

TERADYNE, INC
Form 10-K
February 28, 2014

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 10-K

ANNUAL REPORT

PURSUANT TO SECTIONS 13 OR 15(d)

OF THE SECURITIES EXCHANGE ACT OF 1934

(MARK ONE)

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

For the fiscal year ended December 31, 2013

OR

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

Commission file number 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 Number)

600 RIVERPARK DRIVE

NORTH READING, MASSACHUSETTS

01864

Edgar Filing: TERADYNE, INC - Form 10-K

(Address of Principal Executive Offices)

(Zip Code)

Registrant's telephone number, including area code: (978) 370-2700

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

Title of Each Class

Name of Each Exchange on Which Registered

Common Stock, par value \$0.125 per share

New York Stock Exchange

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes No

Indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or Section 15(d) of the Exchange Act. Yes No

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

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate web site, if any, every Interactive Data File required to be submitted and posted 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 and post such files). Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K (229.405) is not contained herein, and will not be contained to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or in any amendment to this Form 10-K.

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

Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company

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

The aggregate market value of the voting stock held by non-affiliates of the registrant as of June 28, 2013 was approximately \$3.0 billion based upon the closing price of the registrant's Common Stock on the New York Stock Exchange on that date.

The number of shares outstanding of the registrant's only class of Common Stock as of February 21, 2014 was 193,977,544 shares.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's proxy statement in connection with its 2014 annual meeting of shareholders are incorporated by reference into Part III.

TERADYNE, INC.

FORM 10-K

PART I

Item 1: Business

Teradyne, Inc. (the Company or Teradyne) was founded in 1960 and is a leading global supplier of automatic test equipment.

We design, develop, manufacture and sell automatic test systems and solutions used to test semiconductors, wireless products, hard disk drives and circuit boards in the consumer electronics, wireless, automotive, industrial, computing, communications and aerospace and defense industries. Our automatic test equipment products and services include:

semiconductor test (Semiconductor Test) systems;

wireless test (Wireless Test) systems; and

military/aerospace (Mil/Aero) test instrumentation and systems, storage test (Storage Test) systems, and circuit-board test and inspection (Commercial Board Test) systems (collectively these products represent System Test).

We have a broad customer base which includes integrated device manufacturers (IDMs), outsourced semiconductor assembly and test providers (OSATs), wafer foundries, fabless companies that design, but contract with others for the manufacture of integrated circuits (ICs), developers of wireless devices and consumer electronics, manufacturers of circuit boards, automotive suppliers, wireless product manufacturers, storage device manufacturers, and aerospace and military contractors.

In 2013, we acquired ZTEC Instruments Inc. (ZTEC), a supplier of modular wireless test instruments. The acquisition of ZTEC expands our Wireless Test segment into the design verification test of wireless components and chipsets.

In 2011, we acquired LitePoint Corporation (LitePoint) to expand our product portfolio of test equipment in the wireless test sector. LitePoint designs, develops, and supports advanced wireless test solutions for the development and manufacturing of wireless devices, including smart phones, tablets, notebooks, laptops, personal computer peripherals, and other Wi-Fi, Bluetooth and cellular enabled devices. LitePoint and ZTEC represent our Wireless Test segment.

In 2009, we entered the High Speed dynamic random access memory (DRAM) testing market with our UltraFlex-M product. High speed DRAM memory devices are used for data storage and high-end graphics applications in personal computer and gaming consoles.

In 2009, we also entered the market for hard disk drive test systems with our Neptune product. The Neptune product line is used to test 2.5 inch hard disk drives for laptops, notebooks and consumer electronic storage devices. In 2013, we expanded our product line to include 3.5 inch hard disk drives which are used in cloud computing and other applications.

Investor Information

We are a Massachusetts corporation incorporated on September 23, 1960. We are subject to the informational requirements of the Securities Exchange Act of 1934 (Exchange Act). We file periodic reports, proxy statements and other information with the Securities and Exchange Commission (SEC). Such reports, proxy statements and other information may be obtained by visiting the Public Reference Room of the SEC at 100 F Street, N.E., Washington, DC 20549 or by calling the SEC at 1-800-SEC-0330. In addition, the SEC maintains an internet site (<http://www.sec.gov>) that contains reports, proxy and information statements and other information regarding issuers that file documents electronically.

You can access financial and other information, including the charters of our Audit Committee, Compensation Committee and Nominating and Corporate Governance Committee, our Corporate Governance Guidelines and Code of Conduct, by clicking the Investors link on our web site at www.teradyne.com. We make available, free of charge, copies of our filings with the SEC, including our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and amendments to those reports filed or furnished pursuant to Section 13(a) or 15(d) of the Exchange Act through our web site as soon as reasonably practicable after filing such material electronically or otherwise furnishing it to the SEC.

Products

Semiconductor Test

We design, manufacture, sell and support Semiconductor Test products and services on a worldwide basis. The test systems we provide are used both for wafer level and device package testing. These chips are used in automotive, industrial, communications, consumer, and computer and electronic game applications, among others. Semiconductor devices span a broad range of functionality, from very simple low-cost devices such as appliance microcontrollers, operational amplifiers or voltage regulators to complex digital signal processors, microprocessors and high-density as well as high speed memory devices. Semiconductor Test products and services are sold to integrated device manufacturers (IDMs) that integrate the fabrication of silicon wafers into their business, Fabless companies that outsource the manufacturing of silicon wafers, Foundries that cater to the processing and manufacturing of silicon wafers, and outsourced semiconductor assembly and test providers (OSATs) that provide test and assembly services for the final packaged devices to both Fabless companies and IDMs. Fabless companies perform the design of integrated circuits without manufacturing capabilities, and use Foundries for wafer manufacturing and OSATs for test and assembly. These customers obtain the overall benefit of comprehensively testing devices and reducing the total costs associated with testing by using our Semiconductor Test systems to:

improve and control product quality;

measure and improve product performance;

reduce time to market; and

increase production yields.

Our FLEX Test Platform architecture advances our core technologies to produce test equipment that is designed for high efficiency multi-site testing. Multi-site testing involves the simultaneous testing of many devices and functions in parallel. Leading semiconductor manufacturers are using multi-site testing to significantly improve their Cost of Test economics. The FLEX Test Platform architecture addresses customer requirements through the following key capabilities:

- 1) A high efficiency multi-site architecture that eliminates tester overhead such as instrument setup, synchronization and data movement, and signal processing;
- 2) The IG-XL software operating system which provides fast program development, including instant conversion from single to multi-site test; and
- 3) Broad technology coverage by instruments designed to cover the range of test parameters, coupled with a universal slot test head design that allows easy test system reconfiguration to address changing test needs.

FLEX Test Platform purchases are being made by IDMs, OSATs, Foundries and Fabless customers. The FLEX Test Platform has become a widely used test solution at OSATs and test houses by providing versatile testers that can handle the widest range of devices, allowing OSATs to leverage their capital investments. The broad consumer, automotive and broadband markets have historically driven most of the device volume growth in the semiconductor industry. These markets include smart phones, cell phones, tablets, set top boxes, HDTVs, game controllers, computer graphics, and automotive controllers to name a few. These end use markets continue to be drivers for the FLEX Test Platform family of products because they require a wide range of technologies and instrument coverage. The introduction of the UltraFLEX-M tester in 2009 extended the FLEX Test Platform into the High Speed DRAM testing market. The FLEX Test Platform has an installed base of more than 3,800 systems.

Our J750 test system shares the IG-XL software environment with the family of FLEX Test Platform systems. The J750 is designed to address the highest volume semiconductor devices, such as microcontrollers, that are central to the functionality of almost every consumer electronics product, from small appliances to automotive engine controllers. J750 test systems combine compact packaging, high throughput and ease of production test. We extended the J750 platform technology to create the IP750 Image Sensor test system. The IP750 is focused on testing image sensor devices used in digital cameras and other imaging products. We continue to invest in the J750 platform with new instrument releases that bring new capabilities to existing market segments and expand the J750 platform to new devices that include high end microcontrollers and the latest generation of cameras. In 2013, we introduced the J750 Ex-HD which includes system enhancements and new high density instruments that enable the J750 test platform to provide higher test cell productivity. The J750 platform has an installed base of over 4,200 systems.

Our acquisition of Nextest Systems Corporation (Nextest) in January of 2008 expanded our product offerings to include the Magnum test platform. The Magnum products address the requirements of mass production test of memory devices such as flash memory and DRAM. Flash and DRAM memory are widely used core building blocks in modern electronic products finding wide application in consumer, industrial, and computing equipment. Magnum II is the newest member of the family. With test rates up to 800 megabits per second and a versatile architecture designed for maximal throughput, Magnum II tests flash and DRAM devices, an important advantage for large memory producers that manufacture both types of memory. The Magnum platform has an installed base of over 1,500 systems.

Our acquisition of Eagle Test Systems, Inc. (Eagle Test) in November of 2008 expanded our product offerings to include the ETS platform. The ETS platform is used by semiconductor manufacturers and assembly and test subcontractors, primarily in the low pin count analog/mixed signal discrete markets that cover more cost sensitive applications. Eagle Test s proprietary SmartPin technology enables multiple semiconductor devices to be tested simultaneously, or in parallel, on an individual test system, permitting greater test throughput. Semiconductors tested by Eagle Test s systems are incorporated into a wide range of products in historically high-growth markets, including digital cameras, MP3 players, cell phones, video/multimedia products, automotive electronics, computer peripherals, and notebook and desktop computers. In 2013, we introduced ETS-88, a high performance multiside production test system designed to test a wide variety of high volume commodity and precision devices. The ETS platform has an installed base of over 3,200 systems.

Wireless Test

Our acquisition of LitePoint in October of 2011 and ZTEC in October of 2013 expanded our product offerings in the wireless test industry. LitePoint designs, develops, and supports advanced wireless test equipment for the development and manufacturing of wireless devices, including smart phones, tablets, notebooks/laptops, personal computer peripherals, and other Wi-Fi, Bluetooth and cellular enabled devices. LitePoint collaborates with developers, component manufacturers, and industry leaders to create agile systems capable of analyzing the entire wireless landscape. Using easy-to-deploy, innovative test methodologies running on software-controlled module designs, LitePoint s IQ product line is designed for high-volume, low-cost production test. LitePoint s products fall into two categories: cellular and connectivity. ZTEC is a supplier of modular wireless test instruments for the design verification test of wireless components and chipsets.

Cellular

The LitePoint IQxstream is an optimized solution for high-speed testing of GSM, EDGE, W-CDMA, HSPA+, CDMA2000, and LTE technologies used for calibration and verification of smartphones, tablets, and embedded cellular modules. As the industry s first multi-DUT test solution, it greatly increases production output through the implementation of parallel test methods of multiple devices. IQxstream is complemented by LitePoint s IQvector , a turnkey production-optimized testing package that supports the leading cellular chipset solutions, which allows manufacturers to ramp volume production in a matter of weeks, rather than months.

Connectivity

LitePoint offers a comprehensive range of test equipment for connectivity testing. The IQxel test systems enable testing of the latest Wi-Fi standard 802.11ac taking wireless data rates beyond the gigabit per second barrier. The IQxel supports multiple bandwidths and channel configurations, MIMO antenna arrangements, Bluetooth 1.0-4.0, as well as legacy 802.11 a/b/g/n/p modes. It is targeted at manufacturers of networking equipment, Internet access devices, and embedded modules used in smartphones, tablets, and PCs. The LitePoint IQ2015 is a one-box solution for multi-connectivity needs, including Wi-Fi (a/b/g/n), Bluetooth (1.0-4.0), GPS/GLONASS, FM, WiMAX and ZigBee. It is a preferred choice by manufacturers of smartphones and tablets. LitePoint continues to deliver and support its legacy products, including IQflex , IQnxt , IQ2010 , IQnav , and IQview .

LitePoint IQfactPlus is a turnkey, chipset specific testing package, enabling rapid volume manufacturing with a minimum of engineering effort. IQfact solution can be customized for a specific end product and then deployed on LitePoint test equipment.

System Test

Our System Test segment is comprised of three business units: Mil/Aero, Storage Test and Commercial Board Test.

Mil/Aero

We are a leading provider of high-performance test systems, subsystems, instruments and service for the defense and aerospace markets. Our test products are used to ensure the readiness of military and commercial aerospace electronics systems. New programs, such as tactical aircraft and missile systems, as well as upgrade programs, continue to fuel the demand for high performance test systems in this market. Our test products are well-suited to the demands of defense/aerospace electronics manufacturers and repair depots worldwide. Our leadership in this market is underscored by our success with major Department of Defense programs across all U.S. military service branches and many allied defense services worldwide.

Storage Test

The Storage Test business unit addresses the high throughput, automated manufacturing test requirement of hard disk drive (HDD) manufacturers. Our products address the 2.5 inch and 3.5 inch HDD markets. The 2.5 inch market is driven by the needs of laptop, ultrabook and enterprise storage products. The 3.5 inch HDD market is driven by the needs of data centers and cloud storage. Our products lead in addressing customer requirements related to factory density, thermal performance and vibration isolation.

Commercial Board Test

Our test systems are used by electronics manufacturers worldwide to verify that printed circuit boards are assembled correctly and operational. Fast, accurate and cost-effective test capabilities are hallmark features of our In-Circuit-Test (ICT) systems, including the TestStation and Spectrum product families. In 2013, we introduced new products to address the growing requirements to deliver increased throughput for high volume applications.

Discontinued Operations

On March 21, 2011, our Diagnostic Solutions business unit was sold to SPX Corporation for \$40.2 million in cash. This business provided electronic test and diagnostic systems to the automotive OEMs and their major subcontractors. This business unit was in our System Test segment. Diagnostic Solutions has been reflected as discontinued operations in the accompanying financial statements.

Summary of Net Revenues by Reportable Segment

Our three reportable segments accounted for the following percentages of consolidated net revenues for each of the last three years:

	2013	2012	2011
Semiconductor Test	71%	68%	77%
Wireless Test	18	17	2
System Test	11	15	21
	100%	100%	100%

Sales and Distribution

In 2013 and 2012, revenues from Apple Inc. accounted for 12% and 10%, respectively, of our consolidated net revenues. Apple Inc. is a customer of our Semiconductor Test and Wireless Test segments. In 2011, no single customer accounted for 10% or more of our consolidated net revenues. In each of the years 2013, 2012 and 2011, our three largest customers in aggregate accounted for 26%, 29% and 19% of our consolidated net revenues, respectively.

Direct sales to United States government agencies accounted for 3%, 2% and 2% of our consolidated net revenues in 2013, 2012 and 2011, respectively. Approximately 32%, 15% and 8% of System Test's revenues in 2013, 2012 and 2011, respectively, were to United States government agencies and 24%, 20% and 17% of System Test's revenues in 2013, 2012 and 2011, respectively, were to government contractor customers.

We have sales and service offices located throughout North America, Asia and Europe, as our customers outside the United States are located primarily in these geographic areas. We sell in these areas predominantly through a direct sales force. Our manufacturing activities are primarily conducted through subcontractors and outsourced contract manufacturers with a significant operation concentrated in China.

Sales to customers outside the United States were 84%, 86% and 84% of our consolidated net revenues in 2013, 2012 and 2011, respectively. Sales are attributed to geographic areas based on the location of the customer site.

Sales to customers outside of the United States that accounted for 10% or more of our consolidated net revenues in any of the previous three years were as follows:

	2013	2012	2011
China	23%	21%	13%
Taiwan	19	18	12
Korea	8	13	10
Japan	6	6	10
Malaysia	6	4	10

See also Item 1A: Risk Factors and Note R: Operating Segment, Geographic and Significant Customer Information in Notes to Consolidated Financial Statements.

Competition

We face significant competition throughout the world in each of our reportable segments. Competitors in the Semiconductor Test segment include, among others, Advantest Corporation and LTX Credence Corporation. Competitors in the System Test segment include, among others, Agilent Technologies, Inc. and Xyratex Ltd, which announced on December 23, 2013 that it has agreed to be acquired by Seagate Technology plc.

Competitors in our Wireless Test segment include, among others, Agilent Technologies, Inc., Aeroflex, Inc., Anritsu Company, National Instruments Corporation and Rohde & Schwarz GmbH & Co. KG.

Some of our competitors have substantially greater financial and other resources to pursue engineering, manufacturing, marketing and distribution of their products. In particular, our largest competitor in the Semiconductor Test segment spends considerably more than us on research and development which may provide it with a competitive advantage. We also face competition from emerging Asian equipment companies and from internal suppliers at several of our customers. Some of our competitors have introduced or announced new products with certain performance characteristics which may be considered equal or superior to those we currently offer. We expect our competitors to continue to improve the performance of their current products and to introduce new products or new technologies that provide improved cost of ownership and performance characteristics. See also Item 1A: Risk Factors.

Backlog

At December 31, 2013 and 2012, our backlog of unfilled orders in our three reportable segments was as follows:

	2013	2012
	(in millions)	
Semiconductor Test	\$ 233.8	\$ 204.2
Wireless Test	31.2	29.8
System Test	96.6	120.0
	\$ 361.6	\$ 354.0

Of the backlog at December 31, 2013, approximately 98% of the Semiconductor Test backlog, 94% of System Test backlog, and 65% of Wireless Test backlog, is expected to be delivered in 2014.

