

# Waters 2016 Annual Report



Waters  
THE SCIENCE OF WHAT'S POSSIBLE.®



Waters is the world's leading specialty measurement company, delivering benefit through innovations and people that enable customer success in the life, materials, and food sciences.



# 2016

## Shareholder Report

Dear Customers, Employees,  
and Shareholders,

Thank you for your support throughout 2016. I am pleased to report that 2016 was a strong fiscal year, with growth in revenue and earnings solidly above historical averages.

Before detailing our 2016 results and describing the progress we are making in building Waters for the future, I would like to recognize the 7,000 women and men with whom I have the privilege to work. Throughout my first full year with Waters, I traveled extensively to meet with thousands of colleagues and the customers we serve all over the world. My biggest take-away from this busy and exciting year has been the strong sense of values and purpose embodied by all Waters employees. They work tirelessly every day to do what's right for our customers and our company, and it shows in the results we produced. It is truly our people that make the Waters difference.

### Two Thousand and Sixteen

2016 was a year to be proud of for Waters, featuring robust organic revenue growth, meaningful operating leverage and solid double-digit earnings per share growth. In fact, growth in all three metrics surpassed our ten-year averages. Following are key financial highlights for 2016:

- Sales grew 7%, before currency translation reduced the growth rate by 1%;
- Operating income grew 10%;
- Non-GAAP earnings per fully diluted share were up 12%, to \$6.62 per share;
- Free cash flow of \$555 million (or \$.26 of cash flow for each dollar of sales) exceeded the half-billion threshold for the first time; and
- Our share repurchase program returned \$318 million to shareholders.

### Balanced Performance Across Markets, Products, and Geographies

The strength of our performance in 2016 was highlighted by balanced revenue from our key customer markets. Leading the way was our business in the broadly-defined pharmaceutical market category, where revenues grew by 10% in 2016 on a constant currency basis. Rising regulations, increasing global patient access to medications, and the growing molecular complexity of newer biologic drugs are all macro trends driving our pharmaceutical business. Laboratories of all kinds, within both pharmaceutical and biotechnology firms as well as in contract organizations, are investing in infrastructure and people to create safe and effective medications in a robust and compliant manner.

The year also saw strong performance from Waters' industrial category, which comprises the materials, food, environmental, and fine chemical markets. With demand up across all product lines, sales into food quality

and safety testing, as well as fine chemical applications, steadily grew in strength throughout 2016. For the full year, revenues from Waters' industrial category grew at 6%.

From a product standpoint, we saw strong, balanced growth in instruments, chemistries, and service. Chromatography systems once again performed well, with high-single digit growth. From our workhorse Alliance® HPLC systems to our sophisticated ACQUITY® UPLC® systems, Waters offers our customers the industry's broadest and most flexible range of separations options. The ACQUITY Arc™ chromatography system led our growth, offering customers a versatile liquid chromatography system able to support validated assays in regulated testing applications while offering compatibility with advanced UPLC methods.

Also performing well in 2016 was the ACQUITY QDa, an intuitively designed detector providing molecular mass measurement to chromatography workflows without the cost, larger footprint, and complexity of traditional mass spectrometry. With thousands of installations in the few years it has been on the market, the ACQUITY QDa is rapidly expanding the adoption of mass spectrometry by the large liquid chromatography user base. During the year, we launched the Xevo® TQ-XS, our highest-performance tandem quadrupole mass spectrometer ever designed. Early returns are very encouraging, particularly in applied markets such as food safety and regulated bio-analysis.

In our thermal analysis business, we launched the Discovery Series™ line of thermal analyzers, a completely new generation in this important category. Shipments and installations

of our Discovery Differential Scanning Calorimeter (DSC) and Discovery Thermal Gravimetric Analyzer (TGA) have gone very well, and we expect to launch additional Discovery products in 2017.

For the third straight year, Waters' recurring revenues grew at a high single-digit rate, evidence of the enduring benefit we bring to customers. This consistent performance is indicative of strong instrument utilization, growth in service plans, and leading technology positions for advanced separations chemistries and method-specific reagent kits. Our informatics products, headlined by Empower® Chromatography Data Systems, continue to differentiate Waters in regulated workflows. More pharmaceutical customers use Empower than any other data system based on its ability to support the most demanding data integrity standards they face.

Geographically, Asia once again led Waters' global expansion, with mid-teens revenue growth in 2016. Our operation in China delivered twenty percent growth in 2016, while our India business produced mid-teen revenue growth on a constant currency basis. Strong demand from the pharmaceutical industry in both China and India was a key driver in the region. In particular, our customers in these rapidly-developing markets are striving to meet rising domestic and international regulatory requirements, which call for increased analytical rigor and the need to fortify the integrity of archived data. Our validated instrumentation, separations chemistries, and software systems have positioned us well to meet these mission-critical customer needs.

Europe also performed well in 2016, particularly in pharmaceutical and industrial markets, while the Americas contributed additional growth for the corporation over a strong performance in 2015.

## Corporate Strategic Framework

As we focused on our operations and delivered a strong 2016, we also transitioned to our new leadership structure and embarked on a comprehensive strategic planning process to take a fresh look at our markets, products, and growth strategies with an eye towards enhancing long-term value creation. This process involved hundreds of employees, equally as many customers, and comprehensive primary and secondary research efforts. The outcome of these efforts is a new corporate framework that outlines our values, vision, strategies, and execution priorities.

Our aspiration is best articulated in our vision statement, which is grounded in our corporate values, highlights our global scope, emphasizes our dedication to both innovation and customers, and identifies the primary markets we serve:

*Waters is the world's leading specialty measurement company, delivering benefit through innovations and people that enable customer success in the life, materials, and food sciences.*

To earn the distinction of being recognized as the world's leading specialty measurement company, Waters competes on the basis of focus, innovation, and quality. Central to

our corporate strategy is our choice to be very selective about where we compete. Waters has always benefitted from serving the most structurally attractive market segments and focusing on the most sophisticated measurement technologies for the most exacting customers. Our analysis reinforced our choice to compete in about 20% of the \$50 billion global analytical instruments market, and concluded that our highest-priority markets of pharmaceuticals, materials science, and food safety offer increasingly attractive growth prospects due to rising standards for measurement rigor and end product quality. As a result, we expect to prioritize continued market focus and investment in these areas. We also see potential in our more focused positions in medical research, environmental analysis, and clinical diagnostics.

Robust organic innovation is the foundation of our growth strategy. As the world's leader in specialty measurement, we seek to sustain innovation leadership in our core technologies, including liquid chromatography and related consumables, mass spectrometry, thermal analysis, rheology, and the sophisticated informatics packages that drive all of our instruments. Furthermore, within our areas of focus we intend to lead the market in complete offerings that incorporate instruments, software, consumables, and service to deliver truly intelligent systems to our customers. As we do this, we will be able expand the applications for our technology in a world seeking to increase the standard of measurement across the life, materials, and food sciences.

By pursuing these strategies, we believe that Waters can continue to deliver industry-leading growth, earnings leverage from ongoing operating improvement and top-tier returns on invested capital for our shareholders. As always, we will prioritize the judicious use of shareholder capital and sustain our performance-oriented corporate culture.

### Guided by Strong, Enduring Values

Our new strategic framework is clear, compelling, and energizing for our management team and employees. It builds on our historic success as a company and reinforces many of the key business drivers that have defined Waters over time, while setting the stage for a bigger vision and larger value-creation opportunities.

However, while Waters will continuously evolve and reinvent itself to compete in the changing global marketplace, our team also recognizes what should not change. At the heart of Waters is a strong set of values given to us by our founder, Jim Waters, and meticulously built upon by every generation of management. These values are deeply embedded in the company's unique culture, and are a key driver of our strong performance and keen employee engagement. Our bedrock values boil down to our simple but profound calling to "deliver benefit" in all we do for customers, employees, shareholders, and the community.

The strongest and most sustainable companies are firmly guided by enduring values, and Waters is no exception. We *deliver benefit* in more ways and in more places than ever before, and are inspired by this timeless core philosophy that has been part of Waters from its original designs.

I would like to close by thanking our key stakeholders. First and foremost, I thank all of our customers for their belief and trust in Waters. We pledge to continuously improve your experience every day. I thank our dedicated, talented, and passionate employees who deliver benefit in countless ways. You are our most important asset and truly make the Waters difference. Our shareholders deserve our very best operating results for their precious investment of capital, time, and understanding. Thank you for your confidence. Finally, we owe a debt of gratitude to the communities in which we live and work. We take pride in being responsible citizens and strive to create shared value everywhere we do business.

We are at our best and most sustainable when we serve the interests of all our key stakeholders — customers, employees, shareholders, and our communities. Our 2016 performance demonstrated success in this regard, and we are intent to continue this value creation in 2017 and beyond.

Sincerely,



Christopher J. O'Connell  
President and Chief Executive Officer





UNITED STATES SECURITIES AND EXCHANGE COMMISSION  
Washington, D.C. 20549

Form 10-K

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

For the fiscal year ended December 31, 2016

or

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

Commission File Number: 01-14010

**Waters Corporation**

(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of  
incorporation or organization)

13-3668640

(I.R.S. Employer  
Identification No.)

34 Maple Street

Milford, Massachusetts 01757

(Address, including zip code, of principal executive offices)

(508) 478-2000

(Registrant's telephone number, including area code)

Securities registered pursuant to Section 12(b) of the Act: Common Stock, par value \$0.01 per share  
New York Stock Exchange, Inc.

Securities registered pursuant to Section 12(g) of the Act: None

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 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 website, 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 of this chapter) is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or 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 smaller reporting company. See the definition 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 ☐

(Do not check if a smaller reporting company)

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

State the aggregate market value of the registrant's common stock held by non-affiliates of the registrant as of July 2, 2016: \$11,522,067,374.

Indicate the number of shares outstanding of the registrant's common stock as of February 17, 2017: 80,085,831

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant's definitive proxy statement that will be filed for the 2017 Annual Meeting of Stockholders are incorporated by reference in Part III.

**WATERS CORPORATION AND SUBSIDIARIES**

**ANNUAL REPORT ON FORM 10-K**

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## PART I

### Item 1: *Business*

#### General

Waters Corporation (the “Company”) is an analytical instrument manufacturer that primarily designs, manufactures, sells and services high performance liquid chromatography (“HPLC”), ultra performance liquid chromatography (“UPLC®” and together with HPLC, referred to as “LC”) and mass spectrometry (“MS”) technology systems and support products, including chromatography columns, other consumable products and comprehensive post-warranty service plans. These systems are complementary products that are frequently employed together (“LC-MS”) and sold as integrated instrument systems using a common software platform. In addition, the Company designs, manufactures, sells and services thermal analysis, rheometry and calorimetry instruments through its TA® product line. The Company is also a developer and supplier of software-based products that interface with the Company’s instruments, as well as other suppliers’ instruments, and are typically purchased by customers as part of the instrument system.

The Company’s products are used by life science, pharmaceutical, biochemical, industrial, nutritional safety, environmental, academic and governmental customers working in research and development, quality assurance and other laboratory applications. The Company’s LC and LC-MS instruments are utilized in this broad range of industries to detect, identify, monitor and measure the chemical, physical and biological composition of materials, and to purify a full range of compounds. These instruments are used in drug discovery and development, including clinical trial testing, the analysis of proteins in disease processes (known as “proteomics”), nutritional safety analysis and environmental testing. LC-MS instruments combine a liquid phase sample introduction and separation system with mass spectrometric compound identification and quantification. The Company’s thermal analysis, rheometry and calorimetry instruments are used in predicting the suitability and stability of fine chemicals, pharmaceuticals, water, polymers, metals and viscous liquids for various industrial, consumer goods and healthcare products, as well as for life science research.

Waters Corporation, organized as a Delaware corporation in 1991, is a holding company that owns all of the outstanding common stock of Waters Technologies Corporation, its operating subsidiary. Waters Corporation became a publicly-traded company with its initial public offering (“IPO”) in November 1995. Since the IPO, the Company has added two significant and complementary technologies to its range of products with the acquisitions of TA Instruments in May 1996 and Micromass Limited in September 1997.

#### Business Segments

The Company’s business activities, for which discrete financial information is available, are regularly reviewed and evaluated by the chief operating decision maker. As a result of this evaluation, the Company determined that it has two operating segments: Waters® and TA. The Company operates in the analytical instruments industry by designing, manufacturing, distributing and servicing instrument systems, columns and other chemistry consumables that can be integrated and used along with other analytical instruments. The Company’s two operating segments have similar economic characteristics; product processes; products and services; types and classes of customers; methods of distribution; and regulatory environments. Because of these similarities, the two operating segments have been aggregated into one reporting segment for financial statement purposes.

Information concerning revenues and long-lived assets attributable to each of the Company’s products, services and geographic areas is set forth in Note 16 in the Notes to the Consolidated Financial Statements, which is incorporated herein by reference.



## **Waters Products and Markets**

### ***High Performance and Ultra Performance Liquid Chromatography***

HPLC is a standard technique used to identify and analyze the constituent components of a variety of chemicals and other materials. The Company believes that HPLC's performance capabilities enable it to separate, identify and quantify approximately 80% of all known chemicals and materials. As a result, HPLC is used to analyze substances in a wide variety of industries for research and development purposes, quality control and process engineering applications.

The most significant end-use markets for HPLC are those served by the pharmaceutical and life science industries. In these markets, HPLC is used extensively to understand diseases, identify new drugs, develop manufacturing methods and assure the potency and purity of new pharmaceuticals. HPLC is also used in a variety of other applications, such as analyses of foods and beverages for nutritional labeling and compliance with safety regulations and the testing of water and air purity within the environmental testing industry, as well as applications in other industries, such as chemical and consumer products. HPLC is also used by universities, research institutions and governmental agencies, such as the United States Food and Drug Administration ("FDA") and the United States Environmental Protection Agency ("EPA") and their foreign counterparts that mandate testing requiring HPLC-based methodologies.

In 2004, Waters introduced a novel technology that the Company describes as ultra performance liquid chromatography that utilizes a packing material with small, uniform diameter particles and a specialized instrument, the ACQUITY UPLC®, to accommodate the increased pressure and narrow chromatographic bands that are generated by these small particles. By using the ACQUITY UPLC, researchers and analysts are able to achieve more comprehensive chemical separations and faster analysis times in comparison with many analyses performed by HPLC. In addition, in using the ACQUITY UPLC, researchers have the potential to extend the range of applications beyond that of HPLC, enabling them to uncover more levels of scientific information. While offering significant performance advantages, the ACQUITY UPLC is also compatible with the Company's software products and the general operating protocols of HPLC. For these reasons, the Company's customers and field sales and support organizations are well positioned to utilize this new technology and instrument. In 2012, the Company introduced UltraPerformance Convergence Chromatography® ("UPC2®") with the release of the ACQUITY® UPC2® system. This new technology marries the unrealized potential of supercritical fluid chromatography ("SFC") with the proven UPLC technology, using carbon dioxide as the primary mobile phase. By varying mobile phase strength, pressure, temperature and stationary phase with UPC2, a user can separate, detect and quantify structural analogs, isomers, enantiomeric and diastereomeric mixtures — all compounds or samples that challenge today's laboratories. In 2014, the Company introduced the ACQUITY UPLC® M-Class instrument system. This system delivers the sensitivity to quantify and identify vanishingly small concentrations of key molecules, particularly when used with advanced mass spectrometric characterization. The innovations incorporated into the ACQUITY UPLC M-Class system are led by its internal low-volume design and newly redesigned fluidics that minimize dispersive and adsorptive losses during a chromatographic separation. In 2015, the Company introduced the ACQUITY® Arc System and its enabling Arc Multi-flow path™ technology, which bridges the gap between HPLC and UPLC by emulating a variety of HPLC systems without altering the method's gradient table and enabling improved chromatographic performance of methods by leveraging 2.5-2.7 micron particle column technologies.

Waters manufactures LC instruments that are offered in configurations that allow for varying degrees of automation, from component configured systems for academic teaching and research applications to fully automated systems for regulated testing, and that have a variety of detection technologies, from ultra-violet ("UV") absorbance to MS, optimized for certain analyses. The Company also manufactures tailored LC systems for the analysis of biologics, as well as an LC detector utilizing evaporative light scattering technology to expand the usage of LC to compounds that are not amenable to UV absorbance detection.

The primary consumable products for LC are chromatography columns. These columns are packed with separation media used in the LC testing process and are typically replaced at regular intervals. The

chromatography column contains one of several types of packing material, typically stationary phase particles made from silica or polymeric resins. As the sample permeates through the column, it is separated into its constituent components.

Waters HPLC columns can be used on Waters-branded and competitors' LC systems. The Company believes that it is one of a few suppliers in the world that processes silica and polymeric resins, packs columns and distributes its own products. In doing so, the Company believes it can better ensure product consistency, a key attribute for its customers in quality control laboratories, and can react quickly to new customer requirements. The Company believes that its ACQUITY UPLC lines of columns are used primarily on its ACQUITY UPLC instrument systems and, furthermore, that its ACQUITY UPLC instruments primarily use ACQUITY UPLC columns. In 2014, the Company expanded its CORTECS<sup>®</sup> family with a new line of 2.7 micron silica-based, solid-core particle columns for usage on UPLC, as well as HPLC systems. In addition, the Company introduced size exclusion chromatography columns for the characterization of proteins and ACQUITY UPC<sup>2</sup> columns for chiral and achiral separations. In 2015, the Company introduced the Oasis<sup>®</sup> PRiME HLB cartridges, which process samples up to 40% faster and deliver samples that are up to 70% cleaner with fewer LC-MS matrix effects than samples prepared using other extraction techniques. In addition, the ACQUITY UPLC<sup>®</sup> Glycoprotein BEH Amide columns were introduced in 2015 to help biopharmaceutical companies to better understand where glycan groups (bonded sugars) are located within the therapeutic proteins they are developing and manufacturing. In 2016, the Company continued to expand its column chemistry capabilities through the introduction of CORTECS<sup>®</sup> C<sub>8</sub>, CORTECS<sup>®</sup> Phenyl, CORTECS<sup>®</sup> T3 and CORTECS<sup>®</sup> Shield RP18. In addition, the Company expanded its Torus<sup>™</sup> SFC column line through the introduction of four new preparative SFC columns, which are typically larger diameter columns designed for purification laboratories investigating drug compounds, natural products or synthetic chemicals.

The Company's chemistry consumable products also include environmental and nutritional safety testing products, including Certified Reference Materials (CRMs) and Proficiency Testing (PT) products. Laboratories around the world and across multiple industries use these products for quality control and proficiency testing and also purchase product support services required to help with their federal and state mandated accreditation requirements or with quality control over critical pharmaceutical analysis. For example, the Company provides tests to identify and quantify mycotoxins (fungal biological contaminants) in various agricultural commodities. These test kits provide reliable, quantitative detection of particular mycotoxins through the choice of fluorimetry, HPLC or LC-MS. In 2014, the Company introduced the Afla-V<sup>®</sup> AQUA test strips for detecting aflatoxins in grain and received USDA-GIPSA certification for its Afla-V<sup>®</sup> lateral flow strip tests for the quantitative analysis of total aflatoxins in corn. In 2016, the Company announced a single extraction method for the detection of aflatoxins and fumonisins in corn and grain using the Afla-V<sup>®</sup> AQUA and Fumo-V<sup>®</sup> AQUA.

### ***Mass Spectrometry and Liquid Chromatography-Mass Spectrometry***

MS is a powerful analytical technology that is used to identify unknown compounds, to quantify known materials and to elucidate the structural and chemical properties of molecules by measuring the masses of molecules that have been converted into ions.

The Company believes it is a technology and market leader in the development, manufacture, sale and distribution of MS instruments. These instruments are typically integrated and used along with other complementary analytical instruments and systems, such as LC, chemical electrophoresis, chemical electrophoresis chromatography and gas chromatography. A wide variety of instrumental designs fall within the overall category of MS instrumentation, including devices that incorporate quadrupole, ion trap, time-of-flight ("Tof"), magnetic sector and ion mobility technologies. Furthermore, these technologies are often used in tandem to maximize the speed and/or efficacy of certain experiments.

Currently, the Company offers a wide range of MS instrument systems utilizing various combinations of quadrupole, Tof and ion mobility designs. These instrument systems are used in drug discovery and

development, as well as for environmental, clinical and nutritional safety testing. The overwhelming majority of mass spectrometers sold by the Company are designed to utilize an LC system and a liquid compatible interface (such as an electrospray ionization source) as the sample introduction device. These products supply a diverse market with a strong emphasis on the life science, pharmaceutical, biomedical, clinical, food and beverage and environmental market segments worldwide.

MS is an increasingly important detection technology for LC. The Company's smaller-sized mass spectrometers, such as the single quadrupole detector ("SQD") and the tandem quadrupole detector ("TQD"), are often referred to as LC "detectors" and are typically sold as part of an LC system or as an LC system upgrade. Larger quadrupole systems, such as the Xevo® TQ and Xevo® TQ-S instruments, are used primarily for experiments performed for late-stage drug development, including clinical trial testing. Quadrupole time-of-flight ("Q-ToF™") instruments, such as the Company's SYNAPT® G2-S, are often used to analyze the role of proteins in disease processes, an application sometimes referred to as "proteomics". In 2014, the Company introduced the ionKey/MS™ system, Xevo® G2-XS and Xevo® TQ-S micro. The ionKey/MS system physically integrates a UPLC separation into the mass spectrometer, producing a significant improvement in sensitivity with reduced solvent and sample sizes. The Xevo G2-XS mass spectrometer combines the new XS Collision Cell with the signature technologies of ToF-MRM, StepWave™ and QuanToF™. The Xevo TQ-S micro is a more compact, research-grade instrument designed to acquire sensitive, robust and dependable data at accelerated rates of acquisition. In 2015, the Company introduced the GlycoWorks® RapiFluor-MS® N-Glycan Kit, which enables fast de-glycosylation and labeling, reduces sample preparation time and allows mass detection for characterization and development with enhanced sensitivity. In addition, the Company introduced the Vion® IMS Q-ToF™ Mass Spectrometer in 2015, which is a bench-top tandem mass spectrometer featuring ion mobility and Rapid Evaporative Ionization Mass Spectrometry ("REIMS™") Research System with iKnife™ sampling to combine direct-from-sample ionization with high performance time-of-flight mass spectrometry. In 2016, the Company introduced the Xevo® TQ-XS mass spectrometry system enabled by the newly designed StepWave™ SX ion guide, which features a unique combination of ion optics, detection and ionization technologies resulting in levels of sensitivity not previously seen. The Company also introduced SONAR in 2016, which is a new data acquisition technology for use with the Xevo G2-XS that allows for the quantification and identification of lipids, metabolites and proteins in complex samples in a more efficient manner.

