>	<u>\$ —</u>	<u>\$ 1,554,476</u>
Liabilities				
Other accrued liabilities	\$ —	\$ 504	\$ —	\$ 504
Long-term contingent consideration	—	—	7,227	7,227
Total	<u>\$ —</u>	<u>\$ 504</u>	<u>\$ 7,227</u>	<u>\$ 7,731</u>

Changes in the fair value of Level 3 contingent consideration for the three months ended April 4, 2021, and March 29, 2020 were as follows:

	For the Three Months Ended	
	April 4, 2021	March 29, 2020
	(in thousands)	
Balance at beginning of period	\$ 7,227	\$ 39,705
Fair value adjustment (a)(b)	(7,227)	(10,020)
Foreign currency impact	—	(361)
Payments (c)	—	(8,852)
Balance at end of period	<u>\$ —</u>	<u>\$ 20,472</u>

Table of Contents

- (a) In the three months ended April 4, 2021, the fair value of contingent consideration for the earn-outs in connection with the acquisition of AutoGuide was reduced to zero, which resulted in a benefit of \$7.2 million, primarily due to a decrease in forecasted revenues and earnings before interest and taxes. As of April 4, 2021, the maximum amount of contingent consideration that could be paid in connection with the acquisition of AutoGuide is \$100.2 million. The remaining earn-out periods end on December 31, 2021 and December 31, 2022. The sellers of AutoGuide have filed an arbitration claim against Teradyne related to the earn-out alleging non-compliance with the earn-out provisions of the AutoGuide acquisition agreement. Teradyne disputes the allegations of non-compliance. The ultimate amount of contingent consideration for the earn-outs in connection with the acquisition of AutoGuide may be affected by the outcome of the dispute.
- (b) In the three months ended March 29, 2020, the fair value of contingent consideration for the earn-outs in connection with the acquisitions of Mobile Industrial Robots Aps (“MiR”) and AutoGuide decreased by \$2.9 million and \$7.1 million, respectively, due to lower forecasts.
- (c) In the three months ended March 29, 2020, Teradyne paid \$8.9 million of contingent consideration for the earn-out in connection with the acquisition of MiR.

The carrying amounts and fair values of Teradyne’s financial instruments at April 4, 2021 and December 31, 2020 were as follows:

	April 4, 2021		December 31, 2020	
	Carrying Value	Fair Value	Carrying Value	Fair Value
	(in thousands)			
Assets				
Cash and cash equivalents	\$ 831,149	\$ 831,149	\$ 914,121	\$ 914,121
Marketable securities	593,913	593,913	640,260	640,260
Derivative assets	16	16	95	95
Liabilities				
Contingent consideration	—	—	7,227	7,227
Derivative liabilities	393	393	504	504
Convertible debt (1)	367,934	1,664,667	410,111	1,739,553

- (1) The carrying value represents the bifurcated debt component only, while the fair value is based on quoted market prices for the convertible note, which includes the equity conversion features.

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 April 4, 2021:

	Cost	Unrealized Gain	Unrealized (Loss)	Fair Market Value	Fair Market Value of Investments with Unrealized Losses
	(in thousands)				
Commercial paper	\$306,707	\$ 8	\$ —	\$ 306,715	\$ 13,996
U.S. Treasury securities	155,337	644	(791)	155,190	24,492
Corporate debt securities	79,190	4,340	(158)	83,372	25,553
Debt mutual funds	9,242	46	—	9,288	—
U.S. government agency securities	4,581	34	(3)	4,612	1,413
Certificates of deposit and time deposits	966	—	—	966	—
Non-U.S. government securities	619	—	—	619	—
	<u>\$556,642</u>	<u>\$ 5,072</u>	<u>\$ (952)</u>	<u>\$ 560,762</u>	<u>\$ 65,454</u>

Table of Contents

Reported as follows:

	Cost	Unrealized Gain	Unrealized (Loss) (in thousands)	Fair Market Value	Fair Market Value of Investments with Unrealized Losses
Marketable securities	\$478,221	\$ 95	\$ (23)	\$ 478,293	\$ 47,468
Long-term marketable securities	78,421	4,977	(929)	82,469	17,986
	<u>\$556,642</u>	<u>\$ 5,072</u>	<u>\$ (952)</u>	<u>\$ 560,762</u>	<u>\$ 65,454</u>

The following table summarizes the composition of available-for-sale marketable securities at December 31, 2020:

	Cost	Unrealized Gain	Unrealized (Loss) (in thousands)	Fair Market Value	Fair Market Value of Investments with Unrealized Losses
U.S. Treasury securities	\$257,132	\$ 1,330	\$ (158)	\$ 258,304	\$ 17,243
Commercial paper	254,404	10	(1)	254,413	12,173
Corporate debt securities	76,129	7,539	(53)	83,615	39,896
Debt mutual funds	8,413	152	—	8,565	—
U.S. government agency securities	4,294	46	(1)	4,339	1,106
Certificates of deposit and time deposits	979	—	—	979	—
Non-U.S. government securities	625	—	—	625	—
	<u>\$601,976</u>	<u>\$ 9,077</u>	<u>\$ (213)</u>	<u>\$ 610,840</u>	<u>\$ 70,418</u>

Reported as follows:

	Cost	Unrealized Gain	Unrealized (Loss) (in thousands)	Fair Market Value	Fair Market Value of Investments with Unrealized Losses
Marketable securities	\$522,228	\$ 92	\$ (40)	\$ 522,280	\$ 61,806
Long-term marketable securities	79,748	8,985	(173)	88,560	8,612
	<u>\$601,976</u>	<u>\$ 9,077</u>	<u>\$ (213)</u>	<u>\$ 610,840</u>	<u>\$ 70,418</u>

As of April 4, 2021 and December 31, 2020, the fair market value of investments with unrealized losses less than one year totaled \$65.5 million and \$70.4 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 April 4, 2021 and December 31, 2020 were not other than temporary.

The contractual maturities of investments in available-for-sale securities held at April 4, 2021 were as follows:

	April 4, 2021	
	Cost	Fair Market Value
	(in thousands)	
Due within one year	\$478,221	\$ 478,293
Due after 1 year through 5 years	28,597	29,038
Due after 5 years through 10 years	6,103	6,484
Due after 10 years	34,479	37,659
Total	<u>\$547,400</u>	<u>\$ 551,474</u>

[Table of Contents](#)

Contractual maturities of investments in available-for-sale securities held at April 4, 2021 exclude debt mutual funds with a fair market value of \$9.3 million, as they do not have a contractual maturity date.

Derivatives

Teradyne conducts business in a number of foreign countries, with certain transactions denominated in local currencies. The purpose of Teradyne's foreign currency management is to minimize the effect of exchange rate fluctuations on certain foreign currency denominated monetary assets and liabilities. Teradyne does not use derivative financial instruments for trading or speculative purposes.

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.

The notional amount of foreign currency forward contracts at April 4, 2021 and December 31, 2020 was \$156.8 million and \$152.9 million, respectively.

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.

The following table summarizes the fair value of derivative instruments as of April 4, 2021 and December 31, 2020:

	<u>Balance Sheet Location</u>	<u>April 4, 2021</u>	<u>December 31, 2020</u>
(in thousands)			
Derivatives not designated as hedging instruments:			
Foreign exchange contracts	Prepayments	\$ 16	\$ 95
Foreign exchange contracts	Other current liabilities	(393)	(504)
Total derivatives		<u>\$ (377)</u>	<u>\$ (409)</u>

The following table summarizes the effect of derivative instruments recognized in the statement of operations for the three months ended April 4, 2021 and March 29, 2020:

	<u>Location of Losses Recognized in Statement of Operations</u>	<u>For the Three Months Ended</u>	
		<u>April 4, 2021</u>	<u>March 29, 2020</u>
(in thousands)			
Derivatives not designated as hedging instruments:			
Foreign exchange contracts	Other (income) expense, net	\$ 2,118	\$ 4,011

- (1) The table does not reflect the corresponding gains and losses from the remeasurement of the monetary assets and liabilities denominated in foreign currencies.
- (2) For the three months ended April 4, 2021 and March 29, 2020, net gains from the remeasurement of monetary assets and liabilities denominated in foreign currencies were \$0.2 million and \$2.0 million, respectively.