Customers may delay delivery of products or cancel orders suddenly and without significant notice, subject to possible cancellation penalties. Due to possible customer changes in delivery schedules and cancellation of orders, our backlog at any particular date is not necessarily indicative of the actual sales for any succeeding period. Delays in delivery schedules or cancellations of backlog during any particular period could have a material adverse effect on our business, financial condition or results of operations.

Raw Materials

Our products contain electronic and mechanical components that are provided by a wide range of suppliers. Some of these components are standard products, while others are manufactured to our specifications. We can experience occasional delays in obtaining timely delivery of certain items. While the majority of our components are available from multiple suppliers, certain items are obtained from sole sources. We may experience a temporary adverse impact if any of our sole source suppliers delay or cease to deliver products.

Intellectual Property and Licenses

The development of our products, both hardware and software, is based in significant part on proprietary information, our brands and technology. We protect our rights in proprietary information, brands and technology through various methods, such as:

patents;

copyrights;

trademarks;

trade secrets;

standards of business conduct and related business practices; and

technology license agreements, software license agreements, non-disclosure agreements, employment agreements, and other agreements.

However, these protections might not be effective in all circumstances. Competitors might independently develop similar technology or exploit our proprietary information and our brands in countries where we lack enforceable intellectual property rights or where enforcement of such rights through the legal system provides an insufficient deterrent. Also, intellectual property protections can lapse or be invalidated through appropriate legal processes. We do not believe that any single piece of intellectual property or proprietary rights is essential to our business.

Employees

As of December 31, 2013, we employed approximately 3,800 people. Since the inception of our business, we have experienced no work stoppages or other labor disturbances. We have no collective bargaining contracts.

Engineering and Development Activities

The highly technical nature of our products requires a large and continuing engineering and development effort. Engineering and development expenditures for the years ended December 31, 2013, 2012 and 2011 were \$264.1 million, \$255.9 million, and \$201.0 million, respectively. These expenditures accounted for approximately 18.5%, 15.4%, and 14.1% of our consolidated net revenues in 2013, 2012, and 2011, respectively.

Environmental Affairs

We are subject to various federal, state, and local government laws and regulations relating to the protection of employee health and safety and the environment. We accrue for all known environmental liabilities when it becomes probable that we will incur cleanup costs and those costs can reasonably be estimated. Estimated environmental costs are not expected to materially affect the financial position or results of our operations in future periods. However, estimates of future costs are subject to change due to protracted cleanup periods and changing environmental remediation laws and regulations.

OUR EXECUTIVE OFFICERS

Pursuant to General Instruction G(3) of Form 10-K, the following table is included in Part I of this Annual Report on Form 10-K in lieu of being included in the Proxy Statement for the Annual Meeting of Shareholders. The table sets forth the names of all of our executive officers and certain other information relating to their positions held with Teradyne and other business experience. Our executive officers do not have a specific term of office but rather serve at the discretion of the Board of Directors.

Executive Officer	Age	Position	Business Experience For The Past 5 Years
Mark E. Jagiela	53	Chief Executive Officer, President and President of Semiconductor Test	Chief Executive Officer since February 2014; President of Teradyne since January 2013; President of Semiconductor Test since 2003; Vice President of Teradyne from 2001 to 2013.
Gregory R. Beecher	56	Vice President, Chief Financial Officer and Treasurer	Vice President and Chief Financial Officer of Teradyne since 2001; Treasurer of Teradyne from 2003 to 2005 and since 2006.
Charles J. Gray	52	Vice President, General Counsel and Secretary	Vice President, General Counsel and Secretary of Teradyne since April 2009; Vice President and General Counsel of Sonus Networks, Inc. from 2002 to 2008.
Walter G. Vahey	49	President of System Test	President of System Test since July 2012; Vice President of Teradyne since 2008; General Manager of Storage Test since 2008; General Manager of Commercial Board Test since April 2013; General Manager of Mil/Aero from 2004 to July 2012.

Item 1A: *Risk Factors* Risks Associated with Our Business

The risks described below 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.

Our business is impacted by global and industry-specific economic cycles, which are difficult to predict, and actions we have taken or may take to offset these cycles may not be sufficient.

Capital equipment providers in the electronics and semiconductor industries, such as Teradyne, have, in the past, been negatively impacted by both sudden slowdowns in the global economies and recurring cyclicity within those industries. These cycles have resulted in periods of over-supply; a trend we believe will continue to occur for newer generations of electronic products. Our business and results of operations depend, in significant part, upon capital expenditures of manufacturers of semiconductors and other electronics, which in turn depend upon the current and anticipated market demand for those products. Disruption or deterioration in economic conditions may reduce customer purchases of our products, thereby reducing our revenues and earnings. In addition, such adverse changes in economic conditions, and resulting slowdowns in the market for our products, may, among other things, result in increased price competition for our products, increased risk of excess and obsolete inventories, increased risk in the collectability of our accounts receivable from our customers, potential reserves for doubtful accounts and write-offs of accounts receivable, increased risk of restructuring charges, and higher operating costs as a percentage of revenues, which, in each case and together, adversely affect our operating results. We are unable to predict the likely duration, frequency and severity of disruptions in financial

markets, credit availability, and adverse economic conditions throughout the world, and we cannot ensure that the level of revenues or new orders for a fiscal quarter will be sustained in subsequent quarters. We have taken actions to address the effects of general economic variability and recurring industry cyclicality, including implementing cost control and reduction measures. If our businesses experience further downturns, whether due to a deterioration in global economic conditions or slowdowns in specific markets we serve, we may need to take further cost control and reduction measures. We cannot predict whether these measures will be sufficient to offset global or market-specific disruptions that might affect our test businesses.

In 2013, revenue from our Storage Test business unit was significantly lower than 2012 due to lower hard disk drive demand from lower shipments of personal computers, a trend which is expected to continue. In response to this lower demand, during the third quarter of 2013, we implemented a headcount reduction in the Storage Test business unit. It is possible that we may need to take further cost control and reduction measures including reducing the number of employees and reducing manufacturing capacity. A prolonged slowdown in hard disk drive demand may result in increased risk of excess and obsolete inventories, asset write-offs and restructuring charges.

We are subject to intense competition.

We face significant competition throughout the world in each of our reportable segments. Some of our competitors have substantial financial and other resources to pursue engineering, manufacturing, marketing and distribution of their products. In particular, our largest competitor in the Semiconductor Test segment spends considerably more than us on research and development which may provide it with a competitive advantage. We also face competition from emerging Asian equipment companies and internal development at several of our customers. Some of our competitors have introduced or announced new products with certain performance characteristics which may be considered equal or superior to those we currently offer. We expect our competitors to continue to improve the performance of their current products and to introduce new products or new technologies that provide improved cost of ownership and performance characteristics. New product introductions by competitors could cause a decline in revenues or loss of market acceptance of our products.

The market for our products is concentrated, and our business depends, in part, on obtaining orders from a few significant customers.

The market for our products is concentrated with a limited number of significant customers accounting for a substantial portion of the purchases of test equipment. In each of the years 2013, 2012 and 2011, our three largest customers in aggregate accounted for 26%, 29% and 19% of consolidated net revenues, respectively. In any one reporting period, a single customer or several customers may contribute even a larger percentage of our consolidated net revenues. In addition, our ability to increase sales will depend, in part, on our ability to obtain orders from current or new significant customers. The opportunities to obtain orders from these customers may be limited, which may impair our ability to grow revenues. We expect that sales of our products will continue to be concentrated with a limited number of significant customers for the foreseeable future. The loss of a significant customer or any reduction in orders by these customers, including reductions due to market or competitive conditions, would likely have a material adverse effect on our business, financial condition or results of operations.

Failure to realize the estimated sales value of equipment leased to our customers may adversely affect our results of operations.

We occasionally lease equipment to our customers, typically for a term of one year. We expect that the volume of leasing transactions and the value of equipment under leases to significantly increase in the near term. In connection with these equipment leases, the cost of the equipment is recorded as an asset on our balance sheet and depreciated over an estimated useful life of four years. Realization of the leased equipment's value depends on numerous factors including: the technological obsolescence of the leased equipment; the general market

conditions at the time of expiration of the lease; the customer's election to renew the lease; and the cost of comparable new equipment. Our inability to realize the leased equipment's value could cause a decrease in revenue and an increase in asset write-offs which would in each case reduce our operating income.

Our operating results are likely to fluctuate significantly.

Our operating results are affected by a wide variety of factors that could materially adversely affect revenues or profitability. The following factors could impact future operations:

a worldwide economic slowdown or disruption in the global financial markets;

competitive pressures on selling prices;

our ability to introduce, and the market acceptance of, new products;

changes in product revenues mix resulting from changes in customer demand;

the level of orders received which can be shipped in a quarter because of the tendency of customers to wait until late in a quarter to commit to purchase due to capital expenditure approvals and constraints occurring at the end of a quarter, or the hope of obtaining more favorable pricing from a competitor seeking the business;

engineering and development investments relating to new product introductions, and the expansion of manufacturing, outsourcing and engineering operations in Asia;

provisions for excess and obsolete inventory relating to the lack of demand for and the discontinuance of products;

impairment charges for certain long-lived and intangible assets and goodwill;

the leasing of our products to significant customers;

parallel or multi-site testing could lead to a decrease in the ultimate size of the market for our products; and

the ability of our suppliers and subcontractors to meet product quality or delivery requirements needed to satisfy customer orders for our products, especially if product demand increases.

As a result of the foregoing and other factors, we have experienced and may continue to experience material fluctuations in future operating results on a quarterly or annual basis which could materially and adversely affect our business, financial condition, operating results or stock price.

We are subject to risks of operating internationally.

A significant portion of our total revenues is derived from customers outside the United States. Our international sales and operations are subject to significant risks and difficulties, including:

unexpected changes in legal and regulatory requirements affecting international markets;

changes in tariffs and exchange rates;

social, political and economic instability, acts of terrorism and international conflicts;

difficulties in protecting intellectual property;

difficulties in accounts receivable collection;

cultural differences in the conduct of business;

difficulties in staffing and managing international operations; and

compliance with customs regulations.

In addition, an increasing portion of our products and the products we purchase from our suppliers are sourced or manufactured in foreign locations, including China, and a large portion of the devices our products test are fabricated and tested by foundries and subcontractors in Taiwan, Singapore, China and other parts of Asia. As a result, we are subject to a number of economic and other risks, particularly during times of political or financial instability in these regions. Disruption of manufacturing or supply sources in these international locations could materially adversely impact our ability to fill customer orders and potentially result in lost business.

If we fail to develop new technologies to adapt to our customers' needs and if our customers fail to accept our new products, our revenues will be adversely affected.

We believe that our technological position depends primarily on the technical competence and creative ability of our engineers. In a rapidly evolving market, such as ours, the development or acquisition of new technologies, commercialization of those technologies into products and market acceptance and customer demand for those products are critical to our success. Successful product development or acquisition, introduction and acceptance depend upon a number of factors, including:

new product selection;

ability to meet customer requirements;

development of competitive products by competitors;

timely and efficient completion of product design;

timely and efficient implementation of manufacturing and manufacturing processes;

timely remediation of product performance issues, if any, identified during testing;

assembly processes and product performance at customer locations;

differentiation of our products from our competitors' products;

management of customer expectations concerning product capabilities and product life cycles;

ability to attract and retain technical talent; and

innovation that does not infringe on the intellectual property rights of third parties.

If our suppliers do not meet product or delivery requirements, we could have reduced revenues and earnings.

Certain components, including semiconductor chips, may be in short supply from time to time because of high industry demand or the inability of some vendors to consistently meet our quality or delivery requirements. Approximately 25% of material purchases require some custom work where having multiple suppliers would be cost prohibitive. If any of our suppliers 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. In addition, we rely on contract manufacturers for certain subsystems used in our

Edgar Filing: TERADYNE, INC - Form 10-K

products, and our ability to meet customer orders for those products depends upon the timeliness and quality of the work performed by these subcontractors, over whom we do not exercise any control.

To a certain extent, we are dependent upon the ability of our suppliers and contractors to help meet increased product or delivery requirements. It may be difficult for certain suppliers to meet delivery requirements in a period of rapid growth, therefore impacting our ability to meet our customers' demands.

We rely on the financial strength of our suppliers. There can be no assurance that the loss of suppliers either as a result of financial viability, bankruptcy or otherwise will not have a material adverse effect on our business, results of operations or financial condition.

Our operations may be adversely impacted if our outsourced contract manufacturers or service providers fail to perform.

We depend on Flextronics International Ltd. (Flextronics) to manufacture and test our FLEX and J750 family of products from its facility in China and on other contract manufacturers to manufacture other products. If for any reason these contract manufacturers cannot provide us with these products in a timely fashion, or at all, we may not be able to sell these products to our customers until we enter a similar arrangement with an alternative contract manufacturer. If we experience a problem with our supply of products from Flextronics or our other contract manufacturers, it may take us significant time to either manufacture the product or find an alternate contract manufacturer, which could result in substantial expense and disruption to our business.

We have also outsourced a number of our general and administrative functions, including information technology, to reputable service providers, many of which are in foreign countries, sometimes impacting communication with them because of language and time differences. Their presence in foreign countries also increases the risk they could be exposed to political risk. Additionally, there may be difficulties encountered in coordinating the outsourced operations with existing functions and operations. If we fail in successfully coordinating and managing the outsourced service providers, it may cause an adverse effect on our operations which could have a material adverse effect on our business, results of operations or financial condition.

We may not fully realize the benefits of our acquisitions or strategic alliances.

We may acquire businesses, form strategic alliances or create joint ventures with third parties that we believe will complement or augment our existing businesses. We may not be able to realize the expected synergies and cost savings from the integration with our existing operations of other businesses or technologies that we may acquire. In addition, the integration process for our acquisitions may be complex, costly and time consuming and include unanticipated issues, expenses and liabilities. We may have difficulty in developing, manufacturing and marketing the products of a newly acquired company in a manner that enhances the performance of our combined businesses or product lines and allows us to realize value from expected synergies. Following an acquisition, we may not achieve the revenues or net income levels that justify the acquisition. Acquisitions may also result in one-time charges (such as acquisition-related expenses, write-offs or restructuring charges) or in the future, impairment of goodwill, that adversely affect our operating results. Additionally, we may fund acquisitions of new businesses, strategic alliances or joint ventures by utilizing our cash, raising debt, issuing shares of our common stock, or by other means.

The value of our common stock may be impacted by settlement of our convertible notes and exercise of the warrants issued to the convertible note hedge counterparty.

Upon maturity on March 15, 2014 of our 4.50% Convertible Senior Notes (the Notes), the Notes will be net share settled, meaning that holders will receive, for each \$1,000 in principal amount of Notes, \$1,000 in cash and a number of shares of our common stock equal to 182.65 (subject to anti-dilution adjustment under certain circumstances) less a number of shares having \$1,000 of value, as determined based on the average trading price of our common stock over a 25-day trading period from February 5, 2014 to March 12, 2014. We intend to satisfy this obligation through use of cash and by exercise of our call option agreement we entered into with Goldman, Sachs & Co. (the hedge counterparty) at the time of issuance of the Notes. The hedge counterparty will subsequently be able to exercise warrants with a strike price of \$7.67 (an amount 75% higher than the closing price of our common stock on March 31, 2009). These warrants will be net share settled, with approximately 534,000 warrants settled on a daily basis over a 65-day trading period from June 17, 2014 to September 17, 2014. However, we are not obligated to issue more than 34,526,500 shares of our common stock upon exercise of the warrants (which amount represented less than 19.99% of our outstanding shares of common stock as of March 31, 2009, without giving effect to any shares of common stock issuable pursuant to the warrant transaction). While the convertible note hedge is expected to reduce the potential dilution to our common stock upon settlement of the Notes, the warrant transaction will separately have a dilutive effect to the extent that the

market value per share of our common stock upon exercise of the warrants exceeds the applicable strike price of the warrants, which could impact the value of our stock. The value of our stock may be further impacted by actions of the hedge counterparty, including derivative transactions it may have entered into with respect to our common stock, purchases it may have made of shares of our common stock or other securities, including the Notes, the settlement of these derivative transactions with respect to our common stock, and/or by selling our common stock or other securities, including the Notes, in secondary market transactions.

We may incur significant liabilities if we fail to comply with environmental regulations.

We are subject to both domestic and international environmental regulations and statutory strict liability relating to the use, storage, discharge, site cleanup and disposal of hazardous chemicals used in our manufacturing processes. If we fail to comply with present and future regulations, or are required to perform site remediation, we could be subject to future liabilities or cost, including penalties or the suspension of production. Present and future regulations may also:

restrict our ability to expand facilities;

restrict our ability to ship certain products;

require us to modify our operations logistics;

require us to acquire costly equipment; or

require us to incur other significant costs and expenses.

Pursuant to present regulations and agreements, we are conducting groundwater and subsurface assessment and monitoring and are implementing remediation and corrective action plans for facilities located in Massachusetts and New Hampshire which are no longer conducting manufacturing operations. As of December 31, 2013, we have not incurred material costs as result of the monitoring and remediation steps taken at the Massachusetts and New Hampshire sites.