In July 2014, the Company acquired the net assets of Medimass Research, Development and Service Kft. ("Medimass"), a developer of mass spectrometry-related technologies with the potential to be used for a variety of applications, for \$23 million in cash. In addition, the Company potentially has to pay additional contingent consideration, which had an estimated fair value of \$3 million as of the closing date. The net assets acquired consist primarily of the REIMS technology, including patent applications, software, databases and REIMS expertise. REIMS is an ambient pressure surface ionization technique that, when used with mass spectrometry, can characterize the molecular topography of complex surfaces, such as cellular membranes.

In November 2015, the Company acquired all of the outstanding stock of MPE Orbur Group Limited and its sole operating subsidiary, Midland Precision Equipment Company, Ltd. ("MPE"), a manufacturer of MS instrumentation components, for \$12 million, net of cash acquired. MPE is a highly skilled manufacturer and former Waters supplier that produces critical components that support the Company's MS instrument systems.

LC and MS are typically embodied within an analytical system tailored for either a dedicated class of analyses or as a general purpose analytical device. An increasing percentage of the Company's customers are purchasing LC and MS components simultaneously and it has become common for LC and MS instrumentation to be used within the same laboratory and operated by the same user. The descriptions of LC and MS above reflect the historical segmentation of these analytical technologies and the historical categorization of their respective practitioners. Increasingly in today's instrument market, this segmentation and categorization is becoming obsolete as a high percentage of instruments used in the laboratory embody both LC and MS technologies as part of a single device. In response to this development and to further promote the high utilization of these hybrid instruments, the Company has organized its Waters operating segment to develop, manufacture, sell and service integrated LC-MS systems.

Based upon reports from independent marketing research firms and publicly-disclosed sales figures from competitors, the Company believes that it is one of the world's largest manufacturers and distributors of LC and LC-MS instrument systems, chromatography columns and other consumables and related services. The Company also believes that it has the leading combined LC and LC-MS market share in the United States, Europe and Asia (excluding Japan), and believes it may have a market share position in Japan that ranks second to an established domestic supplier.

The Company has been a developer and supplier of software-based products that interface with the Company's instruments, as well as other suppliers' instruments. The Company's newest software platform, UNIFI®, is a scientific information system that is the culmination of a multi-year effort to substantially bring all of Waters' preexisting, distinct software systems under one operating system. UNIFI joins Waters' suite of informatics products — Empower® Chromatography Data Software, MassLynx® Mass Spectrometry Software and NuGenesis® Scientific Data Management System, each of which is used to support innovations within world-leading institutions. UNIFI is the industry's first comprehensive software that seamlessly integrates UPLC chromatography, mass spectrometry and informatics data workflows. In 2014, the Company introduced three new UNIFI-based instrument systems and now offers a total of eight UNIFI-based solutions. In 2015, the Company's introduction of the Vion IMS Q-ToF Mass Spectrometer marks the first Waters mass spectrometer to be fully supported on UNIFI. In 2016, the Company announced two reference libraries available within UNIFI, the Metabolic Profiling CCS Library and the RapiFluor-MS® Glycan GU Scientific Library. The Company also introduced Symphony Data Pipeline software in 2016, which is a client-server application that automates the movement and transformation of large amounts of LC-MS data to speed up analytical workflows and liberate scientists from mundane yet necessary tasks associated with managing data files.

### ***Waters Service***

Services provided by Waters enable customers to maximize technology productivity, support customer compliance activities and provide transparency into enterprise resource management efficiencies. The customer benefits from improved budget control, data-driven technology adoption and accelerated workflow at a site or on a global perspective. The Company considers its service offerings to be highly differentiated from our competition, as evidenced by a consistent increase in annual service revenues. The Company's principal competitors in the service market include PerkinElmer, Inc., Agilent Technologies, Inc., Thermo Fisher Scientific Inc. and General Electric Company. These competitors can provide certain services on Waters instruments to varying degrees and always present competitive risk.

The servicing and support of instruments, software and accessories is an important source of revenue and represents over 30% of sales for Waters. These revenues are derived primarily through the sale of support plans, demand services, spare parts, customer performance validation services and customer training. Support plans typically involve scheduled instrument maintenance and an agreement to promptly repair a non-functioning instrument in return for a fee described in a contract that is priced according to the configuration of the instrument.

### **TA Products and Markets**

#### ***Thermal Analysis, Rheometry and Calorimetry***

Thermal analysis measures the physical or thermodynamic characteristics of materials as a function of temperature. Changes in temperature affect several characteristics of materials, such as their heat flow characteristics, physical state, weight, dimension and mechanical and electrical properties, which may be measured by one or more thermal analysis techniques, including calorimetry. Consequently, thermal analysis techniques are widely used in the development, production and characterization of materials in various industries, such as plastics, chemicals, automobiles, pharmaceuticals and electronics.

Rheometry instruments often complement thermal analyzers in characterizing materials. Rheometry characterizes the flow properties of materials and measures their viscosity, elasticity and deformation under

different types of “loading” or other conditions. The information obtained under such conditions provides insight into a material’s behavior during processing, packaging, transport, usage and storage.

Thermal analysis, rheometry and calorimetry instruments are heavily used in material testing laboratories and, in many cases, provide information useful in predicting the suitability and stability of industrial polymers, fine chemicals, pharmaceuticals, water, metals and viscous liquids in various industrial, consumer goods and healthcare products, as well as for life science research. As with systems offered by Waters, a range of instrument configurations is available with increasing levels of sample handling and information processing automation. In addition, systems and accompanying software packages can be tailored for specific applications. In 2015, TA introduced the TAM IV and TAM IV-48, which extend the operating temperature range (4°C to 150°C) with long-term temperature stability for measuring processes. In 2015, TA also introduced the Affinity ITC and ITC Auto, which are designed for the most challenging life science laboratory environments that require high sensitivity, high productivity and the most advanced isothermal titration calorimetry. In 2016, TA introduced a new line of differential scanning calorimeters and thermogravimetric analyzers. These new Discovery DSC systems feature enhanced sensing technologies resulting in unprecedented performance in baseline flatness, sensitivity, resolution and reproducibility. In addition, TA introduced the ACS-2 Air Chiller System, ElectroForce 3310 test instrument and DuraPulse™ Stent Graft test instrument in 2016.

In January 2014, the Company acquired ULSP B.V. (“ULSP”), a manufacturer of instrumentation components that enable ultra low temperature generation, for \$4 million in cash. ULSP’s core business is the manufacturing and servicing of high quality low temperature coolers for thermal analysis and rheology applications, and these products are important accessories for many TA core instrument offerings. In 2014, TA introduced the new Air Chiller System, ACS-3, which is equipped with a three-stage cascading compressor design, enabling testing to temperatures as low as -100°C, a capability that the Company believes competing systems do not possess.

In May 2015, the Company acquired the net assets of the ElectroForce® business of the Bose Corporation (“ElectroForce”), a manufacturer of testing systems, for \$9 million in cash. ElectroForce’s core business is the manufacturing of dynamic mechanical testing systems used to characterize medical devices, biologic and engineered materials. The ElectroForce test instruments are based on unique motor designs that are quiet, energy-efficient and scalable, while delivering precise performance over a wide range of force and frequency.

In September 2016, the Company acquired all of the outstanding stock of Rubotherm GmbH (“Rubotherm”), a manufacturer of gravimetric analysis systems, for approximately \$6 million in cash, \$5 million of which was paid at closing and an additional \$1 million paid after closing to settle certain liabilities. Rubotherm develops and manufactures analytical test instruments for thermogravimetric and sorption measurements that are used in both industrial and academic research laboratories in disciplines that include chemistry, material science and engineering. The Rubotherm acquisition will help support and further expand product offerings within TA’s thermal analysis business.

### ***TA Service***

Similar to Waters, the servicing and support of TA’s instruments is an important source of revenue and represents more than 25% of sales for TA. TA operates independently from the Waters operating segment, though many of its overseas offices are situated in Waters’ facilities to achieve operational efficiencies. TA has dedicated field sales and service operations. Service sales are primarily derived from the sale of support plans, replacement parts and billed labor fees associated with the repair, maintenance and upgrade of installed systems.

### **Customers**

The Company typically has a broad and diversified customer base that includes pharmaceutical accounts, other industrial accounts, universities and governmental agencies. Purchase of the Company’s instrument systems is



often dependent on its customers' capital spending, or funding as in the cases of governmental, academic and research institutions, which often fluctuate from year to year. The pharmaceutical segment represents the Company's largest sector and includes multinational pharmaceutical companies, generic drug manufacturers, contract research organizations (CROs) and biotechnology companies. The Company's other industrial customers include chemical manufacturers, polymer manufacturers, food and beverage companies and environmental testing laboratories. The Company also sells to universities and governmental agencies worldwide. The Company's technical sales and support staff members work closely with its customers in developing and implementing applications that meet their full range of analytical requirements. During 2016, 56% of the Company's sales were to pharmaceutical accounts, 31% to other industrial accounts and 13% to governmental agencies and academic institutions.

The Company typically experiences an increase in sales in the fourth quarter, as a result of purchasing habits for capital goods of many customers who tend to exhaust their spending budgets by calendar year end. The Company does not rely on any single customer for a material portion of its sales. During fiscal years 2016, 2015 and 2014, no single customer accounted for more than 2% of the Company's net sales.

### **Sales and Service**

The Company has one of the largest direct sales and service organizations focused exclusively on the technologies offered by the Company. Across these product technologies, using respective specialized sales and service workforces, the Company serves its customer base with 91 sales offices throughout the world as of December 31, 2016 and approximately 3,600, 3,400 and 3,100 field representatives in 2016, 2015 and 2014, respectively. This investment in sales and service personnel serves to maintain and expand the Company's installed base of instruments. The Company's sales representatives have direct responsibility for account relationships, while service representatives work in the field to install instruments, train customers and minimize instrument downtime. In-house and field-based technical support representatives work directly with customers, providing them assistance with applications and procedures on Company products. The Company provides customers with comprehensive information through various corporate and regional internet websites and product literature, and also makes consumable products available through electronic ordering facilities and a dedicated catalog.

### **Manufacturing and Distribution**

The Company provides high product quality by overseeing each stage of the production of its instruments, columns and chemical reagents.

The Company currently assembles a portion of its LC instruments at its facility in Milford, Massachusetts, where it performs machining, assembly and testing. The Milford facility maintains quality management and environmental management systems in accordance with the requirements of ISO 9001:2008, ISO 13485:2003 and ISO 14001:2004, and adheres to applicable regulatory requirements (including the FDA Quality System Regulation and the European In-Vitro Diagnostic Directive). The Company outsources manufacturing of certain electronic components, such as computers, monitors and circuit boards, to outside vendors that meet the Company's quality requirements. In addition, the Company outsources the manufacturing of certain LC instrument systems and components to well-established contract manufacturing firms in Singapore. The Company's Singapore entity is ISO 9001:2008 certified and manages all Asian outsourced manufacturing as well as the distribution of all products from Asia. The Company may pursue outsourcing opportunities as they arise but believes it maintains adequate supply chain and manufacturing capabilities in the event of disruption or natural disasters.

The Company manufactures certain SFC/SFE products in its facility in Sharpsburg, Pennsylvania. The Sharpsburg facility is aligned with the policies and procedures for product manufacturing and distribution as adhered to in the Milford, Massachusetts facility and is under the same structural leadership organization.



The Company primarily manufactures and distributes its LC columns at its facilities in Taunton, Massachusetts and Wexford, Ireland. The Taunton facility processes, sizes and treats silica and polymeric media that are packed into columns, solid phase extraction cartridges and bulk shipping containers in both Taunton and Wexford. The Wexford facility also manufactures and distributes certain data, instruments and software components for the Company's LC, MS and TA product lines. The Company's Taunton facility is certified to ISO 9001:2008. The Wexford facility is certified to ISO 9001:2008 and ISO 13485:2003/EN ISO 13485:2012. VICAM® manufactures antibody-linked resins and magnetic beads that are packed into columns and kits in Milford, Massachusetts and Nixa, Missouri. The Company manufactures and distributes its Analytical Standards and Reagents and Environmental Resource Associates ("ERA") product lines at its facility in Golden, Colorado, which is certified to ISO 9001:2015 and accredited to ISO/IEC 17025, ISO/IEC 17043 and ISO Guide 34. Some ERA products are also manufactured in the Wexford, Ireland facility.

The Company manufactures and distributes its MS products at its facilities in Wilmslow, England and Wexford, Ireland. Certain components or modules of the Company's MS instruments are manufactured at its facility in Solihull, England and by long-standing outside contractors. Each stage of this supply chain is closely monitored by the Company to maintain high quality and performance standards. The instruments, components or modules are then returned to the Company's facilities, where its engineers perform final assembly, calibrations to customer specifications and quality control procedures. The Company's MS facilities are certified to ISO 9001:2008 and ISO 13485:2003/EN ISO 13485:2012.

TA's thermal analysis, rheometry and calorimetry products are manufactured and distributed at the Company's New Castle, Delaware, Wakefield, Massachusetts, Eden Prairie, Minnesota, Lindon, Utah, Bochum, Germany, Huellhorst, Germany, Wetzlar, Germany and Ede, Netherlands facilities. Similar to MS, elements of TA's products are manufactured by outside contractors and are then returned to the Company's facilities for final assembly, calibration and quality control. The Company's New Castle facility is certified to ISO 9001:2008 standards and the Eden Prairie facility is certified to both ISO 9001:2008 and ISO/IEC 17025:2005 standards.

## **Raw Materials**

The Company purchases a variety of raw materials, primarily consisting of high temperature alloy sheet metal and castings, forgings, pre-plated metals and electrical components from various vendors. The materials used by the Company's operations are generally available from a number of sources and in sufficient quantities to meet current requirements subject to normal lead times.

The Company is subject to rules of the Securities and Exchange Commission ("SEC") under the Dodd-Frank Wall Street Reform and Consumer Protection Act, requiring disclosure as to whether certain materials (tantalum, tin, gold and tungsten), known as conflict minerals, which may be contained in the Company's products, are mined from the Democratic Republic of the Congo and adjoining countries. In 2015, the Company was not able to determine with certainty the country of origin of some of the conflict minerals in its manufactured products. However, the Company does not have knowledge that any of its conflict minerals originated from the Democratic Republic of the Congo or adjoining countries. The Company is in the process of evaluating its 2016 supply chain, and the Company plans to file its 2016 Form SD with the SEC in May 2017. The results of this and future evaluations may impose additional costs and may introduce new risks related to the Company's ability to verify the origin of any conflict minerals contained in its products.

In addition, the Company continues to monitor environmental health and safety regulations in countries in which it operates throughout the world, in particular, European Union and China Restrictions on the use of certain Hazardous Substances in electrical and electronic equipment (RoHS) and European Union Waste Electrical and Electronic Equipment directives. Further information regarding these regulations is available on the Company's website, [www.waters.com](http://www.waters.com), under the caption "About Waters / Environmental Health & Safety".

## **Research and Development**

The Company maintains an active research and development program focused on the development and commercialization of products that extend, complement and update its existing product offering. The Company's research and development expenditures for 2016, 2015 and 2014 were \$125 million, \$119 million and \$108 million, respectively. In addition, in 2015 and 2014, the Company incurred charges of \$4 million and \$15 million, respectively, for acquired in-process research and development related to the licensing of certain intellectual property relating to mass spectrometry technologies yet to be commercialized and for which there was no future alternative use as of the acquisition date. These licensing arrangements are significantly related to new, biologically-focused applications, as well as other applications, and require the Company to make additional future payments of up to \$12 million if certain milestones are achieved, as well as royalties on future net sales.

Nearly all of the Company's LC products have been developed at the Company's main research and development center located in Milford, Massachusetts, with input and feedback from the Company's extensive field organizations and customers. The majority of the Company's MS products are developed at facilities in England and most of the Company's current materials characterization products are developed at the Company's research and development center in New Castle, Delaware. At December 31, 2016, 2015 and 2014, there were 971, 955 and 875 employees, respectively, involved in the Company's research and development efforts. The Company has increased research and development expenses from its continued commitment to invest significantly in new product development and existing product enhancements, and as a result of acquisitions. Despite the Company's active research and development programs, there can be no assurance that the Company's product development and commercialization efforts will be successful or that the products developed by the Company will be accepted by the marketplace.

## **Employees**

The Company employed approximately 6,900, 6,600 and 6,200 employees at December 31, 2016, 2015 and 2014, respectively, with approximately 42% of the Company's employees located in the United States. The Company believes its employee relations are generally good. The Company's employees are not unionized or affiliated with any internal or external labor organizations. The Company firmly believes that its future success largely depends upon its continued ability to attract and retain highly skilled employees.

## **Competition**

The analytical instrument systems, supplies and services market is highly competitive. The Company encounters competition from several worldwide suppliers and other companies in both domestic and foreign markets for each of its three primary technologies. The Company competes in its markets primarily on the basis of product performance, reliability, service and, to a lesser extent, price. Competitors continuously introduce new products and have instrument businesses that are generally more diversified than the Company's business. Some competitors have greater financial resources and broader distribution than the Company's.

In the markets served by Waters, the Company's principal competitors include: Agilent Technologies, Inc., Shimadzu Corporation, Bruker Corporation, Danaher Corporation and Thermo Fisher Scientific Inc. In the markets served by TA, the Company's principal competitors include: PerkinElmer, Inc., Mettler-Toledo International Inc., NETZSCH-Geraetebau GmbH, Thermo Fisher Scientific Inc., Malvern Instruments Ltd. and Anton-Paar GmbH.

The market for consumable LC products, including separation columns, is highly competitive and generally more fragmented than the analytical instruments market. The Company encounters competition in the consumable columns market from chemical companies that produce column sorbents and small specialized companies that primarily pack purchased sorbents into columns and subsequently package and distribute

columns. The Company believes that it is one of the few suppliers that processes silica and polymeric resins, packs columns and distributes its own products. The Company competes in this market on the basis of performance, reproducibility, reputation and, to a lesser extent, price. In recent years, the Company's principal competitors for consumable products have included: Danaher Corporation; Merck KGaA, Darmstadt, Germany; Agilent Technologies, Inc.; General Electric Company and Thermo Fisher Scientific Inc. The ACQUITY UPLC instrument is designed to offer a predictable level of performance when used with ACQUITY UPLC columns and the Company believes that the expansion of the ACQUITY UPLC instrument base will enhance its chromatographic column business because of the high level of synergy between ACQUITY UPLC columns and the ACQUITY UPLC instruments.

### **Patents, Trademarks and Licenses**

The Company owns a number of United States and foreign patents and has patent applications pending in the United States and abroad. Certain technology and software has been acquired or is licensed from third parties. The Company also owns a number of trademarks. The Company's patents, trademarks and licenses are viewed as valuable assets to its operations. However, the Company believes that no one patent or group of patents, trademark or license is, in and of itself, essential to the Company such that its loss would materially affect the Company's business as a whole.

### **Environmental Matters and Climate Change**

The Company is subject to federal, state and local laws, regulations and ordinances that (i) govern activities or operations that may have adverse environmental effects, such as discharges to air and water as well as handling and disposal practices for solid and hazardous wastes, and (ii) impose liability for the costs of cleaning up and certain damages resulting from sites of past spills, disposals or other releases of hazardous substances. The Company believes that it currently conducts its operations and has operated its business in the past in substantial compliance with applicable environmental laws. From time to time, Company operations have resulted or may result in noncompliance with environmental laws or liability for cleanup pursuant to environmental laws. The Company does not currently anticipate any material adverse effect on its operations, financial condition or competitive position as a result of its efforts to comply with environmental laws.

The Company is sensitive to the growing global debate with respect to climate change. An internal sustainability working group develops increasingly robust data with respect to the Company's utilization of carbon producing substances in an effort to continuously reduce the Company's carbon footprint. In 2012, the Company published a sustainability report identifying the various actions and behaviors the Company has adopted concerning its commitment to both the environment and the broader topic of social responsibility. See Item 1A, Risk Factors — *The effects of climate change could harm the Company's business*, for more information on the potential significance of climate change legislation. See also Note 16 in the Notes to the Consolidated Financial Statements for financial information about geographic areas.

### **Available Information**

The Company files or furnishes all required reports with the SEC. The public may read and copy any materials the Company files or furnishes with the SEC at the SEC's Public Reference Room at 100 F Street, N.E., Washington, DC 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330.

The Company is an electronic filer and the SEC maintains a website that contains reports, proxy and information statements and other information regarding issuers that file electronically with the SEC. The address of the SEC electronic filing website is <http://www.sec.gov>. The Company also makes available, free of charge on its website, its annual report on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K and any amendments to those reports as soon as reasonably practicable after such material is electronically filed with or furnished to the SEC. The website address for Waters Corporation is <http://www.waters.com> and SEC filings can be found under the caption "Investors".

### ***Forward-Looking Statements***

Certain of the statements in this Form 10-K and the documents incorporated herein, may contain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), with respect to future results and events, including any statements regarding, among other items, anticipated trends or growth in the Company’s business, including, but not limited to, the impact of foreign currency translation on financial results; development of products by acquired businesses; the growth rate of sales and research and development expenses; the impact of costs associated with developing new technologies and bringing these new technologies to market; the impact of new product launches and the associated costs, such as the amortization expense related to software platforms; geographic sales mix of business; development of products by acquired businesses and the amount of contingent payments to the sellers of an acquired business; anticipated expenses, including interest expense, capitalized software costs and effective tax rates; the impact and outcome of the Company’s various ongoing tax audit examinations; the achievement of contractual milestones to preserve foreign tax rates; the impact and outcome of litigation matters; the impact of the loss of intellectual property protection; the impact of new accounting standards and pronouncements; the adequacy of the Company’s supply chain and manufacturing capabilities and facilities; the impact of regulatory compliance; the Company’s expected cash flow, borrowing capacity, debt repayment and refinancing; the Company’s ability to fund working capital, capital expenditures, service debt, repay outstanding lines of credit, make authorized share repurchases, fund potential acquisitions and pay any adverse litigation or tax audit liabilities, particularly in the U.S.; future impairment charges; the Company’s contributions to defined benefit plans; the Company’s expectations regarding changes to its financial position; compliance with applicable environmental laws; and the impact of recent acquisitions on sales and earnings.