See Note G: "Debt" regarding derivatives related to the convertible senior notes.

G. 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") due December 15, 2023 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 will mature on December 15, 2023, unless earlier repurchased or converted. The Notes bear interest from December 12, 2016 at a rate of 1.25% per year payable semiannually in arrears on June 15 and December 15 of each year. The Notes will be convertible at the option of the noteholders at any time prior to the close of business on the business day immediately preceding September 15, 2023, only under the following circumstances: (1) during any calendar

[Table of Contents](#)

quarter beginning after March 31, 2017 (and only during such calendar quarter), if the closing sale price of Teradyne's common stock, for at least 20 trading days (whether or not consecutive) during a period of 30 consecutive trading days ending on the last trading day of the immediately preceding calendar quarter is greater than 130% of the conversion price on each applicable trading day; (2) during the five business day period after any five consecutive trading day period (the "measurement period") in which the trading price (as defined in the Indenture) per \$1,000 principal amount of Notes for each trading day of the measurement period was less than 98% of the product of the closing sale price of the Teradyne's common stock and the conversion rate on each such trading day; and (3) upon the occurrence of specified corporate events. On or after September 15, 2023 until the close of business on the second scheduled trading day immediately preceding the maturity date, holders may convert their Notes at any time, regardless of the foregoing circumstances. Teradyne may satisfy its conversion obligation by paying or delivering cash, shares of its common stock or a combination of cash and shares of its common stock, at Teradyne's election. As of April 4, 2021, the conversion price was approximately \$31.55 per share of Teradyne's common stock. The conversion rate is subject to adjustment under certain circumstances. As of May 7, 2021, thirty-six holders had exercised the option to convert \$66.9 million worth of Notes.

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, with a strike price equal to the conversion price of the Notes of \$31.55. The Note Hedge Transactions cover, subject to customary anti-dilution adjustments, approximately 13.0 million shares of Teradyne's common stock.

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. The Warrant Transactions currently cover, subject to customary anti-dilution adjustments, approximately 13.0 million shares of common stock. As of April 4, 2021, the strike price of the warrants was approximately \$39.59 per share. The strike price is subject to adjustment under certain circumstances. The Warrant Transactions could have a dilutive effect to Teradyne's common stock 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 Note Hedge Transactions are expected to reduce the potential dilution to Teradyne's common stock upon any conversion of the Notes. However, the Warrant Transactions could separately have a dilutive effect to the extent that the market value per share of Teradyne's common stock exceeds the applicable strike price of the warrant. The net cost of the Note Hedge Transactions, after being partially offset by the proceeds from the sale of the warrants, was approximately \$33.0 million.

In connection with establishing their initial hedge of these convertible note hedge and warrant transactions, the Option Counterparties have entered into various derivative transactions with respect to Teradyne's common stock and/or purchased shares of Teradyne's common stock or other securities, including the Notes, concurrent with, or shortly after, the pricing of the Notes. In addition, the Option Counterparties may modify their hedge positions by entering into or unwinding various derivative transactions with respect to Teradyne's common stock or by selling Teradyne's common stock or other securities, including the Notes, in secondary market transactions (and may do so during any observation period related to the conversion of the Notes). These activities could adversely affect the value of Teradyne's common stock and the Notes.

Teradyne considered the guidance of ASC 815-40, "*Derivatives and Hedging—Contracts in Entity's Own Equity*," and concluded that the convertible note hedge is both indexed to Teradyne's common stock and should be classified in stockholders' equity in its statements of financial position. The convertible note hedge is considered indexed to Teradyne's common stock as the terms of the Note Hedge Transactions do not contain an exercise contingency and the settlement amount equals the difference between the fair value of a fixed number of Teradyne's shares and a fixed strike price. Because the only variable that can affect the settlement amount is Teradyne's stock price, which is an input to the fair value of a fixed-for-fixed option contract, the convertible note hedge is considered indexed to Teradyne's common stock.

Teradyne assessed whether the convertible note hedge should be classified as equity under ASC 815-40. In the Note Hedge Transactions contract the settlement terms permit net cash settlement or net share settlement, at the option of Teradyne. Therefore, the criteria as set forth in ASC 815-40 were evaluated by Teradyne. In reviewing the criteria, Teradyne noted the following: (1) the convertible note hedge does not require Teradyne to issue shares; (2) there is no requirement to net cash settle the convertible note hedge for failure to make timely filings with the SEC; (3) in the case of termination, the convertible note hedge is settled in the same consideration as the holders of the underlying stock; (4) the counterparty does not have rights that rank higher than those of a shareholder of the stock underlying the convertible note hedge; and (5) there is no requirement to post collateral. Based on its analysis of those criteria, Teradyne concluded that the convertible note hedge should be recorded in equity and no further adjustment should be made in future periods to adjust the value of the convertible note hedge.

Teradyne analyzed the Warrant Transactions under ASC 815-40, "*Derivatives and Hedging—Contracts in Entity's Own Equity*," and other relevant literature, and determined that it met the criteria for classification as an equity transaction and is considered indexed to Teradyne's common stock. As a result, Teradyne recorded the proceeds from the warrants as an increase to additional paid-in capital. Teradyne does not recognize subsequent changes in fair value of the warrants in its financial statements.

[Table of Contents](#)

The provisions of ASC 470-20, “Debt with Conversion and Other Options,” are applicable to the Notes. ASC 470-20 requires Teradyne to separately account for the liability (debt) and equity (conversion feature) components of the Notes in a manner that reflects Teradyne’s nonconvertible debt borrowing rate at the date of issuance when interest cost is recognized in subsequent periods. Teradyne allocated \$100.8 million of the \$460.0 million principal amount of the Notes to the equity component, which represents a discount to the debt and will be amortized to interest expense using the effective interest method through December 2023. Accordingly, Teradyne’s effective annual interest rate on the Notes will be approximately 5.0%. The Notes are classified as long-term debt in the balance sheet based on their December 15, 2023 maturity date, except for the conversions that will occur in the second quarter of 2021, which are included in current debt. Debt issuance costs of approximately \$7.2 million are being amortized to interest expense using the effective interest method over the seven-year term of the Notes. As of April 4, 2021, debt issuance costs were approximately \$2.7 million.

The below tables represent the key components of Teradyne’s convertible senior notes:

	April 4, 2021	December 31, 2020
	(in thousands)	
Debt principal	\$408,695	\$ 459,971
Unamortized discount	40,761	49,860
Net carrying amount of convertible debt	<u>\$367,934</u>	<u>\$ 410,111</u>

Reported as follows:

	April 4, 2021	December 31, 2020
	(in thousands)	
Current debt	\$ 11,057	\$ 33,343
Long-term debt	356,877	376,768
Net carrying amount of convertible debt	<u>\$367,934</u>	<u>\$ 410,111</u>

	For the Three Months Ended	
	April 4, 2021	March 29, 2020
	(in thousands)	
Contractual interest expense on the coupon	\$1,239	\$ 1,438
Amortization of the discount component and debt issue fees recognized as interest expense	3,836	3,792
Total interest expense on the convertible debt	<u>\$5,075</u>	<u>\$ 5,230</u>

As of April 4, 2021, the remaining unamortized discount was \$40.8 million, which will be amortized over 2.7 years using the effective interest rate method. The carrying amount of the equity component was \$100.8 million.