On January 27, 2003, the European Union adopted the following directives: (i) the directive on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (the RoHS Directive); and (ii) the directive on Waste Electrical and Electronic Equipment (the WEEE Directive). The WEEE Directive became effective August 13, 2005 and the RoHS Directive became effective on July 6, 2006. Both the RoHS Directive and the WEEE Directive alter the form and manner in which electronic equipment is imported, sold and handled in the European Union. Other jurisdictions, such as China, have followed the European Union 's lead in enacting legislation with respect to hazardous substances and waste removal. Ensuring compliance with the RoHS Directive, the WEEE Directive and similar legislation in other jurisdictions, and integrating compliance activities with our suppliers and customers could result in additional costs and disruption to operations and logistics and thus, could have a negative impact on our business, operations or financial condition.

We currently are, and in the future may be, subject to litigation that could have an adverse effect on our business.

From time to time, we may be subject to litigation or other administrative and governmental proceedings that could require significant management time and resources and cause us to incur expenses and, in the event of an adverse decision, pay damages in an amount that could have a material adverse effect on our financial position or results of operations.

Third parties may claim we are infringing their intellectual property and we could suffer significant litigation costs, licensing expenses or be prevented from selling our products.

We have been sued for patent infringement in the past and receive notifications from time to time that we may be in violation of patents held by others. An assertion of patent infringement against us, if successful, could have a material adverse effect on our ability to sell our products or it could force us to seek a license to the

intellectual property rights of others or alter such products so that they no longer infringe the intellectual property rights of others. A license could be very expensive to obtain or may not be available at all. Similarly, changing our products or processes to avoid infringing the rights of others may be costly or impractical. Additionally, patent litigation could require a significant use of management resources and involve a lengthy and expensive defense, even if we eventually prevail. If we do not prevail, we might be forced to pay significant damages, obtain licenses, modify our products, or stop making our products; each of which could have a material adverse effect on our financial condition or operating results and cash flows.

If we are unable to protect our intellectual property (IP), we may lose a valuable asset or may incur costly litigation to protect our rights.

We protect the technology that is incorporated in our products in several ways, including through patent, copyright, and trade secret protection and by contractual agreement. However, even with these protections, our IP may still be challenged, invalidated or subject to other infringement actions. While we believe that our IP has value in the aggregate, no single element of our IP is in itself essential. If a significant portion of our IP is invalidated or ineffective, our business could be materially adversely affected.

We may incur higher tax rates than we expect and may have exposure to additional international tax liabilities and costs.

We are subject to paying income taxes in the United States and various other countries where we operate. Our effective tax rate is dependent on where our earnings are generated and the tax regulations and the interpretation and judgment of administrative tax or revenue entities in the United States and other countries. We have pursued a global tax strategy which could adversely be affected by our failure to expand operations or earnings in certain countries, the mix of earnings and tax rates in the countries where we operate, changes to tax laws or an adverse tax ruling by administrative entities. We are also subject to tax audits in the countries where we operate. Any material assessment resulting from an audit from an administrative tax or revenue entity could also negatively affect our financial results.

As a multinational corporation, we are subject to income taxes as well as non-income based taxes, in both the United States and various foreign jurisdictions. In certain foreign jurisdictions, we qualify for tax incentives and tax holidays based on our ability to meet, on a continuing basis, various tests relating to our employment levels, research and development expenditures and other qualification requirements in a particular foreign jurisdiction. While we intend to operate in such a manner to maintain and maximize our tax incentives, no assurance can be given that we have so qualified or that we will so qualify for any particular year or jurisdiction. If we fail to qualify and to remain qualified for certain foreign tax incentives and tax holidays, we may be subject to further taxation or an increase in our effective tax rate which would adversely impact our financial results. In addition, we may incur additional costs, including headcount expenses, in order to obtain or maintain a foreign tax incentive in a particular foreign jurisdiction.

We have significant guarantees, indemnification and customer confidentiality obligations.

From time to time, we make guarantees to customers regarding the delivery, price and performance of our products and guarantee certain indebtedness, performance obligations or lease commitments of our subsidiary and affiliate companies. We also have agreed to provide indemnification to our officers, directors, employees and agents, to the extent permitted by law, arising from certain events or occurrences while the officer, director, employee or agent, is or was serving at our request in such capacity. Additionally, we have confidentiality obligations to certain customers and if breached would require the payment of significant penalties. If we become liable under any of these obligations, it could materially and adversely affect our business, financial condition or operating results. For additional information see Note K: Commitments and Contingencies Guarantees and Indemnification Obligations in Notes to Consolidated Financial Statements.

We may discontinue or reduce our quarterly cash dividend.

In January 2014, our Board of Directors initiated a quarterly dividend program and declared an initial quarterly cash dividend of \$0.06 per share to be paid on June 2, 2014 to shareholders of record as of May 9, 2014. Holders of our Common Stock are only entitled to receive dividends when and if they are declared by our Board of Directors. Payment of future cash dividends will rest within the discretion of our Board of Directors and will depend, among other things, upon our earnings, capital requirements and financial condition. While we have declared a quarterly cash dividend on our Common Stock, we are not required to do so and may reduce or eliminate our cash dividend in the future. The reduction or elimination of our cash dividend could adversely affect the market price of our Common Stock.

Our business may suffer if we are unable to attract and retain key employees.

Competition for employees with skills we require is intense in the high technology industry. Our success will depend on our ability to attract and retain key technical employees. The loss of one or more key or other employees, a decrease in our ability to attract additional qualified employees, or the delay in hiring key personnel could each have a material adverse effect on our business, results of operations or financial condition.

New regulations related to conflict minerals may adversely affect us.

The Dodd-Frank Wall Street Reform and Consumer Protection Act imposes new disclosure requirements regarding the use of conflict minerals mined from the Democratic Republic of Congo and adjoining countries in our products, whether or not these products are manufactured by third parties. This new requirement could affect the pricing, sourcing and availability of minerals used in the manufacture of components we use in our products. In addition, there will be additional costs associated with complying with the disclosure requirements, such as costs related to determining the source of any conflict minerals used in our products. Our supply chain is complex and we may be unable to verify the origins for all metals used in our products. As a result, we may be unable to certify that our products are conflict free.

Our operations, and the operations of our customers and suppliers, are subject to risks of natural catastrophic events, widespread health epidemics, acts of war, terrorist attacks and the threat of domestic and international terrorist attacks, any one of which could result in cancellation of orders, delays in deliveries or other business activities, or loss of customers and could negatively affect our business and results of operations.

Our business is international in nature, with our sales, service and administrative personnel and our customers and suppliers located in numerous countries throughout the world. Our operations, and those of our customers and suppliers, are subject to disruption for a variety of reasons, including work stoppages, acts of war, terrorism, health epidemics, fires, earthquakes, hurricanes, volcanic eruptions, energy shortages, telecommunication failures, tsunamis, flooding or other natural disasters. Such disruption could materially increase our costs and expenses as well as cause delays in, among other things, shipments of products to our customers, our ability to perform services requested by our customers, or the installation and acceptance of our products at customer sites. Any of these conditions could have a material adverse effect on our business, financial conditions or results of operations.

A breach of our operational or security systems could negatively affect our business and results of operations.

A failure in or a breach of our operational or security systems or infrastructure, or those of our suppliers and other service providers, including as a result of cyber attacks, could disrupt our business, result in the disclosure or misuse of proprietary or confidential information, damage our reputation, cause losses and increase our costs.

Provisions of our charter and by-laws and Massachusetts law make a takeover of Teradyne more difficult.

There are provisions in our basic corporate documents and under Massachusetts law that could discourage, delay or prevent a change in control, even if a change in control may be regarded as beneficial to some or all of our stockholders.

Item 1B: Unresolved Staff Comments

None.

Item 2: Properties

The following table provides information as to our principal facilities:

Location	Operating Segment	Major Activity+	Approximate Square Feet of Floor Space
Properties Owned:			
North Reading, Massachusetts	Semiconductor Test, System Test & Corporate	1-2-3-4-5-6	422,000
Agoura Hills, California	Semiconductor Test	3-5	120,000
Kumamoto, Japan	Semiconductor Test	2-3-4-5	79,000
			621,000
Properties Leased:			
Cebu, Philippines	Semiconductor Test & Corporate	1-2-6	135,000
San Jose, California	Semiconductor Test	2-3-4-5	128,000
Buffalo Grove, Illinois	Semiconductor Test	2-3-4-5	95,000
Sunnyvale, California	Wireless Test	2-3-4-5-6	75,000
Shanghai, China	Semiconductor Test & System Test	2-5-6	44,000
Hsinchu, Taiwan	Semiconductor Test & System Test	5	43,000
Heredia, Costa Rica	Semiconductor Test	2-6	42,000
Seoul, Korea	Semiconductor Test	5	28,000
Singapore, Singapore	Semiconductor Test & Corporate	2-3-5	23,000
			613,000

+ Major activities have been separated into the following categories: 1. Corporate Administration, 2. Sales Support and Manufacturing, 3. Engineering and Development, 4. Marketing, 5. Sales and Administration, 6. Storage and Distribution.

Item 3: Legal Proceedings

We are subject to legal proceedings, claims and investigations that arise 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, other than as set forth herein, 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 May 17, 2013, Boston Semi Equipment (BSE) filed a complaint against us for antitrust violations and unfair business practices alleging that we excluded BSE from competing in the market for the sale of reconfigured Teradyne equipment and the market for the repair of Teradyne equipment. BSE sought unspecified damages and an injunction. We filed a motion to dismiss the complaint. On October 18, 2013, the parties settled the litigation. The settlement included no monetary consideration. The settlement did not and will not have a material impact on our consolidated financial results.

Item 4: Mine Safety Disclosure: Not Applicable

PART II

Item 5: Market for Registrant's Common Equity, Related Shareholder Matters and Issuer Purchases of Equity Securities

The following table shows the market range for our common stock based on reported sales price on the New York Stock Exchange.

Period	High	Low
2012		
First Quarter	\$ 17.50	\$ 13.53
Second Quarter	18.01	13.18
Third Quarter	16.49	12.95
Fourth Quarter	16.90	13.40
2013		
First Quarter	\$ 17.66	\$ 15.44
Second Quarter	18.57	14.05
Third Quarter	18.73	15.22
Fourth Quarter	17.90	15.75

The number of record holders of our common stock at February 21, 2014 was 2,340.

In January 2014, our Board of Directors initiated a quarterly dividend program and declared an initial quarterly cash dividend of \$0.06 per share to be paid on June 2, 2014 to shareholders of record as of May 9, 2014.

See Item 7: Management's Discussion and Analysis of Financial Condition and Results of Operations, for information on our equity compensation plans and our performance graph.

In November 2010, the Board of Directors authorized a stock repurchase program for up to \$200 million. The cumulative repurchases as of December 31, 2013 totaled 2.6 million shares of common stock for \$31.2 million at an average price of \$11.84 per share.

The following table includes information with respect to repurchases we made of our common stock during the quarter ended December 31, 2013 (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
September 30, 2013 – October 27, 2013		\$		\$ 168,825
October 28, 2013 – November 24, 2013		\$		\$ 168,825
November 25, 2013 – December 31, 2013		\$		\$ 168,825

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 6: Selected Financial Data

	Years Ended December 31,				
	2013	2012	2011	2010	2009
(dollars in thousands, except per share amounts)					
Consolidated Statement of Operations Data (1)(2)(3)(4)(5):					
Net revenues	\$ 1,427,933	\$ 1,656,750	\$ 1,429,061	\$ 1,566,162	\$ 777,425
Income (loss) from continuing operations	164,947	217,049	343,957	379,692	(129,520)
Net income (loss)	\$ 164,947	\$ 217,049	\$ 369,873	\$ 384,820	\$ (127,994)
Income (loss) from continuing operations per common share basic	\$ 0.86	\$ 1.16	\$ 1.86	\$ 2.11	\$ (0.75)
Income (loss) from continuing operations per common share diluted	\$ 0.70	\$ 0.94	\$ 1.52	\$ 1.73	\$ (0.75)
Net income (loss) per common share basic	\$ 0.86	\$ 1.16	\$ 2.00	\$ 2.14	\$ (0.74)
Net income (loss) per common share diluted	\$ 0.70	\$ 0.94	\$ 1.63	\$ 1.75	\$ (0.74)
Consolidated Balance Sheet Data:					
Total assets	\$ 2,629,824	\$ 2,429,345	\$ 2,188,639	\$ 1,810,355	\$ 1,235,337
Short-term debt obligations	186,663	2,328	2,573	2,450	2,157
Long-term debt obligations	\$	\$ 171,059	\$ 159,956	\$ 150,182	\$ 141,100

- (1) The Consolidated Statement of Operations Data for the year ended December 31, 2013 includes \$34.2 million of a gain from the sale of an equity investment.
- (2) As a result of the divestiture of Diagnostic Test Solutions in 2011, we are reporting this business unit as discontinued operations for all periods presented.
- (3) The Consolidated Statement of Operations Data for the year ended December 31, 2011 includes the results of operations of LitePoint from October 5, 2011.
- (4) The Consolidated Statement of Operations Data for the year ended December 31, 2011 includes a tax benefit of \$129.5 million due primarily to the release of the deferred tax valuation allowance.
- (5) The Consolidated Statement of Operations Data for the year ended December 31, 2009 includes \$32.6 million of severance charges and \$3.7 million of facilities charges related to the early exit of leased facilities.

Item 7: Management's Discussion and Analysis of Financial Condition and Results of Operations

Statements in this Annual Report on Form 10-K 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 Teradyne's filings with the Securities and Exchange Commission. 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 automatic test equipment. We design, develop, manufacture and sell automatic test systems and solutions used to test semiconductors, wireless products, hard disk drives and circuit boards in the consumer electronics, wireless, automotive, industrial, computing, communications and aerospace and defense industries. Our automatic test equipment products and services include:

semiconductor test (Semiconductor Test) systems;

wireless test (Wireless Test) systems; and

military/aerospace (Mil/Aero) test instrumentation and systems, storage test (Storage Test) systems, circuit-board test and inspection (Commercial Board Test) systems (collectively these products represent System Test).

We have a broad customer base which includes integrated device manufacturers (IDMs), outsourced semiconductor assembly and test providers (OSATs), wafer foundries, fabless companies that design, but contract with others for the manufacture of integrated circuits (ICs), developers of wireless devices and consumer electronics, manufacturers of circuit boards, automotive suppliers, wireless product manufacturers, storage device manufacturers, aerospace and military contractors.

In 2013, we acquired ZTEC Instruments Inc. (ZTEC), a supplier of modular wireless test instruments. The acquisition of ZTEC expands our Wireless Test segment into the design verification test of wireless components and chipsets.

In 2011, we acquired LitePoint Corporation (LitePoint) to expand our product portfolio of test equipment in the wireless test sector. LitePoint designs, develops, and supports advanced wireless test solutions for the development and manufacturing of wireless devices, including smart phones, tablets, notebooks, laptops, personal computer peripherals, and other Wi-Fi, Bluetooth and cellular enabled devices. LitePoint and ZTEC represent our Wireless Test segment.

We believe our acquisitions of LitePoint and ZTEC have enhanced our opportunities for growth. We will continue to invest in our business to expand further our addressable markets while tightly managing our costs.

The sales of our products and services are dependent, to a large degree, on customers who are subject to cyclical trends in the demand for their products. These cyclical periods have had, and will continue to have, a significant effect on our business since our customers often delay or accelerate purchases in reaction to changes in their businesses and to demand fluctuations in the semiconductor and electronics industries. Historically, these demand fluctuations have resulted in significant variations in our results of operations. The sharp swings in the semiconductor and electronics industries in recent years have generally affected the semiconductor and electronics test equipment and services industries more significantly than the overall capital equipment sector.

In 2013, revenue from our Storage Test business unit was significantly lower than 2012 due to lower hard disk drive demand from lower shipments of personal computers, a trend which is expected to continue. In response to this lower demand, during the third quarter of 2013, we implemented a headcount reduction in the Storage Test business unit. It is possible that we may need to take further cost control and reduction measures including reducing the number of employees and reducing manufacturing capacity. A prolonged slowdown in hard disk drive demand may result in increased risk of excess and obsolete inventories, asset write-offs and restructuring charges.

On March 21, 2011, we completed the sale of our Diagnostic Solutions business unit, which was included in the System Test segment, to SPX Corporation for \$40.2 million in cash. We sold this business as its growth potential as a stand-alone business was significantly less than if it was part of a larger automotive supplier. The financial information for Diagnostic Solutions has been reclassified to discontinued operations.

Critical Accounting Policies and Estimates

We have identified the policies discussed below as critical to understanding our business and our results of operations and financial condition. The impact and any associated risks related to these policies on our business operations is discussed throughout Management's Discussion and Analysis of Financial Condition and Results of Operations where such policies affect our reported and expected financial results.

Revenue Recognition

We recognize revenues when there is persuasive evidence of an arrangement, title and risk of loss have passed, delivery has occurred or the services have been rendered, the sales price is fixed or determinable and collection of the related receivable is reasonably assured. Title and risk of loss generally pass to our customers upon shipment or at delivery destination point. In circumstances where either title or risk of loss pass upon destination, acceptance or cash payment, we defer revenue recognition until such events occur.