Many of these statements appear, in particular, under the heading “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in Part II, Item 7 of this Form 10-K. Statements that are not statements of historical fact may be deemed forward-looking statements. You can identify these forward-looking statements by the use of the words “feels”, “believes”, “anticipates”, “plans”, “expects”, “may”, “will”, “would”, “intends”, “suggests”, “appears”, “estimates”, “projects”, “should” and similar expressions, whether in the negative or affirmative. These statements are subject to various risks and uncertainties, many of which are outside the control of the Company, including, and without limitation:

- Foreign exchange rate fluctuations that could adversely affect translation of the Company’s future sales, financial operating results and the condition of its non-U.S. operations, especially when a currency weakens against the U.S. dollar.
- Current global economic, sovereign and political conditions and uncertainties, particularly regarding the effect of the U.K. voting to exit the European Union as well as the Chinese government’s ongoing tightening of restrictions on procurement by government-funded customers; the Company’s ability to access capital and maintain liquidity in volatile market conditions of customers; changes in timing and demand by the Company’s customers and various market sectors, particularly if they should reduce capital expenditures or are unable to obtain funding, as in the cases of governmental, academic and research institutions; the effect of mergers and acquisitions on customer demand; and the Company’s ability to sustain and enhance service.
- Negative industry trends; changes in the competitive landscape as a result of changes in ownership, mergers and continued consolidation among the Company’s competitors; introduction of competing products by other companies and loss of market share; pressures on prices from customers or resulting from competition; regulatory, economic and competitive obstacles to new product introductions; lack of acceptance of new products; expansion of our business in developing markets; spending by certain end-markets; ability to obtain alternative sources for components and modules; and the possibility that future sales of new products related to acquisitions, which trigger contingent purchase payments, may exceed the Company’s expectations.
- Increased regulatory burdens as the Company’s business evolves, especially with respect to the FDA and EPA, among others, as well as regulatory, environmental and logistical obstacles affecting the distribution

of the Company's products, completion of purchase order documentation by our customers and ability of customers to obtain letters of credit or other financing alternatives.

- Risks associated with lawsuits, particularly involving claims for infringement of patents and other intellectual property rights.
- The impact and costs incurred from changes in accounting principles and practices; the impact and costs of changes in statutory or contractual tax rates; shifts in taxable income among jurisdictions with different effective tax rates; and the outcome of and costs associated with ongoing and future tax audit examinations or changes in respective country legislation affecting the Company's effective rates.

Certain of these and other factors are further described below in Item 1A, Risk Factors, of this Form 10-K. Actual results or events could differ materially from the plans, intentions and expectations disclosed in the forward-looking statements, whether because of these factors or for other reasons. All forward-looking statements speak only as of the date of this annual report on Form 10-K and are expressly qualified in their entirety by the cautionary statements included in this report. Except as required by law, the Company does not assume any obligation to update any forward-looking statements.

### **Item 1A: Risk Factors**

The Company is subject to risks common to companies in the analytical instrument industry, including, but not limited to, the following:

*The Company's international operations may be negatively affected by political events, wars or terrorism and regulatory changes, related to either a specific country or a larger region. These potential political, currency and economic disruptions, as well as foreign currency exchange rate fluctuations, could have a material adverse effect on the Company's results of operations or financial condition.*

Approximately 69% and 68% of the Company's net sales in 2016 and 2015, respectively, were outside of the United States and were primarily denominated in foreign currencies. In addition, the Company has considerable manufacturing operations in Ireland and the United Kingdom, as well as significant subcontractors located in Singapore. As a result, a significant portion of the Company's sales and operations are subject to certain risks, including adverse developments in the political, regulatory and economic environment, in particular, uncertainty regarding possible changes to foreign and domestic trade policy; the effect of the U.K. voting to exit the European Union as well as the financial difficulties and debt burden experienced by a number of European countries; the instability and potential impact of war or terrorism; the instability and possible dissolution of the Euro as a single currency; sudden movements in a country's foreign exchange rates due to a change in a country's sovereign risk profile or foreign exchange regulatory practices; tariffs and other trade barriers; difficulties in staffing and managing foreign operations; and associated adverse operational, contractual and tax consequences.

Additionally, the U.S. dollar value of the Company's net sales, cost of sales, operating expenses, interest, taxes and net income varies with foreign currency exchange rate fluctuations. Significant increases or decreases in the value of the U.S. dollar relative to certain foreign currencies, particularly the Euro, Japanese yen and British pound, could have a material adverse effect or benefit on the Company's results of operations or financial condition.

*Global economic conditions may decrease demand for the Company's products and harm the Company's financial results.*

The Company is a global business that may be adversely affected by changes in global economic conditions. These changes in global economic conditions, both inside and outside the U.S., may affect the demand for the Company's products and services. This may result in a decline in sales in the future, increased rate of order cancellations or delays, increased risk of excess or obsolete inventories, longer sales cycles and potential difficulty in collecting sales proceeds. There can be no assurance regarding demand for the Company's products and services in the future.



*The Company's financial results are subject to changes in customer demand, which may decrease for a number of reasons, many beyond the Company's control.*

The demand for the Company's products is dependent upon the size of the markets for its LC, LC-MS, thermal analysis, rheometry and calorimetry products; the timing and level of capital spending and expenditures of the Company's customers; changes in governmental regulations, particularly affecting drug, food and drinking water testing; funding available to governmental, academic and research institutions; general economic conditions and the rate of economic growth in the Company's major markets; and competitive considerations. The Company typically experiences an increase in sales in its fourth quarter as a result of purchasing habits for capital goods by customers that tend to exhaust their spending budgets by calendar year end. There can be no assurance that the Company's results of operations or financial condition will not be adversely impacted by a change in any of the factors listed above or the continuation of uncertain global economic conditions.

Additionally, the analytical instrument market may, from time to time, experience low sales growth. Approximately 56% and 54% of the Company's net sales in 2016 and 2015, respectively, were to the worldwide pharmaceutical and biotechnology industries, which may be periodically subject to unfavorable market conditions and consolidations. Unfavorable industry conditions could have a material adverse effect on the Company's results of operations or financial condition.

*Disruption in worldwide financial markets could adversely impact the Company's access to capital and financial condition.*

Financial markets in the U.S., Europe and Asia have experienced times of extreme disruption in recent years, including, among other things, sharp increases in the cost of new capital, credit rating downgrades and bailouts, severely diminished capital availability and severely reduced liquidity in money markets. Financial and banking institutions have also experienced disruptions, resulting in large asset write-downs, higher costs of capital, rating downgrades and reduced desire to lend money. There can be no assurance that there will not be future deterioration or prolonged disruption in financial markets or financial institutions. Any future deterioration or prolonged disruption in financial markets or financial institutions in which the Company participates may impair the Company's ability to access its existing cash, utilize its existing syndicated bank credit facility funded by such financial institutions, and impair its ability to access sources of new capital. The cost to the Company of any new capital raised and interest expense would increase if this were to occur.

*Competitors may introduce more effective or less expensive products than the Company's, which could result in decreased sales. The competitive landscape may transform as a result of potential changes in ownership, mergers and continued consolidations among the Company's competitors, which could harm the Company's business.*

The analytical instrument market and, in particular, the portion related to the Company's HPLC, UPLC, LC-MS, thermal analysis, rheometry and calorimetry product lines, is highly competitive and subject to rapid changes in technology. The Company encounters competition from several international instrument suppliers and other companies in both domestic and foreign markets. Some competitors have instrument businesses that are generally more diversified than the Company's business, but are typically less focused on the Company's chosen markets. Over the years, some competitors have merged with other competitors for various reasons, some of which include increasing product line offerings, improving market share and reducing costs. There can be no assurance that the Company's competitors will not introduce more effective and less costly products than those of the Company or that the Company will be able to increase its sales and profitability from new product introductions. There can be no assurance that the Company's sales and marketing forces will compete successfully against the Company's competitors in the future.

*Strategies for organic growth require developing new technologies and bringing these new technologies to market, which could negatively impact the Company's financial results.*

The Company is in the process of developing new products with recently acquired technologies. The future development of these new products will require a significant amount of spending over the next few years before



significant, robust sales will be realized. These new products will be sold into both the clinical and non-clinical markets, and any new products requiring FDA clearance may take longer to bring to market. There can be no assurance given as to the timing of these new product launches and the ultimate realization of sales and profitability in the future.

In addition, despite testing prior to the release and throughout the lifecycle of a product or service, the Company's software or hardware may contain coding or manufacturing errors that could impact their function, performance and security, and result in other negative consequences. The detection and correction of any errors in released software or hardware can be time consuming and costly. This could delay the development or release of new products or services, or new versions of products or services, create security vulnerabilities in the Company's products or services, and adversely affect market acceptance of products or services. If the Company experiences errors or delays in releasing its software or hardware, or new versions thereof, its sales could be affected and revenues could decline. Errors in software or hardware could expose the Company to product liability, performance and warranty claims as well as harm to brand and reputation, which could impact future sales.

*The Company's financial condition and results of operations could be adversely affected if the Company is unable to maintain a sufficient level of cash flow in the U.S.*

The Company had \$1,827 million in debt and \$2,813 million in cash, cash equivalents and investments as of December 31, 2016. As of December 31, 2016, the Company also had the ability to borrow an additional \$468 million from its existing, committed credit facility. All but a small portion of the Company's debt is in the U.S. There is a substantial cash requirement in the U.S. to fund operations and capital expenditures, service debt interest obligations, finance potential U.S. acquisitions and continue authorized stock repurchase programs in the U.S. A majority of the Company's cash is generated from foreign operations, with \$2,766 million of the Company's cash held by foreign subsidiaries, and may be subject to material tax effects on distribution to U.S. legal entities. The Company's financial condition and results of operations could be adversely impacted if the Company is unable to maintain a sufficient level of cash flow in the U.S. to address these requirements through (1) cash from U.S. operations, (2) efficient, cost-effective and timely distribution of cash from non-U.S. subsidiaries, (3) the Company's ability to access its existing cash and revolving credit facility, (4) the ability to expand the Company's borrowing capacity and (5) other sources of capital obtained at an acceptable cost.

*Debt covenants, and the Company's failure to comply with them, could negatively impact the Company's capital and financial results.*

The Company's debt is subject to restrictive debt covenants that limit the Company's ability to engage in certain activities that could otherwise benefit the Company. These debt covenants include restrictions on the Company's ability to enter into certain contracts or agreements that may limit the Company's ability to make dividend or other payments, secure other indebtedness, enter into transactions with affiliates and consolidate, merge or transfer all or substantially all of the Company's assets. The Company is also required to meet specified financial ratios under the terms of the Company's debt agreements. The Company's ability to comply with these financial restrictions and all other covenants is dependent on the Company's future performance, which is subject to, but not limited to, prevailing economic conditions and other factors, including factors that are beyond the Company's control, such as foreign exchange rates, interest rates, changes in technology and changes in the level of competition.

*Disruption of operations at the Company's manufacturing facilities could harm the Company's financial condition.*

The Company manufactures LC instruments at facilities in Milford, Massachusetts and through a subcontractor in Singapore; chemistry separation columns at its facilities in Taunton, Massachusetts and Wexford, Ireland; MS products at its facilities in Wilmslow, England, Solihull, England and Wexford, Ireland; thermal analysis and rheometry products at its facilities in New Castle, Delaware and other instruments and consumables at various

other locations as a result of the Company's acquisitions. Any prolonged disruption to the operations at any of these facilities, whether due to labor difficulties, destruction of or damage to any facility or other reasons, could have a material adverse effect on the Company's results of operations or financial condition.

*The loss of key members of management and the risks inherent in succession planning could adversely affect the Company's results of operations or financial condition.*

The operation of the Company requires managerial and operational expertise. None of the Company's key management employees, with the exception of the President and Chief Executive Officer and the Senior Vice President and Chief Financial Officer, have an employment contract with the Company and there can be no assurance that such individuals will remain with the Company. If, for any reason, other such key personnel do not continue to be active in management, the Company's results of operations or financial condition could be adversely affected.

*Failure to adequately protect intellectual property could have materially adverse effects on the Company's results of operations or financial condition.*

The Company vigorously protects its intellectual property rights and seeks patent coverage on all developments that it regards as material and patentable. However, there can be no assurance that any patents held by the Company will not be challenged, invalidated or circumvented or that the rights granted thereunder will provide competitive advantages to the Company. Conversely, there could be successful claims against the Company by third-party patent holders with respect to certain Company products that may infringe the intellectual property rights of such third parties. The Company's patents, including those licensed from others, expire on various dates. If the Company is unable to protect its intellectual property rights, it could have an adverse and material effect on the Company's results of operations or financial condition.

*The Company's business would suffer if the Company were unable to acquire adequate sources of supply.*

Most of the raw materials, components and supplies purchased by the Company are available from a number of different suppliers; however, a number of items are purchased from limited or single sources of supply and disruption of these sources could have, at a minimum, a temporary adverse effect on shipments and the financial results of the Company. A prolonged inability to obtain certain materials or components could have an adverse effect on the Company's financial condition or results of operations and could result in damage to its relationships with its customers and, accordingly, adversely affect the Company's business.

*The Company's sales would deteriorate if the Company's outside contractors fail to provide necessary components or modules.*

Certain components or modules of the Company's LC and MS instruments are manufactured by outside contractors, including the manufacturing of LC instrument systems and related components by contract manufacturing firms in Singapore. Disruptions of service by these outside contractors could have an adverse effect on the supply chain and the financial results of the Company. A prolonged inability to obtain these components or modules could have an adverse effect on the Company's financial condition or results of operations.

*The Company's financial results are subject to unexpected shifts in pre-tax income between tax jurisdictions, changing application of tax law and tax audit examinations.*

The Company is subject to rates of income tax that range from 0% to in excess of 35% in various jurisdictions in which it conducts business. In addition, the Company typically generates a substantial portion of its income in the fourth quarter of each fiscal year. Geographical shifts in income from previous quarters' projections caused by factors including, but not limited to, changes in volume and product mix and fluctuations in foreign currency translation rates, could therefore have potentially significant favorable or unfavorable effects on the Company's income tax expense, effective tax rate and results of operations.

Governments in the jurisdictions in which the Company operates implement changes to tax laws and regulations from time to time. Any changes in corporate income tax rates or regulations regarding transfer pricing or repatriation of dividends or capital, as well as changes in the interpretation of existing tax laws and regulations, in the jurisdictions in which the Company operates could adversely affect the Company's cash flow and lead to increases in its overall tax burden, which would negatively affect the Company's profitability. In addition, the Company has a contractual tax rate in Singapore of 0% through March 2021, based upon the achievement and continued satisfaction of certain operational and financial milestones, which the Company expects to continue to meet. Currently, the Company has determined that it is more likely than not to realize the contractual tax rate in Singapore of 0% and has not recognized an uncertain tax benefit in its balance sheet related to the achievement of the contractual milestones in Singapore. In the event that it appears that the milestone targets will not be met, the Company will no longer be entitled to a 0% contractual tax rate benefit on income earned in Singapore dating back to the start date of the agreement (April 1, 2016), at which time all tax benefits previously recorded would be reversed and an income tax charge equal to the statutory tax of 17% on income earned during that period would be recorded.

As a global business, the Company is subject to tax audit examinations in various jurisdictions throughout the world. The Company must manage the cost and disruption of responding to governmental audits, investigation and proceedings, whether or not they have merit. In addition, the impact of the settlement of pending or future tax audit examination could have an unfavorable effect on the Company's income tax expense, effective tax rate and results of operations.

*Disruption, cyber attack or unforeseen problems with the security, maintenance or upgrade of the Company's information and web-based systems could have an adverse effect on the Company's operations and financial condition.*

The Company relies on its technology infrastructure and that of its software and banking partners, among other functions, to interact with suppliers, sell products and services, fulfill contract obligations, ship products, collect and make electronic wire and check based payments and otherwise conduct business. The Company's technology infrastructure may be vulnerable to damage or interruption from, but not limited to, natural disasters, power loss, telecommunication failures, terrorist attacks, computer viruses, unauthorized access to customer or employee data, unauthorized access to and funds transfers from Company bank accounts and other attempts to harm the Company's systems. Any prolonged disruption to the Company's technology infrastructure, at any of its facilities, could have a material adverse effect on the Company's results of operations or financial condition.

*If the Company's security measures are compromised or fail to adequately protect its technology infrastructure, research and development efforts or manufacturing operations, the Company's products and services may be perceived as vulnerable or unreliable, the information the Company's controls and processes may be subject to unauthorized access, acquisition or modification, the Company's brand and reputation could be damaged, the services that the Company provides to its customers could be disrupted, and customers may stop using the Company's products and services, all of which could reduce the Company's revenue and earnings, increase its expenses and expose the Company to legal claims and regulatory actions.*

The Company is in the business of designing, manufacturing, selling and servicing analytical instruments to life science, pharmaceutical, biochemical, industrial, nutritional safety, and environmental, academic and governmental customers working in research and development, quality assurance and other laboratory applications, and the Company is also a developer and supplier of software-based products that support instrument systems. Many of the Company's customers are in highly regulated industries. While the Company has invested time and resources implementing measures designed to protect the integrity and security of its technology infrastructure, research and development processes, manufacturing operations, products and services, and the internal and external data managed by the Company, there is a risk these measures will be defeated or compromised or that they are otherwise insufficient to protect against existing or emerging threats. The Company also has acquired companies, products, services and technologies over time and may inherit risk when integrating these acquisitions into the Company. In addition, at times, the Company faces attempts by third parties to defeat

its security measures or exploit vulnerabilities in its systems. These risks will increase as the Company continues to grow and expand geographically, and its systems, products and services become increasingly digital and sensor- and web-based.

The Company could suffer significant damage to its brand and reputation if a security incident resulted in unauthorized access to, acquisition of, or modification to the Company's technology infrastructure, research and development processes, manufacturing operations, its products and services as well as the internal and external data managed by the Company. Such an incident could disrupt the Company's operations and customers could lose confidence in the Company's ability to deliver quality and reliable products or services. This could negatively impact sales and could increase costs related to fixing and addressing these incidents and any vulnerabilities exposed by them, as well as to lawsuits, regulatory investigations, claims or legal liability including contractual liability, costs and expenses owed to customers and business partners.

*Compliance failures could harm the Company's business.*

The Company is subject to regulation by various federal, state and foreign governments and agencies in areas including, among others, health and safety, import/export, privacy and data protection, the Foreign Corrupt Practices Act and environmental laws and regulations. A portion of the Company's operations are subject to regulation by the FDA and similar foreign regulatory agencies. These regulations are complex and govern an array of product activities, including design, development, labeling, manufacturing, promotion, sales and distribution. Any failure by the Company to comply with applicable governmental regulations could result in product recalls, the imposition of fines, restrictions on the Company's ability to conduct or expand its operations or the cessation of all or a portion of its operations.

Regulators globally are increasingly imposing greater fines and penalties for privacy and data protection violations, and the European Union has enacted a broad data protection regulation with fines based on a percentage of global revenues. Changes in laws or regulations associated with enhanced protection of certain sensitive types of personal information, such as information related to health, could greatly increase the cost of compliance and the cost of providing the Company's products or services. Any failure, or perceived failure, by the Company to comply with laws and regulations on privacy, data security or consumer protection, or other policies, public perception, standards, self-regulatory requirements or legal obligations, could result in lost or restricted business, proceedings, actions or fines brought against the Company or levied by governmental entities or others, or could otherwise adversely affect the business and harm the Company's reputation.

Some of the Company's operations are subject to domestic and international laws and regulations with respect to the manufacturing, handling, use or sale of toxic or hazardous substances. This requires the Company to devote substantial resources to maintain compliance with those applicable laws and regulations. If the Company fails to comply with such requirements in the manufacturing or distribution of its products, it could face civil and/or criminal penalties and potentially be prohibited from distributing or selling such products until they are compliant.

Some of the Company's products are also subject to the rules of certain industrial standards bodies, such as the International Standards Organization. The Company must comply with these rules, as well as those of other agencies, such as the United States Occupational Safety and Health Administration. Failure to comply with such rules could result in the loss of certification and/or the imposition of fines and penalties, which could have a material adverse effect on the Company's operations.

As a publicly-traded company, the Company is subject to the rules of the Public Company Accounting Oversight Board, the SEC and the New York Stock Exchange. In addition, the Company must comply with the Sarbanes-Oxley rules, which require the Company to establish and maintain adequate internal control over financial reporting. The Company's efforts to comply with such laws and regulations are time consuming and costly; however, failure to comply with such rules could have a material adverse effect on the Company's financial condition and operations.

The Company is subject to the rules of the SEC under the Dodd-Frank Wall Street Reform and Consumer Protection Act, requiring disclosure as to whether certain materials (tantalum, tin, gold and tungsten), known as conflict minerals, which may be contained in the Company's products, are mined from the Democratic Republic of the Congo and adjoining countries. In 2015, the Company was not able to determine with certainty the country of origin of some of the conflict minerals in its manufactured products. However, the Company does not have knowledge that any of its conflict minerals originated from the Democratic Republic of the Congo or adjoining countries. The Company is in the process of evaluating its 2016 supply chain, and the Company plans to file its 2016 Form SD with the SEC in May 2017. The results of this and future evaluations may impose additional costs and may introduce new risks related to the Company's ability to verify the origin of any conflict minerals contained in its products.

*The Company's financial condition and results of operations could be adversely affected by changes to the Company's retirement plans or retirement plan assets.*

The Company sponsors various retirement plans, both inside and outside the U.S. Any changes in regulations made by governments in countries in which the Company sponsors retirement plans could adversely impact the Company's cash flows or results of operations. In connection with these retirement plans, the Company is exposed to market risks associated with changes in the various capital markets. For example, changes in long-term interest rates affect the discount rate that is used to measure the Company's retirement plan obligations and related expense. In addition, changes in the market value of investments held by the retirement plans could materially impact the funded status of the retirement plans, and affect the related pension expense and level and timing of contributions required under applicable laws.

*Estimates and assumptions made in accounting for the Company's results from operations are dependent on future results, which involve significant judgments and may be imprecise and may differ materially from actual results.*

The preparation of consolidated financial statements in conformity with generally accepted accounting principles requires the Company to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent liabilities at the dates of the financial statements. These estimates and assumptions must be made due to certain information used in preparation of our financial statements which is dependent on future events, cannot be calculated with a high degree of precision from data available or is not capable of being readily calculated based on generally accepted methodologies. The Company believes that the accounting related to revenue recognition, product returns and allowances, bad debts, inventory valuation, goodwill and intangible assets, income taxes, warranty and installation provisions, litigation, retirement plan obligations, stock-based compensation, equity investments and contingencies involves significant judgments and estimates. Actual results for all estimates could differ materially from the estimates and assumptions used, which could have a material adverse effect on our financial condition and results of operations.

*The effects of climate change could harm the Company's business.*

The Company's manufacturing processes for certain of its products involve the use of chemicals and other substances that are regulated under various international, federal, state and local laws governing the environment. In the event that any future climate change legislation would require that stricter standards be imposed by domestic or international environmental regulatory authorities with respect to the use and/or levels of possible emissions from such chemicals and/or other substances, the Company may be required to make certain changes and adaptations to its manufacturing processes. Any such changes could have a material adverse effect on the financial statements of the Company.

Another potential effect of climate change is an increase in the severity of global weather conditions. The Company's manufacturing facilities are located in the United States, United Kingdom, Ireland and Germany. In addition, the Company manufactures a growing percentage of its HPLC, UPLC and MS products in both

Singapore and Ireland. Severe weather and geological conditions or events, including earthquakes, hurricanes and/or tsunamis, could potentially cause significant damage to the Company's manufacturing facilities in each of these countries. The effects of such damage and the resulting disruption of manufacturing operations could have a material adverse impact on the financial results of the Company.