As of April 4, 2021, the conversion price was approximately \$31.55 per share and the if-converted value of the notes was \$1,668.6 million.

During the three months ended April 4, 2021, certain debt holders elected to convert \$51.3 million of debt principal. The conversion of the debt was settled in cash for principal amount and in shares for the excess of conversion value over principal amount. The 1.2 million shares issued to the debt holders were received from exercising the convertible notes hedge call options.

Additional conversions of approximately \$15.6 million of debt principal will occur in the second quarter of 2021. The liability component is included in current debt and the equity component is included in convertible common shares.

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 provides for a three-year, senior secured revolving credit facility of \$400.0 million (the “Credit Facility”). The Credit Agreement further provides that, subject to customary conditions, Teradyne may seek to obtain from existing or new lenders incremental commitments under the Credit Facility in an aggregate principal amount not to exceed \$150.0 million.

Proceeds from the Credit Facility may be used for general corporate purposes and working capital. Teradyne incurred \$3.5 million in costs related to the revolving credit facility. These costs are being amortized over the three-year term of the revolving credit facility and are included in interest expense in the statement of operations. As of May 7, 2021, Teradyne has not borrowed any funds under the Credit Facility.

[Table of Contents](#)

The interest rates applicable to loans under the Credit Facility are, at Teradyne's option, equal to either a base rate plus a margin ranging from 0.50% to 1.25% per annum or LIBOR, a minimum of 0.75%, plus a margin ranging from 1.50% to 2.25% 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 0.25% to 0.40% 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 LIBOR 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 as of 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.

As of May 7, 2021, Teradyne was in compliance with all covenants.

H. PREPAYMENTS

Prepayments consist of the following and are included in prepayments and other assets on the balance sheet:

	April 4, 2021	December 31, 2020
	(in thousands)	
Contract manufacturer and supplier prepayments	\$291,175	\$ 212,286
Prepaid maintenance and other services	15,521	13,116
Prepaid taxes	13,814	9,361
Other prepayments	16,072	15,329
Total prepayments	<u>\$336,582</u>	<u>\$ 250,092</u>

I. DEFERRED REVENUE AND CUSTOMER ADVANCES

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:

	April 4, 2021	December 31, 2020
	(in thousands)	
Maintenance, service and training	\$ 78,321	\$ 77,654
Customer advances, undelivered elements and other	67,721	63,438
Extended warranty	53,908	51,929
Total deferred revenue and customer advances	<u>\$199,950</u>	<u>\$ 193,021</u>

J. 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	
	April 4, 2021	March 29, 2020
	(in thousands)	
Balance at beginning of period	\$ 16,633	\$ 8,996
Accruals for warranties issued during the period	11,881	5,066
Accruals related to pre-existing warranties	447	1,056
Settlements made during the period	(5,068)	(4,147)
Balance at end of period	<u>\$ 23,893</u>	<u>\$ 10,971</u>

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	
	April 4, 2021	March 29, 2020
	(in thousands)	
Balance at beginning of period	\$ 51,929	\$ 30,677
Deferral of new extended warranty revenue	7,517	7,600
Recognition of extended warranty deferred revenue	(5,538)	(4,774)
Balance at end of period	<u>\$ 53,908</u>	<u>\$ 33,503</u>

K. STOCK-BASED COMPENSATION

Under Teradyne’s stock compensation plans, Teradyne grants service-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 service-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.

[Table of Contents](#)

If 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, after attaining both at least age sixty and at least ten years of service, 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.

During the three months ended April 4, 2021 and March 29, 2020, Teradyne granted 0.3 million and 0.4 million of service-based restricted stock unit awards to employees at a weighted average grant date fair value of \$112.55 and \$70.98, respectively.

During the three months ended April 4, 2021 and March 29, 2020, Teradyne granted 0.1 million of PBIT PRSUs with a grant date fair value of \$112.28 and \$70.94, respectively.

During the three months ended April 4, 2021 and March 29, 2020, Teradyne granted 0.1 million of TSR PRSUs, with a grant date fair value of \$125.02 and \$89.93, respectively. The fair value was estimated using the Monte Carlo simulation model with the following assumptions:

	For the Three Months Ended	
	April 4, 2021	March 29, 2020
Risk-free interest rate	0.2%	1.5%
Teradyne volatility-historical	43.9%	34.9%
NYSE Composite Index volatility-historical	22.9%	11.4%
Dividend yield	0.4%	0.6%

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 grant. Dividend yield was based upon an estimated annual dividend amount of \$0.40 per share divided by Teradyne's stock price on the grant date of \$113.48 for the 2021 grant and an estimated annual dividend amount of \$0.40 per share divided by Teradyne's stock price on the grant date of \$72.10 for the 2020 grant.

During the three months ended April 4, 2021 and March 29, 2020, Teradyne granted 0.1 million of service-based stock options to executive officers at a weighted average grant date fair value of \$36.60 and \$20.67, respectively.

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

	For the Three Months Ended	
	April 4, 2021	March 29, 2020
Expected life (years)	5.0	5.0
Risk-free interest rate	0.4%	1.6%
Volatility-historical	37.8%	31.6%
Dividend yield	0.4%	0.6%

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 \$0.40 per share divided by Teradyne's stock price on the grant date of \$113.48 for the 2021 grant and an estimated annual dividend amount of \$0.40 per share divided by Teradyne's stock price on the grant date of \$72.10 for the 2020 grant.

L. 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 Gains (Losses) on Marketable Securities	Retirement Plans Prior Service Credit	Total
	(in thousands)			
Three Months Ended April 4, 2021				
Balance at December 31, 2020, net of tax of \$0, \$1,910, \$(1,126), respectively	\$ 25,389	\$ 6,954	\$ 1,173	\$ 33,516
Other comprehensive loss before reclassifications, net of tax of \$0, \$(908), \$0, respectively	(21,123)	(3,270)	—	(24,393)
Amounts reclassified from accumulated other comprehensive income, net of tax of \$0, \$(123), \$0, respectively	—	(444)	(2)	(446)
Net current period other comprehensive loss, net of tax of \$0, \$(1,031), \$0, respectively	(21,123)	(3,714)	(2)	(24,839)
Balance at April 4, 2021, net of tax of \$0, \$879, \$(1,126), respectively	<u>\$ 4,266</u>	<u>\$ 3,240</u>	<u>\$ 1,171</u>	<u>\$ 8,677</u>
Three Months Ended March 29, 2020				
Balance at December 31, 2019, net of tax of \$0, \$946, \$(1,124), respectively	\$ (23,514)	\$ 3,480	\$ 1,180	\$(18,854)
Other comprehensive (loss) income before reclassifications, net of tax of \$0, \$187, \$0, respectively	(8,779)	1,037	—	(7,742)
Amounts reclassified from accumulated other comprehensive income, net of tax of \$0, \$(145), \$0, respectively	—	(515)	(2)	(517)
Net current period other comprehensive (loss) income, net of tax of \$0, \$42, \$0, respectively	(8,779)	522	(2)	(8,259)
Balance at March 29, 2020, net of tax of \$0, \$988, \$(1,124), respectively	<u>\$ (32,293)</u>	<u>\$ 4,002</u>	<u>\$ 1,178</u>	<u>\$(27,113)</u>

Reclassifications out of accumulated other comprehensive income (loss) to the statement of operations for the three months ended April 4, 2021 and March 29, 2020 were as follows:

<u>Details about Accumulated Other Comprehensive Income Components</u>	<u>For the Three Months Ended</u>		<u>Affected Line Item in the Statements of Operations</u>
	<u>April 4, 2021</u>	<u>March 29, 2020</u>	
	(in thousands)		
Available-for-sale marketable securities:			
Unrealized gains, net of tax of \$123, \$145, respectively	\$ 444	\$ 515	Other (income) expense, net
Defined benefit postretirement plan:			
Amortization of prior service credit, net of tax of \$0, \$0, respectively	<u>2</u>	<u>2</u>	(a)
Total reclassifications, net of tax of \$123, \$145, respectively	<u>\$ 446</u>	<u>\$ 517</u>	Net income

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

M. 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. Goodwill is considered impaired when the net book value of a reporting unit exceeds its estimated fair value.