Our equipment has non-software and embedded software components that function together to deliver the equipment's essential functionality. Revenue is recognized upon shipment or at delivery destination point, provided that customer acceptance criteria can be demonstrated prior to shipment. Certain contracts require us to perform tests of the product to ensure that performance meets the published product specifications or customer requested specifications, which are generally conducted prior to shipment. Where the criteria cannot be demonstrated prior to shipment, revenue is deferred until customer acceptance has been received. We also defer the portion of the sales price that is not due until acceptance, which represents deferred profit.

For multiple element arrangements, we allocate revenue to all deliverables based on their relative selling prices. In such circumstances, a hierarchy is used to determine the selling price for allocating revenue to deliverables as follows: (i) vendor-specific objective evidence of selling price (VSOE), (ii) third-party evidence of selling price (TPE), and (iii) best estimate of the selling price (BEBP). For a delivered item to be considered a separate unit, the delivered item must have value to the customer on a standalone basis and the delivery or performance of the undelivered item must be considered probable and substantially in our control.

Our post-shipment obligations include installation, training services, one-year standard warranties, and extended warranties. Installation does not alter the product capabilities, does not require specialized skills or tools and can be performed by the customers or other vendors. Installation is typically provided within five days of product shipment and is completed within one to two days thereafter. Training services are optional and do not affect the customers' ability to use the product. We defer revenue for the selling price of installation and training. Extended warranties constitute warranty obligations beyond one year and we defer revenue in accordance with Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) 605-20, *Separately Priced Extended Warranty and Product Maintenance Contracts* and ASC 605-25, Revenue Recognition Multiple-Element Arrangements. Service revenue is recognized over the contractual period or as services are performed.

Our products are generally subject to warranty and the related costs of the warranty are provided for in cost of revenues when product revenue is recognized. We classify shipping and handling costs in cost of revenue.

We do not provide our customers with contractual rights of return for any of our products.

Retirement and Postretirement Plans

Effective January 1, 2012, we changed the method of recognizing actuarial gains and losses for our defined benefit pension plans and postretirement benefit plan and calculating the expected return on plan assets for our defined benefit pension plans. Historically, we recognized net actuarial gains and losses in accumulated other comprehensive income within shareholders' equity on our consolidated balance sheets on an annual basis and amortized them into operating results over the average remaining years of service of the plan participants, to the extent such gains and losses were outside of a range (corridor). We elected to immediately recognize net actuarial gains and losses and the change in the fair value of the plan assets in our operating results in the year in which they occur or upon any interim remeasurement of the plans. In addition, we used to calculate the expected return on plan assets using a calculated market-related value of plan assets. Effective January 1, 2012, we elected to calculate the expected return on plan assets using the fair value of the plan assets.

We believe that this new method is preferable as it eliminates the delay in recognizing gains and losses in our operating results and it will improve the transparency by faster recognition of the effects of economic and

interest rate trends on plan obligations and investments. These actuarial gains and losses are generally measured annually as of December 31 and, accordingly, will be recorded during the fourth quarter of each year or upon any interim remeasurement of the plans. In accordance with Financial Accounting Standards Board Accounting Standards Codification Topic 250, Accounting Changes and Error Corrections, all prior periods presented in this Annual Report on Form 10-K have been adjusted to apply the new accounting method retrospectively.

Inventories

Inventories are stated at the lower of cost (first-in, first-out basis) or net realizable value. On a quarterly basis, we use consistent methodologies to evaluate all inventories for net realizable value. We record a provision for both excess and obsolete inventory when such write-downs or write-offs are identified through the quarterly review process. The inventory valuation is based upon assumptions about future demand, product mix, and possible alternative uses.

Equity Incentive and Stock Purchase Plans

Stock-based compensation expense is based on the grant-date fair value estimated in accordance with the provisions of ASC 718

Compensation Stock Compensation. As required by ASC 718, we have made an estimate of expected forfeitures and are recognizing compensation costs only for those stock-based compensation awards expected to vest.

Income Taxes

On a quarterly basis, we evaluate the realizability of our deferred tax assets by jurisdiction and assess the need for a valuation allowance. We consider the probability of future taxable income and our historical profitability, among other factors, in assessing the amount of the realizability of our deferred tax assets. As a result of this review, undertaken at December 31, 2002, we concluded under applicable accounting criteria that it was more likely than not that our deferred tax assets would not be realized and established a valuation allowance in several jurisdictions, most notably the United States. At December 31, 2011, we reassessed this judgment and concluded that it is more likely than not that a substantial majority of our deferred tax assets will be realized through consideration of both the positive and negative evidence. The evidence consisted primarily of our three year U.S. historical cumulative profitability, projected future taxable income, forecasted utilization of the deferred tax assets and the fourth quarter of 2011 acquisition of LitePoint offset by the volatility of the industries we operate in, primarily the semiconductor industry. As such, we reduced the valuation allowance by \$190.2 million, which was recorded as a tax benefit in the year ended December 31, 2011. At December 31, 2013 and 2012, we maintained a valuation allowance for certain deferred tax assets of \$40.4 million and \$55.4 million, respectively, primarily related to state net operating losses and state tax credit carryforwards, due to uncertainty regarding their realization. Adjustments could be required in the future if we estimate that the amount of deferred tax assets to be realized is more or less than the net amount we have recorded.

On January 2, 2013, the American Taxpayer Relief Act of 2012 was enacted which retrospectively reinstated the research and development tax credit for 2012 and extended it through December 31, 2013. As a result, in the first quarter of 2013, we recorded a discrete benefit related to 2012 U.S. federal research and development tax credit of approximately \$6.7 million.

Investments

We account for our investments in debt and equity securities in accordance with the provisions of ASC 320-10, *Investments Debt and Equity Securities*. On a quarterly basis, we review our investments to identify and evaluate those that have an indication of a potential other-than-temporary impairment. Factors considered in determining whether a loss is other-than-temporary include:

The length of time and the extent to which the market value has been less than cost;

The financial condition and near-term prospects of the issuer; and

The intent and ability to retain the investment in the issuer for a period of time sufficient to allow for any anticipated recovery in market value.

Goodwill, Intangible and Long-Lived Assets

We assess the impairment of intangible and long-lived assets whenever events or changes in circumstances indicate that the carrying value may not be recoverable. Factors we consider important in the determination of an impairment include significant underperformance relative to historical or projected future operating results, significant changes in the manner that we use the acquired asset and significant negative industry or economic trends. There were no events or circumstances indicating that the carrying value may not be recoverable in 2013, 2012 or 2011. When we determine that the carrying value of intangibles and long-lived assets may not be recoverable based upon the existence of one or more of the above indicators of impairment, we measure any impairment based on a projected discounted cash flow method using a discount rate commensurate with the associated risks. We assess goodwill for impairment at least annually in the fourth quarter, as of December 31, on a reporting unit basis, or more frequently, when events and circumstances occur indicating that the recorded goodwill may be impaired. If the book value of a reporting unit exceeds its fair value, the implied fair value of goodwill is compared with the carrying amount of goodwill. If the carrying amount of goodwill exceeds the implied fair value, an impairment loss is recorded in an amount equal to that excess. No goodwill impairment was identified in 2013, 2012 or 2011.

**SELECTED RELATIONSHIPS WITHIN THE CONSOLIDATED
STATEMENTS OF OPERATIONS**

	Year Ended December 31,		
	2013	2012	2011
Percentage of net revenues:			
Net revenues:			
Products	80.9%	83.5%	81.2%
Services	19.1	16.5	18.8
Total net revenues	100.0	100.0	100.0
Cost of revenues:			
Cost of products	34.9	38.8	40.5
Cost of services	8.4	7.7	9.7
Total cost of revenues	43.4	46.5	50.2
Gross profit	56.6	53.5	49.8
Operating expenses:			
Engineering and development	18.5	15.4	14.1
Selling and administrative	19.6	16.7	16.2
Acquired intangible assets amortization	5.1	4.4	2.8
Restructuring and other	0.1	(0.5)	0.5
Total operating expenses	43.3	36.1	33.6
Income from operations	13.4	17.3	16.2
Interest income	0.3	0.2	0.5
Interest expense and other	(0.5)	1.5	1.7
Income from continuing operations before income taxes	14.1	16.1	15.0
Provision (benefit) for income taxes	2.6	3.0	(9.1)
Income from continuing operations	11.6	13.1	24.1
Income from discontinued operations before income taxes			0.1
Benefit for income taxes			0.0
Income from discontinued operations			0.1
Gain on disposal of discontinued operations (net of tax)			1.7
Net income	11.6%	13.1%	25.9%

Results of Operations***Book to Bill Ratio***

Book to bill ratio is calculated as net bookings divided by net sales. Book to bill ratio by reportable segment was as follows:

	Three months ended December 31,		
	2013	2012	2011
Semiconductor Test	1.0	1.0	1.2
Wireless Test	0.7	1.1	0.7
System Test	1.0	1.6	1.9
Total Company	1.0	1.1	1.3

Revenues

Net revenues for our three reportable segments were as follows:

	2013	2012	2011 (in millions)	2012-2013 Dollar Change	2011-2012 Dollar Change
Semiconductor Test	\$ 1,023.0	\$ 1,127.7	\$ 1,106.2	\$ (104.7)	\$ 21.5
Wireless Test	251.9	286.4	28.4	(34.5)	258.0
System Test	153.0	242.7	294.5	(89.7)	(51.8)
	\$ 1,427.9	\$ 1,656.8	\$ 1,429.1	\$ (228.9)	\$ 227.7

The decrease in Semiconductor Test revenues of \$104.7 million or approximately 9% from 2012 to 2013 was primarily due to a decrease in system-on-a-chip (SOC) test product sales because of a lower application processor market, which is a key sector of the mobility applications market, in 2013 compared to 2012, partially offset by higher memory system sales.

The increase in Semiconductor Test revenues of \$21.5 million or approximately 2% from 2011 to 2012 was primarily due to an increase in SOC test product sales for mobility applications, partially offset by a decrease in memory system sales.

The decrease in Wireless Test revenues of \$34.5 million or approximately 12% from 2012 to 2013 was primarily due to lower connectivity volume, partially offset by higher cellular volume.

The acquisition of ZTEC, which was completed in October of 2013, added \$0.4 million of revenues in 2013. The acquisition of LitePoint, which was completed in October of 2011, added \$286.4 million and \$28.4 million of revenues in 2012 and 2011, respectively. LitePoint and ZTEC represent our Wireless Test segment.

The decrease in System Test revenues of \$89.7 million or approximately 37% from 2012 to 2013 was primarily due to lower product volume in Storage Test systems. The decrease in Storage Test system sales was due to lower hard disk drive demand primarily from lower shipments of personal computers, a trend which is expected to continue.

The decrease in System Test revenues of \$51.8 million or approximately 18% from 2011 to 2012 was primarily due to lower product volume in both Storage Test systems and Commercial Board Test systems, partially offset by an increase in Mil/Aero system and instrument sales.

Our three reportable segments accounted for the following percentages of consolidated net revenues for each of the last three years:

	2013	2012	2011
Semiconductor Test	71%	68%	77%
Wireless Test	18	17	2
System Test	11	15	21
	100%	100%	100%

Edgar Filing: TERADYNE, INC - Form 10-K

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

	2013	2012	2011
China	23%	21%	13%
Taiwan	19	18	12
United States	16	14	16
Korea	8	13	10
Singapore	8	6	6
Europe	6	5	7
Malaysia	6	4	10
Japan	6	6	10
Philippines	4	7	9
Thailand	2	5	6
Rest of the World	2	1	1
	100%	100%	100%

(1) Revenues attributable to a country are based on location of customer site. The breakout of product and service revenues for the past three years was as follows:

	2013	2012	2011	2012-2013 Dollar Change	2011-2012 Dollar Change
			(in millions)		
Product Revenues	\$ 1,154.9	\$ 1,383.6	\$ 1,160.2	\$ (228.7)	\$ 223.4
Service Revenues	273.0	273.2	268.9	(0.2)	4.3
	\$ 1,427.9	\$ 1,656.8	\$ 1,429.1	\$ (228.9)	\$ 227.7

Our product revenues decreased \$228.7 million or 17% in 2013 from 2012 primarily due to a decrease in SOC test product sales because of a lower application processor market and due to lower volume in Storage Test systems.

Service revenues, which are derived from the servicing of our installed base of products and includes equipment maintenance contracts, repairs, extended warranties, parts sales, and applications support, decreased \$0.2 million or 0.1%.

Our product revenues increased \$223.4 million or 19% in 2012 from 2011 primarily due to \$254.6 million of product revenues from the addition of LitePoint, an increase in SOC Semiconductor Test products for mobility applications and an increase in Mil/Aero systems and instruments. The increase was partially offset by a decrease in sales in our memory test and Storage Test systems. Service revenues increased \$4.3 million or 2%.

In 2013 and 2012, revenues from one customer accounted for 12% and 10%, respectively, of our consolidated net revenues. In 2011, no single customer accounted for 10% or more of our consolidated net revenues. In each of the years 2013, 2012 and 2011, our three largest customers in aggregate accounted for 26%, 29% and 19% of our consolidated net revenues, respectively.

Gross Profit

	2013	2012	2011	2012-2013 Dollar / Point	2011-2012 Dollar / Point
--	------	------	------	--------------------------------	--------------------------------

Edgar Filing: TERADYNE, INC - Form 10-K

	(dollars in millions)			Change	Change
Gross Profit	\$ 808.8	\$ 886.0	\$ 711.8	\$ (77.2)	\$ 174.2
Percent of Total Net Revenues	56.6%	53.5%	49.8%	3.1	3.7

Gross profit as a percent of revenue increased from 2012 to 2013 by 3.1 percentage points. This increase was a result of an increase of 1.7 points related to a favorable product mix in SOC Semiconductor Test and lower Storage Test system sales compared to 2012, an increase of 1.1 points due to pension income in 2013 compared to pension expense in 2012, an increase of 1.1 points due to lower excess and obsolete inventory provisions and increased sales of previously reserved inventory, and an increase of 0.4 points as a result of no purchase accounting inventory step-up in 2013, partially offset by a decrease of 1.4 points due to lower sales volume across all segments.

Gross profit as a percentage of revenues increased from 2011 to 2012 by 3.7 percentage points. This increase was a result of an increase of 4.6 points primarily due to the addition of LitePoint, partially offset by a decrease of 1.2 points due to higher inventory provisions.

The breakout of product and service gross profit was as follows:

	2013	2012	2011	2012-2013 Dollar / Point Change	2011-2012 Dollar / Point Change
	(dollars in millions)				
Product Gross Profit	\$ 655.9	\$ 740.7	\$ 581.2	\$ (84.8)	\$ 159.5
Percent of Product Revenues	56.8%	53.5%	50.1%	3.3	3.4
Service Gross Profit	\$ 152.9	\$ 145.3	\$ 130.6	\$ 7.6	\$ 14.7
Percent of Service Revenues	56.0%	53.2%	48.6%	2.8	4.6

We assess the carrying value of our inventory on a quarterly basis by estimating future demand and comparing that demand against on-hand and on-order inventory positions. Forecasted revenue information is obtained from the sales and marketing groups and incorporates factors such as backlog and future product demand. This quarterly process identifies obsolete and excess inventory. Obsolete inventory, which represents items for which there is no demand, is fully reserved. Excess inventory, which represents inventory items that are not expected to be consumed during the next twelve quarters, is written-down to estimated net realizable value.

During the year ended December 31, 2013, we recorded an inventory provision of \$16.6 million included in cost of revenues, due to the following factors:

A charge of \$12.2 million due to downward revisions to previously forecasted demand levels, of which \$5.2 million was in Semiconductor Test, \$4.2 million was in System Test and \$2.8 million was in Wireless Test; and

A \$4.4 million inventory write-down as a result of product transition in Wireless Test.

During the year ended December 31, 2012, we recorded an inventory provision of \$26.8 million included in cost of revenues, due to the following factors:

A decline in demand compared to previously forecasted demand levels for prior generation Nextest Magnum testers resulted in an inventory provision of \$12.0 million in Semiconductor Test;

A \$5.3 million inventory write-down as a result of product transition related to the Flex Test Platform in Semiconductor Test;

A \$3.9 million inventory write-down as a result of product transition in Wireless Test.; and

The remainder of the charge of \$5.6 million primarily reflects downward revisions to previously forecasted demand levels, of which \$4.3 million was in System Test, \$0.2 million in Wireless Test and \$1.1 million in Semiconductor Test.

Edgar Filing: TERADYNE, INC - Form 10-K

During the year ended December 31, 2011, we recorded an inventory provision of \$11.6 million included in cost of revenues, due to the downward revisions to previously forecasted demand levels. Of the \$11.6 million of total excess and obsolete provisions recorded in 2011, \$10.4 million was related to Semiconductor Test primarily due to product transition, \$1.1 million was in System Test, and \$0.1 million was in Wireless Test.

During the years ended December 31, 2013, 2012 and 2011, we scrapped \$35.3 million, \$9.6 million and \$9.2 million of inventory, respectively, and sold \$9.8 million, \$4.3 million and \$8.1 million of previously written-down or written-off inventory, respectively. As of December 31, 2013, we had inventory related reserves for amounts which had been written-down or written-off totaling \$115.9 million. We have no pre-determined timeline to scrap the remaining inventory.