**Item 1B: *Unresolved Staff Comments***

None.

**Item 2: *Properties***

Waters Corporation operates 21 United States facilities and 77 international facilities, including field offices. The Company believes its facilities are suitable and adequate for its current production level and for reasonable growth over the next several years. The Company's primary facilities are summarized in the table below.

***Primary Facility Locations***

<u>Location</u>	<u>Function (1)</u>	<u>Owned/Leased</u>
Golden, CO . . . . .	M, R, S, D, A	Leased
New Castle, DE . . . . .	M, R, S, D, A	Owned
Milford, MA . . . . .	M, R, S, D, A	Owned
Taunton, MA . . . . .	M, R	Owned
Wakefield, MA . . . . .	M, R, S, D, A	Leased
Eden Prairie, MN . . . . .	M, R, S, D, A	Leased
Nixa, MO . . . . .	M, S, D, A	Leased
Sharpsburg, PA . . . . .	M, R, S, D, A	Leased
Lindon, UT . . . . .	M, R, S, D, A	Leased
New Castle, England . . . . .	R, S, D, A	Leased
Solihull, England . . . . .	M, A	Owned
Wilmslow, England . . . . .	M, R, S, D, A	Owned
St. Quentin, France . . . . .	S, A	Leased
Huellhorst, Germany . . . . .	M, R, S, D, A	Owned
Bochum, Germany . . . . .	M, R, S, D, A	Leased
Budapest, Hungary . . . . .	R	Leased
Wexford, Ireland . . . . .	M, R, D, A	Owned
Ede, Netherlands . . . . .	M, R, S, D, A	Leased
Etten-Leur, Netherlands . . . . .	S, D, A	Owned
Brasov, Romania . . . . .	R, A	Leased
Singapore . . . . .	R, S, D, A	Leased

(1) M = Manufacturing; R = Research; S = Sales and Service; D = Distribution; A = Administration



The Company operates and maintains 11 field offices in the United States and 64 field offices abroad in addition to sales offices in the primary facilities listed above. The Company's field office locations are listed below.

***Field Office Locations (2)***

<b>United States</b>	<b>International</b>		
Irvine, CA	Australia	India	Portugal
Pleasanton, CA	Austria	Ireland	Poland
Wood Dale, IL	Belgium	Israel	Puerto Rico
Columbia, MD	Brazil	Italy	Spain
Beverly, MA	Canada	Japan	Sweden
Ann Arbor, MI	Czech Republic	Korea	Switzerland
Durham, NC	Denmark	Malaysia	Taiwan
Morrisville, NC	Finland	Mexico	United Kingdom
Parsippany, NJ	France	Netherlands	
Plymouth Meeting, PA	Germany	Norway	
Bellaire, TX	Hungary	People's Republic of China	

(2) The Company operates more than one field office within certain states and foreign countries.

**Item 3: *Legal Proceedings***

From time to time, the Company and its subsidiaries are involved in various litigation matters arising in the ordinary course of business. The Company believes it has meritorious arguments in its current litigation matters and believes any outcome, either individually or in the aggregate, will not be material to the Company's financial position or results of operations. In both 2016 and 2015, the Company recorded \$4 million of litigation settlement provisions and related costs associated with multiple litigation matters.

**Item 4: *Mine Safety Disclosures***

Not applicable.

**EXECUTIVE OFFICERS OF THE REGISTRANT**

Officers of the Company are elected annually by the Board of Directors and hold office at the discretion of the Board of Directors. The following persons serve as executive officers of the Company:

Christopher J. O'Connell, 50, has served as a Director of the Company since September 2015, when he assumed the position of President and Chief Executive Officer of the Company. Mr. O'Connell served as Executive Vice President and President of Restorative Therapies Group of Medtronic plc from August 2009 to August 2015. From 1994 to August 2009, Mr. O'Connell served in the following positions at Medtronic plc: Senior Vice President and President of Medtronic Diabetes, President of Medtronic Physio-Control, Vice President of Sales and Marketing for the Cardiac Rhythm Management business, Vice President/General Manager of the Patient Management Business, Vice President of Corporate Strategy, Director of Investor Relations and Corporate Development Associate.

Mark T. Beaudouin, 62, was appointed Senior Vice President, General Counsel and Secretary in February 2016 and was Vice President, General Counsel and Secretary of the Company since April 2003. Prior to joining Waters Corporation, he served as Senior Vice President, General Counsel and Secretary of PAREXEL International Corporation, a bio/pharmaceutical services company, from January 2000 to April 2003. Previously, from May 1985 to January 2000, Mr. Beaudouin served in several senior legal management positions, including Vice President, General Counsel and Secretary of BC International, Inc., a development stage biotechnology company, First Senior Vice President, General Counsel and Secretary of J. Baker, Inc., a diversified retail company, and General Counsel and Secretary of GenRad, Inc., a high technology test equipment manufacturer.

Sherry L. Buck, 53, was appointed Senior Vice President and Chief Financial Officer in January 2017. Previously, Ms. Buck served as the Vice President, Chief Financial Officer of Libbey Inc. since August 2012. From 1993 to 2012, Ms. Buck held several positions at Whirlpool Corporation, including Vice President, Finance/Chief Financial Officer, Global Product and Enterprise Cost Leadership; Vice President, Finance — US; Vice President, Cost Leadership; Vice President, Finance — International; and Vice President, Business Performance Management.

Dr. Michael C. Harrington, 56, was appointed Senior Vice President, Global Markets in February 2016. Dr. Harrington joined Waters Corporation in 1987 and has held several senior positions with Waters Corporation, including Vice President, Europe and Asia Pacific Operations, Senior Director of US Sales Operations, Director of US Chemistry Sales and General Manager of Phase Separations. Prior to joining Waters Corporation, Dr. Harrington held senior sales positions at Celsis, Inc.

Terrance P. Kelly, 54, was appointed Senior Vice President and President, TA Instruments in February 2016. Mr. Kelly has served as President, TA instruments since February 2005. Mr. Kelly started his career in finance and accounting at ICI in 1985. He joined DuPont in 1988. He held various sales and marketing positions with DuPont, and later TA Instruments. Mr. Kelly joined Waters Corporation in 1996, when TA Instruments was acquired.

Dr. Rohit Khanna, 59, was appointed Senior Vice President, Applied Technology in February 2016. Dr. Khanna previously served as Vice President, Worldwide Marketing and Informatics since 2002 and also held several senior positions with Waters Corporation, including Vice-President, Customer Assurance and Vice President, Data Products. Dr. Khanna joined Waters Corporation in 1986 when Dynamic Solutions, a company co-founded and managed by Dr. Khanna, was acquired.

Ian S. King, 60, was appointed Senior Vice President, Instrument Technology in February 2016. Mr. King joined Waters in 1982 and previously served as Vice President, Separations Technologies and Vice President and General Manager of Consumable Division, as well as a variety of scientific and management positions in Waters Corporation's international subsidiaries. Prior to joining Waters Corporation, Mr. King worked at Edinburgh University as a research scientist.

Elizabeth B. Rae, 59, was appointed Senior Vice President, Global Human Resources in February 2016 and was Vice President of Human Resources since October 2005 and Vice President of Worldwide Compensation and Benefits since January 2002. Ms. Rae joined Waters Corporation in January 1996 as Director of Worldwide Compensation. Prior to joining Waters Corporation, she held senior human resources positions in retail, healthcare and financial services companies.

David A. Terricciano, 61, was appointed Senior Vice President, Global Operations in February 2016. Mr. Terricciano previously served as Vice President of Global Operations since August 2001. Prior to joining Waters Corporation, he worked as Vice President and General Manager of Operations for Perkin-Elmer Instruments. Previously, he held a variety of executive positions at Goodrich Aerospace, Honeywell Aerospace and Textron Corporation.

## **PART II**

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

The Company's common stock is registered under the Exchange Act, and is listed on the New York Stock Exchange under the symbol WAT. As of February 17, 2017, the Company had 100 common stockholders of record. The Company has not declared or paid any dividends on its common stock in its past three fiscal years. The Company has not made any sales of unregistered equity securities in the years ended December 31, 2016, 2015 or 2014.

#### **Securities Authorized for Issuance under Equity Compensation Plans**

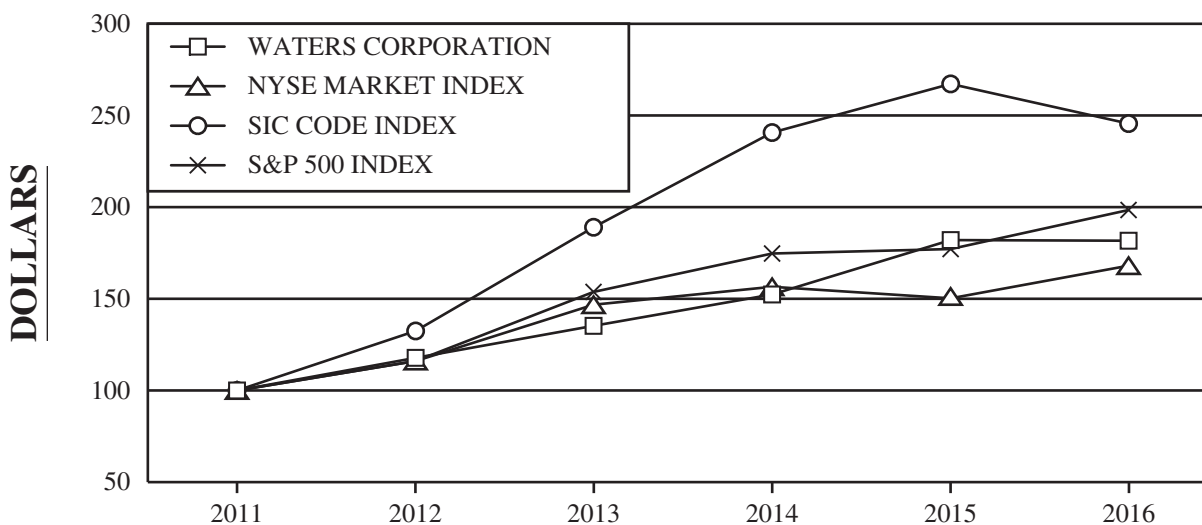
Equity compensation plan information is incorporated by reference from Part III, Item 12, Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters, of this document and should be considered an integral part of this Item 5.

### Stock Price Performance Graph

*The following performance graph and related information shall not be deemed to be “soliciting material” or to be “filed” with the SEC, nor shall such information be incorporated by reference into any future filing under the Securities Act of 1933, as amended, or the Exchange Act, except to the extent that the Company specifically incorporates it by reference into such filing.*

The following graph compares the cumulative total return on \$100 invested as of December 31, 2011 (the last day of public trading of the Company’s common stock in fiscal year 2011) through December 31, 2016 (the last day of public trading of the common stock in fiscal year 2016) in the Company’s common stock, the NYSE Market Index, the SIC Code 3826 Index and the S&P 500 Index. The return of the indices is calculated assuming reinvestment of dividends during the period presented. The Company has not paid any dividends since its IPO. The stock price performance shown on the graph below is not necessarily indicative of future price performance.

#### COMPARISON OF CUMULATIVE TOTAL RETURN SINCE DECEMBER 31, 2011 AMONG WATERS CORPORATION, NYSE MARKET INDEX, SIC CODE 3826 INDEX – LABORATORY ANALYTICAL INSTRUMENTS AND S&P 500 INDEX



	2011	2012	2013	2014	2015	2016
WATERS CORPORATION	\$100.00	\$117.65	\$135.04	\$152.22	\$181.74	\$181.49
NYSE MARKET INDEX	\$100.00	\$115.99	\$146.47	\$156.36	\$149.97	\$167.87
SIC CODE INDEX	\$100.00	\$132.41	\$188.94	\$240.66	\$267.00	\$245.55
S&P 500 INDEX	\$100.00	\$116.00	\$153.58	\$174.60	\$177.01	\$198.18

### Market for Registrant's Common Equity

The quarterly range of high and low sales prices for the Company's common stock as reported by the New York Stock Exchange is as follows:

<u>For the Quarter Ended</u>	<u>Price Range</u>	
	<u>High</u>	<u>Low</u>
April 4, 2015 .....	\$125.86	\$111.77
July 4, 2015 .....	\$137.39	\$120.79
October 3, 2015 .....	\$136.17	\$113.98
December 31, 2015 .....	\$136.95	\$115.21
April 2, 2016 .....	\$133.60	\$112.00
July 2, 2016 .....	\$143.73	\$128.90
October 1, 2016 .....	\$162.53	\$140.76
December 31, 2016 .....	\$160.00	\$133.35

### Purchases of Equity Securities by the Issuer

The following table provides information about purchases by the Company during the three months ended December 31, 2016 of equity securities registered by the Company under the Exchange Act (in thousands, except per share data):

<u>Period</u>	<u>Total Number of Shares Purchased (1)</u>	<u>Average Price Paid per Share</u>	<u>Total Number of Shares Purchased as Part of Publicly Announced Programs (2)</u>	<u>Maximum Dollar Value of Shares that May Yet Be Purchased Under the Programs (2)</u>
October 2 to October 29, 2016 .....	35	\$140.11	35	\$200,676
October 30 to November 26, 2016 .....	345	\$138.99	345	\$152,724
November 27 to December 31, 2016 .....	227	\$136.48	215	\$123,413
Total .....	<u>607</u>	\$138.12	<u>595</u>	\$123,413

- (1) The Company repurchased \$8 million of common stock related to the vesting of restricted stock units during 2016.
- (2) The Company purchased an aggregate of 2.3 million shares of its outstanding common stock in 2016 in open market transactions pursuant to a repurchase program that was announced in May 2014 (the "2014 Program"). The 2014 Program authorized the repurchase of up to \$750 million of common stock in open market transactions over a three-year period.

**Item 6: Selected Financial Data**

The following table sets forth selected historical consolidated financial and operating data for the periods indicated. The statement of operations and balance sheet data is derived from audited financial statements for the years 2016, 2015, 2014, 2013 and 2012. The Company's financial statements as of December 31, 2016 and 2015, and for each of the three years in the period ended December 31, 2016 are included in Item 8, Financial Statements and Supplementary Data, in Part II of this Form 10-K.

<b>In thousands, except per share and employees data</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>	<b>2013</b>	<b>2012</b>
<b>STATEMENT OF OPERATIONS</b>					
<b>DATA:</b>					
Net sales	\$2,167,423	\$2,042,332	\$1,989,344	\$1,904,218	\$1,843,641
Income from operations before income taxes	\$ 600,114	\$ 541,919	\$ 490,740	\$ 490,105	\$ 487,625
Net income	\$ 521,503	\$ 469,053	\$ 431,620	\$ 450,003	\$ 461,443
Net income per basic common share	\$ 6.46	\$ 5.70	\$ 5.12	\$ 5.27	\$ 5.25
Weighted-average number of basic common shares	80,786	82,336	84,358	85,426	87,841
Net income per diluted common share	\$ 6.41	\$ 5.65	\$ 5.07	\$ 5.20	\$ 5.19
Weighted-average number of diluted common shares and equivalents	81,417	83,087	85,151	86,546	88,979
<b>BALANCE SHEET AND OTHER</b>					
<b>DATA:</b>					
Cash, cash equivalents and investments	\$2,813,032	\$2,399,263	\$2,055,388	\$1,803,670	\$1,539,025
Working capital, including current maturities of debt*	\$3,115,124	\$2,649,457	\$2,236,558	\$2,038,100	\$1,701,784
Total assets*	\$4,662,059	\$4,268,677	\$3,874,690	\$3,580,106	\$3,181,597
Long-term debt*	\$1,701,966	\$1,493,027	\$1,237,463	\$1,188,162	\$1,042,559
Stockholders' equity	\$2,301,949	\$2,058,851	\$1,894,666	\$1,763,173	\$1,467,357
Employees	6,899	6,594	6,161	5,965	5,860

\* In 2015, the Company adopted new accounting guidance related to the presentation of debt issuance costs and deferred income taxes, both standards have been applied above retrospectively. Certain debt issuance costs have been reclassified from intangible assets and are presented as a direct deduction from the carrying value of the associated debt. Current deferred tax assets and liabilities have been reclassified as non-current deferred tax assets and liabilities.

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

The Company has two operating segments: Waters® and TA®. Waters products and services primarily consist of high performance liquid chromatography ("HPLC"), ultra performance liquid chromatography ("UPLC®" and together with HPLC, referred to as "LC"), mass spectrometry ("MS") and chemistry consumable products and related services. TA products and services primarily consist of thermal analysis, rheometry and calorimetry instrument systems and service sales. The Company's products are used by pharmaceutical, biochemical, industrial, nutritional safety, environmental, academic and governmental customers. These customers use the Company's products to detect, identify, monitor and measure the chemical, physical and biological composition of materials and to predict the suitability and stability of fine chemicals, pharmaceuticals, water, polymers, metals and viscous liquids in various industrial, consumer goods and healthcare products.



The Company's operating results are as follows for the years ended December 31, 2016, 2015 and 2014 (in thousands, except per share data):

	Year Ended December 31,			% change	
	2016	2015	2014	2016 vs. 2015	2015 vs. 2014
Revenues:					
Product sales	\$1,460,296	\$1,385,256	\$1,346,729	5%	3%
Service sales	707,127	657,076	642,615	8%	2%
Total net sales	2,167,423	2,042,332	1,989,344	6%	3%
Costs and operating expenses:					
Cost of sales	891,453	842,672	824,913	6%	2%
Selling and administrative expenses	513,031	495,747	512,707	3%	(3%)
Research and development expenses	125,187	118,545	107,726	6%	10%
Purchased intangibles amortization	9,889	10,123	10,634	(2%)	(5%)
Litigation provisions	3,524	3,939	—	(11%)	—
Acquired in-process research and development	—	3,855	15,456	(100%)	(75%)
Operating income	624,339	567,451	517,908	10%	10%
Operating income as a % of sales	28.8%	27.8%	26.0%		
Interest expense, net	(24,225)	(25,532)	(27,168)	(5%)	(6%)
Income from operations before income taxes	600,114	541,919	490,740	11%	10%
Provision for income taxes	78,611	72,866	59,120	8%	23%
Net income	\$ 521,503	\$ 469,053	\$ 431,620	11%	9%
Net income per diluted common share	\$ 6.41	\$ 5.65	\$ 5.07	13%	11%

In 2016, the Company's sales increased 6% as compared to 2015. The growth was mainly driven by continued strength in our pharmaceutical market followed by growth in our industrial market, which includes sales to industrial chemical, nutritional safety and environmental customers, offset by a decline in sales to our governmental and academic customers. Instrument systems produced mid-single-digit sales growth during 2016 and our chemistry and service businesses continued to generate high-single-digit growth rates due to higher instrument utilization and a growing base of installed instrument systems. Geographically, the Company experienced positive sales growth in all major regions on a world-wide basis, led by Asia, which generated double-digit growth during 2016. This double-digit sales growth rate in Asia was primarily attributed to strong demand for the Company's products and services in China and a favorable effect of foreign currency translation in Japan. Sales growth in 2016 in Europe and the U.S. was 4% and 1%, respectively. In 2015, the Company's sales grew 3% as compared to 2014 as the effect of foreign currency translation significantly reduced the sales growth rate experienced by the pharmaceutical and industrial end-markets. The effect of foreign currency translation negatively impacted sales by 1% and 6% across all products and services in 2016 and 2015, respectively. Based on current foreign exchange rates, the Company expects that foreign currency translation may negatively affect sales growth in 2017. Recent acquisitions had a minimal impact on sales growth in both 2016 and 2015.

Sales to pharmaceutical customers grew 9% and 4% in 2016 and 2015, respectively. The increase in 2016 was driven by the increasing need for global access to prescription drugs and the testing of newer and more complex biologic drugs. Geographically, the growth within our pharmaceutical market was driven by double-digit growth in China and Japan, while sales growth in 2015 was driven by double-digit growth in the U.S., China and India offset by the negative effects of foreign currency translation.

Combined sales to industrial customers grew 6% and 4% in 2016 and 2015, respectively. The growth in 2016 was driven by the increasing need for food quality and food safety testing and fine chemical applications. Geographically, industrial market sales growth was highest in Europe, followed by Asia and offset by weakness

in the U.S. Before the effects of foreign currency translation, the Company's industrial customer sales in 2015 grew at a higher rate than 2016. This overall weaker demand from the Company's industrial customers in 2016 was primarily attributed to the decline in TA instrument system sales and the overall soft demand for the Company products and services in the U.S.

Combined sales to governmental and academic customers decreased 4% and 5% in 2016 and 2015, respectively, as a result of these institutions reducing their spending on the Company's products and the negative effects of foreign currency translation in 2015. In 2016, combined sales to governmental and academic customers grew in China and India but declined in all other regions. In 2015, combined sales to governmental and academic customers grew in the U.S. and China but declined in all other regions.

Instrument system sales increased 4% and 3% in 2016 and 2015, respectively, due to higher demand for LC and LC-MS instrument systems. This strength in demand was driven by HPLC, UPLC®, ACQUITY Arc™, QDa® and Vion® IMS Q-ToF™ instrument systems, as well as other LC-MS systems that incorporate the Company's benchtop tandem quadrupole technologies. Recurring revenues (combined sales of chemistry consumables and services) increased 8% and 2% in 2016 and 2015, respectively, as a result of a larger installed base of customers and higher billing demand for service sales. Foreign currency translation lowered the 2015 recurring revenues by 6%.

Geographically, sales in Asia increased 13% and 9% in 2016 and 2015, respectively. The sales growth in Asia was a result of the broad-based increase in China's sales across all product and customer classes and the favorable effect of foreign currency in Japan, where foreign currency translation increased sales by 12% in 2016 after decreasing sales by 12% in 2015. Sales in the U.S. in 2016 increased 1% after the U.S. delivered sales growth of 10% in 2015, when the Company experienced greater demand for its products and services in the U.S.

Sales in Europe and in the rest of the world increased by 4% and 6%, respectively, in 2016 as compared to an 8% decline in both Europe and the rest of the world sales in 2015. The negative effects of foreign currency translation on the 2016 sales growth in Europe and the rest of the world was approximately 3%, which was significantly less than the 14% decrease in Europe and the 5% decrease in the rest of the world sales in 2015, when the U.S. dollar strengthened substantially against all currencies throughout the world.

Operating income was \$624 million in 2016, an increase of 10% as compared to 2015. This increase was primarily a result of the effect of higher sales volume achieved in 2016 and the positive impact of foreign currency translation on our U.K. manufacturing and research and development costs as a result of the significantly weaker British Pound. Operating income increased 10% in 2015 as compared to 2014 as a result of higher sales volumes achieved in 2015 being partly offset by a \$56 million reduction in operating income from the adverse effects of foreign currency translation.