[Table of Contents](#)

The changes in the carrying amount of goodwill by reportable segments for the three months ended April 4, 2021, were as follows:

	<u>Industrial Automation</u>	<u>System Test</u>	<u>Wireless Test</u>	<u>Semiconductor Test</u>	<u>Total</u>
	(in thousands)				
Balance at December 31, 2020					
Goodwill	\$ 433,752	\$ 158,699	\$ 361,819	\$ 262,155	\$1,216,425
Accumulated impairment losses	—	(148,183)	(353,843)	(260,540)	(762,566)
	433,752	10,516	7,976	1,615	453,859
Foreign currency translation adjustment	(16,156)	—	—	(102)	(16,258)
Balance at April 4, 2021					
Goodwill	417,596	158,699	361,819	262,053	1,200,167
Accumulated impairment losses	—	(148,183)	(353,843)	(260,540)	(762,566)
	<u>\$ 417,596</u>	<u>\$ 10,516</u>	<u>\$ 7,976</u>	<u>\$ 1,513</u>	<u>\$ 437,601</u>

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:

	<u>Gross Carrying Amount</u>	<u>Accumulated Amortization</u>	<u>Foreign Currency Translation Adjustment</u>	<u>Net Carrying Amount</u>
	(in thousands)			
Balance at April 4, 2021				
Developed technology	\$272,547	\$ (213,459)	\$ (3,198)	\$ 55,890
Customer relationships	57,739	(47,209)	150	10,680
Tradenames and trademarks	70,120	(43,716)	(124)	26,280
Total intangible assets	<u>\$400,406</u>	<u>\$ (304,384)</u>	<u>\$ (3,172)</u>	<u>\$ 92,850</u>
Balance, December 31, 2020				
Developed technology	\$272,547	\$ (210,479)	\$ (1,610)	\$ 60,458
Customer relationships	66,239	(54,524)	305	12,020
Tradenames and trademarks	70,120	(42,344)	685	28,461
Total intangible assets	<u>\$408,906</u>	<u>\$ (307,347)</u>	<u>\$ (620)</u>	<u>\$100,939</u>

Aggregate intangible asset amortization expense for the three months ended April 4, 2021 and March 29, 2020 was \$5.5 million and \$9.9 million, respectively.

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

<u>Year</u>	<u>Amortization Expense</u> (in thousands)
2021 (remainder)	15,896
2022	20,423
2023	19,941
2024	19,634
2025	11,699
Thereafter	5,257

N. 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	
	April 4, 2021	March 29, 2020
	(in thousands, except per share amounts)	
Net income for basic and diluted net income per share	\$ 205,512	\$ 176,191
Weighted average common shares-basic	166,491	166,589
Effect of dilutive potential common shares:		
Incremental shares from assumed conversion of convertible notes (1)	10,310	7,333
Convertible note hedge warrant shares (2)	9,429	5,492
Restricted stock units	1,395	1,163
Stock options	108	134
Employee stock purchase plan	7	25
Dilutive potential common shares	21,249	14,147
Weighted average common shares-diluted	187,740	180,736
Net income per common share-basic	\$ 1.23	\$ 1.06
Net income per common share-diluted	\$ 1.09	\$ 0.97

- (1) 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 of \$31.55, multiplied by 13.8 million shares. The result of this calculation, representing the total intrinsic value of the convertible debt, was divided by the average Teradyne stock price for the period.
- (2) Convertible notes hedge warrant shares were calculated using the difference between the average Teradyne stock price for the period and the warrant price of \$39.59, multiplied by 13.8 million 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.

The computation of diluted net income per common share for the three months ended March 29, 2020 excludes the effect of the potential vesting of 0.3 million restricted stock units because the effect would have been anti-dilutive.

O. RESTRUCTURING AND OTHER

During the three months ended April 4, 2021, Teradyne recorded a gain of \$7.2 million for the decrease in the fair value of the AutoGuide contingent consideration liability, a gain of \$0.2 million for the decrease in acquisition related compensation liability, partially offset by \$0.2 million of severance charges primarily in Industrial Automation.

During the three months ended March 29, 2020, Teradyne recorded a gain of \$10.0 million for the decrease in the fair value of the AutoGuide and MiR contingent consideration liabilities, partially offset by \$1.4 million of acquisition related compensation and expenses and \$0.7 million of severance charges related to headcount reductions primarily in Industrial Automation and Semiconductor Test.

P. RETIREMENT PLANS

ASC 715, “*Compensation—Retirement Benefits*” requires an employer with a defined benefit plan or other postretirement benefit plan to recognize an asset or a liability on its balance sheet for the overfunded or underfunded status of the plan. 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 of 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 unfunded qualified foreign plans as well as 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 (“IRC”).

[Table of Contents](#)

In the three months ended April 4, 2021, Teradyne contributed \$0.8 million to the U.S. supplemental executive defined benefit pension plan and \$0.3 million to certain qualified pension plans for non-U.S. subsidiaries.

For the three months ended April 4, 2021 and March 29, 2020, Teradyne's net periodic pension cost was comprised of the following:

	For the Three Months Ended			
	April 4, 2021		March 29, 2020	
	United States	Foreign	United States	Foreign
	(in thousands)			
Service cost	\$ 453	\$ 243	\$ 433	\$ 201
Interest cost	1,100	87	1,522	115
Expected return on plan assets	(936)	(16)	(1,233)	(15)
Total net periodic pension cost	<u>\$ 617</u>	<u>\$ 314</u>	<u>\$ 722</u>	<u>\$ 301</u>

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 primarily to those employees.

For the three months ended April 4, 2021 and March 29, 2020, Teradyne's net periodic postretirement benefit cost was comprised of the following:

	For the Three Months Ended	
	April 4, 2021	March 29, 2020
	(in thousands)	
Service cost	\$ 16	\$ 11
Interest cost	44	62
Amortization of prior service credit	(2)	(2)
Total net periodic postretirement benefit cost	<u>\$ 58</u>	<u>\$ 71</u>

Q. COMMITMENTS AND CONTINGENCIES

Purchase Commitments

As of April 4, 2021, Teradyne had entered into purchase commitments for certain components and materials. The purchase commitments covered by the agreements aggregate to approximately \$680.7 million, of which \$666.8 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.

On March 8, 2021, Industrial Automation LLC submitted a demand for arbitration against Teradyne and AutoGuide in Wilmington, Delaware alleging that Teradyne and AutoGuide breached certain provisions of the Membership Interests Purchase Agreement (the "Purchase Agreement"), dated as of October 18, 2019, among Industrial Automation LLC, Teradyne and AutoGuide. The arbitration demand seeks full acceleration of the maximum earnout amount payable under the Purchase Agreement, or \$106,875,000, for the alleged breach of the earnout provisions of the Purchase Agreement. On March 26, 2021, Teradyne and AutoGuide filed an answer denying that Teradyne and AutoGuide breached any provisions of the Purchase Agreement. A preliminary hearing will be scheduled once the arbitration tribunal is convened. While it is not possible at this stage to predict the outcome of the arbitration, Teradyne and AutoGuide intend to vigorously defend against the Industrial Automation LLC claims.