Engineering and Development

Engineering and development expenses were as follows:

	2013	2012	2011	2012-2013	2011-2012
			(dollars in millions)	Change	Change
Engineering and Development	\$ 264.1	\$ 255.9	\$ 201.0	\$ 8.2	\$ 54.9
Percent of Total Net Revenues	18.5%	15.4%	14.1%		

The increase of \$8.2 million in engineering and development expenses from 2012 to 2013 was due primarily to increased spending in Semiconductor Test and Wireless Test, partially offset by pension income in 2013 compared to pension expense in 2012 and lower variable compensation in 2013.

The increase of \$54.9 million in engineering and development expenses from 2011 to 2012 was due primarily to additional costs of \$37.1 million related to LitePoint and increased spending in Semiconductor Test.

Selling and Administrative

Selling and administrative expenses were as follows:

	2013	2012	2011	2012-2013	2011-2012
			(dollars in millions)	Change	Change
Selling and Administrative	\$ 279.6	\$ 277.0	\$ 232.1	\$ 2.6	\$ 44.9
Percent of Total Net Revenues	19.6%	16.7%	16.2%		

The increase of \$2.6 million in selling and administrative expenses from 2012 to 2013 was due primarily to increased sales and marketing spending in Semiconductor Test and Wireless Test, partially offset by pension income in 2013 compared to pension expense in 2012.

The increase of \$44.9 million in selling and administrative expenses from 2011 to 2012 was due primarily to additional costs of \$49.7 million related to LitePoint.

Acquired Intangible Assets Amortization

Acquired intangible assets amortization expense was as follows:

	2013	2012	2011	2012-2013	2011-2012
			(dollars in millions)	Change	Change
Acquired Intangible Assets Amortization	\$ 72.4	\$ 73.5	\$ 40.5	\$ (1.1)	\$ 33.0
Percent of Total Net Revenues	5.1%	4.4%	2.8%		

Acquired intangible assets amortization expense decreased from 2012 to 2013 due to intangible assets that became fully amortized during the year, partially offset by increased amortization expense due to the ZTEC acquisition. The increase of \$33.0 million from 2011 to 2012 was due to the LitePoint acquisition.

Restructuring and Other

Restructuring

The remaining accrual for severance and benefits of \$0.5 million is reflected in the accrued employees' compensation and withholdings on the balance sheet and is expected to be paid by June 2014.

During the year ended December 31, 2013, we recorded \$1.9 million of severance charges related to headcount reductions of 48 people primarily in System Test and Semiconductor Test and a \$(0.4) million credit in Corporate related to a change in the estimated exit costs related to a leased facility.

During the year ended December 31, 2012, we recorded \$1.0 million of severance charges related to headcount reductions of 19 people primarily in System Test and Semiconductor Test.

During the year ended December 31, 2011, we recorded \$1.2 million of charges related to headcount reductions of 7 people in Semiconductor Test and a \$(0.5) million credit primarily in System Test related to a change in the estimated exit costs related to leased facilities.

Other

During the year ended December 31, 2012, due to a decrease in specified new product revenue through the December 31, 2012 earn-out period end date, we recorded an \$8.8 million fair value adjustment to decrease the LitePoint acquisition contingent consideration.

During the year ended December 31, 2011, we recorded \$5.8 million of other charges of which \$4.6 million related to LitePoint acquisition costs and \$1.2 million related to non-U.S. pension settlements.

Interest and Other

	2013	2012	2011 (in millions)	2012-2013 Change	2011-2012 Change
Interest Income	\$ 4.1	\$ 4.1	\$ 6.6	\$	\$ (2.5)
Interest Expense and Other	\$ (7.1)	\$ 25.5	\$ 23.7	\$ (32.6)	\$ 1.8

Interest income decreased by \$2.5 million, from \$6.6 million in 2011 to \$4.1 million in 2012, due to a decrease in marketable securities which were used to fund the LitePoint acquisition in 2011.

Interest expense and other decreased by \$32.6 million, from \$25.5 million in net expense in 2012 to \$(7.1) million in net other income in 2013, due primarily to a \$34.2 million gain from the sale of an equity investment, partially offset by higher interest expense from increased convertible debt discount amortization.

Interest expense and other increased by \$1.8 million, from \$23.7 million in 2011 to \$25.5 million in 2012, due primarily to higher interest expense from increased convertible debt discount amortization.

Income (Loss) from Continuing Operations before Income Taxes

	2013	2012	2011 (in millions)	2012-2013 Change	2011-2012 Change
Semiconductor Test	\$ 153.8	\$ 186.0	\$ 219.6	\$ (32.2)	\$ (33.6)
Wireless Test	23.1	83.1	(20.6)	(60.0)	103.7
System Test	3.1	34.2	53.3	(31.1)	(19.1)
Corporate	21.9	(37.3)	(37.9)	59.2	0.6
	\$ 201.9	\$ 266.0	\$ 214.4	\$ (64.1)	\$ 51.6

The decrease in income from continuing operations before income taxes from 2012 to 2013 was primarily due to lower revenue in 2013 compared to 2012, a \$9.8 million increase in restructuring and other costs, partially offset by a \$34.2 million gain from the sale of an equity investment.

The increase in income from continuing operations before income taxes from 2011 to 2012 was primarily due to higher revenue in 2012 compared to 2011 and a \$14.5 million decrease in restructuring and other costs, partially offset by a \$99.8 million increase in engineering and development and selling and administrative expenses and a \$33.0 million increase in intangible assets amortization.

Income Taxes

The income tax expense from continuing operations for 2013 totaled \$37.0 million compared to \$48.9 million for 2012. The effective tax rate for 2013 and 2012 was approximately 18%. The decrease in income tax expense from 2012 to 2013 was due to the reinstatement of the U.S. research and development tax credit in 2013 for fiscal years 2013 and 2012, lower pre-tax income, partially offset by higher tax expense for uncertain tax positions and state taxes. U.S. research and development tax credits provided a 7.2% reduction to the 2013 U.S. statutory federal tax rate of 35.0%. The research and development tax credit expired at the end of 2013; therefore if the credit is not legislatively re-enacted there could be an unfavorable impact on Teradyne's 2014 effective income tax rate. The income tax benefit from continuing operations for 2011 totaled \$129.5 million primarily due to the reversal of our deferred tax asset valuation allowance. We considered the weight of both the positive and negative evidence as of December 31, 2011 and concluded that a substantial majority of the deferred tax assets will be realized.

Contractual Obligations

The following table reflects our contractual obligations as of December 31, 2013:

	Total	Less than 1 year	Payments Due by Period			Other
			1-3 years	3-5 years	More than 5 years	
			(in thousands)			
Debt Obligations	\$ 190,953	\$ 190,953	\$	\$	\$	\$
Interest on Debt	4,279	4,279				
Operating Lease Obligations	56,810	12,843	20,126	8,285	15,556	
Purchase Obligations	181,037	170,559	10,478			
Retirement Plan Contributions	95,488	5,048	9,092	9,006	72,342	
Other Long-Term Liabilities Reflected on the Balance Sheet under GAAP (1)	77,581		13,306			64,275
Total	\$ 606,148	\$ 383,682	\$ 53,002	\$ 17,291	\$ 87,898	\$ 64,275

- (1) Included in Other Long-Term Liabilities are liabilities for customer advances, extended warranty, uncertain tax positions, deferred tax liabilities and other obligations. For certain long-term obligations, we are unable to provide a reasonably reliable estimate of the timing of future payments relating to these obligations and therefore we included these amounts in the column marked Other.

Liquidity and Capital Resources

Our cash, cash equivalents and marketable securities balance increased \$193.3 million from 2012 to 2013, to \$1.2 billion. Cash activity for 2013, 2012 and 2011 was as follows:

	2013	2012	2011 (in millions)	2012-2013 Change	2011-2012 Change
Cash provided by operating activities:					
Income from continuing operations, adjusted for non cash items	\$ 317.0	\$ 444.9	\$ 372.6	\$ (127.9)	\$ 72.3
Change in operating assets and liabilities, net of businesses sold and acquired	(49.7)	(41.8)	(92.9)	(7.9)	51.1
Cash used for discontinued operations			(4.8)		4.8
Total cash provided by operating activities	\$ 267.3	\$ 403.1	\$ 274.9	\$ (135.8)	\$ 128.2
Cash used for investing activities from continuing operations					
Cash provided by investing activities from discontinued operations	(281.8)	(602.5)	(121.6)	320.7	(480.9)
Total cash used for investing activities	\$ (281.8)	\$ (602.5)	\$ (82.5)	\$ 320.7	\$ (520.0)
Total cash provided by (used for) financing activities					
Total cash provided by (used for) financing activities	\$ 17.3	\$ (35.4)	\$ (16.3)	\$ 52.7	\$ (19.1)
Total increase (decrease) of cash and cash equivalents	\$ 2.7	\$ (234.8)	\$ 176.0	\$ 237.5	\$ (410.8)

In 2013, changes in operating assets and liabilities, net of businesses sold and acquired, used cash of \$49.7 million. This was due to a \$32.1 million increase in operating assets and a \$17.7 million decrease in operating liabilities.

The increase in operating assets was due to a \$49.6 million increase in prepayments due primarily to prepayments to our contract manufacturers and a \$3.7 million increase in accounts receivable, partially offset by a \$21.2 million decrease in inventories.

The decrease in operating liabilities was due to a \$2.5 million decrease in accrued employee compensation due primarily to employee stock awards payroll taxes and variable compensation payments, a \$28.9 million decrease in customer advance payments and deferred revenue, and \$5.5 million of retirement plan contributions, partially offset by a \$13.9 million increase in other accrued liabilities, a \$3.7 million increase in accounts payable due to higher fourth quarter sales volume, and a \$1.6 million increase in accrued income taxes.

Investing activities during 2013 used cash of \$281.8 million. In October 2013, we completed the acquisition of ZTEC for an initial cash purchase price, net of cash acquired, of \$15.0 million. Purchases of property, plant and equipment were \$106.7 million. Purchases of marketable securities used cash of \$1,168.6 million, partially offset by proceeds from maturities and sales of marketable securities that provided cash of \$516.5 million and \$458.1 million, respectively. The sale of an equity investment provided cash of \$34.2 million. Purchases of life insurance policies used cash of \$0.3 million.

Financing activities during 2013 provided cash of \$17.3 million, \$17.6 million was from the issuance of common stock under stock option and stock purchase plans, and \$2.6 million from the tax benefit related to stock options and restricted stock units, partially offset by \$0.4 million of cash used for payments related to LitePoint acquisition contingent consideration and \$2.5 million of cash used for payments on long-term debt related to the Japan loan.

In 2012, changes in operating assets and liabilities, net of businesses sold and acquired, used cash of \$41.8 million. This was due to a \$9.4 million increase in operating assets and a \$32.4 million decrease in operating liabilities.

The increase in operating assets was due to a \$24.1 million increase in accounts receivable and a \$3.0 million increase in prepayments due primarily to supplier prepayments, partially offset by a \$17.7 million decrease in inventories.

The decrease in operating liabilities was due to a \$15.7 million decrease in accrued employee compensation due primarily to employee stock awards payroll taxes and variable compensation payments, a \$14.6 million decrease in customer advance payments and deferred revenue, a \$11.5 million decrease in accounts payable due to lower fourth quarter sales volume, a \$5.6 million decrease in other accrued liabilities, and \$4.8 million of retirement plan contributions, partially offset by a \$19.8 million increase in accrued income taxes.

Investing activities during 2012 used cash of \$602.5 million, due to \$748.2 million used for purchases of marketable securities and \$119.1 million used for purchases of property, plant and equipment, partially offset by proceeds from sales and maturities of marketable securities that provided cash of \$38.3 million and \$225.1 million, respectively, and proceeds of \$1.5 million from life insurance policies.

Financing activities during 2012 used cash of \$35.4 million, \$18.5 million was from the issuance of common stock under stock option and stock purchase plans, and \$8.4 million from the tax benefit related to stock options and restricted stock units, partially offset by \$59.7 million of cash used for payments related to LitePoint acquisition contingent consideration and \$2.5 million of cash used for payments on long-term debt related to the Japan loan.

In 2011, changes in operating assets and liabilities, net of businesses sold and acquired, used cash of \$92.9 million. This was due to a \$44.2 million decrease in operating assets and a \$137.1 million decrease in operating liabilities.

The decrease in operating assets was due to a \$66.4 million decrease in accounts receivable resulting from increased collections, partially offset by a \$21.5 million increase in prepayments due primarily to supplier prepayments and a \$0.6 million increase in inventories. The decrease in operating liabilities was due to a \$62.6 million decrease in customer advance payments due to shipments of systems prepaid by customers, a \$28.2 million decrease in accrued employee compensation due primarily to employee stock awards payroll taxes and variable compensation payments, a \$19.9 million decrease in accounts payable due to decreased sales volume, \$11.9 million of retirement plan contributions, an \$8.7 million decrease in accrued income taxes, and a \$5.8 million decrease in deferred revenue.

Investing activities during 2011 used cash of \$121.6 million. In October 2011, we completed the acquisition of LitePoint for an initial cash purchase price, net of cash acquired, of \$537.5 million. Purchases of property, plant and equipment were \$86.1 million. Proceeds from sales and maturities of marketable securities that provided cash of \$746.8 million and \$442.1 million, respectively, partially offset by \$685.8 million used for purchase of marketable securities. Purchases of life insurance policies used cash of \$1.1 million. The net proceeds were used to acquire LitePoint.

Financing activities during 2011 used cash of \$16.3 million, due to the repurchase of 2.6 million shares of common stock for \$31.2 million at an average price of \$11.84 per share and \$2.5 million for payments on long-term debt related to the Japan loan, partially offset by \$17.4 million from the issuance of common stock under stock option and stock purchase plans.

On April 6, 2009, we completed a registered public offering of \$190.0 million aggregate principal amount convertible senior notes (Notes) and settled the related convertible bond hedge and warrant transaction and received approximately \$163.0 million as a result of these financing transactions. The Notes bear interest at a rate of 4.50% per annum, payable semi-annually in arrears on March 15 and September 15 of each year. The first interest payment was on September 15, 2009. The Notes will mature on March 15, 2014, unless earlier repurchased by us or converted. The Notes may be converted, under certain circumstances and during certain periods, at an initial conversion rate of approximately 182.65 shares of our common stock per \$1,000 principal

amount of Notes, which is equivalent to an initial conversion price of approximately \$5.48. The convertible note hedge and warrant transaction will generally have the effect of increasing the conversion price of the Notes to approximately \$7.67 per share of our common stock, representing a 75% conversion premium based upon the closing price of our common stock on March 31, 2009. We may not redeem the Notes prior to their maturity. Holders of the Notes may require us to purchase in cash all or a portion of their Notes at a price equal to 100% of the principal amount, plus accrued and unpaid interest, upon the occurrence of certain fundamental changes involving Teradyne. The Notes are convertible during the last three months, prior to the March 15, 2014 maturity date. Upon conversion during the last three months prior to the March 15, 2014 maturity date, the Notes will net share settle, meaning that holders will receive, for each \$1,000 in principal amount of Notes, \$1,000 in cash and a number of shares of Teradyne common stock equal to 182.65 (subject to anti-dilution adjustment under certain circumstances) less number of shares having \$1,000 of value, as determined based on the average trading price of the common stock over a 25-day trading period from February 5, 2014 to March 12, 2014.

In January 2014, our Board of Directors declared an initial quarterly cash dividend of \$0.06 per share to be paid on June 2, 2014 to stockholders of record as of May 9, 2014. Holders of our common stock are entitled to receive dividends if and when they are declared by our Board of Directors. Payment of future cash dividends will rest within the discretion of our Board of Directors and will depend, among other things, upon our earnings, capital requirements and financial condition.

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. The amount of cash, cash equivalents and marketable securities in the U.S. and our operations in the U.S. provide sufficient liquidity to fund our business activities in the U.S. We have approximately \$340 million of cash outside the U.S. that if repatriated would incur additional taxes. Determination of the additional taxes that would be incurred is not practical due to uncertainty regarding the remittance structure, the mix of earnings and earnings and profit pools in the year of remittance, and overall complexity of the calculation. Inflation has not had a significant long-term impact on earnings.

Retirement Plans

ASC 715-20, *Compensation Retirement Benefits Defined Benefit Plans* requires an employer with defined benefit plans or other postretirement benefit plans to recognize an asset or a liability on its balance sheet for the overfunded or underfunded status of the plans as defined by ASC 715-20. The pension asset or liability represents the difference between the fair value of the pension plan's assets and the projected benefit obligation as of December 31. For other postretirement benefit plans, the liability is the difference between the fair value of the plan's assets and the accumulated postretirement benefit obligation as of December 31.

Our pension income, which includes the U.S. Qualified Pension Plan (U.S. Plan), certain qualified plans for non-U.S. subsidiaries, and a U.S. Supplemental Executive Defined Benefit Plan, was approximately \$6.0 million for the year ended December 31, 2013. The largest portion of our 2013 pension income was \$6.3 million for our U.S. Plan. Pension income is calculated based upon a number of actuarial assumptions. Discount rate and expected return on assets are two assumptions which are important elements of pension plan expense/income and asset/liability measurement. We evaluate our discount rate and expected rate of return on assets assumptions annually on a plan and country specific basis. We evaluate other assumptions related to demographic factors, such as retirement age, mortality and turnover periodically, and update them to reflect our experience and expectations for the future.