The Company generated \$629 million, \$560 million and \$512 million of net cash flows from operations in 2016, 2015 and 2014, respectively. The increases in operating cash flow in each year were primarily a result of the increase in sales and net income.

Cash flows used in investing activities included capital expenditures related to property, plant, equipment and software capitalization of \$95 million, \$100 million and \$91 million in 2016, 2015 and 2014, respectively. In September 2016, the Company acquired Rubotherm GmbH for approximately \$6 million in cash and the Company made payments of \$3 million and \$15 million to acquire and license intellectual property during 2015 and 2014, respectively. These acquisitions did not have a significant impact on the Company's sales and profits in 2016.

During 2016 and 2014, the Company issued and sold senior unsecured notes for an aggregate principal amount of \$250 million and \$200 million, respectively. During 2016, 2015 and 2014, the Company repurchased \$318 million, \$327 million and \$329 million of the Company's outstanding common stock, respectively, under

authorized share repurchase programs. The Company believes that it has the financial flexibility to fund these share repurchases given current cash and investment levels and debt borrowing capacity, as well as to invest in research, technology and business acquisitions to further grow the Company's sales and profits.

## Results of Operations

### *Sales by Geography*

Geographic sales information is presented below for the years ended December 31, 2016, 2015 and 2014 (in thousands):

	Year Ended December 31,			% change	
	2016	2015	2014	2016 vs. 2015	2015 vs. 2014
Net Sales:					
United States .....	\$ 665,280	\$ 656,361	\$ 596,549	1%	10%
Europe .....	577,257	555,886	607,080	4%	(8%)
Asia:					
China .....	331,354	278,600	238,892	19%	17%
Japan .....	167,977	145,184	163,468	16%	(11%)
Asia Other .....	283,653	272,179	237,668	4%	15%
Total Asia .....	782,984	695,963	640,028	13%	9%
Other .....	141,902	134,122	145,687	6%	(8%)
Total net sales .....	<u>\$2,167,423</u>	<u>\$2,042,332</u>	<u>\$1,989,344</u>	<u>6%</u>	<u>3%</u>

In 2016, sales growth in the U.S. sales was driven by increases in recurring revenues, which were offset by declines in instrument systems sales. U.S. sales increased to pharmaceutical customers but declined to non-pharmaceutical end-markets. Europe's sales in 2016 were also driven by recurring revenues and primarily due to increases to pharmaceutical and industrial customers. China achieved strong sales growth in all product and customer classes in 2016, with double-digit growth in LC-MS instrument systems and chemistry consumables as well as double-digit growth to pharmaceutical customers. Japan's increase in sales in 2016 was largely driven by the benefit of foreign currency translation, which increased sales by 12%. The increase in sales in the rest of Asia in 2016 was driven by LC-MS instrument systems and chemistry consumables sales to pharmaceutical and industrial customers. Sales to the rest of Asia decreased 6% due to the negative effect of foreign currency translation. Sales in the rest of the world in 2016 were broad-based across all product classes as sales increased to industrial customers but declined across all other customer classes.

In 2015, the U.S. sales growth was broad-based across all products and was driven by pharmaceutical and industrial customers. Europe's sales in 2015 were broad-based across all product and customer classes, but declined as a result of the negative effects of foreign currency. China achieved strong double-digit sales growth in all product and customer classes in 2015. Japan's 2015 sales were negatively impacted by foreign currency translation, which decreased sales by 12%. The increase in sales in the rest of Asia in 2015 was driven by pharmaceutical and industrial customers across all product classes. Sales in the rest of the world in 2015 increased to pharmaceutical customers but declined across all other customer and product classes. The decline in sales in the rest of the world in 2015 was significantly attributable to a reduction in customer demand in Latin America caused by the strengthening of the U.S. dollar and the weak Brazilian economy.

### Waters Products and Services Net Sales

Net sales for Waters products and services are as follows for the years ended December 31, 2016, 2015 and 2014 (in thousands):

	Year Ended December 31,						% change	
	2016	% of Total	2015	% of Total	2014	% of Total	2016 vs. 2015	2015 vs. 2014
Waters instrument systems . . . . .	\$ 943,218	49%	\$ 895,626	50%	\$ 871,048	49%	5%	3%
Chemistry . . . . .	345,413	18%	317,941	17%	312,890	18%	9%	2%
Total Waters product sales . . .	1,288,631	67%	1,213,567	67%	1,183,938	67%	6%	3%
Waters service . . . . .	639,432	33%	593,301	33%	579,759	33%	8%	2%
Total Waters net sales . . . . .	<u>\$1,928,063</u>	<u>100%</u>	<u>\$1,806,868</u>	<u>100%</u>	<u>\$1,763,697</u>	<u>100%</u>	<u>7%</u>	<u>2%</u>

The increase in Waters instrument system sales (LC and MS technology-based) in both 2016 and 2015 is primarily attributable to higher sales of HPLC, UPLC, ACQUITY Arc, QDa and Vion IMS Q-ToF instrument systems, as well as other LC-MS systems that incorporate the Company's benchtop tandem quadrupole technologies. Chemistry consumables sales increased in both 2016 and 2015 on the uptake in ACQUITY columns, CORTECS® columns and application-specific testing kits. Waters service sales in both 2016 and 2015 benefited from increased sales of service plans and higher service demand billings to a higher installed base of customers. The effect of foreign currency translation had a minimal impact on Waters sales in 2016 and decreased Waters sales across all products and services by 7% in 2015.

In 2016, Waters sales increased 2% in the U.S., 4% in Europe, 14% in Asia and 5% in the rest of the world. Waters sales increased 21% in China and were broad-based across all product and customer classes. Waters sales in Japan increased 15%, primarily due to the benefit of foreign currency translation, which increased sales by 12%. Waters sales in the rest of Asia increased 6% and were driven by product sales to pharmaceutical and industrial customers, offset by weakness within governmental and academic markets.

In 2015, Waters sales increased 10% in the U.S. and 8% in Asia, while sales decreased 8% in Europe and the rest of the world. The increase in sales in the U.S. in 2015 was across all customer classes. Waters sales in China increased 16% in 2015, but decreased 11% in Japan due to the effects of foreign currency translation. Waters sales in the rest of Asia increased 14% and were driven by sales to pharmaceutical and industrial customers.

### TA Product and Services Net Sales

Net sales for TA products and services are as follows for the years ended December 31, 2016, 2015 and 2014 (in thousands):

	Year Ended December 31,						% change	
	2016	% of Total	2015	% of Total	2014	% of Total	2016 vs. 2015	2015 vs. 2014
TA instrument systems . . . . .	\$171,665	72%	\$171,689	73%	\$162,791	72%	—	5%
TA service . . . . .	67,695	28%	63,775	27%	62,856	28%	6%	1%
Total TA net sales . . . . .	<u>\$239,360</u>	<u>100%</u>	<u>\$235,464</u>	<u>100%</u>	<u>\$225,647</u>	<u>100%</u>	<u>2%</u>	<u>4%</u>

TA instrument system sales were flat in 2016 primarily due to weaker demand for its instrument systems. The increase in TA instrument system sales growth in 2015 was primarily attributable to TA's core thermal physical properties instruments. In addition, TA's core thermal analysis instrument systems sales rebounded in 2015 after a decrease in 2014 in comparison to stronger sales in 2013. TA service sales increased in both 2016 and 2015 due to sales of service plans and billings to a higher installed base of customers. The effect of foreign currency translation had a minimal impact on sales in 2016 and decreased TA's sales by 5% in 2015. Recent acquisitions added approximately 1% and 3% to TA's sales in 2016 and 2015, respectively.

In 2016, TA sales increased 2% in both the Americas and Asia and increased 1% in Europe. TA sales were flat in the U.S. in 2016 but TA achieved a double-digit increase in the rest of the Americas. TA's sales in Japan in 2016 increased 19%, with a 10% increase due to the benefit of foreign currency translation. In 2015, TA showed sales growth in the U.S. and Asia, excluding Japan, but sales declined in Europe, Japan and the rest of the world as a result of negative foreign currency translation.

#### *Cost of Sales*

The increase in cost of sales for both 2016 and 2015 were consistent with the increase in sales volumes. In 2016, cost of sales included the benefit of a weaker British pound, which reduced the Company's U.K. manufacturing costs when translated into U.S. dollars. The weakening of the British pound began with the announcement that the U.K. would be exiting the European Union. The effect of foreign currency translation benefited cost of sales in 2015, but increased cost of sales in 2014.

Cost of sales are affected by many factors, including, but not limited to, foreign currency translation, product mix, product costs of instrument systems and amortization of software platforms. At current foreign currency exchange rates, the Company expects that the impact of foreign currency translation may negatively impact gross profit in 2017, as the benefits from the weakening of the British pound are expected to be offset by the impact of the weakening of all other major currencies.

#### *Selling and Administrative Expenses*

Selling and administrative expenses increased 3% in 2016 and decreased 3% in 2015. Selling and administrative expenses in 2016 and 2015 were impacted by headcount additions and higher merit compensation costs and the effect of foreign currency translation, which lowered selling and administrative expenses by 2% and 7% in 2016 and 2015, respectively. In addition, the Company incurred \$7 million of stock compensation expense in 2016 related to the modification of certain stock awards upon the retirement of senior executives. Severance-related costs in 2016, 2015 and 2014 were \$3 million, \$3 million and \$6 million, respectively, in connection with a reduction in workforce. In 2014, the Company incurred a \$5 million impairment charge related to a write-down in the fair value of a building held for sale in the U.K. This building was sold in 2015 for \$5 million in cash.

As a percentage of net sales, selling and administrative expenses were 23.7%, 24.3% and 25.8% for 2016, 2015 and 2014, respectively.

#### *Research and Development Expenses*

Research and development expenses increased 6% and 10% in 2016 and 2015, respectively. Research and development expenses in both 2016 and 2015 were impacted by additional headcount, merit compensation and costs associated with new products and the development of new technology initiatives. In addition, the effect of foreign currency translation reduced research and development expenses by 7% and 5% in 2016 and 2015, respectively, primarily due to the weakening of the British pound on the Company's U.K. research and development costs. In 2016 and 2015, research and development expenses also included a benefit of \$2 million and \$3 million, respectively, from a government grant. In 2014, the effect of foreign currency translation was unfavorable and increased expenses.

#### *Acquired In-Process Research and Development*

During 2015 and 2014, the Company incurred charges of \$4 million and \$15 million, respectively, for acquired in-process research and development related to milestone payments associated with a licensing arrangement for certain intellectual property relating to mass spectrometry technologies yet to be commercialized and for which there was no future alternative use as of the acquisition date. These licensing arrangements are significantly related to new, biologically-focused applications, as well as other applications, and require the Company to make additional future payments of up to \$12 million if certain milestones are achieved, as well as royalties on future net sales. These future payments may be significant and occur over multiple years.



#### *Litigation Provision*

The Company recorded \$4 million of litigation settlement provisions and related costs in both 2016 and 2015.

#### *Interest Expense, Net*

The decreases in net interest expense in 2016 and 2015 were primarily attributable to higher income earned on increased cash, cash equivalents and investment balances.

#### *Provision for Income Taxes*

The four principal jurisdictions in which the Company manufactures are the U.S., Ireland, the U.K. and Singapore, where the marginal effective tax rates were approximately 37.5%, 12.5%, 20% and 0%, respectively, as of December 31, 2016. The Company has a contractual tax rate in Singapore of 0% through March 2021, based upon the achievement of certain contractual milestones, which the Company expects to continue to meet. The current statutory tax rate in Singapore is 17%. The effect of applying the contractual tax rate rather than the statutory tax rate to income from qualifying activities in Singapore increased the Company's net income in 2016, 2015 and 2014 by \$23 million, \$20 million and \$20 million, respectively and increased the Company's net income per diluted share by \$0.29, \$0.25 and \$0.24, respectively.

The Company's effective tax rate is influenced by many significant factors, including, but not limited to, the wide range of income tax rates in jurisdictions in which the Company operates; sales volumes and profit levels in each tax jurisdiction; changes in tax laws, tax rates and policies; the outcome of various ongoing tax audit examinations; and the impact of foreign currency transactions and translation. As a result of variability in these factors, the Company's effective tax rates in the future may not be similar to the effective tax rates for the current or prior years.

The Company's effective tax rates were 13.1%, 13.4% and 12.0% in 2016, 2015 and 2014, respectively. The change in the effective tax rates can primarily be attributed to differences in the proportionate amounts of pre-tax income recognized in jurisdictions with different effective tax rates. In addition, the income tax provision for 2016 included a \$3 million tax benefit related to a release of a valuation allowance on certain net operating loss carryforwards. In 2015, the income tax provision included a \$3 million tax benefit related to the completion of tax audit examinations.

## Liquidity and Capital Resources

### Condensed Consolidated Statements of Cash Flows (in thousands):

	Year Ended December 31,		
	2016	2015	2014
Net income	\$ 521,503	\$ 469,053	\$ 431,620
Depreciation and amortization	96,449	89,987	94,231
Stock-based compensation	40,998	33,368	32,998
Deferred income taxes	1,204	6,581	1,583
Gain on sale of assets/building impairment	(1,500)	(1,377)	4,718
In-process research and development and other non-cash charges	—	4,638	16,481
Change in accounts receivable	(31,721)	(49,888)	(29,435)
Change in inventories	(20,147)	(19,967)	(15,984)
Change in accounts payable and other current liabilities	6,842	27,451	(13,687)
Change in deferred revenue and customer advances	9,974	16,172	9,566
Other changes	5,474	(15,725)	(20,443)
Net cash provided by operating activities	629,076	560,293	511,648
Net cash used in investing activities	(487,918)	(399,739)	(402,030)
Net cash used in financing activities	(101,857)	(69,594)	(107,221)
Effect of exchange rate changes on cash and cash equivalents	(21,335)	(25,472)	(21,016)
Increase (decrease) in cash and cash equivalents	\$ 17,966	\$ 65,488	\$ (18,619)

### Cash Flow from Operating Activities

Net cash provided by operating activities was \$629 million, \$560 million and \$512 million in 2016, 2015 and 2014, respectively. The changes within net cash provided by operating activities include the following significant changes in the sources and uses of net cash provided by operating activities, aside from the changes in net income:

- The changes in accounts receivable were primarily attributable to timing of payments made by customers and timing of sales. Days sales outstanding was 71 days at both December 31, 2016 and 2015 and 68 days at December 31, 2014.
- The changes in inventory were primarily attributable to anticipated annual increases in sales volumes, as well as new product launches.
- The changes in accounts payable and other current liabilities were a result of timing of payments to vendors.
- Net cash provided from deferred revenue and customer advances results from annual increases in new service contracts as a higher installed base of customers renew annual service contracts.
- Other changes were attributable to variation in the timing of various provisions, expenditures, prepaid income taxes and accruals in other current assets, other assets and other liabilities. In addition, the Company made one-time contributions totaling \$21 million to certain Non-U.S. pension plans during 2014.

### Cash Used in Investing Activities

Net cash used in investing activities totaled \$488 million, \$400 million and \$402 million in 2016, 2015 and 2014, respectively. Additions to fixed assets and capitalized software were \$95 million, \$100 million and \$91 million in 2016, 2015 and 2014, respectively. During 2016, 2015 and 2014, the Company purchased \$2.4 billion, \$2.0 billion and \$2.2 billion of investments, respectively, while \$2.0 billion, \$1.7 billion and \$1.9 billion of

investments matured, respectively. Business acquisitions, net of cash acquired, were \$6 million, \$23 million and \$27 million during 2016, 2015 and 2014, respectively. In 2016, the Company sold an equity investment for \$4 million and, in 2015, the Company received \$5 million cash from the sale of a building in the U.K. During 2015 and 2014, the Company made payments of \$3 million and \$15 million, respectively, to acquire and license intellectual property.

### **Cash Used in Financing Activities**

The Company issued and sold senior unsecured notes with an aggregate principal amount of \$250 million and \$200 million in May 2016 and June 2014, respectively. The proceeds from the issuance of the senior unsecured notes in 2016 were used to repay existing debt and for general corporate purposes. Interest on the fixed rate senior unsecured notes is payable semi-annually each year. Interest on the floating rate senior unsecured notes is payable quarterly. The Company may prepay all or some of the senior unsecured notes at any time in an amount not less than 10% of the aggregate principal amount outstanding, plus the applicable make-whole amount or prepayment premium for Series H senior unsecured notes. In the event of a change in control of the Company (as defined in the note purchase agreement), the Company may be required to prepay the senior unsecured notes at a price equal to 100% of the principal amount thereof, plus accrued and unpaid interest. These senior unsecured notes require that the Company comply with an interest coverage ratio test of not less than 3.50:1 for any period of four consecutive fiscal quarters and a leverage ratio test of not more than 3.50:1 as of the end of any fiscal quarter. In addition, these senior unsecured notes include customary negative covenants, affirmative covenants, representations and warranties and events of default.

In June 2013, the Company entered into a credit agreement that provides for a \$1.1 billion revolving facility and a \$300 million term loan facility. In April 2015, Waters Corporation entered into an amendment to this agreement (the "Amended Credit Agreement"). The Amended Credit Agreement provides for an increase of the revolving commitments from \$1.1 billion to \$1.3 billion and extends the maturity of the original credit agreement from June 25, 2018 until April 23, 2020. The Company plans to use future proceeds from the revolving facility for general corporate purposes.

The interest rates applicable to the Amended Credit Agreement are, at the Company's option, equal to either the alternate base rate calculated daily (which is a rate per annum equal to the greatest of (a) the prime rate in effect on such day, (b) the federal funds effective rate in effect on such day plus 1/2% per annum, or (c) the adjusted LIBO rate on such day (or if such day is not a business day, the immediately preceding business day) for a deposit in U.S. dollars with a maturity of one month plus 1% per annum) or the applicable 1, 2, 3 or 6 month adjusted LIBO rate, in each case, plus an interest rate margin based upon the Company's leverage ratio, which can range between 0 to 12.5 basis points for alternate base rate loans and between 80 basis points and 117.5 basis points for adjusted LIBO rate loans. The facility fee on the Amended Credit Agreement ranges between 7.5 basis points and 20 basis points. The Amended Credit Agreement requires that the Company comply with an interest coverage ratio test of not less than 3.50:1 as of the end of any fiscal quarter for any period of four consecutive fiscal quarters and a leverage ratio test of not more than 3.50:1 as of the end of any fiscal quarter. In addition, the Amended Credit Agreement includes negative covenants, affirmative covenants, representations and warranties and events of default that are customary for investment grade credit facilities.

During 2016, 2015 and 2014, the Company's net debt borrowings increased by \$160 million, \$205 million and \$142 million, respectively. As of December 31, 2016, the Company had a total of \$1,827 million in outstanding debt, which consisted of \$700 million in outstanding senior unsecured notes, \$300 million borrowed under a term loan facility under the Amended Credit Agreement, \$830 million borrowed under a revolving credit facility under the Amended Credit Agreement and less than \$1 million borrowed under various other short-term lines of credit, offset by \$3 million of unamortized debt issuance costs. At December 31, 2016, \$125 million of the outstanding portion of the revolving facility was classified as short-term liabilities in the consolidated balance sheet due to the fact that the Company expects to repay this portion of the borrowing under the revolving line of credit within the next twelve months. The remaining \$705 million of the outstanding portion of the revolving

facility was classified as long-term liabilities in the consolidated balance sheet, as this portion is not expected to be repaid within the next twelve months. As of December 31, 2016, the Company had a total amount available to borrow under the Amended Credit Agreement of \$468 million after outstanding letters of credit. As of December 31, 2016, the Company was in compliance with all debt covenants.

In May 2014, the Company's Board of Directors authorized the Company to repurchase up to \$750 million of its outstanding common stock over a three-year period. During 2016, 2015 and 2014, the Company repurchased 2.3 million, 2.6 million and 3.1 million shares of the Company's outstanding common stock at a cost of \$318 million, \$327 million and \$329 million, respectively, under the May 2014 authorization and other previously announced programs. At December 31, 2016, the Company had a total of \$123 million authorized for future repurchases under the May 2014 plan. In addition, the Company repurchased \$8 million, \$7 million and \$8 million of common stock related to the vesting of restricted stock units during the years ended December 31, 2016, 2015 and 2014, respectively.

The Company received \$62 million, \$52 million and \$74 million of proceeds from the exercise of stock options and the purchase of shares pursuant to the Company's employee stock purchase plan in 2016, 2015 and 2014, respectively.

The Company had cash, cash equivalents and investments of \$2,813 million as of December 31, 2016. The majority of the Company's cash, cash equivalents and investments are generated from foreign operations, with \$2,766 million held by foreign subsidiaries at December 31, 2016, of which \$261 million was held in currencies other than the U.S. dollar. Due to the fact that most of the Company's cash, cash equivalents and investments are held outside of the U.S., the Company must manage and maintain sufficient levels of cash flow in the U.S. to fund operations and capital expenditures, service debt interest, finance potential U.S. acquisitions and continue the authorized stock repurchase program in the U.S. These U.S. cash requirements are managed by the Company's cash flow from U.S. operations and the use of the Company's revolving credit facility.

Management believes, as of the date of this report, that its financial position, particularly in the U.S., along with expected future cash flows from earnings based on historical trends and the ability to raise funds from external sources and the borrowing capacity from existing, committed credit facilities, will be sufficient to service debt and fund working capital and capital spending requirements, authorized share repurchase amounts and potential acquisitions. In addition, there have been no recent significant changes to the Company's financial position, nor are there any anticipated changes, that warrant a material adjustment related to indefinitely reinvested foreign earnings.

### Contractual Obligations and Commercial Commitments

The following is a summary of the Company's known contractual obligations as of December 31, 2016 (in thousands):

	Payments Due by Year (1)							
	<u>Total</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>After 2022</u>
Notes payable and debt . . .	\$ 125,297	\$125,297	\$ —	\$ —	\$ —	\$ —	\$ —	\$ —
Interest on senior								
unsecured notes . . . . .	134,609	24,699	22,150	21,479	16,896	13,208	11,094	25,083
Long-term debt . . . . .	1,705,000	—	100,000	—	1,105,000	150,000	—	350,000
Operating leases . . . . .	90,109	21,864	16,877	13,361	10,855	7,144	6,014	13,994
Total . . . . .	\$2,055,015	\$171,860	\$139,027	\$34,840	\$1,132,751	\$170,352	\$17,108	\$389,077

(1) Does not include normal purchases made in the ordinary course of business and uncertain tax positions discussed below.