R. 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	
	April 4, 2021	March 29, 2020
US statutory federal tax rate	21.0%	21.0%
Foreign taxes	(4.7)	(5.7)
International provisions of the U.S. Tax Cuts and Jobs Act of 2017	(1.5)	(0.2)
Tax credits	(1.3)	(1.9)
Discrete benefit related to equity compensation	(6.2)	(4.1)
Other, net	1.0	1.5
Effective tax rate	<u>8.3%</u>	<u>10.6%</u>

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 April 4, 2021, 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 April 4, 2021 and December 31, 2020, Teradyne had \$16.4 million and \$17.9 million, respectively, of reserves for uncertain tax positions. The \$1.5 million net decrease in reserves for uncertain tax positions is primarily related to U.S. state research and development credits generated in prior years, as well as U.S. federal research and development credits generated in the current year.

As of April 4, 2021, Teradyne estimates that it is reasonably possible that the balance of unrecognized tax benefits may decrease approximately \$1.6 million in the next twelve months because of a lapse of statutes of limitation. The estimated decrease relates to loss carryforwards, research credits and U.S. manufacturing activities deductions.

Teradyne recognizes interest and penalties related to income tax matters in income tax expense. As of April 4, 2021 and December 31, 2020, \$1.3 million and \$1.2 million, respectively, of interest and penalties were accrued for uncertain tax positions. For the three months ended April 4, 2021 and March 29, 2020, expense of \$0.1 million and \$0.1 million, respectively, was 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 three months ended April 4, 2021 was \$6.2 million, or \$0.03 per diluted share. The tax savings due to the tax holiday for the three months ended March 29, 2020 was \$7.1 million, or \$0.04 per diluted share. In November 2020, Teradyne entered into an agreement with the Singapore Economic Development Board which extended our 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.

S. SEGMENT INFORMATION

Teradyne has four reportable segments (Semiconductor Test, System Test, Industrial Automation and Wireless Test). Each of the reportable segments is also 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 defense/aerospace instrumentation test, storage and system level test, and circuit-board test. The Industrial Automation segment includes operations related to the design, manufacturing and marketing of collaborative robotic arms, autonomous mobile robots and advanced robotic control software. The Wireless Test segment includes operations related to the design, manufacturing and marketing of wireless test products and services. Each operating segment has a segment manager who is directly accountable to and maintains regular contact 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 in effect are described in Note B: "Accounting Policies" in Teradyne's Annual Report on Form 10-K for the year ended December 31, 2020.

Table of Contents

Segment information for the three months ended April 4, 2021 and March 29, 2020 is as follows:

	Semiconductor Test	System Test	Industrial Automation	Wireless Test	Corporate and Other	Consolidated
	(in thousands)					
Three Months Ended April 4, 2021						
Revenues	\$ 528,063	\$132,837	\$ 79,951	\$ 40,898	\$ (143)	\$ 781,606
Income (loss) before income taxes (1)(2)	176,368	51,061	(12,967)	9,616	(85)	223,993
Total assets (3)	1,243,358	179,195	672,596	104,367	1,520,201	3,719,717
Three Months Ended March 29, 2020						
Revenues	\$ 484,489	\$116,076	\$ 60,305	\$ 43,485	\$ —	\$ 704,355
Income (loss) before income taxes (1)(2)	153,816	48,407	(15,335)	10,220	(39)	197,069
Total assets (3)	921,108	137,056	643,011	106,400	1,012,813	2,820,388

- (1) Included in Corporate and Other are: contingent consideration adjustments, loss on convertible debt conversions, interest income, interest expense, net foreign exchange gains (losses), pension, intercompany eliminations and acquisition related charges, legal fees and compensation.
- (2) Included in income (loss) before taxes are charges and credits related to restructuring and other, loss on convertible debt conversions 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	
	April 4, 2021	March 29, 2020
	(in thousands)	
Semiconductor Test:		
Cost of revenues—inventory charge	\$ 1,079	\$ 3,026
Industrial Automation:		
Cost of revenues—inventory charge	\$ 1,221	\$ —
Restructuring and other—acquisition related expenses and compensation	—	618
Corporate and Other:		
Restructuring and other—AutoGuide contingent consideration adjustment	\$ (7,227)	\$ (7,142)
Other (income) expense, net—loss on convertible debt conversions	4,069	—
Restructuring and other—acquisition related expenses and compensation	(513)	741
Restructuring and other—MiR contingent consideration adjustment	—	(2,878)

T. SHAREHOLDERS' EQUITY

Stock Repurchase Program

In January 2021, Teradyne's Board of Directors cancelled the January 2020 repurchase program and approved a new repurchase program for up to \$2.0 billion of common stock. Teradyne intends to repurchase a minimum of \$600 million in 2021.

During the three months ended April 4, 2021, Teradyne repurchased 0.4 million shares of common stock for \$45.2 million at an average price of \$120.73 per share. During the three months ended March 29, 2020, Teradyne repurchased 1.3 million shares of common stock for \$79.0 million at an average price of \$58.81 per share.

The total price includes commissions 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.

[Table of Contents](#)

In January 2021, Teradyne's Board of Directors declared a quarterly cash dividend of \$0.10 per share. Dividend payments for the three months ended April 4, 2021 were \$16.7 million. In January 2020, Teradyne's Board of Directors declared a quarterly cash dividend of \$0.10 per share. Dividend payments for the three months ended March 29, 2020 were \$16.7 million.

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

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, 2020. 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 automation equipment for test and industrial applications. We design, develop, manufacture and sell automatic test systems 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 industrial automation products include collaborative robotic arms, autonomous mobile robots (“AMRs”) and advanced robotic control software used by global manufacturing, logistics and light industrial customers to improve quality, increase manufacturing and material handling efficiency and decrease manufacturing and logistics costs. Our automatic test equipment and industrial automation 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
- industrial automation (“Industrial Automation”) 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.

We have grown our Industrial Automation business through acquisitions, including Mobile Industrial Robots A/S (“MiR”), a leading maker of AMRs for industrial applications, in 2018 and AutoGuide, LLC (“AutoGuide”), a maker of high payload AMRs, in 2019. The market for our industrial automation products is dependent on the adoption of new automation technologies by large manufacturers as well as small and medium enterprises (SMEs) throughout the world.

In Q1 2021, revenue in our test businesses exceeded our plan as a result of Semiconductor Test demand in several market segments and continued strength in our System Test businesses. In Q1 2021, our Industrial Automation recovered from the impact of the global industry downturn and the COVID-19 pandemic in 2020 and revenue was above our plan. In 2021, we expect strong momentum in our test businesses and return to growth of our Industrial Automation businesses.

Our strategy is to focus on profitably growing market share in our test businesses, the introduction of differentiated products that target growth segments, and accelerating growth through continued investment in our Industrial Automation businesses. We plan to execute on our strategy while balancing capital allocations between returning capital to our shareholders through dividends and stock repurchases and using capital for opportunistic acquisitions.

Impact of the COVID-19 Pandemic on our Business

The novel coronavirus (COVID-19) pandemic has resulted in government authorities implementing numerous measures in an effort to contain the spread of the virus, such as travel bans and restrictions, limitations on gatherings or social distancing requirements, quarantines, shelter-in-place orders, and business limitations and shutdowns. These measures have impacted our day-to-day operations and disrupted our business, workforce and operations, as well as the operations of our customers, contract manufacturers and suppliers. We are continuing to monitor the rapidly evolving situation regarding the COVID-19 pandemic and the availability and impact of vaccinations. However, we are unable to accurately predict the full impact of COVID-19, which will depend on future developments that are highly uncertain and cannot be predicted with accuracy, including, but not limited to, any new surges in areas where we do business, the availability of vaccinations, any further government actions to contain the virus or treat its impact, and how quickly and to what extent normal economic and operating conditions can resume.