In developing the expected return on U.S. Plan assets assumption, we evaluated input from our investment managers and pension consultants, including their review of asset class return expectations. Based on this review, we believe that 5.0% was an appropriate rate to use for 2013. The December 31, 2013 asset allocation for our U.S. Plan was 87% invested in fixed income securities, 12% invested in equity securities, and 1% invested in other securities. Our investment managers regularly review the actual asset allocation and periodically rebalance the portfolio to ensure alignment with our targeted allocations.

Effective January 1, 2012, we elected to immediately recognize net actuarial gains and losses and the change in the fair value of plans assets in our operating results in the year in which they occur or upon any interim remeasurement of the plans. In addition, we used to calculate the expected return on plan assets using a calculated market-related value of plan assets. Effective January 1, 2012, we elected to calculate the expected return on plan assets using the fair value of the plan assets.

The discount rate that we utilized for determining future pension obligations for the U.S. Plan is based on the Citigroup Pension Index adjusted for the U.S. Plan's expected cash flows and was 4.5% at December 31, 2013, up from 3.6% at December 31, 2012. We estimate that in 2014 we will recognize approximately \$0.1 million of pension cost for the U.S. Plan. The U.S. Plan related pension cost estimate for 2014 is based on a 4.5% discount rate and 5.0% return on assets. Future pension expense or income will depend on future investment performance, changes in future discount rates and various other factors related to the employee population participating in our pension plans.

As of December 31, 2013, our pension plans had unrecognized pension prior service cost of \$0.5 million.

We performed a sensitivity analysis, which expresses the potential U.S. Plan (income) expense for the year ending December 31, 2014, which would result from changes to either the discount rate or the expected return on plan assets. The below estimates exclude the impact of any potential actuarial gains or losses. It is difficult to reliably forecast or predict whether there will be any actuarial gains or losses in 2014 as they are primarily driven by events and circumstances beyond our control, such as changes in interest rates and the performance of the financial markets.

Return on Plan Assets	Discount Rate		
	4.0%	4.5%	5.0%
	(in millions)		
4.5%	\$ 0.8	\$ 1.3	\$ 1.8
5.0%	(0.5)	0.1	0.5
5.5%	(1.7)	(1.2)	(0.7)

The assets of the U.S. Plan consist substantially of fixed income securities. U.S. Plan assets have decreased from \$278.9 million at December 31, 2012 to \$256.4 million at December 31, 2013.

Our funding policy is to make contributions to our pension plans in accordance with local laws and to the extent that such contributions are tax deductible. During 2013, we made contributions of \$1.7 million to the U.S. supplemental executive defined benefit pension plan and \$2.5 million to certain qualified plans for non-U.S. subsidiaries. We expect to contribute approximately \$1.8 million to the U.S. supplemental executive defined benefit pension plan in 2014. Contributions that will be made in 2014 to certain qualified plans for non-U.S. subsidiaries are based on local statutory requirements and will be approximately \$2.2 million. We do not expect to make any contributions to the U.S. Plan in 2014.

Equity Compensation Plans

In addition to our 1996 Employee Stock Purchase Plan discussed in Note O: Stock Based Compensation in Notes to Consolidated Financial Statements, we have a 2006 Equity and Cash Compensation Incentive Plan (the 2006 Equity Plan) under which equity securities are authorized for issuance. The 2006 Equity Plan was initially approved by stockholders on May 25, 2006.

At our annual meeting of stockholders held May 21, 2013, our stockholders approved an amendment to the 2006 Equity Plan to increase the number of shares issuable thereunder by 10.0 million, for an aggregate of 32.0 million shares issuable thereunder, and our stockholders also approved an amendment to our 1996 Employee Stock Purchase Plan to increase the number of shares issuable thereunder by 5.0 million, for an aggregate of 30.4 million shares issuable thereunder.

Edgar Filing: TERADYNE, INC - Form 10-K

The following table presents information about these plans as of December 31, 2013 (share numbers in thousands):

Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights	Weighted-average exercise price of outstanding options, warrants and rights	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column one)
Equity plans approved by shareholders	5,406(1)	\$ 13.72	21,017(2)
Equity plans not approved by shareholders (3,4,5)	1,936	\$ 3.33	
Total	7,342	\$ 6.29	21,017

- (1) Includes 4,635,622 shares of restricted stock units that are not included in the calculation of the weighted average exercise price.
- (2) Consists of 14,212,944 securities available for issuance under the 2006 Equity Plan and 6,803,613 of securities available for issuance under the Employee Stock Purchase Plan.
- (3) In connection with the acquisition of Nextest (the Nextest Acquisition), we assumed the options and restricted stock units granted under the Nextest Systems Corporation 1998 Equity Incentive Plan, as amended, and the Nextest Systems Corporation 2006 Equity Incentive Plan (collectively, the Nextest Plans). Upon the consummation of the Nextest Acquisition, these options and restricted stock units were converted automatically into, respectively, options to purchase and restricted stock units representing, an aggregate of 4,417,594 shares of our common stock. No additional awards will be granted under the Nextest Plans. As of December 31, 2013, there were outstanding options exercisable for an aggregate of 576,171 shares of our common stock pursuant to the Nextest Plans, with a weighted average exercise price of \$4.11 per share.
- (4) In connection with the acquisition of Eagle Test (the Eagle Acquisition), we assumed the options granted under the Eagle Test Systems, Inc. 2003 Stock Option and Grant Plan and the Eagle Test Systems, Inc. 2006 Stock Option and Incentive Plan (collectively, the Eagle Plans). Upon the consummation of the Eagle Acquisition, these options were converted automatically into options to purchase an aggregate of 3,594,916 shares of our common stock. No additional awards will be granted under the Eagle Plans. As of December 31, 2013, there were outstanding options exercisable for an aggregate of 177,359 shares of our common stock pursuant to the Eagle Plans, with a weighted average exercise price of \$3.92 per share.
- (5) In connection with the acquisition of LitePoint Corporation (the LitePoint Acquisition), we assumed the options granted under the LitePoint Corporation 2002 Stock Plan (the LitePoint Plan). Upon the consummation of the LitePoint Acquisition, these options were converted automatically into options to purchase an aggregate of 2,828,344 shares of our common stock. No additional awards will be granted under the LitePoint Plan. As of December 31, 2013, there were outstanding options exercisable for an aggregate of 1,182,192 shares of our common stock pursuant to the LitePoint Plan, with a weighted average exercise price of \$2.86 per share.

The purpose of the 2006 Equity Plan is to motivate employees, officers and directors by providing equity ownership and compensation opportunities in Teradyne. The aggregate number of shares available under the 2006 Equity Plan as of December 31, 2013 was 14,212,944 shares of our common stock. The 2006 Equity Plan authorizes the grant of stock-based awards in the form of (1) non-qualified and incentive stock options, (2) stock appreciation rights, (3) restricted stock awards and restricted stock unit awards, (4) phantom stock, and (5) other stock-based awards. Awards may be tied to time-based vesting schedules and/or performance-based vesting measured by reference to performance criteria chosen by the Compensation Committee of the Board of Directors, which administers the 2006 Equity Plan. Awards may be made to any employee, officer, consultant and advisor of Teradyne and our subsidiaries, as well as, to our directors. The maximum number of shares of stock-based awards that may be granted to one participant during any one fiscal year is 2,000,000 shares of common stock. The 2006 Equity Plan will expire on May 24, 2016.

As of December 31, 2013, total unrecognized compensation expense related to non-vested restricted stock units and options was \$51.3 million, and is expected to be recognized over a weighted average period of 2.4 years.

Performance Graph

The following graph compares the change in our cumulative total shareholder return in our common stock with (i) the Standard & Poor's 500 Index, (ii) the Philadelphia Semiconductor Index, and (iii) the Morningstar Semiconductor Equipment & Materials Index. The comparison assumes \$100.00 was invested on December 31, 2008 in our common stock and in each of the foregoing indices and assumes reinvestment of dividends, if any. Historic stock price performance is not necessarily indicative of future price performance. This is the last year that we will compare ourselves to the Morningstar Semiconductor Equipment & Materials Index. Going forward, we will compare ourselves against the Philadelphia Semiconductor Index as this better aligns us with companies in the semiconductor industry.

Recently Issued Accounting Pronouncements

In July 2013, the FASB issued ASU 2013-11, *Income Taxes (Topic 740): Presentation of an Unrecognized Tax Benefit When a Net Operating Loss Carryforward, a Similar Tax Loss, or a Tax Credit Carryforward Exists*. Under this ASU, unrecognized tax benefits will be netted against all available same-jurisdiction loss or other tax carryforwards that would be utilized, rather than only against carryforwards that are created by unrecognized tax benefits. The provisions of this ASU are effective for interim and annual periods beginning on or after December 15, 2013. Teradyne does not expect this ASU to have a material impact on its financial position or results of operations.

Item 7A: *Quantitative and Qualitative Disclosures about Market Risks* **Concentration of Credit Risk**

Financial instruments which potentially subject us to concentrations of credit risk consist principally of cash equivalents, marketable securities, forward currency contracts and accounts receivable. Our cash equivalents consist primarily of money market funds invested in U.S. Treasuries and government agencies. Our fixed income available-for-sale marketable securities have a minimum rating of AA by one or more of the major credit rating agencies. We place forward currency contracts with high credit-quality financial institutions in order to minimize credit risk exposure. Concentrations of credit risk with respect to accounts receivable are limited due to the large

number of geographically dispersed customers. We perform ongoing credit evaluations of our customers' financial condition and from time to time may require customers to provide a letter of credit from a bank to secure accounts receivable.

Exchange Rate Risk Management

We regularly enter into foreign currency forward contracts to hedge the value of our monetary assets and liabilities in Japanese Yen, British Pound, Korean Won, Taiwan Dollar and Euro. These foreign currency forward contracts have maturities of approximately one month. These contracts are used to minimize the effect of exchange rate fluctuations associated with the remeasurement of monetary assets and liabilities. We do not engage in currency speculation.

We performed a sensitivity analysis assuming a hypothetical 10% fluctuation in foreign exchange rates to the hedging contracts and the underlying exposures described above. As of December 31, 2013, 2012 and 2011, the analysis indicated that these hypothetical market movements would not have a material effect on our consolidated financial position, results of operations or cash flows.

Interest Rate Risk Management

We are exposed to potential losses due to changes in interest rates. Our interest rate exposure is primarily in the United States in short-term and long-term marketable securities.

In order to estimate the potential loss due to interest rate risk, a fluctuation in interest rates of 25 basis points was assumed. Market risk for the short and long-term marketable securities was estimated as the potential change in the fair value resulting from a hypothetical change in interest rates for securities contained in the investment portfolio. The potential change in fair value from changes in interest rates is immaterial as of December 31, 2013 and 2012.

Item 8: Financial Statements and Supplementary Data
Report of Independent Registered Public Accounting Firm

To the Board of Directors and Shareholders of Teradyne, Inc.:

In our opinion, the consolidated financial statements listed in the index appearing under Item 15(a) (1) present fairly, in all material respects, the financial position of Teradyne, Inc. and its subsidiaries at December 31, 2013 and December 31, 2012, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2013 in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule listed in the index appearing under Item 15(a)(2) present fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2013, based on criteria established in Internal Control - Integrated Framework (1992) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Annual Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on these financial statements and on the Company's internal control over financial reporting based on our integrated audits. We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the financial statements are free of material misstatement and whether effective internal control over financial reporting was maintained in all material respects. Our audits of the financial statements included examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

A company's internal control over financial reporting is a process designed 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. A company's internal control over financial reporting includes those policies and procedures that (i) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ PricewaterhouseCoopers LLP

Boston, Massachusetts

February 28, 2014

TERADYNE, INC.

CONSOLIDATED BALANCE SHEETS

December 31, 2013 and 2012

	2013 (in thousands, except per share information)	2012
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 341,638	\$ 338,920
Marketable securities	586,882	431,516
Accounts receivable, less allowance for doubtful accounts of \$2,912 and \$4,118 in 2013 and 2012, respectively	157,642	153,423
Inventories:		
Parts	84,232	89,598
Assemblies in process	15,539	32,303
Finished goods	38,168	17,509
	137,939	139,410
Deferred tax assets	72,478	77,305
Prepayments	136,374	90,931
Other current assets	7,324	4,556
Total current assets	1,440,277	1,236,061
Net property, plant and equipment	275,236	265,782
Marketable securities	271,078	235,872
Deferred tax assets	5,217	5,372
Other assets	14,591	14,837
Retirement plans assets	9,342	3,282
Intangible assets, net	252,291	318,867
Goodwill	361,792	349,272
Total assets	\$ 2,629,824	\$ 2,429,345
LIABILITIES		
Current liabilities:		
Accounts payable	62,874	58,324
Accrued employees' compensation and withholdings	95,619	86,264
Deferred revenue and customer advances	55,404	81,357
Other accrued liabilities	63,712	57,249
Accrued income taxes	11,360	12,306
Current debt	186,663	2,328
Total current liabilities	475,632	297,828
Long-term deferred revenue and customer advances	13,306	16,227
Retirement plans liabilities	91,517	94,373
Deferred tax liabilities	40,686	50,201
Long-term other accrued liabilities	23,589	21,302
Long-term debt		171,059
Total liabilities	644,730	650,990

Edgar Filing: TERADYNE, INC - Form 10-K

Commitments and contingencies (Note K)

SHAREHOLDERS EQUITY

Common stock, \$0.125 par value, 1,000,000 shares authorized, 191,731 and 187,908 shares issued and outstanding at December 31, 2013 and 2012, respectively	23,966	23,488
Additional paid-in capital	1,390,896	1,347,762
Accumulated other comprehensive income	4,000	5,820
Retained earnings	566,232	401,285
Total shareholders equity	1,985,094	1,778,355
Total liabilities and shareholders equity	\$ 2,629,824	\$ 2,429,345

The accompanying notes are an integral part of the consolidated financial statements.

TERADYNE, INC.

CONSOLIDATED STATEMENTS OF OPERATIONS

	Years Ended December 31,		
	2013	2012	2011
	(in thousands, except per share amounts)		
Net revenues:			
Products	\$ 1,154,922	\$ 1,383,569	\$ 1,160,191
Services	273,011	273,181	268,870
Total net revenues	1,427,933	1,656,750	1,429,061
Cost of revenues:			
Cost of products	499,030	642,881	578,936
Cost of services	120,102	127,832	138,302
Total cost of revenues	619,132	770,713	717,238
Gross profit	808,801	886,037	711,823
Operating expenses:			
Engineering and development	264,055	255,866	201,024
Selling and administrative	279,560	277,016	232,093
Acquired intangible assets amortization	72,447	73,508	40,465
Restructuring and other	2,080	(7,721)	6,743
Total operating expenses	618,142	598,669	480,325
Income from operations	190,659	287,368	231,498
Interest income	4,129	4,090	6,617
Interest expense and other	(7,134)	25,482	23,694
Income from continuing operations before income taxes	201,922	265,976	214,421
Provision (benefit) for income taxes	36,975	48,927	(129,536)
Income from continuing operations	164,947	217,049	343,957
Income from discontinued operations before income taxes			1,278
Benefit for income taxes			(267)
Income from discontinued operations			1,545
Gain on disposal of discontinued operations (net of tax \$4,578)			24,371
Net income	\$ 164,947	\$ 217,049	\$ 369,873
Income from continuing operations per common share:			
Basic	\$ 0.86	\$ 1.16	\$ 1.86
Diluted	\$ 0.70	\$ 0.94	\$ 1.52
Net income per common share:			
Basic	\$ 0.86	\$ 1.16	\$ 2.00
Diluted	\$ 0.70	\$ 0.94	\$ 1.63

Edgar Filing: TERADYNE, INC - Form 10-K

Weighted average common shares basic	190,772	186,878	184,683
Weighted average common shares diluted	235,599	230,246	226,820

The accompanying notes are an integral part of the consolidated financial statements.

TERADYNE, INC.

CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME

	Years Ended December 31,		
	2013	2012	2011
	(in thousands)		
Net income	\$ 164,947	\$ 217,049	\$ 369,873
Other comprehensive (loss) income, net of tax:			
Foreign currency translation reclassification adjustment included in net income			2,266
Unrealized (losses) gains on marketable securities:			
Unrealized (losses) gains on marketable securities arising during period, net of tax of \$216, \$370, \$1,247	(1,097)	2,009	1,409
Less: Reclassification adjustment for gains included in net income, net of tax of \$(257), \$(201), \$(581)	(447)	(702)	(1,412)
	(1,544)	1,307	(3)
Defined benefit pension and post-retirement plans:			
Amortization of prior service (benefit) cost included in net periodic pension and post-retirement expense/income, net of tax \$(159), \$(134), \$9	(276)	(233)	14
Other comprehensive (loss) income	(1,820)	1,074	2,277
Comprehensive income	\$ 163,127	\$ 218,123	\$ 372,150

The accompanying notes are an integral part of the consolidated financial statements.

TERADYNE, INC.