The interest rates applicable to the Amended Credit Agreement are, at the Company's option, equal to either the alternate base rate calculated daily (which is a rate per annum equal to the greatest of (a) the prime rate in effect on such day, (b) the federal funds effective rate in effect on such day plus 1/2% per annum, or (c) the adjusted LIBO rate on such day (or if such day is not a business day, the immediately preceding business day) for a deposit in U.S. dollars with a maturity of one month plus 1% per annum) or the applicable 1, 2, 3 or 6 month adjusted LIBO rate, in each case, plus an interest rate margin based upon the Company's leverage ratio, which can range between 0 to 12.5 basis points for alternate base rate loans and between 80 basis points and 117.5 basis points for adjusted LIBO rate loans. The facility fee on the Amended Credit Agreement ranges between 7.5 basis points and 20 basis points. The Amended Credit Agreement requires that the Company comply with an interest coverage ratio test of not less than 3.50:1 as of the end of any fiscal quarter for any period of four consecutive fiscal quarters and a leverage ratio test of not more than 3.50:1 as of the end of any fiscal quarter. In addition, the Amended Credit Agreement includes negative covenants, affirmative covenants, representations and warranties and events of default that are customary for investment grade credit facilities. As of December 31, 2016, the Company was in compliance with all such covenants.

The following is a summary of the Company's known commercial commitments as of December 31, 2016 (in thousands):

	Amount of Commitments Expiration Per Period							
	Total	2017	2018	2019	2020	2021	2022	After 2022
Letters of credit .....	\$1,818	\$1,818	\$—	\$—	\$—	\$—	\$—	\$—

From time to time, the Company and its subsidiaries are involved in various litigation matters arising in the ordinary course of business. The Company believes it has meritorious arguments in its current litigation matters and believes any outcome, either individually or in the aggregate, will not be material to the Company's financial position or results of operations.

The Company has long-term liabilities for deferred employee compensation, including pension and supplemental executive retirement plans. The payments related to the supplemental retirement plan are not included above since they are dependent upon when the employee retires or leaves the Company and whether the employee elects lump-sum or annuity payments. During fiscal year 2017, the Company expects to contribute approximately \$6 million to \$11 million to the Company's defined benefit plans.

The Company has contingent consideration for an earnout pertaining to the Medimass acquisition. The earnout payments are not included above since they are dependent upon many factors that cannot be predicted with any certainty. The estimated fair value of the contingent consideration as of December 31, 2016 is \$3 million.

The Company licenses certain technology and software from third parties. Future minimum license fees payable under existing license agreements as of December 31, 2016 are immaterial. The Company enters into licensing arrangements with third parties that require future milestone or royalty payments contingent upon future events. Upon the achievement of certain milestones in existing agreements, the Company could make additional future payments of up to \$12 million, as well as royalties on future net sales. It is not possible to predict with reasonable certainty whether these milestones will be achieved or the timing for achievement. As a result, these potential payments are not included in the table above.

The Company accounts for its uncertain tax return reporting positions in accordance with the accounting standards for income taxes, which require financial statement reporting of the expected future tax consequences of uncertain tax reporting positions on the presumption that all concerned tax authorities possess full knowledge of those tax reporting positions, as well as all of the pertinent facts and circumstances, but prohibit any discounting of unrecognized tax benefits associated with those reporting positions for the time value of money. The Company classified interest and penalties related to unrecognized tax benefits as a component of the

provision for income taxes. If all of the Company's unrecognized tax benefits accrued as of December 31, 2016 were to become recognizable in the future, the Company would record a total reduction of approximately \$10 million in its income tax provision.

With limited exceptions, the Company is no longer subject to tax audit examinations in significant jurisdictions for the years ended on or before December 31, 2012. However, carryforward tax attributes that were generated in years beginning on or before January 1, 2013 may still be adjusted upon examination by tax authorities if the attributes are utilized. The Company continuously monitors the lapsing of statutes of limitations on potential tax assessments for related changes in the measurement of unrecognized tax benefits, related net interest and penalties, and deferred tax assets and liabilities.

During the year ended December 31, 2016, the Company concluded tax audit disputes outside the U.S. that, in part, related to matters for which the Company had recorded net uncertain tax benefits. The resolution of these tax disputes resulted in a \$1 million reduction in the measurement of its unrecognized tax benefits for the year ended December 31, 2016.

During the year ended December 31, 2015, the Company concluded U.S. tax audit disputes that, in part, related to matters for which the Company had recorded net uncertain tax benefits. The resolution of these tax disputes resulted in a \$2 million reduction in the measurement of its unrecognized tax benefits and a \$2 million decrease in its provision for income taxes for the year ended December 31, 2015.

As of December 31, 2016, the Company expects to record additional reductions in the measurement of its unrecognized tax benefits and related net interest and penalties of approximately \$5 million within the next twelve months due to potential tax audit settlements and the lapsing of statutes of limitations on potential tax assessments. The Company does not expect to record any other material reductions in the measurement of its unrecognized tax benefits within the next twelve months.

The Company has not paid any dividends and has no plans, at this time, to pay any dividends in the future.

### **Off-Balance Sheet Arrangements**

The Company has not created, and is not party to, any special-purpose or off-balance sheet entities for the purpose of raising capital, incurring debt or operating parts of its business that are not consolidated (to the extent of the Company's ownership interest therein) into the consolidated financial statements. The Company has not entered into any transactions with unconsolidated entities whereby it has subordinated retained interests, derivative instruments or other contingent arrangements that expose the Company to material continuing risks, contingent liabilities or any other obligation under a variable interest in an unconsolidated entity that provides financing, liquidity, market risk or credit risk support to the Company.

The Company enters into standard indemnification agreements in its ordinary course of business. Pursuant to these agreements, the Company indemnifies, holds harmless and agrees to reimburse the indemnified party for losses suffered or incurred by the indemnified party, generally the Company's business partners or customers, in connection with patent, copyright or other intellectual property infringement claims by any third party with respect to its current products, as well as claims relating to property damage or personal injury resulting from the performance of services by the Company or its subcontractors. The maximum potential amount of future payments the Company could be required to make under these indemnification agreements is unlimited. Historically, the Company's costs to defend lawsuits or settle claims relating to such indemnity agreements have been minimal and management accordingly believes the estimated fair value of these agreements is immaterial.

### **Critical Accounting Policies and Estimates**

#### *Summary*

The preparation of consolidated financial statements requires the Company to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent



liabilities. Critical accounting policies are those that are central to the presentation of the Company's financial condition and results of operations that require management to make estimates about matters that are highly uncertain and that would have a material impact on the Company's results of operations given changes in the estimate that are reasonably likely to occur from period to period or use of different estimates that reasonably could have been used in the current period. On an ongoing basis, the Company evaluates its policies and estimates. The Company bases its estimates on historical experience and on various other 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 amounts may differ from these estimates under different assumptions or conditions. There are other items within the Company's consolidated financial statements that require estimation, but are not deemed critical as defined above. Changes in estimates used in these and other items could potentially have a material impact on the Company's consolidated financial statements.

#### *Revenue Recognition*

Sales of products and services are generally recorded based on product shipment and performance of service, respectively. The Company's deferred revenue on the consolidated balance sheets consists of the obligation on instrument service contracts and customer payments received in advance, prior to shipment of the instrument. At December 31, 2016, the Company had current and long-term deferred revenue liabilities of \$149 million and \$25 million, respectively. Revenue is recognized when all of the following revenue recognition criteria are met: persuasive evidence of an arrangement exists; delivery or performance has occurred; the vendor's fee is fixed or determinable; collectibility is reasonably assured and, if applicable, upon acceptance when acceptance criteria with contractual cash holdback are specified. Shipping and handling costs are included in cost of sales, net of amounts invoiced to the customer per the order.

Product shipments, including those for demonstration or evaluation, and service contracts are not recorded as revenue until a valid purchase order or master agreement is received, specifying fixed terms and prices. The Company generally recognizes product revenue when legal title has transferred and risk of loss passes to the customer. The Company generally structures its sales arrangements as shipping point or international equivalent and, accordingly, recognizes revenue upon shipment. In some cases, destination-based shipping terms are included in sales arrangements, in which cases revenue is generally recognized when the products arrive at the customer site.

The Company's method of revenue recognition for certain products requiring installation is accounted for in accordance with multiple-element revenue recognition accounting standards. With respect to the installation obligations, the larger of the contractual cash holdback or the best estimate of selling price of the installation service is deferred when the product is shipped and revenue is recognized as a multiple-element arrangement when installation is complete. The Company determines the best estimate of selling price of installation based upon a number of factors, including hourly service billing rates and estimated installation hours.

Instrument service contracts are typically billed at the beginning of the maintenance period. The amount of the service contract is amortized ratably to revenue over the instrument maintenance period. There are no deferred costs associated with the service contract, as the cost of the service is recorded when the service is performed. No revenue is recognized until all revenue recognition criteria have been met.

Sales of standalone software are accounted for in accordance with the accounting standards for software revenue recognition. The Company's software arrangements typically include software licenses and maintenance contracts. Software license revenue is recognized when persuasive evidence of an arrangement exists, delivery has occurred, the fee is fixed or determinable, collection is probable, and there are no significant post-delivery obligations remaining. The revenue associated with the software maintenance contract is recognized ratably over the maintenance term. Unspecified rights to software upgrades are typically sold as part of the maintenance contract on a when-and-if-available basis. The Company uses the residual method to allocate software revenue

when a transaction includes multiple elements and vendor specific objective evidence of fair value of undelivered elements exists. Under the residual method, the fair value of the undelivered element (maintenance) is deferred and the remaining portion of the arrangement fee is allocated to the delivered element (software license) and recognized as revenue.

Returns and customer credits are infrequent and are recorded as a reduction to sales. Rights of return are not included in sales arrangements. Revenue associated with products that contain specific customer acceptance criteria is not recognized before the customer acceptance criteria are satisfied. Discounts from list prices are recorded as a reduction to sales.

#### *Loss Provisions on Accounts Receivable and Inventory*

The Company maintains allowances for doubtful accounts for estimated losses resulting from the inability of its customers to make required payments. If the financial condition of the Company's customers were to deteriorate, resulting in an impairment of their ability to make payments, additional allowances may be required. The Company does not request collateral from its customers, but collectibility is enhanced through the use of credit card payments and letters of credit. The Company assesses collectibility based on a number of factors, including, but not limited to, past transaction history with the customer, the credit-worthiness of the customer, industry trends and the macro-economic environment. Historically, the Company has not experienced significant bad debt losses. Sales returns and allowances are estimates of future product returns related to current period revenue. Material differences may result in the amount and timing of revenue for any period if management made different judgments or utilized different estimates for sales returns and allowances for doubtful accounts. The Company's accounts receivable balance at December 31, 2016 was \$489 million, net of allowances for doubtful accounts and sales returns of \$9 million.

The Company values all of its inventories at the lower of cost or market on a first-in, first-out basis ("FIFO"). The Company estimates revisions to its inventory valuations based on technical obsolescence, historical demand, projections of future demand, including that in the Company's current backlog of orders, and industry and market conditions. If actual future demand or market conditions are less favorable than those projected by management, additional write-downs may be required. The Company's inventory balance at December 31, 2016 was recorded at its net realizable value of \$263 million, which is net of write-downs of \$23 million.

#### *Long-Lived Assets, Intangible Assets and Goodwill*

The Company assesses the impairment of identifiable intangibles, long-lived assets and goodwill whenever events or changes in circumstances indicate that the carrying value may not be recoverable. Factors the Company considers important which could trigger impairment include, but are not limited to, the following:

- significant underperformance relative to historical or projected future operating results, particularly as it pertains to capitalized software and patent costs;
- significant negative industry or economic trends, competitive products and technologies; and
- significant changes or developments in strategic technological collaborations or legal matters which affect the Company's capitalized patents, purchased technology, trademarks and intellectual properties, such as licenses.

When the Company determines that the carrying value of an individual intangible asset, long-lived asset or goodwill may not be recoverable based upon the existence of one or more of the above indicators, an estimate of undiscounted future cash flows produced by that intangible asset, long-lived asset or goodwill, including its eventual residual value, is compared to the carrying value to determine whether impairment exists. In the event that such cash flows are not expected to be sufficient to recover the carrying amount of the asset, the asset is written-down to its estimated fair value. Net intangible assets, long-lived assets and goodwill amounted to \$207 million, \$337 million and \$352 million, respectively, as of December 31, 2016.

The Company performs annual impairment reviews of its goodwill on January 1 of each year. For goodwill impairment review purposes, the Company has two reporting units, Waters and TA. The Company currently does not expect to record an impairment charge in the foreseeable future; however, there can be no assurance that, at the time future reviews are completed, a material impairment charge will not be recorded. The factors that could cause a material goodwill impairment charge in the future include, but are not limited to, the following:

- significant decline in the Company's projected revenue, earnings or cash flows;
- significant adverse change in legal factors or business climate;
- significant decline in the Company's stock price or the stock price of comparable companies;
- adverse action or assessment by a regulator; and
- unanticipated competition.

#### *Income Taxes*

As part of the process of preparing the consolidated financial statements, the Company is required to estimate its income taxes in each of the jurisdictions in which it operates. This process involves the Company estimating its actual current tax exposure, taking into account the amount, timing and character of taxable income, tax deductions and credits, and assessing changes in tax laws, regulations, agreements and treaties. Differing treatment of items for tax and accounting purposes, such as depreciation, amortization and inventory reserves, result in deferred tax assets and liabilities, which are included within the consolidated balance sheets. In the event that actual results differ from these estimates, or the Company adjusts these estimates in future periods, such changes could materially impact the Company's financial position and results of operations.

The accounting standards for income taxes require that a company continually evaluate the necessity of establishing or changing a valuation allowance for deferred tax assets depending on whether it is more likely than not that the actual benefit of those assets will be realized in future periods.

#### *Uncertain Tax Positions*

The Company accounts for its uncertain tax return reporting positions in accordance with the accounting standards for income taxes, which require financial statement reporting of the expected future tax consequences of uncertain tax reporting positions on the presumption that all concerned tax authorities possess full knowledge of those tax reporting positions, as well as all of the pertinent facts and circumstances, but prohibit any discounting of unrecognized tax benefits associated with those reporting positions for the time value of money. The Company classified interest and penalties related to unrecognized tax benefits as a component of the provision for income taxes. At December 31, 2016, the Company had unrecognized tax benefits of \$10 million.

The Company has been granted a 0% contractual tax rate in Singapore that requires the achievement of certain operational and financial milestones that the Company expects to meet, to the extent not already achieved, by December 31, 2020 and maintain through at least March 31, 2021. As part of the Company's determination of uncertain tax positions, the Company regularly assesses its progress against these operational and financial milestone targets to determine whether the milestones can be reasonably achieved. These milestones were negotiated with the Singaporean tax authorities and established based on the Company's historical financial performance; the anticipated customer end-market demand, particularly in certain regions in the world, and the Company's anticipated future operating plans. These assessments require significant judgments and estimates about the Company's ability to meet the milestone targets for the following types of objectives: reaching and maintaining annual revenue and business spending targets; meeting capital expenditures targets; attaining and sustaining employment targets; and establishing a local research and development and service center. The Company regularly monitors its actual and forecasted sales and operating results against these milestones and the Company makes the determination as to whether the future forecasted financial results are most likely to be achieved. These milestones are very similar in nature to the previous Singaporean tax holiday contractual agreements that the Company successfully completed. These milestones are not required to be met until December 21, 2020, at the earliest, which gives the Company sufficient time to make any necessary adjustments to its operating plans to achieve the milestones.

Currently, the Company has determined that it is more likely than not to realize the contractual tax rate in Singapore of 0% and has not recognized an uncertain tax benefit in its balance sheet related to the achievement of the contractual milestones in Singapore. However, these milestones can be significantly influenced by the business climate in Singapore and the Company's overall financial performance and, in the event that the Company determines that the milestone targets are not expected to be met, the Company would no longer be able to record a tax benefit at a 0% contractual tax rate on income earned in Singapore from and after the April 1, 2016 start date of the contract period. At such time, the Company would record an income tax charge on the affected Singapore income earned back to April 1, 2016 at the Singapore statutory tax rate(s) (currently 17%), with a corresponding income tax liability recorded on the balance sheet. For the year ended 2016, the effect of applying the contractual tax rate rather than the statutory tax rate to income from qualifying activities in Singapore increased the Company's net income and net income per diluted share by \$23 million and \$0.29, respectively.

#### *Warranty*

Product warranties are recorded at the time revenue is recognized for certain product shipments. While the Company engages in extensive product quality programs and processes, including actively monitoring and evaluating the quality of its component suppliers, the Company's warranty obligation is affected by product failure rates, material usage and service delivery costs incurred in correcting a product failure. Should actual product failure rates, material usage or service delivery costs differ from the Company's previous estimates, revisions to the estimated warranty liability would be required. At December 31, 2016, the Company's warranty liability was \$13 million.

#### *Litigation*

As described in Item 3, Legal Proceedings, of Part I of this Form 10-K, the Company is a party to various pending litigation matters. With respect to each pending claim, management determines whether it can reasonably estimate whether a loss is probable and, if so, the probable range of that loss. If and when management has determined, with respect to a particular claim, both that a loss is probable and that it can reasonably estimate the range of that loss, the Company records a charge equal to either its best estimate of that loss or the lowest amount in that probable range of loss. The Company will disclose additional exposures when the range of loss is subject to considerable uncertainty.

#### *Pension and Other Retirement Benefits*

Assumptions used in determining projected benefit obligations and the fair values of plan assets for the Company's pension plans and other retirement benefits are evaluated periodically by management. Changes in assumptions are based on relevant Company data. Critical assumptions, such as the discount rate used to measure the benefit obligations and the expected long-term rate of return on plan assets, are evaluated and updated annually. The Company has assumed that the weighted-average expected long-term rate of return on plan assets will be 6.47% for its U.S. benefit plans and 2.74% for its non-U.S. benefit plans.

At the end of each year, the Company determines the discount rate that reflects the current rate at which the pension liabilities could be effectively settled. The Company utilized Milliman's Bond Matching model to determine the discount rate for its U.S. benefit plans. The Company determined the discount rate for its non-U.S. benefit plans based on the analysis of the Mercer Pension Discount Curve for high quality investments as of December 31, 2016 that best matched the timing of the plan's future cash flows for the period to maturity of the pension benefits. Once the interest rates were determined, the plan's cash flow was discounted at the spot interest rate back to the measurement date. At December 31, 2016, the Company determined the weighted-average discount rate to be 4.41% for the U.S. benefit plans and 1.71% for the non-U.S. benefits plans.

A one-quarter percentage point increase in the assumed long-term rate of return would decrease the Company's net periodic benefit cost for the Waters Retirement Plan by less than \$1 million. A one-quarter percentage point increase in the discount rate would decrease the Company's net periodic benefit cost for the Waters Retirement Plan by less than \$1 million.

### *Stock-based Compensation*

The accounting standards for stock-based compensation require that all share-based payments to employees be recognized in the statements of operations based on their fair values. The Company has used the Black-Scholes option pricing model and Monte Carlo simulation model to determine the fair value of its stock option awards and performance stock unit awards, respectively. Under the fair-value recognition provisions of this statement, share-based compensation cost is measured at the grant date based on the value of the award and is recognized as expense over the vesting period. Determining the fair value of share-based awards at the grant date requires judgment, including estimating stock price volatility and employee stock option exercise behaviors. If actual results differ significantly from these estimates, stock-based compensation expense and the Company's results of operations could be materially impacted. As stock-based compensation expense recognized in the consolidated statements of operations is based on awards that ultimately are expected to vest, the amount of the expense has been reduced for estimated forfeitures. These accounting standards require forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. Forfeitures are estimated based on historical experience. If factors change and the Company employs different assumptions in the application of these accounting standards, the compensation expense that the Company records in future periods may differ significantly from what the Company has recorded in the current period. The Company recognizes the expense using the straight-line attribution method.

As of December 31, 2016, unrecognized compensation costs and related weighted-average lives over which the costs will be amortized were as follows (in millions):

	Unrecognized Compensation Costs	Weighted-Average Life in Years
Stock options .....	\$ 45	3.6
Restricted stock units .....	38	3.0
Performance stock units .....	4	3.0
Restricted stock .....	—	—
Total .....	<u>\$ 87</u>	3.3

### *Business Combinations and Asset Acquisitions*

The Company accounts for business acquisitions under the accounting standards for business combinations. The results of each acquisition are included in the Company's consolidated results as of the acquisition date and the purchase price of an acquisition is allocated to tangible and intangible assets and assumed liabilities based on their estimated fair values. Any excess of the fair value consideration transferred over the estimated fair values of the net assets acquired is recognized as goodwill. Acquired in-process research and development ("IPR&D") included in a business combination is capitalized as an indefinite-lived intangible asset. Development costs incurred after the acquisition are expensed as incurred and acquired IPR&D is tested for impairment annually until completion of the acquired programs. Upon commercialization, this indefinite-lived intangible asset is then accounted for as a finite-lived intangible asset and amortized on a straight-line basis over its estimated useful life, subject to periodic impairment reviews. If the research and development project is abandoned, the indefinite-lived asset is charged to expense. Legal costs, due diligence costs, business valuation costs and all other business acquisition costs are expensed when incurred.

The Company also acquires intellectual property through licensing arrangements. These arrangements often require upfront payments and may include additional milestone or royalty payments, contingent upon certain future events. IPR&D acquired in an asset acquisition (as opposed to a business combination) is expensed immediately unless there is an alternative future use. Subsequent payments made for the achievement of milestones are evaluated to determine whether they have an alternative future use or should be expensed. Payments made to third parties subsequent to commercialization are capitalized and amortized over the remaining useful life of the related asset, and are classified as intangible assets.



### *Contingent Consideration*

In addition to the initial cash consideration paid to acquire Medimass, the Company is obligated to make additional earnout payments based on a royalty due on future sales of products containing the REIMS technology. In accordance with the accounting standards for business combinations, the Company determines the fair value of the liability for contingent consideration at each reporting date using a probability-weighted discounted cash flow model. Subsequent changes in the fair value of the contingent consideration liability are recorded in the results of operations. The fair value of the contingent consideration liability associated with future earnout payments is based on several factors, including estimated future results and a discount rate reflective of the Company's creditworthiness. A change in any of these unobservable inputs can significantly change the fair value of the contingent consideration. Although there is no contractual limit, total future undiscounted contingent consideration payments were estimated to be \$3 million as of December 31, 2016, based on the Company's best estimate, as the earnout is based on future sales of certain products through 2034.

### **Recent Accounting Standard Changes and Developments**

Information regarding recent accounting standard changes and developments is incorporated by reference from Part II, Item 8, Financial Statements and Supplementary Data, of this document and should be considered an integral part of this Item 7. See Note 2 in the Notes to the Consolidated Financial Statements for recently adopted and issued accounting standards.

### **Item 7A: *Quantitative and Qualitative Disclosures About Market Risk***

The Company is a global company that operates in over 35 countries and, as a result, the Company's net sales, cost of sales, operating expenses and balance sheet amounts are significantly impacted by fluctuations in foreign currency exchange rates. The Company is exposed to currency price risk on foreign currency exchange rate fluctuations when it translates its non-U.S. dollar foreign subsidiaries' financial statements into U.S. dollars, and when any of the Company's subsidiaries purchase or sell products or services in a currency other than its own currency.