Health and Safety

In response to the COVID-19 pandemic, we have taken proactive, aggressive action to protect the health and safety of our employees, customers, contract manufacturers and suppliers and we have complied with all government orders around the globe. The spread of COVID-19 has caused us to modify our business practices, including implementing social distancing protocols, suspending employee travel, requiring most employees to work remotely, cancelling physical participation in meetings, and extensively and frequently disinfecting our workspaces. Around the world, the majority of our employees are working from home. However, some of our engineering, operations, supply line and customer support teams must be on-site at our customers' facilities. We are providing those on-site employees with the necessary protective resources and procedures to minimize their exposure risk. We may take further actions as may be required or recommended by government authorities or that we determine are in the best interests of our employees, customers, contract manufacturers and suppliers.

Operations

We believe the COVID-19 pandemic, and the numerous measures implemented by authorities in response, has adversely impacted our results of operations, including by increasing costs, but we cannot accurately estimate the amount of the impact to our first quarter of 2021 financial results or to our future financial results. In addition, the pandemic has disrupted our contract manufacturers and suppliers, and has resulted in some instances in short-term cost increases to meet customer demand. While the duration and severity of the pandemic may further impact our workforce and operations, as well as those of our customers, contract manufacturers and suppliers, we expect that our manufacturing facilities will remain operational, at sufficient capacity to support production demand. We are monitoring our operations closely in an effort to avoid any potential productivity loss caused by responses to the COVID-19 pandemic.

Supply

We have not experienced any significant impacts or interruptions to our supply chain as a result of the COVID-19 pandemic. However, our suppliers have faced and may continue to face difficulties maintaining operations in light of government-ordered restrictions, including social distancing requirements and shelter-in-place mandates. Our supply chain team, and our suppliers, overcame numerous supply, production, and logistics obstacles in 2020, but there is no assurance we or they will be able to do so in the future. Although we regularly monitor the financial health of companies in our supply chain, financial hardship on our suppliers or sub-suppliers caused by the COVID-19 pandemic could disrupt our ability to obtain components required to manufacture our products, adversely affecting our operations and in some instances result in higher costs and delays, both for obtaining components and shipping finished goods to customers, which could harm our profitability, make our products less competitive, or cause our customers to seek alternative suppliers.

Demand

The COVID-19 pandemic has significantly increased economic uncertainty in our markets. Demand for our Test products was strong throughout 2020 and in the first quarter of 2021. Our Industrial Automation business, however, experienced a significant decline in demand through the first half of 2020 due to COVID-19 related shutdowns affecting global manufacturing but demand recovered in the second half of 2020 from the low point in the second quarter and continued to recover in the first quarter of 2021. The COVID-19 pandemic could cause further global economic disruption that could cause demand for our products to decline, which would adversely affect our business.

Liquidity

Although there is continued uncertainty related to the impact of the COVID-19 pandemic on our future results, we believe our business model and our current cash reserves leave us well-positioned to manage our business through this crisis. We have a strong balance sheet as well as an operating model that we believe is capable of flexing up and down with extreme demand swings while still remaining profitable. Based on our analysis, we believe our existing balances of cash and cash equivalents and our currently anticipated operating cash flows will be sufficient to meet our working capital needs and other capital and liquidity requirements for the next twelve months. However, due to the uncertainty related to the future impact of the COVID-19 pandemic, in order to bolster our liquidity position, on May 1, 2020 we entered into a credit agreement providing for a three-year, senior secured revolving credit facility of \$400 million as further described in Note G: "Debt." As of May 7, 2021, we have not borrowed any funds under the credit facility.

We are continuing to monitor the evolving situation regarding the COVID-19 pandemic, the availability of vaccinations where we do business and guidance from government authorities around the world. In these circumstances, there may be developments outside our control requiring us to adjust our operating plan. As a result, given the uncertain nature of this situation, we are not able to accurately predict the full extent of the impact of COVID-19 on our business, financial condition, results of operations, liquidity, or cash flows in the future. In addition, see Part II—Item 1A, "Risk Factors," included in our Annual Report on Form 10-K for the fiscal year ended December 31, 2020 for our risk factors regarding risks associated with the COVID-19 pandemic.

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 three months ended April 4, 2021 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, 2020, except as noted below.

Due to the COVID-19 pandemic, there has been uncertainty and disruption in the global economy and our markets. We are not aware of any specific event or circumstance that would require an update to our estimates or judgments or a revision of the carrying value of our assets or liabilities as of May 7, 2021, 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 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	
	April 4, 2021	March 29, 2020
Percentage of revenues:		
Revenues:		
Products	85%	87%
Services	15	13
Total revenues	100	100
Cost of revenues:		
Cost of products	34	37
Cost of services	7	6
Total cost of revenues (exclusive of acquired intangible assets amortization shown separately below)	41	42
Gross profit	59	58
Operating expenses:		
Selling and administrative	17	16
Engineering and development	13	12
Acquired intangible assets amortization	1	1
Restructuring and other	(1)	(1)
Total operating expenses	29	28
Income from operations	30	29
Non-operating (income) expense:		
Interest income	—	—
Interest expense	1	1
Other (income) expense, net	—	1
Income before income taxes	29	28
Income tax provision	2	3
Net income	26%	25%

[Table of Contents](#)**Results of Operations***First Quarter 2021 Compared to First Quarter 2020**Revenues*

Revenues by our reportable segments were as follows:

	For the Three Months Ended		Dollar Change
	April 4, 2021	March 29, 2020	
	(in millions)		
Semiconductor Test	\$528.1	\$ 484.5	\$ 43.6
System Test	132.8	116.1	16.7
Industrial Automation	80.0	60.3	19.7
Wireless Test	40.9	43.5	(2.6)
	<u>\$781.7</u>	<u>\$ 704.4</u>	<u>\$ 77.3</u>

The increase in Semiconductor Test revenues of \$43.6 million, or 9.0%, was driven primarily by a rise in tester sales driven by high performance compute processor, automotive and industrial applications and incremental memory test sales of flash and DRAM memory testers. The improvement in System Test revenues of \$16.7 million, or 14.4%, was primarily due to elevated sales in Storage Test of system level and hard disk drive testers, and greater sales in Production Board Test due to higher automotive electronics demand, partially offset by lower sales in Defense/Aerospace. Additional Industrial Automation revenues of \$19.7 million, or 32.7%, were driven primarily by demand for collaborative robotic arms and MiR's autonomous mobile robots. The decrease in Wireless Test revenues of \$2.6 million, or 6.0%, was primarily due to lesser demand for cellular test products, partially offset by greater sales in connectivity test products.

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

	For the Three Months Ended	
	April 4, 2021	March 29, 2020
Taiwan	33%	30%
China	19	16
United States	10	11
Korea	8	15
Europe	7	8
Thailand	7	5
Philippines	4	2
Malaysia	4	2
Japan	3	7
Singapore	3	3
Rest of World	2	1
	<u>100%</u>	<u>100%</u>

(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		Dollar/Point Change
	April 4, 2021	March 29, 2020	
	(in millions)		
Gross profit	\$461.6	\$ 405.6	\$ 56.1
Percent of total revenues	59.1%	57.6%	1.5

Gross profit as a percent of revenue increased by 1.5 points, primarily due to higher volume and product mix in Semiconductor Test.

[Table of Contents](#)

Selling and Administrative

Selling and administrative expenses were as follows:

	For the Three Months Ended		Dollar Change
	April 4, 2021	March 29, 2020	
		(in millions)	
Selling and administrative	\$129.8	\$ 111.4	\$ 18.4
Percent of total revenues	16.6%	15.8%	

The increase of \$18.4 million in selling and administrative expenses was primarily due to higher variable compensation, and higher administrative and legal spending.

Engineering and Development

Engineering and development expenses were as follows:

	For the Three Months Ended		Dollar Change
	April 4, 2021	March 29, 2020	
		(in millions)	
Engineering and development	\$100.4	\$ 85.2	\$ 15.2
Percent of total revenues	12.8%	12.1%	

The increase of \$15.2 million in engineering and development expenses was primarily due to higher spending across all segments and higher variable compensation.