CONSOLIDATED STATEMENTS OF SHAREHOLDERS EQUITY

Years Ended December 31, 2013, 2012 and 2011

	Common Stock Shares Issued	Common Stock Par Value	Additional Paid-in Capital	Accumulated Other Comprehensive (Loss) Income (in thousands)	Retained Earnings (Accumulated Deficit)	Total Shareholders Equity
Balance, December 31, 2010	182,035	\$ 22,755	\$ 1,269,525	\$ 2,469	\$ (172,561)	\$ 1,122,188
Issuance of stock to employees under benefit plans, net of shares withheld for payroll tax of \$12,297	4,185	522	4,566			5,088
Stock-based compensation expense			32,337			32,337
Repurchase of common stock	(2,633)	(329)	(17,770)		(13,076)	(31,175)
Stock options issued in purchase acquisition			4,472			4,472
Net income					369,873	369,873
Unrealized gain on marketable securities:						
Unrealized gain on marketable securities, net of tax of \$1,247				1,409		1,409
Less: reclassification adjustment for gains included in net income, net of tax of \$(581)				(1,412)		(1,412)
Foreign currency translation adjustment				2,266		2,266
Amortization of prior service costs, net of tax of \$9				14		14
Balance, December 31, 2011	183,587	22,948	1,293,130	4,746	184,236	1,505,060
Issuance of stock to employees under benefit plans, net of shares withheld for payroll tax of \$11,582	4,321	540	6,354			6,894
Stock-based compensation expense			39,920			39,920
Tax benefit related to stock options and restricted stock units			8,358			8,358
Net income					217,049	217,049
Unrealized gain on marketable securities:						
Unrealized gain on marketable securities, net of tax of \$370				2,009		2,009
Less: reclassification adjustment for gains included in net income, net of tax of \$(201)				(702)		(702)
Amortization of prior service costs, net of tax of \$(134)				(233)		(233)
Balance, December 31, 2012	187,908	23,488	1,347,762	5,820	401,285	1,778,355
Issuance of stock to employees under benefit plans, net of shares withheld for payroll tax of \$12,192	3,823	478	4,926			5,404
Stock-based compensation expense			35,612			35,612
Tax benefit related to stock options and restricted stock units			2,596			2,596
Net income					164,947	164,947
Unrealized gain on marketable securities:						
Unrealized gain on marketable securities, net of tax of \$216				(1,097)		(1,097)
Less: reclassification adjustment for gains included in net income, net of tax \$(257)				(447)		(447)
Amortization of prior service costs, net of tax of \$(159)				(276)		(276)
Balance, December 31, 2013	191,731	\$ 23,966	\$ 1,390,896	\$ 4,000	\$ 566,232	\$ 1,985,094

The accompanying notes are an integral part of the consolidated financial statements.

TERADYNE, INC.

CONSOLIDATED STATEMENTS OF CASH FLOWS

	Years Ended December 31,		
	2013	2012	2011
	(in thousands)		
Cash flows from operating activities:			
Net income	\$ 164,947	\$ 217,049	\$ 369,873
Less: Income from discontinued operations			1,545
Less: Gain on disposal of discontinued operations			24,371
Income from continuing operations	164,947	217,049	343,957
Adjustments to reconcile income from continuing operations to net cash provided by operating activities:			
Depreciation	57,317	55,049	51,040
Amortization	93,370	90,465	55,641
Stock-based compensation	36,612	39,920	32,337
Provision for excess and obsolete inventory	16,592	26,849	11,601
Deferred taxes	(4,284)	5,556	(146,949)
Gain from the sale of an equity investment	(34,212)		
Tax benefit related to stock options and restricted stock units	(2,596)	(8,358)	
Non cash charge for the sale of inventories revalued at the date of acquisition		6,089	12,178
Retirement plans actuarial (gains) losses	(10,340)	23,320	13,564
Contingent consideration adjustment		(8,761)	
Other	(407)	(2,250)	(794)
Changes in operating assets and liabilities, net of businesses sold and acquired:			
Accounts receivable	(3,656)	(24,093)	66,367
Inventories	21,170	17,652	(615)
Prepayments and other assets	(49,572)	(2,995)	(21,509)
Accounts payable and other accrued expenses	15,103	(32,810)	(48,222)
Deferred revenue and customer advances	(28,877)	(14,627)	(68,359)
Retirement plan contributions	(5,540)	(4,778)	(11,851)
Accrued income taxes	1,648	19,804	(8,727)
Net cash provided by continuing operations	267,275	403,081	279,659
Net cash used for discontinued operations			(4,804)
Net cash provided by operating activities	267,275	403,081	274,855
Cash flows from investing activities:			
Purchases of property, plant and equipment	(106,731)	(119,080)	(86,097)
Purchases of available-for-sale marketable securities	(1,168,621)	(748,229)	(685,823)
Acquisition of businesses, net of cash acquired	(14,999)		(537,489)
Proceeds from maturities of available-for-sale marketable securities	516,499	225,085	442,080
Proceeds from sales of available-for-sale marketable securities	458,120	38,284	746,810
Proceeds from the sale of an equity investment	34,212		
(Purchases of) proceeds from life insurance	(307)	1,451	(1,091)
Net cash used for continuing operations	(281,827)	(602,489)	(121,610)
Net cash provided by discontinued operations			39,062
Net cash used for investing activities	(281,827)	(602,489)	(82,548)
Cash flows from financing activities:			
Issuance of common stock under stock option and stock purchase plans	17,596	18,477	17,385
Tax benefit related to stock options and restricted stock units	2,596	8,358	
Payments of long-term debt	(2,534)	(2,533)	(2,518)
Payments of contingent consideration	(388)	(59,710)	
Repurchase of common stock			(31,175)
Net cash provided by (used for) financing activities	17,270	(35,408)	(16,308)

Edgar Filing: TERADYNE, INC - Form 10-K

Increase (decrease) in cash and cash equivalents	2,718	(234,816)	175,999
Cash and cash equivalents at beginning of year	338,920	573,736	397,737
Cash and cash equivalents at end of year	\$ 341,638	\$ 338,920	\$ 573,736
Supplementary disclosure of cash flow information:			
Cash paid during the year for:			
Interest	\$ 8,590	\$ 8,602	\$ 8,645
Income taxes	\$ 38,156	\$ 8,084	\$ 36,043

The accompanying notes are an integral part of the consolidated financial statements.

TERADYNE, INC.

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

A. THE COMPANY

Teradyne, Inc. is a leading global supplier of automatic test equipment. Teradyne's automatic test equipment products and services include:

semiconductor test (Semiconductor Test) systems;

wireless test (Wireless Test) systems; and

military/aerospace (Mil/Aero) test instrumentation and systems, storage test (Storage Test) systems, and circuit-board test and inspection (Commercial Board Test) systems (collectively these products represent System Test).

B. ACCOUNTING POLICIES

The consolidated financial statements include the accounts of Teradyne and its wholly-owned subsidiaries. All significant intercompany balances and transactions are eliminated. Certain prior years' amounts were reclassified to conform to the current year presentation.

Preparation of Financial Statements and Use of Estimates

The preparation of consolidated financial statements requires management to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent liabilities. On an on-going basis, management evaluates its estimates, including those related to inventories, investments, goodwill, intangible and other long-lived assets, doubtful accounts, income taxes, deferred tax assets, pensions, warranties, and loss contingencies. Management bases its estimates on historical experience and on appropriate and customary assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ significantly from these estimates.

Revenue Recognition

Teradyne recognizes revenue when there is persuasive evidence of an arrangement, title and risk of loss have passed, delivery has occurred or the services have been rendered, the sales price is fixed or determinable and collection of the related receivable is reasonably assured. Title and risk of loss generally pass to its customers upon shipment or at delivery destination point. In circumstances where either title or risk of loss pass upon destination, acceptance or cash payment, Teradyne defers revenue recognition until such events occur.

Teradyne's equipment has non-software and embedded software components that function together to deliver the equipment's essential functionality. Revenue is recognized upon shipment or at delivery destination point, provided that customer acceptance criteria can be demonstrated prior to shipment. Certain contracts require Teradyne to perform tests of the product to ensure that performance meets the published product specifications or customer requested specifications, which are generally conducted prior to shipment. Where the criteria cannot be demonstrated prior to shipment, revenue is deferred until customer acceptance has been received. Teradyne also defers the portion of the sales price that is not due until acceptance, which represents deferred profit.

For multiple element arrangements, Teradyne allocates revenue to all deliverables based on their relative selling prices. In such circumstances, a hierarchy is used to determine the selling price for allocating revenue to deliverables as follows: (i) vendor-specific objective evidence of selling price (VSOE), (ii) third-party evidence of selling price (TPE), and (iii) best estimate of the selling price (BESP). For a delivered item to be considered a separate unit the delivered item must have value to the customer on a standalone basis and the delivery or performance of the undelivered item must be considered probable and substantially in Teradyne's control.

Teradyne's post-shipment obligations include installation, training services, one-year standard warranties, and extended warranties. Installation does not alter the product capabilities, does not require specialized skills or tools and can be performed by the customers or other vendors. Installation is typically provided within five days of product shipment and is completed within one to two days thereafter. Training services are optional and do not affect the customers' ability to use the product. Teradyne defers revenue for the selling price of installation and training. Extended warranties constitute warranty obligations beyond one year and Teradyne defers revenue in accordance with Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) 605-20, *Separately Priced Extended Warranty and Product Maintenance Contracts* and ASC 605-25, Revenue Recognition Multiple-Element Arrangements. Service revenue is recognized over the contractual period or as services are performed.

Teradyne's products are generally subject to warranty and related costs of the warranty are provided for in cost of revenue when product revenue is recognized. Teradyne classifies shipping and handling costs in cost of revenue. Teradyne generally does not provide its customers with contractual rights of return for any of its products.

As of December 31, 2013 and 2012, deferred revenue and customer advances consisted of the following and are included in the short and long-term deferred revenue and customer advances:

	2013	2012
	(in thousands)	
Customer advances	\$ 4,825	\$ 39,613
Equipment maintenance, training and extended warranty	56,914	51,198
Undelivered elements	6,971	6,773
Total deferred revenue and customer advances	\$ 68,710	\$ 97,584

Retirement and Postretirement Plans

Effective January 1, 2012, Teradyne changed the method of recognizing actuarial gains and losses for its defined benefit pension plans and postretirement benefit plan and calculating the expected return on plan assets for its defined benefit pension plans. Historically, Teradyne recognized net actuarial gains and losses in accumulated other comprehensive income within shareholders' equity on its consolidated balance sheets on an annual basis and amortized them into operating results over the average remaining years of service of the plan participants, to the extent such gains and losses were outside of a range (corridor). Teradyne elected to immediately recognize net actuarial gains and losses and the change in the fair value of the plan assets in its operating results in the year in which they occur or upon any interim remeasurement of the plans. In addition, Teradyne used to calculate the expected return on plan assets using a calculated market-related value of plan assets. Effective January 1, 2012, Teradyne elected to calculate the expected return on plan assets using the fair value of the plan assets.

Teradyne believes that this new method is preferable as it eliminates the delay in recognizing gains and losses in its operating results and it will improve the transparency by faster recognition of the effects of economic and interest rate trends on plan obligations and investments. These actuarial gains and losses are generally measured annually as of December 31 and, accordingly, will be recorded during the fourth quarter of each year or upon any interim remeasurement of the plans. In accordance with Financial Accounting Standards Board Accounting Standards Codification Topic 250, Accounting Changes and Error Corrections, all prior periods presented in this Annual Report on Form 10-K have been adjusted to apply the new accounting method retrospectively.

Product Warranty

Teradyne generally provides a one-year warranty on its products, commencing upon installation 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.

	Amount (in thousands)
Balance at December 31, 2010	\$ 9,886
Acquisition	327
Accruals for warranties issued during the period	13,167
Accruals related to pre-existing warranties	(2,689)
Settlements made during the period	(12,538)
Balance at December 31, 2011	8,153
Accruals for warranties issued during the period	14,704
Accruals related to pre-existing warranties	877
Settlements made during the period	(13,948)
Balance at December 31, 2012	9,786
Accruals for warranties issued during the period	10,574
Accruals related to pre-existing warranties	(3,534)
Settlements made during the period	(10,166)
Balance at December 31, 2013	\$ 6,660

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.

	Amount (in thousands)
Balance at December 31, 2010	\$ 8,972
Acquisition	3,151
Deferral of new extended warranty revenue	8,659
Recognition of extended warranty deferred revenue	(8,040)
Balance at December 31, 2011	12,742
Deferral of new extended warranty revenue	22,344
Recognition of extended warranty deferred revenue	(8,099)
Balance at December 31, 2012	26,987
Deferral of new extended warranty revenue	20,191
Recognition of extended warranty deferred revenue	(12,789)
Balance at December 31, 2013	\$ 34,389

Accounts Receivable and Allowance for Doubtful Accounts

Trade accounts receivable are recorded at the invoiced amount and do not bear interest. The volatility of the industries that Teradyne serves can cause certain of its customers to experience shortages of cash flows, which can impact their ability to make required payments. Teradyne maintains allowances for doubtful accounts for estimated losses resulting from the inability of its customers to make required payments. Estimated allowances for doubtful accounts are reviewed periodically taking into account the customer's recent payment history, the customer's current financial statements and other information regarding the customer's credit worthiness. Account balances are charged off against the

allowance when it is determined the receivable will not be recovered.

Inventories

Inventories are stated at the lower of cost (first-in, first-out basis) or net realizable value. On a quarterly basis, Teradyne uses consistent methodologies to evaluate all inventories for net realizable value. Teradyne records a provision for both excess and obsolete inventory when such write-downs or write-offs are identified through the quarterly review process. The inventory valuation is based upon assumptions about future demand, product mix and possible alternative uses.

Investments

Teradyne accounts for its investments in debt and equity securities in accordance with the provisions of ASC 320-10, *Investments Debt and Equity Securities*. ASC 320-10 requires that certain debt and equity securities be classified into one of three categories; trading, available-for-sale or held-to-maturity securities. On a quarterly basis, Teradyne reviews its investments to identify and evaluate those that have an indication of a potential other-than-temporary impairment. Factors considered in determining whether a loss is other-than-temporary include:

The length of time and the extent to which the market value has been less than cost;

The financial condition and near-term prospects of the issuer; and

The intent and ability to retain the investment in the issuer for a period of time sufficient to allow for any anticipated recovery in market value.

As defined in ASC 820-10 *Fair Value Measurements and Disclosures*, fair value is the price that would be received from the sale of an asset or paid to transfer a liability in an orderly transaction between market participants. Teradyne uses the market and income approach techniques to value its financial instruments and there were no changes in valuation techniques during the years ended December 31, 2013, 2012 and 2011. ASC 820-10 requires that assets and liabilities carried at fair value be classified and disclosed in one of the following three categories:

Level 1: Quoted prices in active markets for identical assets as of the reporting date.

Level 2: Inputs other than Level 1, that are observable either directly or indirectly as of the reporting date. For example, a common approach for valuing fixed income securities is the use of matrix pricing. Matrix pricing is a mathematical technique used to value securities by relying on the securities' relationship to other benchmark quoted prices, and therefore is considered a Level 2 input.

Level 3: Unobservable inputs that are not supported by market data. Unobservable inputs are developed based on the best information available, which might include Teradyne's own data.

In accordance with ASC 820-10, Teradyne measures its debt and equity investments at fair value. Teradyne's debt and equity investments are primarily classified within Level 1 and 2, with the exception of LitePoint acquisition-related contingent consideration, which was classified within Level 3. Teradyne determines the fair value of acquisition-related contingent consideration based on assessment of the probability that it would be required to make such payment.

Goodwill, Intangible and Long-Lived Assets

Teradyne accounts for goodwill and intangible assets in accordance with ASC 350-10, *Intangibles- Goodwill and Other*. Intangible assets are amortized over their estimated useful economic life and are carried at cost less accumulated amortization. Goodwill is assessed for impairment at least annually in the fourth quarter, as of December 31, on a reporting unit basis, or more frequently when events and circumstances occur indicating that the recorded goodwill may be impaired. In accordance with ASC 350-10, Teradyne has the option to perform a qualitative assessment to determine whether it is more-likely-than-not that the fair value of a reporting unit is less than its carrying amount. If Teradyne determines this is the case, Teradyne is required to perform the two-

step goodwill impairment test to identify potential goodwill impairment and measure the amount of goodwill impairment loss to be recognized. If Teradyne determines that it is more-likely-than-not that the fair value of the reporting unit is greater than its carrying amounts, the two-step goodwill impairment test is not required.

In accordance with ASC 360-10, *Impairment or Disposal of Long-Lived 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. Each impairment test is based on a comparison of the estimated undiscounted cash flows to the recorded value of the asset. If impairment is indicated, the asset is written down to its estimated fair value based on a discounted cash flow analysis. The cash flow estimates used to determine the impairment, if any, contain management's best estimates using appropriate assumptions and projections at that time. There were no events or circumstances indicating that the carrying value may not be recoverable in 2013, 2012 or 2011.

Property, Plant and Equipment

Property, plant and equipment are stated at cost and depreciated over the estimated useful lives of the assets. Leasehold improvements and major renewals are capitalized and included in property, plant and equipment accounts while expenditures for maintenance and repairs and minor renewals are charged to expense. When assets are retired, the assets and related allowances for depreciation and amortization are removed from the accounts and any resulting gain or loss is reflected in the statement of operations.