The Company's principal strategy in managing exposure to changes in foreign currency exchange rates is to naturally hedge the foreign-currency-denominated liabilities on the Company's balance sheet against corresponding assets of the same currency, such that any changes in liabilities due to fluctuations in foreign currency exchange rates are typically offset by corresponding changes in assets.

The Company does not specifically enter into any derivatives that hedge foreign-currency-denominated assets, liabilities or commitments on its balance sheet, other than a portion of certain third-party accounts receivable and accounts payable, and the Company's net worldwide intercompany receivables and payables, which are eliminated in consolidation. The Company periodically aggregates its net worldwide balances by currency and then enters into foreign currency exchange contracts that mature within 90 days to hedge a portion of the remaining balance to minimize some of the Company's currency price risk exposure. The foreign currency exchange contracts are not designated for hedge accounting treatment.

Principal hedged currencies include the Euro, Japanese yen, British pound, Mexican peso and Brazilian real. At December 31, 2016, 2015 and 2014, the Company held foreign currency exchange contracts with notional amounts totaling \$120 million, \$116 million and \$110 million, respectively.

The Company's foreign currency exchange contracts included in the consolidated balance sheets are classified as follows (in thousands):

	<b>December 31, 2016</b>	<b>December 31, 2015</b>
Other current assets .....	\$ 60	\$616
Other current liabilities .....	\$730	\$402



The following is a summary of the activity included in cost of sales in the statements of operations related to the foreign currency exchange contracts (in thousands):

	Year Ended December 31,		
	2016	2015	2014
Realized (losses) gains on closed contracts .....	\$(10,401)	\$(2,601)	\$ 174
Unrealized (losses) gains on open contracts .....	(883)	742	(1,369)
Cumulative net pre-tax losses .....	<u>\$(11,284)</u>	<u>\$(1,859)</u>	<u>\$(1,195)</u>

Assuming a hypothetical adverse change of 10% in year-end exchange rates (a strengthening of the U.S. dollar), the fair market value of the foreign currency exchange contracts outstanding as of December 31, 2016 would decrease pre-tax earnings by approximately \$12 million.

The Company's cash and cash equivalents are not subject to significant interest rate risk due to the short maturities of these instruments. The Company's cash equivalents represent highly liquid investments, with original maturities of 90 days or less, primarily in bank deposits, U.S. treasury bill money market funds and commercial paper. As of December 31, 2016, the carrying value of the Company's cash and cash equivalents approximated fair value.

The Company is exposed to the risk of interest rate fluctuations from the investments of cash generated from operations. Investments with maturities greater than 90 days are classified as investments, and are held primarily in U.S. treasury bills, U.S. dollar-denominated treasury bills and commercial paper, bank deposits and corporate debt securities. The Company maintains cash balances in various operating accounts in excess of federally insured limits, and in foreign subsidiary accounts in currencies other than the U.S. dollar. As of December 31, 2016 and 2015, \$2,766 million out of \$2,813 million and \$2,346 million out of \$2,399 million, respectively, of the Company's total cash, cash equivalents and investments were held by foreign subsidiaries and may be subject to material tax effects on distribution to U.S. legal entities. In addition, \$261 million out of \$2,813 million and \$248 million out of \$2,399 million of cash, cash equivalents and investments were held in currencies other than the U.S. dollar at December 31, 2016 and 2015, respectively. As of December 31, 2016, the Company has no holdings in auction rate securities or commercial paper issued by structured investment vehicles.

Assuming a hypothetical adverse change of 10% in year-end exchange rates (a strengthening of the U.S. dollar), the fair market value of the Company's cash, cash equivalents and investments held in currencies other than the U.S. dollar as of December 31, 2016 would decrease by approximately \$26 million, of which the majority would be recorded to foreign currency translation in other comprehensive income within stockholders' equity.

## **Item 8: Financial Statements and Supplementary Data**

### **Management's Report on Internal Control Over Financial Reporting**

Our management is responsible for establishing and maintaining adequate internal control over financial reporting, as such term is defined in Rules 13a-15(f) or 15d-15(f) under the Exchange Act. 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.

Under the supervision and with the participation of our management, including our chief executive officer and chief financial officer, we conducted an evaluation of the effectiveness of our internal control over financial reporting based on the framework in *Internal Control — Integrated Framework 2013* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on our evaluation under the framework in *Internal Control — Integrated Framework 2013*, our management, including our chief executive officer and chief financial officer, concluded that our internal control over financial reporting was effective as of December 31, 2016.

The effectiveness of our internal control over financial reporting as of December 31, 2016 has been audited by PricewaterhouseCoopers LLP, an independent registered public accounting firm, as stated in their report which is included herein.

## **Report of Independent Registered Public Accounting Firm**

To the Board of Directors and Stockholders of Waters Corporation

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of operations, comprehensive income, stockholders' equity and cash flows present fairly, in all material respects, the financial position of Waters Corporation and its subsidiaries as of December 31, 2016 and December 31, 2015, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2016 in conformity with accounting principles generally accepted in the United States of America. In addition, in our opinion, the financial statement schedule of valuation and qualifying accounts appearing in the index appearing under Item 15(a)(2)(c) presents 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, 2016, based on criteria established in Internal Control — Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for these financial statements and financial statement schedule, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express opinions on these financial statements, on the financial statement schedule, 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 24, 2017

**WATERS CORPORATION AND SUBSIDIARIES**  
**CONSOLIDATED BALANCE SHEETS**

	December 31,	
	2016	2015
(In thousands, except per share data)		
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents .....	\$ 505,631	\$ 487,665
Investments .....	2,307,401	1,911,598
Accounts receivable, net .....	489,340	468,315
Inventories .....	262,682	263,415
Other current assets .....	70,391	82,540
Total current assets .....	3,635,445	3,213,533
Property, plant and equipment, net .....	337,118	333,355
Intangible assets, net .....	207,055	218,022
Goodwill .....	352,080	356,864
Other assets .....	130,361	146,903
Total assets .....	<u>\$ 4,662,059</u>	<u>\$ 4,268,677</u>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current liabilities:		
Notes payable and debt .....	\$ 125,297	\$ 175,309
Accounts payable .....	67,740	70,573
Accrued employee compensation .....	57,465	54,653
Deferred revenue and customer advances .....	148,837	141,505
Accrued income taxes .....	15,244	14,894
Accrued warranty .....	13,391	13,349
Other current liabilities .....	92,347	93,793
Total current liabilities .....	520,321	564,076
Long-term liabilities:		
Long-term debt .....	1,701,966	1,493,027
Long-term portion of retirement benefits .....	72,568	77,063
Long-term income tax liabilities .....	10,458	14,884
Other long-term liabilities .....	54,797	60,776
Total long-term liabilities .....	1,839,789	1,645,750
Total liabilities .....	2,360,110	2,209,826
Commitments and contingencies (Notes 8, 9, 10, 11 and 15)		
Stockholders' equity:		
Preferred stock, par value \$0.01 per share, 5,000 shares authorized, none issued at December 31, 2016 and December 31, 2015 .....	—	—
Common stock, par value \$0.01 per share, 400,000 shares authorized, 158,634 and 157,677 shares issued, 80,023 and 81,472 shares outstanding at December 31, 2016 and December 31, 2015, respectively .....	1,586	1,577
Additional paid-in capital .....	1,607,241	1,490,342
Retained earnings .....	5,385,069	4,863,566
Treasury stock, at cost, 78,611 and 76,205 shares at December 31, 2016 and December 31, 2015, respectively .....	(4,475,667)	(4,149,908)
Accumulated other comprehensive loss .....	(216,280)	(146,726)
Total stockholders' equity .....	2,301,949	2,058,851
Total liabilities and stockholders' equity .....	<u>\$ 4,662,059</u>	<u>\$ 4,268,677</u>

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

**WATERS CORPORATION AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**

	<b>Year Ended December 31,</b>		
	<b>2016</b>	<b>2015</b>	<b>2014</b>
	<b>(In thousands, except per share data)</b>		
Revenues:			
Product sales .....	\$1,460,296	\$1,385,256	\$1,346,729
Service sales .....	707,127	657,076	642,615
Total net sales .....	2,167,423	2,042,332	1,989,344
Costs and operating expenses:			
Cost of product sales .....	595,796	565,630	549,121
Cost of service sales .....	295,657	277,042	275,792
Selling and administrative expenses .....	513,031	495,747	512,707
Research and development expenses .....	125,187	118,545	107,726
Purchased intangibles amortization .....	9,889	10,123	10,634
Litigation provisions (Note 10) .....	3,524	3,939	—
Acquired in-process research and development (Note 2) .....	—	3,855	15,456
Total costs and operating expenses .....	1,543,084	1,474,881	1,471,436
Operating income .....	624,339	567,451	517,908
Interest expense .....	(44,911)	(36,243)	(34,191)
Interest income .....	20,686	10,711	7,023
Income from operations before income taxes .....	600,114	541,919	490,740
Provision for income taxes .....	78,611	72,866	59,120
Net income .....	\$ 521,503	\$ 469,053	\$ 431,620
Net income per basic common share .....	\$ 6.46	\$ 5.70	\$ 5.12
Weighted-average number of basic common shares .....	80,786	82,336	84,358
Net income per diluted common share .....	\$ 6.41	\$ 5.65	\$ 5.07
Weighted-average number of diluted common shares and equivalents ..	81,417	83,087	85,151

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

**WATERS CORPORATION AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME**

	Year Ended December 31,		
	2016	2015	2014
	(In thousands)		
Net income .....	\$521,503	\$469,053	\$431,620
Other comprehensive loss:			
Foreign currency translation .....	(66,996)	(70,481)	(61,728)
Unrealized gains (losses) on investments before income taxes .....	279	(1,825)	(532)
Income tax benefit .....	111	31	43
Unrealized gains (losses) on investments, net of tax .....	390	(1,794)	(489)
Retirement liability adjustment before reclassifications .....	(6,783)	191	(34,797)
Amounts reclassified to selling and administrative expenses .....	3,263	4,443	2,886
Retirement liability adjustment before income taxes .....	(3,520)	4,634	(31,911)
Income tax benefit (expense) .....	572	(380)	9,544
Retirement liability adjustment, net of tax .....	(2,948)	4,254	(22,367)
Other comprehensive loss .....	(69,554)	(68,021)	(84,584)
Comprehensive income .....	<u>\$451,949</u>	<u>\$401,032</u>	<u>\$347,036</u>

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



**WATERS CORPORATION AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**

	Year Ended December 31,		
	2016	2015	2014
	(In thousands)		
Cash flows from operating activities:			
Net income	\$ 521,503	\$ 469,053	\$ 431,620
Adjustments to reconcile net income to net cash provided by operating activities:			
Provisions for doubtful accounts on accounts receivable	2,370	1,291	2,037
Stock-based compensation	40,998	33,368	32,998
Deferred income taxes	1,204	6,581	1,583
Depreciation	51,684	45,287	46,393
Amortization of intangibles	44,765	44,700	47,838
Building impairment	—	—	4,718
Gain on sale of assets	(1,500)	(1,377)	—
In-process research and development and other non-cash charges	—	4,638	16,481
Change in operating assets and liabilities, net of acquisitions:			
Increase in accounts receivable	(31,721)	(49,888)	(29,435)
Increase in inventories	(20,147)	(19,967)	(15,984)
Increase in other current assets	(4,806)	(18,497)	(5,784)
Increase in other assets	(1,076)	(9,634)	(14,409)
Increase (decrease) in accounts payable and other current liabilities	6,842	27,451	(13,687)
Increase in deferred revenue and customer advances	9,974	16,172	9,566
Increase (decrease) in other liabilities	8,986	11,115	(2,287)
Net cash provided by operating activities	629,076	560,293	511,648
Cash flows from investing activities:			
Additions to property, plant, equipment and software capitalization	(94,967)	(100,012)	(91,122)
Business acquisitions, net of cash acquired	(5,609)	(23,494)	(27,008)
Payments for intellectual property licenses	—	(3,000)	(15,126)
Purchases of investments	(2,396,032)	(2,010,368)	(2,196,153)
Maturities and sales of investments	2,004,690	1,731,981	1,925,816
Proceeds from sale of assets	4,000	5,154	1,563
Net cash used in investing activities	(487,918)	(399,739)	(402,030)
Cash flows from financing activities:			
Proceeds from debt issuances	485,298	325,219	381,673
Payments on debt	(325,323)	(120,140)	(239,776)
Payments of debt issuance costs	(1,705)	(2,382)	(1,400)
Proceeds from stock plans	62,189	52,060	73,849
Purchases of treasury shares	(325,759)	(334,705)	(337,444)
Excess tax benefit related to stock option plans	13,844	12,955	15,703
(Payments for) proceeds from derivative contracts	(10,401)	(2,601)	174
Net cash used in financing activities	(101,857)	(69,594)	(107,221)
Effect of exchange rate changes on cash and cash equivalents	(21,335)	(25,472)	(21,016)
Increase (decrease) in cash and cash equivalents	17,966	65,488	(18,619)
Cash and cash equivalents at beginning of period	487,665	422,177	440,796
Cash and cash equivalents at end of period	\$ 505,631	\$ 487,665	\$ 422,177
Supplemental cash flow information:			
Income taxes paid	\$ 50,007	\$ 51,750	\$ 60,971
Interest paid	\$ 43,595	\$ 37,396	\$ 34,332

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

**WATERS CORPORATION AND SUBSIDIARIES**  
**CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY**

	<u>Number of Common Shares</u>	<u>Common Stock</u>	<u>Additional Paid-In Capital</u>	<u>Retained Earnings</u>	<u>Treasury Stock</u>	<u>Accumulated Other Comprehensive Income (Loss)</u>	<u>Total Stockholders' Equity</u>
	(In thousands)						
Balance December 31, 2013 .....	155,246	\$1,552	\$1,270,608	\$3,962,893	\$(3,477,759)	\$ 5,879	\$1,763,173
Net income .....	—	—	—	431,620	—	—	431,620
Other comprehensive loss ..	—	—	—	—	—	(84,584)	(84,584)
Issuance of common stock for employees:							
Employee Stock Purchase Plan .....	54	1	5,027	—	—	—	5,028
Stock options exercised .....	1,185	12	68,809	—	—	—	68,821
Tax benefit related to stock option plans .....	—	—	15,703	—	—	—	15,703
Treasury stock .....	—	—	—	—	(337,444)	—	(337,444)
Stock-based compensation .....	231	2	32,347	—	—	—	32,349
Balance December 31, 2014 .....	<u>156,716</u>	<u>\$1,567</u>	<u>\$1,392,494</u>	<u>\$4,394,513</u>	<u>\$(3,815,203)</u>	<u>\$ (78,705)</u>	<u>\$1,894,666</u>
Net income .....	—	—	—	469,053	—	—	469,053
Other comprehensive loss ..	—	—	—	—	—	(68,021)	(68,021)
Issuance of common stock for employees:							
Employee Stock Purchase Plan .....	53	1	5,495	—	—	—	5,496
Stock options exercised .....	727	7	46,557	—	—	—	46,564
Tax benefit related to stock option plans .....	—	—	12,955	—	—	—	12,955
Treasury stock .....	—	—	—	—	(334,705)	—	(334,705)
Stock-based compensation .....	181	2	32,841	—	—	—	32,843
Balance December 31, 2015 .....	<u>157,677</u>	<u>\$1,577</u>	<u>\$1,490,342</u>	<u>\$4,863,566</u>	<u>\$(4,149,908)</u>	<u>\$(146,726)</u>	<u>\$2,058,851</u>
Net income .....	—	—	—	521,503	—	—	521,503
Other comprehensive loss ..	—	—	—	—	—	(69,554)	(69,554)
Issuance of common stock for employees:							
Employee Stock Purchase Plan .....	53	1	6,277	—	—	—	6,278
Stock options exercised .....	730	7	55,904	—	—	—	55,911
Tax benefit related to stock option plans .....	—	—	13,844	—	—	—	13,844
Treasury stock .....	—	—	—	—	(325,759)	—	(325,759)
Stock-based compensation .....	174	1	40,874	—	—	—	40,875
Balance December 31, 2016 .....	<u>158,634</u>	<u>\$1,586</u>	<u>\$1,607,241</u>	<u>\$5,385,069</u>	<u>\$(4,475,667)</u>	<u>\$(216,280)</u>	<u>\$2,301,949</u>

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

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

### 1 Description of Business and Organization

Waters Corporation (the “Company”) is an analytical instrument manufacturer that primarily designs, manufactures, sells and services high performance liquid chromatography (“HPLC”), ultra performance liquid chromatography (“UPLC®” and together with HPLC, referred to as “LC”) and mass spectrometry (“MS”) technology systems and support products, including chromatography columns, other consumable products and comprehensive post-warranty service plans. These systems are complementary products that are frequently employed together (“LC-MS”) and sold as integrated instrument systems using a common software platform. LC is a standard technique and is utilized in a broad range of industries to detect, identify, monitor and measure the chemical, physical and biological composition of materials, and to purify a full range of compounds. MS instruments are used in drug discovery and development, including clinical trial testing, the analysis of proteins in disease processes (known as “proteomics”), nutritional safety analysis and environmental testing. LC-MS instruments combine a liquid phase sample introduction and separation system with mass spectrometric compound identification and quantification. In addition, the Company designs, manufactures, sells and services thermal analysis, rheometry and calorimetry instruments through its TA® product line. These instruments are used in predicting the suitability and stability of fine chemicals, pharmaceuticals, water, polymers, metals and viscous liquids for various industrial, consumer goods and healthcare products, as well as for life science research. The Company is also a developer and supplier of software-based products that interface with the Company’s instruments, as well as other suppliers’ instruments, and are typically purchased by customers as part of the instrument system.

### 2 Basis of Presentation and Summary of Significant Accounting Policies

#### *Use of Estimates*

The preparation of consolidated financial statements in conformity with generally accepted accounting principles (“GAAP”) requires the Company to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent liabilities at the dates of the financial statements. On an ongoing basis, the Company evaluates its estimates, including those related to revenue recognition, product returns and allowances, bad debts, inventory valuation, goodwill and intangible assets, income taxes, warranty and installation provisions, litigation, retirement plan obligations, stock-based compensation, equity investments and contingencies. The Company bases its estimates on historical experience and on various other 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 amounts may differ from these estimates under different assumptions or conditions.

#### *Risks and Uncertainties*

The Company is subject to risks common to companies in the analytical instrument industry, including, but not limited to, global economic and financial market conditions, fluctuations in foreign currency exchange rates, fluctuations in customer demand, development by its competitors of new technological innovations, costs of developing new technologies, levels of debt and debt service requirements, risk of disruption, dependence on key personnel, protection and litigation of proprietary technology, shifts in taxable income between tax jurisdictions and compliance with regulations of the U.S. Food and Drug Administration and similar foreign regulatory authorities and agencies.

#### *Principles of Consolidation*

The consolidated financial statements include the accounts of the Company and its subsidiaries, which are wholly owned. The Company consolidates entities in which it owns or controls fifty percent or more of the voting shares. All inter-company balances and transactions have been eliminated.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

### *Translation of Foreign Currencies*

The functional currency of each of the Company's foreign operating subsidiaries is the local currency of that particular country, except for the Company's subsidiaries in Hong Kong, Singapore and the Cayman Islands, where the underlying transactional cash flows are denominated in currencies other than the respective local currency of domicile. The functional currency of the Hong Kong, Singapore and Cayman Islands subsidiaries is the U.S. dollar, based on the respective entity's cash flows.

For most of the Company's foreign operations, assets and liabilities are translated into U.S. dollars at exchange rates prevailing on the balance sheet date, while revenues and expenses are translated at average exchange rates prevailing during the period. Any resulting translation gains or losses are included in accumulated other comprehensive income in the consolidated balance sheets. The Company's net sales derived from operations outside the United States were 69%, 68% and 70% in 2016, 2015 and 2014, respectively. Gains and losses from foreign currency transactions are included in net income in the consolidated statements of operations. In 2016 and 2015, foreign currency transactions resulted in a net gain of \$4 million and a net loss of \$3 million, respectively. Gains and losses from foreign currency transactions were not material for 2014.

### *Seasonality of Business*

The Company typically experiences an increase in sales in the fourth quarter, as a result of purchasing habits for capital goods of customers that tend to exhaust their spending budgets by calendar year end.

### *Cash, Cash Equivalents and Investments*

Cash equivalents represent highly liquid investments, with original maturities of 90 days or less, primarily in bank deposits, U.S. treasury bill money market funds and commercial paper. Investments with longer maturities are classified as investments, and are held primarily in U.S. treasury bills, U.S. dollar-denominated treasury bills and commercial paper, bank deposits and corporate debt securities.

Investments are classified as available-for-sale in accordance with the accounting standards for investments in debt and equity securities. All available-for-sale securities are recorded at fair market value and any unrealized holding gains and losses, to the extent deemed temporary, are included in accumulated other comprehensive income in stockholders' equity, net of the related tax effects. If any adjustment to fair value reflects a decline in the value of the investment, the Company considers all available evidence to evaluate the extent to which the decline is "other than temporary" and marks the investment to market through a charge to the statement of operations. The Company classifies its investments exclusive of those categorized as cash equivalents.

The Company maintains cash balances in various operating accounts in excess of federally insured limits, and in foreign subsidiary accounts in currencies other than the U.S. dollar. As of December 31, 2016 and 2015, \$2,766 million out of \$2,813 million and \$2,346 million out of \$2,399 million, respectively, of the Company's total cash, cash equivalents and investments were held by foreign subsidiaries and may be subject to material tax effects on distribution to U.S. legal entities. In addition, \$261 million out of \$2,813 million and \$248 million out of \$2,399 million of cash, cash equivalents and investments were held in currencies other than the U.S. dollar at December 31, 2016 and 2015, respectively.

### *Accounts Receivable and Allowance for Doubtful Accounts*

Trade accounts receivable are recorded at the invoiced amount and do not bear interest. The allowance for doubtful accounts is the best estimate of the amount of probable credit losses in the existing accounts receivable. The allowance is based on a number of factors, including historical experience and the customer's credit-

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

worthiness. The allowance for doubtful accounts is reviewed on at least a quarterly basis. Past due balances over 90 days and over a specified amount are reviewed individually for collectibility. Account balances are charged against the allowance when the Company determines it is probable that the receivable will not be recovered. The Company does not have any off-balance sheet credit exposure related to its customers. The allowance for sales returns is the best estimate of the amount of future product returns related to current period revenue and is based on historical experience.