Restructuring and Other

During the three months ended April 4, 2021, we recorded a gain of \$7.2 million for the decrease in the fair value of the AutoGuide contingent consideration liability, a gain of \$0.2 million for the decrease in acquisition related compensation liability, partially offset by \$0.2 million of severance charges primarily in Industrial Automation.

During the three months ended March 29, 2020, we recorded a gain of \$10.0 million for the decrease in the fair value of the AutoGuide and MiR contingent consideration liabilities, partially offset by \$1.4 million of acquisition related compensation and expenses and \$0.7 million of severance charges related to headcount reductions primarily in Semiconductor Test.

Table of Contents

Interest and Other

	For the Three Months Ended		Dollar Change
	April 4, 2021	March 29, 2020	
	(in millions)		
Interest income	\$ (0.8)	\$ (2.8)	\$ 1.9
Interest expense	6.0	5.6	\$ 0.5
Other (income) expense, net	3.8	6.8	\$ (3.0)

Interest income decreased by \$1.9 million primarily due to lower interest rates in 2021 compared to 2020. Other (income) expense, net decreased by \$3.0 million primarily due to changes in unrealized gains/losses on equity securities, from losses in 2020 to gains in 2021, and a loss on convertible debt conversions in 2021.

Income (Loss) Before Income Taxes

	For the Three Months Ended		Dollar Change
	April 4, 2021	March 29, 2020	
	(in millions)		
Semiconductor Test	\$176.4	\$ 153.8	\$ 22.6
System Test	51.1	48.4	2.7
Wireless Test	9.6	10.2	(0.6)
Industrial Automation	(13.0)	(15.3)	2.4
Corporate and Other (1)	(0.1)	—	(0.1)
	<u>\$224.0</u>	<u>\$ 197.1</u>	<u>\$ 26.9</u>

(1) Included in Corporate and Other are: contingent consideration adjustments, loss on convertible debt conversions, interest income, interest expense, net foreign exchange gains (losses), pension, intercompany eliminations and acquisition related charges, legal fees and compensation.

The increase in income before income taxes in Semiconductor Test was driven primarily by a rise in tester sales driven by high performance compute processor, automotive and industrial applications and incremental memory test sales of flash and DRAM memory testers. The improvement in income before income taxes in System Test was primarily due to elevated sales in Storage Test of system level and hard disk drive testers, and greater sales in Production Board Test due to higher automotive electronics demand, partially offset by lower sales in Defense/Aerospace. The decrease in income before taxes in Wireless Test was primarily due to lower revenue due to lesser demand for cellular test products, partially offset by higher sales in connectivity test products. The decrease in loss before income taxes in Industrial Automation was driven primarily by demand for collaborative robotic arms and MiR's autonomous mobile robots and lower intangible assets amortization.

Income Taxes

The effective tax rate for the three months ended April 4, 2021 and March 29, 2020 was 8.3% and 10.6%, respectively. The decrease in the effective tax rate from the three months ended March 29, 2020 to the three months ended April 4, 2021 was primarily attributable to increases in benefit from equity compensation and the international provisions of the U.S. Tax Cuts and Jobs Act of 2017, partially offset by a projected shift in the geographic distribution of income, which increases the income subject to taxation in higher tax rate jurisdictions relative to lower tax rate jurisdictions.

Contractual Obligations

There have been no changes outside of ordinary course of business to our contractual obligations as disclosed in our Annual Report on Form 10-K for the year ended December 31, 2020.

Liquidity and Capital Resources

Our cash, cash equivalents, and marketable securities balances decreased by \$129.3 million in the three months ended April 4, 2021 to \$1,425.1 million.

Operating activities during the three months ended April 4, 2021 provided cash of \$38.1 million. Changes in operating assets and liabilities used cash of \$209.1 million. This was due to a \$209.5 million increase in operating assets and a \$0.4 million increase in operating liabilities.

[Table of Contents](#)

The increase in operating assets was due to an \$87.5 million greater accounts receivable due to improved sales, an \$86.1 million increase in prepayments and other assets due to prepayments to our contract manufacturers as a result of higher forecasted revenues, and a \$35.9 million rise in inventories.

The change in operating liabilities was due to a \$44.5 million rise in accounts payable, a \$26.4 million increase in other accrued liabilities, an \$8.0 million growth in deferred revenue and customer advance payments, and a \$4.9 million increase in income taxes, partially offset by an \$81.5 million decrease in accrued employee compensation and \$1.9 million of retirement plan contributions.

Investing activities during the three months ended April 4, 2021 provided cash of \$4.7 million due to \$194.2 million and \$61.3 million in proceeds from maturities and sales of marketable securities, partially offset by \$211.6 million used for purchases of marketable securities, and \$39.3 million used for purchases of property, plant and equipment.

Financing activities during the three months ended April 4, 2021 used cash of \$126.7 million, due to \$51.3 million used for payments of convertible debt principal, \$45.2 million used for the repurchase of 0.4 million shares of common stock at an average price of \$120.73 per share, \$30.7 million used for payments related to net settlements of employee stock compensation awards, and \$16.7 million used for dividend payments, partially offset by \$17.1 million from the issuance of common stock under employee stock purchase and stock option plans.

Operating activities during the three months ended March 29, 2020 provided cash of \$43.1 million. Changes in operating assets and liabilities used cash of \$172.8 million. This was due to a \$150.6 million increase in operating assets and a \$22.2 million decrease in operating liabilities.

The increase in operating assets was primarily due to \$126.8 million greater accounts receivable due to improved sales and a \$39.6 million rise in prepayments and other assets, partially offset by a \$15.8 million decrease in inventories.

The decrease in operating liabilities was due to a \$44.4 million decrease in accrued employee compensation primarily due to first quarter payments related to variable compensation, \$1.3 million of retirement plan contributions, \$0.9 million lower deferred revenue and customer advance payments, partially offset by a \$15.3 million increase in income taxes, a \$7.1 million increase in other accrued liabilities, and a \$2.0 million increase in accounts payable.

Investing activities during the three months ended March 29, 2020 used cash of \$110.2 million, due to \$187.1 million used for purchases of marketable securities, and \$36.7 million used for purchases of property, plant and equipment, partially offset by \$98.5 million and \$15.0 million in proceeds from maturities and sales of marketable securities, respectively, and \$0.1 million, net of cash acquired, for the acquisition of AutoGuide.

Financing activities during the three months ended March 29, 2020 used cash of \$113.9 million, due to \$79.0 million used for the repurchase of 1.3 million shares of common stock at an average price of \$58.81 per share, \$22.1 million used for payments related to net settlements of employee stock compensation awards, \$16.7 million used for dividend payments, and \$8.9 million used for a payment related to MiR acquisition contingent consideration, partially offset by \$12.8 million from the issuance of common stock under employee stock purchase and stock option plans.

In January 2021 and 2020, our Board of Directors declared a quarterly cash dividend of \$0.10 per share. Dividend payments for the three months ended April 4, 2021 and March 29, 2020 were \$16.7 million and \$16.7 million, respectively.

In January 2021, our Board of Directors cancelled the January 2020 repurchase program and approved a new repurchase program for up to \$2.0 billion of common stock. Unless terminated by resolution of our Board of Directors, the repurchase program will expire when we have repurchased all shares authorized for repurchase under the share repurchase program. We intend to repurchase a minimum of \$600 million in 2021.

During the three months ended April 4, 2021, we repurchased 0.4 million shares of common stock for \$45.2 million at an average price of \$120.73 per share. During the three months ended March 29, 2020, we repurchased 1.3 million shares of common stock for \$79.0 million at an average price of \$58.81 per share.