Teradyne provides for depreciation of its assets principally on the straight-line method with the cost of the assets being charged to expense over their useful lives as follows:

Buildings	40 years
Building improvements	5 to 10 years
Leasehold improvements	Lesser of lease term or useful life
Furniture and fixtures	10 years
Test systems manufactured internally	6 years
Machinery and equipment	3 to 5 years
Software	3 to 5 years

Test systems manufactured internally are used by Teradyne for customer evaluations and manufacturing and support of its customers. Teradyne depreciates the test systems manufactured internally over a six-year life to cost of revenues, engineering and development, and selling and administrative expenses. Teradyne often sells internally manufactured test equipment to customers. Upon the sale of an internally manufactured test system, the net book value of the system is transferred to inventory and expensed as cost of revenues. The net book value of internally manufactured test systems sold in the years ended December 31, 2013, 2012 and 2011 was \$9.0 million, \$6.0 million and \$7.8 million, respectively.

Engineering and Development Costs

Teradyne's products are highly technical in nature and require a large and continuing engineering and development effort. Software development costs incurred prior to the establishment of technological feasibility are charged to expense. Software development costs incurred subsequent to the establishment of technological feasibility are capitalized until the product is available for release to customers. To date, the period between achieving technological feasibility and general availability of the product has been short and software development costs eligible for capitalization have not been material. Engineering and development costs are expensed as incurred and consist primarily of salaries, contractor fees, allocated facility costs, depreciation, and tooling costs.

Stock Compensation Plans and Employee Stock Purchase Plan

Stock-based compensation expense is based on the grant-date fair value estimated in accordance with the provisions of ASC 718-10

Compensation Stock Compensation. As required by ASC 718-10, Teradyne has made an estimate of expected forfeitures and is recognizing compensation costs only for those stock-based compensation awards expected to vest.

Under its stock compensation plans, Teradyne has granted stock options and restricted stock units, and employees are eligible to purchase Teradyne's common stock through its Employee Stock Purchase Plan (ESPP).

Stock options to purchase Teradyne's common stock at 100% of the fair market value on the grant date vest in equal installments over four years from the grant date and have a maximum term of seven years.

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 first anniversary of the grant date. A portion of restricted stock unit awards granted to executive officers is subject to time-based vesting and a portion is subject to performance-based vesting. The percentage level of performance satisfied for performance-based grants is assessed on or near the anniversary of the grant date and, in turn, that percentage level determines the number of performance-based restricted stock units available for vesting over the vesting period; portions of the performance-based grants not available for vesting will be forfeited. Restricted stock units do not have common stock voting rights, and the shares underlying the restricted stock units are not considered issued and outstanding until they become vested. Teradyne expenses the cost of the restricted stock unit awards subject to time-based vesting, which is determined to be the fair market value of the shares at the date of grant, ratably over the period during which the restrictions lapse.

Under the ESPP, eligible employees may purchase shares of common stock through regular payroll deductions of up to 10% of their eligible compensation, to a maximum of shares with a fair market value of \$25,000 per calendar year, not to exceed 6,000 shares. The price paid for the common stock in 2013 is equal to 85% of the value of Teradyne's common stock on the last business day of the purchase period. The price paid for the common stock in 2012 and 2011 was equal to 85% of the lower of the value of Teradyne's common stock on the first business day or on the last business day of the purchase period. There are two six-month purchase periods in each fiscal year.

The effect to income from continuing operations for recording stock-based compensation for the years ended December 31 was as follows:

	2013	2012 (in thousands)	2011
Cost of revenue	\$ 4,338	\$ 6,604	\$ 7,097
Engineering and development	12,452	13,589	10,001
Selling and administrative	19,822	19,727	15,239
Stock-based compensation	36,612	39,920	32,337
Income tax benefit	(9,762)	(9,548)	(8,509)
Total stock-based compensation expense after income taxes	\$ 26,850	\$ 30,372	\$ 23,828

Valuation Assumptions

The total number of stock options granted in 2013, 2012 and 2011 were 0.2 million, 0.2 million and 0.1 million, respectively, at the weighted average grant date fair value of \$6.09, \$6.85 and \$6.74, respectively. The fair value of the stock options at grant date was estimated using the Black-Scholes option-pricing model with the following assumptions:

	2013	2012	2011
Expected life (years)	4.00	3.50	4.00
Interest rate	0.6%	0.4%	1.5%
Volatility-historical	46.8%	56.0%	52.1%
Dividend yield	0.0%	0.0%	0.0%

Teradyne determined the stock options expected life based upon historical exercise data for executive officers, the age of executives and the terms of the stock option award. Volatility was determined using historical volatility for a period equal to the expected life. The interest rate was determined using the U.S. Treasury yield curve in effect at the time of grant.

The weighted-average fair value of employee stock purchase rights granted pursuant to the ESPP in the first and last six months of 2012 was \$4.09 and \$3.42, respectively, and the first and last six months of 2011 was \$3.66 and \$4.01, respectively. The fair value of the employees purchase rights was estimated using the Black-Scholes option-pricing model with the following assumptions:

	2012	2011
Expected life (years)	0.5	0.5
Interest rate	0.1%	0.1%
Volatility-historical	42.7%	41.0%
Dividend yield	0.0%	0.0%

As of December 31, 2013, there were 6.4 million shares available for grant under the ESPP.

Income Taxes

Deferred tax assets and liabilities are determined based on differences between financial reporting and tax bases of assets and liabilities and are measured using the enacted tax rates and laws that will be in effect when the differences are expected to reverse. The measurement of deferred tax assets is reduced by a valuation allowance if, based upon weighted available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized. U.S. income taxes are not provided for on the earnings of non-U.S. subsidiaries, except Japan, which are expected to be reinvested indefinitely in operations outside the U.S. For intra-period tax allocations, Teradyne first utilizes non-equity related tax attributes, such as net operating losses and credit carryforwards and then equity-related tax attributes. Teradyne uses the with-and-without method for calculating excess stock compensation deductions and does not take into account any indirect impacts of excess stock compensation deductions on its research and development tax credits, domestic production activities deduction, and other differences between financial reporting and tax reporting.

On January 2, 2013, the American Taxpayer Relief Act of 2012 was enacted which retrospectively reinstated the research and development tax credit for 2012 and extended it through December 31, 2013. As a result, in the first quarter of 2013, Teradyne recorded a discrete benefit related to 2012 U.S. federal research and development tax credit of approximately \$6.7 million.

Advertising Costs

Teradyne expenses all advertising costs as incurred. Advertising costs were \$1.7 million, \$1.6 million and \$1.0 million in 2013, 2012 and 2011, respectively.

Translation of Non-U.S. Currencies

The functional currency for all subsidiaries is the U.S. dollar. All foreign currency denominated monetary assets and liabilities are remeasured on a monthly basis into the functional currency using exchange rates in effect at the end of the period. All foreign currency denominated non-monetary assets and liabilities are remeasured into the functional currency using historical exchange rates. Net foreign exchange gains and losses resulting from remeasurement are included in interest expense and other and were a loss of \$6.9 million, a loss of \$4.5 million and a gain of \$0.9 million, respectively, for the years ended December 31, 2013, 2012 and 2011. These amounts do not reflect the corresponding gain (loss) from foreign exchange contracts. See Note G: Financial Instruments regarding foreign exchange contracts. Revenue and expense amounts are translated using an average of exchange rates in effect during the period.

Net Income per Common Share

Basic net income per common share is calculated by dividing net income by the weighted average number of common shares outstanding during the period. Except where the result would be antidilutive, diluted net income per common share is calculated by dividing net income by the sum of the weighted average number of common shares plus common stock equivalents, if applicable.

Dilutive potential common shares include incremental shares from assumed conversion of the convertible notes and the convertible notes hedge warrant shares. Incremental shares from assumed conversion of the convertible notes are calculated using the difference between the average Teradyne stock price for the period and the conversion price of \$5.48, multiplied by the 34.7 million shares that will be issued upon conversion. The result of this calculation, representing the total intrinsic value of the convertible debt, is divided by the average Teradyne stock price for the period. Convertible notes hedge warrant shares are calculated using the difference between the average Teradyne stock price for the period and the warrant price of \$7.67, multiplied by the 34.7 million shares that will be issued upon conversion. The result of this calculation, representing the total intrinsic value of the warrant, is divided by the average Teradyne stock price for the period. Teradyne's call option for 34.7 million shares at an exercise price of \$5.48 is not used in the GAAP earnings per share calculation as its effect would be anti-dilutive.

With respect to Teradyne's convertible debt, Teradyne intends to settle its conversion spread (i.e., the intrinsic value of the embedded option feature contained in the convertible debt) in shares. Teradyne accounts for its conversion spread using the treasury stock method. Teradyne determined that it had the ability and intent to settle the principal amount of the convertible debt in cash; accordingly, the principal amount has been excluded from the determination of diluted earnings per share.

Comprehensive (Loss) Income

Comprehensive (loss) income includes net income, unrealized pension and postretirement prior service costs and benefits, unrealized gains and losses on investments in debt and equity marketable securities and for 2011 a foreign currency translation reclassification adjustment of \$2.3 million as a result of the sale of Teradyne's Diagnostics Solutions business unit.

C. RECENTLY ISSUED ACCOUNTING PRONOUNCEMENTS

In July 2013, the FASB issued ASU 2013-11, *Income Taxes (Topic 740): Presentation of an Unrecognized Tax Benefit When a Net Operating Loss Carryforward, a Similar Tax Loss, or a Tax Credit Carryforward Exists*. Under this ASU, unrecognized tax benefits will be netted against all available same-jurisdiction loss or other tax carryforwards that would be utilized, rather than only against carryforwards that are created by unrecognized tax benefits. The provisions of this ASU are effective for interim and annual periods beginning on or after December 15, 2013. Teradyne does not expect this ASU to have a material impact on its financial position or results of operations.

D. DISCONTINUED OPERATIONS

On March 21, 2011, Teradyne completed the sale of its Diagnostic Solutions business unit, which was included in the System Test segment, to SPX Corporation for \$40.2 million in cash. Teradyne sold this business as its growth potential as a stand-alone business within Teradyne was significantly less than if it was part of a larger automotive supplier. The financial information for Diagnostic Solutions has been reclassified to discontinued operations for all periods presented. Net revenues and income from discontinued operations for the years ended December 31, 2013, 2012 and 2011 were as follows:

	2013	2012	2011
	(in thousands)		
Net revenues	\$	\$	\$ 9,086
Income from discontinued operation before income taxes	\$	\$	\$ 1,278
Gain from disposal of discontinued operation before income taxes			28,949
Income tax provision			4,311
Income from discontinued operations	\$	\$	\$ 25,916

E. ACQUISITIONS**Business*****ZTEC Instruments, Inc.***

On October 25, 2013, Teradyne completed its acquisition of ZTEC Instruments, Inc. (ZTEC) located in Albuquerque, New Mexico. The total purchase price of \$17.3 million consisted of \$15.1 million of cash paid to acquire the outstanding common and preferred stock of ZTEC and \$2.2 million in fair value of contingent consideration payable upon achievement of certain customer order and revenue targets through 2015. The maximum amount of contingent consideration that could be paid is \$5.0 million. Based on the projected results for the acquisition, no value was assigned to the revenue component of the contingent consideration.

The valuation of the customer order component of the contingent consideration utilized the following assumptions: (1) probability of meeting each benchmark; (2) expected timing of meeting each benchmark; and (3) discount rate reflecting the risk associated with the expected payments. The probabilities and timing for each benchmark were estimated based on a review of the historical and projected results. A discount rate of 5.2 percent was selected based on the cost of debt for the business, as a significant portion of the risk in achieving the customer order contingent consideration was captured in the probabilities assigned to meeting each benchmark.

ZTEC is a supplier of modular wireless test instruments. The acquisition of ZTEC expands Teradyne's wireless segment into the design verification test of wireless components and chipsets.

The ZTEC acquisition was accounted for as a purchase business combination and, accordingly, the results have been included in Teradyne's consolidated results of operation from the date of acquisition. The allocation of the total purchase price of ZTEC net tangible and identifiable intangible assets was based on their estimated fair values as of the acquisition date. The purchase price allocation is preliminary pending the final determination of the fair value of certain acquired assets and assumed liabilities. The excess of the purchase price over the identifiable intangible and net tangible assets in the amount of \$12.5 million was allocated to goodwill, which is not deductible for tax purposes.

The following represents the allocation of the purchase price:

	Purchase Price Allocation (in thousands)
Goodwill	\$ 12,520
Intangible assets	4,870
Tangible assets acquired and liabilities assumed:	
Cash	79
Other current assets	1,612
Non-current assets	1,757
Accounts payable and current liabilities	(1,811)
Long-term deferred tax liabilities	(1,719)
Total purchase price	\$ 17,308

Teradyne estimated the fair value of intangible assets using the income approach. Acquired intangible assets are amortized on a straight-line basis over their estimated useful lives. The following table lists these intangible assets and their estimated useful lives at the acquisition date:

	Fair Value (in thousands)	Estimated Useful Life (in years)
Developed technology	\$ 3,500	5.0
Customer relationships	1,370	6.0
Total intangible assets	\$ 4,870	5.3

For the period from October 25, 2013 to December 31, 2013, ZTEC contributed \$0.4 million of revenues and had a \$(0.8) million loss from continuing operations before income taxes.

The following unaudited pro forma information gives effect to the acquisition of ZTEC as if the acquisition occurred on January 1, 2012. The unaudited pro forma results are not necessarily indicative of what actually would have occurred had the acquisition been in effect for the periods presented:

	For the Year Ended	
	December 31, 2013	December 31, 2012
	(in thousands, except per share amounts)	
Revenue	\$ 1,431,270	\$ 1,660,758
Net income	\$ 163,394	\$ 215,654
Income per common share:		
Basic	\$ 0.86	\$ 1.15
Diluted	\$ 0.69	\$ 0.94

LitePoint Corporation

On October 5, 2011, Teradyne completed its acquisition of LitePoint Corporation (LitePoint) located in Sunnyvale, California. The total purchase price of \$646.0 million consisted of \$572.7 million of cash paid to acquire the outstanding common and preferred stock of LitePoint, \$68.9 million in fair value of contingent consideration payable upon achievement of certain revenue targets through 2012 and \$4.5 million in fair value of

assumed vested stock options, which were converted into stock options to purchase Teradyne's common stock. The fair value of stock options was estimated using the following weighted average assumptions:

Expected life (years)	6.2
Expected volatility	49.1%
Risk-free interest rate	1.3%
Dividend yield	0.0%

LitePoint designs, develops, and supports advanced wireless test equipment for the development and manufacturing of wireless devices, including smart phones, tablets, notebooks/laptops, personal computer peripherals, and other Wi-Fi, Bluetooth and cellular enabled devices. LitePoint's IQ product line consists of cellular and connectivity test equipment used by developers and manufacturers of wireless devices and consumer electronics. LitePoint and ZTEC represent Teradyne's Wireless Test operating and reportable segment.

The LitePoint acquisition was accounted for as a purchase business combination and, accordingly, the results have been included in Teradyne's consolidated results of operation from the date of acquisition. The allocation of the total purchase price of LitePoint net tangible and identifiable intangible assets was based on their estimated fair values as of the acquisition date. The excess of the purchase price over the identifiable intangible and net tangible assets in the amount of \$349.3 million was allocated to goodwill, which is not deductible for tax purposes. The following represents the allocation of the purchase price:

	Purchase Price Allocation (in thousands)
Goodwill	\$ 349,272
Intangible assets	310,500
Tangible assets acquired and liabilities assumed:	
Cash, cash equivalents and short term marketable securities	61,250
Other current assets	75,615
Non-current assets	5,838
Accounts payable and current liabilities	(37,177)
Long-term deferred tax liabilities	(115,463)
Other long-term liabilities	(3,788)
 Total purchase price	 \$ 646,047

Teradyne estimated the fair value of intangible assets using the income and cost approach. Acquired intangible assets are amortized on a straight-line basis over their estimated useful lives. The following table lists these intangible assets and their estimated useful lives at the acquisition date:

	Fair Value (in thousands)	Estimated Useful Life (in years)
Developed technology	\$ 237,100	6.4
Customer relationships	53,700	7.0
Tradenames	19,000	7.0
Customer backlog	700	0.3
 Total intangible assets	 \$ 310,500	 6.5

For the period from October 5, 2011 to December 31, 2011, LitePoint contributed \$28.4 million of revenues and had a \$(20.6) million loss from continuing operations before income taxes.

Edgar Filing: TERADYNE, INC - Form 10-K

The following unaudited pro forma information gives effect to the acquisition of LitePoint as if the acquisition occurred on January 1, 2011. The unaudited pro forma results are not necessarily indicative of what actually would have occurred had the acquisition been in effect for the periods presented:

	For the Year Ended December 31, 2011 (in thousands, except per share amounts)
Revenue	\$ 1,527,044
Income from continuing operations	\$ 357,060
Net income	\$ 382,976
Income from continuing operations per common share:	
Basic	\$ 1.93
Diluted	\$ 1.56
Net income per common share:	
Basic	\$ 2.07
Diluted	\$ 1.67

F. PROPERTY, PLANT AND EQUIPMENT

Property, plant and equipment consist of the following:

	2013	2012
	(in thousands)	
Land	\$ 16,561	\$ 16,561
Buildings	107,632	106,706