While we 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. 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 for a three-year, senior secured revolving credit facility of \$400 million. As of May 7, 2021, we have not borrowed any funds under the credit facility.

[Table of Contents](#)

We believe our cash, cash equivalents and marketable securities balance 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. At this time, the COVID-19 pandemic has not had an impact on our liquidity, but there is no assurance that continued impacts resulting from the pandemic will not have an adverse effect in the future.

Equity Compensation Plans

As discussed in Note Q: “Stock Based Compensation” in our 2020 Annual Report on Form 10-K, we have a 1996 Employee Stock Purchase Plan and 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, directors, consultants and/or advisors. Both plans were approved by our shareholders.

Recently Issued Accounting Pronouncements

In August 2020, the FASB issued ASU 2020-06 – “Debt—Debt with Conversion and Other Options and Derivatives and Hedging—Contracts in Entity’s Own Equity,” which simplifies the accounting for convertible debt instruments by reducing the number of accounting models and the number of embedded conversion features that could be recognized separately from the primary contract. This ASU requires a convertible debt instrument to be accounted for as a single liability measured at its amortized cost, as long as no other features require bifurcation and recognition as derivatives. This ASU requires an entity to use the if-converted method in the diluted earnings per share calculation for convertible instruments. This ASU will be effective for Teradyne on January 1, 2022. This ASU permits the use of either the modified retrospective or fully retrospective method of transition. We are evaluating the effects of the adoption of this ASU on our financial statements.

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 filed with the SEC on February 22, 2021. 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, 2020.

In addition to market risks described in our Annual Report on Form 10-K, we have an equity price risk related to the fair value of our convertible senior unsecured notes issued in December 2016. In December 2016, Teradyne issued \$460 million aggregate principal amount of 1.25% convertible senior unsecured notes (the “Notes”) due December 15, 2023. As of April 4, 2021, the Notes had a fair value of \$1,664.7 million. The table below provides a sensitivity analysis of hypothetical 10% changes of Teradyne’s stock price as of the end of the first quarter of 2021 and the estimated impact on the fair value of the Notes. The selected scenarios are not predictions of future events, but rather are intended to illustrate the effect such event may have on the fair value of the Notes. The fair value of the Notes is subject to equity price risk due to the convertible feature. The fair value of the Notes will generally increase as Teradyne’s common stock price increases and will generally decrease as the common stock price declines in value. The change in stock price affects the fair value of the convertible senior notes, but does not impact Teradyne’s financial position, cash flows or results of operations due to the fixed nature of the debt obligation. Additionally, we carry the Notes at face value less unamortized discount on our balance sheet, and we present the fair value for required disclosure purposes only. In connection with the offering of the Notes we also sold warrants to the option counterparties. These transactions have been accounted for as an adjustment to our shareholders’ equity. The convertible note hedge transactions are expected to reduce the potential equity dilution upon conversion of the Notes. The warrants along with any shares issuable upon conversion of the Notes will have a dilutive effect on our earnings per share to the extent that the average market price of our common stock for a given reporting period exceeds the applicable strike price or conversion price of the warrants or Notes, respectively.

Hypothetical Change in Teradyne Stock Price	Fair Value	Estimated change in fair value	Hypothetical percentage increase (decrease) in fair value
10% Increase	\$1,833,685	\$ 169,018	10.2%
No Change	1,664,667	—	—
10% Decrease	1,500,230	(164,437)	(9.9)

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

Table of Contents

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 April 4, 2021 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. We believe that we have meritorious defenses against all pending claims and intend 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, we believe the potential losses associated with all of these actions are unlikely to have a material adverse effect on our business, financial position or results of operations.

On March 8, 2021, Industrial Automation LLC submitted a demand for arbitration against Teradyne and AutoGuide in Wilmington, Delaware alleging that Teradyne and AutoGuide breached certain provisions of the Membership Interests Purchase Agreement (the "Purchase Agreement"), dated as of October 18, 2019, among Industrial Automation LLC, Teradyne and AutoGuide. The arbitration demand seeks full acceleration of the maximum earnout amount payable under the Purchase Agreement, or \$106,875,000, for the alleged breach of the earnout provisions of the Purchase Agreement. On March 26, 2021, Teradyne and AutoGuide filed an answer denying that Teradyne and AutoGuide breached any provisions of the Purchase Agreement. A preliminary hearing will be scheduled once the arbitration tribunal is convened. While it is not possible at this stage to predict the outcome of the arbitration, Teradyne and AutoGuide intend to vigorously defend against the Industrial Automation LLC claims.

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, 2020, which could materially affect our business, financial condition or future results. The risk factors described in our Annual Report on Form 10-K remain applicable to our business and many of these risks could be further increased due to the COVID-19 pandemic.

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.

The global supply shortage of electrical components may impact our ability to meet customer demand.

There is currently a global supply shortage of electrical components, including semiconductor chips. As a result, we may experience increases in our lead times, costs to manufacture our products and may not be able to manufacture and deliver all of the orders placed by our customers. If we are unable to secure manufacturing capacities from our current suppliers and contract manufacturers, our ability to deliver our products to our customers may be negatively impacted. Also, our suppliers and contract manufacturers may increase their fees, which would result in an increase in our manufacturing costs, which we may not be fully able to pass to our customers, which could have a negative impact on our results of operations and financial condition. Additionally, if any of our suppliers and contract manufacturers were to cancel contracts or commitments or fail to meet the quality or delivery requirements needed to satisfy customer orders for our products, we could lose time-sensitive customer orders, have significantly decreased revenues and earnings and be subject to contractual penalties, which would have a material adverse effect on our business, results of operations and financial condition.

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

In January 2020, Teradyne's Board of Directors authorized a new stock repurchase program for up to \$1.0 billion of common stock. Effective April 1, 2020, Teradyne suspended its share repurchase program. In January 2021, Teradyne's Board of Directors cancelled the January 2020 repurchase program and approved a new repurchase program for up to \$2.0 billion of common stock. During the three months ended April 4, 2021, we repurchased 0.4 million shares of common stock for \$45.2 million at an average price of \$120.73 per share. During the three months ended March 29, 2020, we repurchased 1.3 million shares of common stock for \$79.0 million at an average price of \$58.81 per share.

The following table includes information with respect to repurchases we made of our common stock during the three months ended April 4, 2021 (in thousands except per share price):

Period	(a) Total Number of Shares (or Units) Purchased	(b) Average Price Paid per Share (or Unit)	(c) Total Number of Shares (or Units) Purchased as Part of Publicly Announced Plans or Programs	(d) Maximum Number (or Approximate Dollar Value) of Shares (or Units) that may Yet Be Purchased Under the Plans or Programs
January 1, 2021 - January 31, 2021	157	\$ 136.27	—	\$ 2,000,000
February 1, 2021 – February 28, 2021	201	\$ 132.02	139	\$ 1,982,001
March 1, 2021 – April 4, 2021	238	\$ 115.87	235	\$ 1,954,812
	<u>597 (1)</u>	<u>\$ 126.69 (1)</u>	<u>374</u>	

(1) Includes approximately two hundred twenty-three thousand shares at an average price of \$136.69 withheld from employees for the payment of taxes.

Table of Contents

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 6: Exhibits

Exhibit Number	Description
31.1	<u>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)</u>
31.2	<u>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)</u>
32.1	<u>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)</u>
32.2	<u>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)</u>
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (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)
May 7, 2021

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 function):

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: May 7, 2021

By: _____
/s/ SANJAY MEHTA
Sanjay Mehta
Chief Financial Officer

**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 April 4, 2021 as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Mark E. Jagiela, Chief Executive Officer of the Company, certify pursuant to 18 U.S.C (S) 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/ MARK E. JAGIELA

Mark E. Jagiela
Chief Executive Officer
May 7, 2021

**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 April 4, 2021 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 (S) 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
May 7, 2021