The following is a summary of the activity of the Company's allowance for doubtful accounts and sales returns for the years ended December 31, 2016, 2015 and 2014 (in thousands):

	<u>Balance at Beginning of Period</u>	<u>Additions</u>	<u>Deductions</u>	<u>Balance at End of Period</u>
Allowance for Doubtful Accounts and Sales Returns:				
2016 .....	\$7,496	\$6,912	\$(5,751)	\$8,657
2015 .....	\$7,179	\$6,739	\$(6,422)	\$7,496
2014 .....	\$7,057	\$7,551	\$(7,429)	\$7,179

### *Concentration of Credit Risk*

The Company sells its products and services to a significant number of large and small customers throughout the world, with net sales to the pharmaceutical industry of approximately 56% in 2016, 54% in 2015 and 53% in 2014. None of the Company's individual customers accounted for more than 2% of annual Company sales in 2016, 2015 or 2014. The Company performs continuing credit evaluations of its customers and generally does not require collateral, but in certain circumstances may require letters of credit or deposits. Historically, the Company has not experienced significant bad debt losses.

### *Inventory*

The Company values all of its inventories at the lower of cost or market on a first-in, first-out basis ("FIFO").

### *Income Taxes*

Deferred income taxes are recognized for temporary differences between the financial statement and income tax basis of assets and liabilities using tax rates in effect for the years in which the differences are expected to reverse. A valuation allowance is provided to offset any net deferred tax assets if, based upon the available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized. Appropriate long-term liabilities have also been recorded to recognize uncertain tax return reporting positions.

### *Property, Plant and Equipment*

Property, plant and equipment are recorded at cost. Expenditures for maintenance and repairs are charged to expense, while the costs of significant improvements are capitalized. Depreciation is provided using the straight-line method over the following estimated useful lives: buildings — fifteen to thirty years; building improvements — five to ten years; leasehold improvements — the shorter of the economic useful life or life of lease; and production and other equipment — three to ten years. Upon retirement or sale, the cost of the assets disposed of and the related accumulated depreciation are eliminated from the consolidated balance sheets and related gains or losses are reflected in the consolidated statements of operations.

### *Asset Impairments*

The Company reviews its long-lived assets for impairment in accordance with the accounting standards for property, plant and equipment. Whenever events or circumstances indicate that the carrying amount of an asset

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

may not be recoverable, the Company evaluates the fair value of the asset, relying on a number of factors, including, but not limited to, operating results, business plans, economic projections and anticipated future cash flows. Any change in the carrying amount of an asset as a result of the Company's evaluation is recorded in the consolidated statements of operations.

### *Business Combinations and Asset Acquisitions*

The Company accounts for business acquisitions under the accounting standards for business combinations. The results of each acquisition are included in the Company's consolidated results as of the acquisition date and the purchase price of an acquisition is allocated to tangible and intangible assets and assumed liabilities based on their estimated fair values. Any excess of the fair value consideration transferred over the estimated fair values of the net assets acquired is recognized as goodwill. Acquired in-process research and development ("IPR&D") included in a business combination is capitalized as an indefinite-lived intangible asset. Development costs incurred after the acquisition are expensed as incurred and acquired IPR&D is tested for impairment annually until completion of the acquired programs. Upon commercialization, this indefinite-lived intangible asset is then accounted for as a finite-lived intangible asset and amortized on a straight-line basis over its estimated useful life, subject to periodic impairment reviews. If the research and development project is abandoned, the indefinite-lived asset is charged to expense. Legal costs, due diligence costs, business valuation costs and all other business acquisition costs are expensed when incurred.

The Company also acquires intellectual property through licensing arrangements. These arrangements often require upfront payments and may include additional milestone or royalty payments, contingent upon certain future events. IPR&D acquired in an asset acquisition (as opposed to a business combination) is expensed immediately unless there is an alternative future use. Subsequent payments made for the achievement of milestones are evaluated to determine whether they have an alternative future use or should be expensed. Payments made to third parties subsequent to commercialization are capitalized and amortized over the remaining useful life of the related asset, and are classified as intangible assets.

### *Goodwill and Other Intangible Assets*

The Company tests for goodwill impairment using a fair-value approach at the reporting unit level annually, or earlier, if an event occurs or circumstances change that would more likely than not reduce the fair value of a reporting unit below its carrying amount. Additionally, the Company performs an annual goodwill impairment assessment for its reporting units as of January 1 each year. The goodwill and other intangible assets accounting standards define a reporting unit as an operating segment, or one level below an operating segment, if discrete financial information is prepared and reviewed by management. For goodwill impairment review purposes, the Company has two reporting units, Waters® and TA. Goodwill is allocated to the reporting units at the time of acquisition. Under the impairment test, if a reporting unit's carrying amount exceeds its estimated fair value, goodwill impairment is recognized to the extent that the carrying amount of goodwill exceeds the implied fair value of the goodwill. The fair value of reporting units was estimated using a discounted cash flows technique, which includes certain management assumptions, such as estimated future cash flows, estimated growth rates and discount rates.

The Company's intangible assets include purchased technology; capitalized software development costs; costs associated with acquiring Company patents, trademarks and intellectual properties, such as licenses; debt issuance costs and acquired IPR&D. Purchased intangibles are recorded at their fair market values as of the acquisition date and amortized over their estimated useful lives, ranging from one to fifteen years. Other intangibles are amortized over a period ranging from one to ten years. Debt issuance costs are amortized over the life of the related debt. Acquired IPR&D is amortized from the date of completion of the acquired program over its estimated useful life. IPR&D and indefinite-lived intangibles are tested annually for impairment.



## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

### *Software Development Costs*

The Company capitalizes internal and external software development costs for products offered for sale in accordance with the accounting standards for the costs of software to be sold, leased, or otherwise marketed. Capitalized costs are amortized to cost of sales over the period of economic benefit, which approximates a straight-line basis over the estimated useful lives of the related software products, generally three to ten years. The Company capitalized \$33 million and \$35 million of direct expenses that were related to the development of software in 2016 and 2015, respectively. Net capitalized software included in intangible assets totaled \$132 million at both December 31, 2016 and 2015. See Note 7, “Goodwill and Other Intangibles”.

The Company capitalizes internal software development costs for internal use in accordance with the accounting standards for goodwill and other intangible assets. Capitalized internal software development costs are amortized over the period of economic benefit, which approximates a straight-line basis over ten years. Net capitalized internal software included in property, plant and equipment totaled \$3 million at both December 31, 2016 and 2015.

### *Other Investments*

The Company accounts for its investments that represent less than twenty percent ownership, and for which the Company does not have significant influence, using the accounting standards for investments in debt and equity securities. Investments for which the Company does not have the ability to exercise significant influence, and for which there is not a readily determinable market value, are accounted for under the cost method of accounting. The Company periodically evaluates the carrying value of its investments accounted for under the cost method of accounting and carries them at the lower of cost or estimated net realizable value. For investments in which the Company owns or controls between twenty and forty-nine percent of the voting shares, or over which it exerts significant influence over operating and financial policies, the equity method of accounting is used. The Company’s share of net income or losses of equity investments is included in the consolidated statements of operations and was not material in any period presented.

During the year ended December 31, 2016, the Company sold an equity investment that was accounted for using the equity method of accounting and was included in other assets in the consolidated balance sheet for \$4 million in cash. The investment had a carrying value of \$2 million, which resulted in a gain on the sale of \$2 million. This investment had a balance of \$2 million as of December 31, 2015 and the Company has no long-term investments remaining as of December 31, 2016.

### *Fair Value Measurements*

In accordance with the accounting standards for fair value measurements and disclosures, certain of the Company’s assets and liabilities are measured at fair value on a recurring basis as of December 31, 2016 and 2015. Fair values determined by Level 1 inputs utilize observable data, such as quoted prices in active markets. Fair values determined by Level 2 inputs utilize data points other than quoted prices in active markets that are observable either directly or indirectly. Fair values determined by Level 3 inputs utilize unobservable data points for which there is little or no market data, which require the reporting entity to develop its own assumptions.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

The following table represents the Company's assets and liabilities measured at fair value on a recurring basis at December 31, 2016 (in thousands):

	Total at December 31, 2016	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<b>Assets:</b>				
U.S. Treasury securities .....	\$ 570,313	\$ —	\$ 570,313	\$ —
Foreign government securities .....	17,991	—	17,991	—
Corporate debt securities .....	1,643,838	—	1,643,838	—
Time deposits .....	199,906	—	199,906	—
Equity securities .....	147	—	147	—
Waters 401(k) Restoration Plan assets .....	30,954	30,954	—	—
Foreign currency exchange contracts .....	60	—	60	—
<b>Total .....</b>	<b><u>\$2,463,209</u></b>	<b><u>\$30,954</u></b>	<b><u>\$2,432,255</u></b>	<b><u>\$ —</u></b>
<b>Liabilities:</b>				
Contingent consideration .....	\$ 3,007	\$ —	\$ —	\$3,007
Foreign currency exchange contracts .....	730	—	730	—
<b>Total .....</b>	<b><u>\$ 3,737</u></b>	<b><u>\$ —</u></b>	<b><u>\$ 730</u></b>	<b><u>\$3,007</u></b>

The following table represents the Company's assets and liabilities measured at fair value on a recurring basis at December 31, 2015 (in thousands):

	Total at December 31, 2015	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
<b>Assets:</b>				
U.S. Treasury securities .....	\$ 627,156	\$ —	\$ 627,156	\$ —
Foreign government securities .....	15,199	—	15,199	—
Corporate debt securities .....	1,324,318	—	1,324,318	—
Time deposits .....	74,947	—	74,947	—
Equity securities .....	147	—	147	—
Other cash equivalents .....	27,000	—	27,000	—
Waters 401(k) Restoration Plan assets .....	35,823	35,823	—	—
Foreign currency exchange contracts .....	616	—	616	—
<b>Total .....</b>	<b><u>\$2,105,206</u></b>	<b><u>\$35,823</u></b>	<b><u>\$2,069,383</u></b>	<b><u>\$ —</u></b>
<b>Liabilities:</b>				
Contingent consideration .....	\$ 4,215	\$ —	\$ —	\$4,215
Foreign currency exchange contracts .....	402	—	402	—
<b>Total .....</b>	<b><u>\$ 4,617</u></b>	<b><u>\$ —</u></b>	<b><u>\$ 402</u></b>	<b><u>\$4,215</u></b>

### *Fair Value of 401(k) Restoration Plan Assets*

The 401(k) Restoration Plan is a nonqualified defined contribution plan and, in 2016 and 2015, the assets were held in registered mutual funds. The Company has revised the classification of the 401(k) Restoration Plan assets

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

from Level 2 to Level 1 at December 31, 2015 to correct the classification. The Company concluded that the error was not material to the prior period financial statements.

### *Fair Value of Cash Equivalents, Investment and Foreign Currency Exchange Contracts*

The fair values of the Company's cash equivalents, investments and foreign currency exchange contracts are determined through market and observable sources and have been classified as Level 2. These assets and liabilities have been initially valued at the transaction price and subsequently valued, typically utilizing third-party pricing services. The pricing services use many inputs to determine value, including reportable trades, benchmark yields, credit spreads, broker/dealer quotes, current spot rates and other industry and economic events. The Company validates the prices provided by third-party pricing services by reviewing their pricing methods and obtaining market values from other pricing sources. After completing these validation procedures, the Company did not adjust or override any fair value measurements provided by third-party pricing services as of December 31, 2016 and 2015.

### *Fair Value of Contingent Consideration*

The fair value of the Company's liability for contingent consideration relates to the July 2014 acquisition of Medimass Research, Development and Service Kft. and is determined using a probability-weighted discounted cash flow model, which uses significant unobservable inputs, and has been classified as Level 3. Subsequent changes in the fair value of the contingent consideration liability are recorded in the results of operations. The fair value of the contingent consideration liability associated with future earnout payments is based on several factors, including the estimated future results and a discount rate that reflects both the likelihood of achieving the estimated future results and the Company's creditworthiness. A change in any of these unobservable inputs can significantly change the fair value of the contingent consideration. Although there is no contractual limit, the fair value of future contingent consideration payments was estimated to be \$3 million and \$4 million at December 31, 2016 and December 31, 2015, respectively, based on the Company's best estimate, as the earnout is based on future sales of certain products, some of which are currently in development, through 2034. The change in fair value since December 31, 2015 is primarily due to a reduction in the future revenue projections, offset by the change in time value of money.

### *Fair Value of Other Financial Instruments*

The Company's cash, accounts receivable, accounts payable and variable interest rate debt are recorded at cost, which approximates fair value due to their short-term nature. The carrying value of the Company's fixed interest rate debt was \$610 million and \$450 million at December 31, 2016 and 2015, respectively. The fair value of the Company's fixed interest rate debt was estimated using discounted cash flow models, based on estimated current rates offered for similar debt under current market conditions for the Company. The fair value of the Company's fixed interest rate debt was estimated to be \$603 million and \$454 million at December 31, 2016 and 2015, respectively, using Level 2 inputs.

### *Derivative Transactions*

The Company is a global company that operates in over 35 countries and, as a result, the Company's net sales, cost of sales, operating expenses and balance sheet amounts are significantly impacted by fluctuations in foreign currency exchange rates. The Company is exposed to currency price risk on foreign currency exchange rate fluctuations when it translates its non-U.S. dollar foreign subsidiaries' financial statements into U.S. dollars, and when any of the Company's subsidiaries purchase or sell products or services in a currency other than its own currency.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

The Company's principal strategy in managing exposure to changes in foreign currency exchange rates is to naturally hedge the foreign-currency-denominated liabilities on the Company's balance sheet against corresponding assets of the same currency, such that any changes in liabilities due to fluctuations in foreign currency exchange rates are typically offset by corresponding changes in assets.

The Company does not specifically enter into any derivatives that hedge foreign-currency-denominated assets, liabilities or commitments on its balance sheet, other than a portion of certain third-party accounts receivable and accounts payable, and the Company's net worldwide intercompany receivables and payables, which are eliminated in consolidation. The Company periodically aggregates its net worldwide balances by currency and then enters into foreign currency exchange contracts that mature within 90 days to hedge a portion of the remaining balance to minimize some of the Company's currency price risk exposure. The foreign currency exchange contracts are not designated for hedge accounting treatment.

Principal hedged currencies include the Euro, Japanese yen, British pound, Mexican peso and Brazilian real. At December 31, 2016, 2015 and 2014, the Company held foreign currency exchange contracts with notional amounts totaling \$120 million, \$116 million and \$110 million, respectively.

The Company's foreign currency exchange contracts included in the consolidated balance sheets are classified as follows (in thousands):

	<u>December 31, 2016</u>	<u>December 31, 2015</u>
Other current assets .....	\$ 60	\$616
Other current liabilities .....	\$730	\$402

The following is a summary of the activity included in cost of sales in the statements of operations related to the foreign currency exchange contracts (in thousands):

	<u>Year Ended December 31,</u>		
	<u>2016</u>	<u>2015</u>	<u>2014</u>
Realized (losses) gains on closed contracts .....	\$(10,401)	\$(2,601)	\$ 174
Unrealized (losses) gains on open contracts .....	(883)	742	(1,369)
Cumulative net pre-tax losses .....	<u>\$(11,284)</u>	<u>\$(1,859)</u>	<u>\$(1,195)</u>

### *Stockholders' Equity*

In May 2014, the Company's Board of Directors authorized the Company to repurchase up to \$750 million of its outstanding common stock over a three-year period. During 2016, 2015 and 2014, the Company repurchased 2.3 million, 2.6 million and 3.1 million shares of the Company's outstanding common stock at a cost of \$318 million, \$327 million and \$329 million, respectively, under the May 2014 authorization and other previously announced programs. As of December 31, 2016, the Company repurchased an aggregate of 4.8 million shares at a cost of \$627 million under the May 2014 repurchase program and has a total of \$123 million authorized for future repurchases. In addition, the Company repurchased \$8 million, \$7 million and \$8 million of common stock related to the vesting of restricted stock units during the years ended December 31, 2016, 2015 and 2014, respectively. The Company believes that it has the financial flexibility to fund these share repurchases given current cash levels and debt borrowing capacity, as well as to invest in research, technology and business acquisitions to further grow the Company's sales and profits.

### *Revenue Recognition*

Sales of products and services are generally recorded based on product shipment and performance of service, respectively. The Company's deferred revenue on the consolidated balance sheets consists of the obligation on

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

instrument service contracts and customer payments received in advance, prior to shipment of the instrument. Revenue is recognized when all of the following revenue recognition criteria are met: persuasive evidence of an arrangement exists; delivery or performance has occurred; the vendor's fee is fixed or determinable; collectibility is reasonably assured and, if applicable, upon acceptance when acceptance criteria with contractual cash holdback are specified. Shipping and handling costs invoiced to the customer are included in net sales, while the costs associated with shipping and handling are included in cost of sales.

Product shipments and service contracts are not recorded as revenue until a valid purchase order or master agreement is received, specifying fixed terms and prices. The Company generally recognizes product revenue when legal title has transferred and risk of loss passes to the customer. The Company generally structures its sales arrangements as shipping point or international equivalent and, accordingly, recognizes revenue upon shipment. In some cases, destination-based shipping terms are included in sales arrangements, in which cases revenue is generally recognized when the products arrive at the customer site.

The Company's method of revenue recognition for certain products requiring installation is accounted for in accordance with multiple-element revenue recognition accounting standards. With respect to the installation obligations, the larger of the contractual cash holdback or the best estimate of selling price of the installation service is deferred when the product is shipped and revenue is recognized as a multiple-element arrangement when installation is complete. The Company determines the best estimate of selling price of installation based upon a number of factors, including hourly service billing rates and estimated installation hours.

Instrument service contracts are typically billed at the beginning of the maintenance period. The amount of the service contract is amortized ratably to revenue over the instrument maintenance period. There are no deferred costs associated with the service contract, as the cost of the service is recorded when the service is performed. No revenue is recognized until all revenue recognition criteria have been met.

Sales of standalone software are accounted for in accordance with the accounting standards for software revenue recognition. The Company's software arrangements typically include software licenses and maintenance contracts. Software license revenue is recognized when persuasive evidence of an arrangement exists, delivery has occurred, the fee is fixed or determinable, collection is probable, and there are no significant post-delivery obligations remaining. The revenue associated with the software maintenance contract is recognized ratably over the maintenance term. Unspecified rights to software upgrades are typically sold as part of the maintenance contract on a when-and-if-available basis. The Company uses the residual method to allocate software revenue when a transaction includes multiple elements and vendor specific objective evidence of fair value of undelivered elements exists. Under the residual method, the fair value of the undelivered element (maintenance) is deferred and the remaining portion of the arrangement fee is allocated to the delivered element (software license) and recognized as revenue.

Returns and customer credits are infrequent and are recorded as a reduction to sales. Rights of return are not included in sales arrangements. Revenue associated with products that contain specific customer acceptance criteria is not recognized before the customer acceptance criteria are satisfied. Discounts from list prices are recorded as a reduction to sales.

### *Product Warranty Costs*

The Company accrues estimated product warranty costs at the time of sale, which are included in cost of sales in the consolidated statements of operations. While the Company engages in extensive product quality programs and processes, including actively monitoring and evaluating the quality of its component suppliers, the Company's warranty obligation is affected by product failure rates, material usage and service delivery costs incurred in correcting a product failure. The amount of the accrued warranty liability is based on historical

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

information, such as past experience, product failure rates, number of units repaired and estimated costs of material and labor. The liability is reviewed for reasonableness at least quarterly.

The following is a summary of the activity of the Company's accrued warranty liability for the years ended December 31, 2016, 2015 and 2014 (in thousands):

	<u>Balance at Beginning of Period</u>	<u>Accruals for Warranties</u>	<u>Settlements Made</u>	<u>Balance at End of Period</u>
Accrued warranty liability:				
2016 .....	\$13,349	\$9,755	\$(9,713)	\$13,391
2015 .....	\$13,266	\$8,390	\$(8,307)	\$13,349
2014 .....	\$12,962	\$8,148	\$(7,844)	\$13,266

### *Advertising Costs*

All advertising costs are expensed as incurred and are included in selling and administrative expenses in the consolidated statements of operations. Advertising expenses were \$11 million for both 2016 and 2015 and were \$12 million for 2014.

### *Research and Development Expenses*

Research and development expenses are comprised of costs incurred in performing research and development activities, including salaries and benefits, facilities costs, overhead costs, contract services and other outside costs. Research and development expenses are expensed as incurred. During 2015 and 2014, the Company incurred \$4 million and \$15 million charges, respectively, for acquired in-process research and development related to the licensing of certain intellectual property relating to mass spectrometry technologies yet to be commercialized and for which there was no future alternative use as of the acquisition date. These licensing arrangements are significantly related to new, biologically-focused applications, as well as other applications, and require the Company to make additional future payments of up to \$12 million if certain milestones are achieved, as well as royalties on future net sales.

### *Stock-Based Compensation*

The Company has two stock-based compensation plans, which are described in Note 12, "Stock-Based Compensation".

### *Earnings Per Share*

In accordance with the earnings per share accounting standards, the Company presents two earnings per share ("EPS") amounts. Income per basic common share is based on income available to common shareholders and the weighted-average number of common shares outstanding during the periods presented. Income per diluted common share includes additional dilution from potential common stock, such as stock issuable pursuant to the exercise of stock options outstanding.

### *Retirement Plans*

The Company sponsors various retirement plans, which are described in Note 15, "Retirement Plans".

### *Comprehensive Income*

The Company accounts for comprehensive income in accordance with the accounting standards for comprehensive income, which establish the accounting rules for reporting and displaying comprehensive income.



## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

These standards require that all components of comprehensive income be reported in a financial statement that is displayed with the same prominence as other financial statements.

### *Recently Adopted Accounting Standards*

In August 2014, accounting guidance was issued which defines management's responsibility to assess an entity's ability to continue as a going concern at each annual and interim reporting period, and requires additional disclosures in certain circumstances. This guidance was effective in the three month period ended December 31, 2016, and for annual and interim periods thereafter. The adoption of this standard did not have an impact on the Company's financial position, results of operations or cash flows.

In May 2015, accounting guidance was issued which allows a practical expedient for the measurement of certain investments using the net asset value per share of the investment. The guidance also exempts investments using this practical expedient from categorization within the fair value hierarchy. This guidance requires retrospective application and is effective for annual and interim reporting periods beginning after December 15, 2015. The adoption of this guidance removed certain retirement plan assets from the fair value hierarchy and the prior period presentation has been updated to conform with the current period presentation, see Note 15, "Retirement Plans", for further details.

### *Recently Issued Accounting Standards*

In May 2014, amended accounting guidance was issued regarding the recognition of revenue from contracts with customers. The objective of this guidance is to significantly enhance comparability and clarify principles of revenue recognition practices across entities, industries, jurisdictions and capital markets. This guidance was originally effective for annual and interim reporting periods beginning after December 15, 2016; however, the Financial Accounting Standards Board ("FASB") amended the standard in August 2015 to delay the effective period date by one year to annual and interim periods beginning after December 15, 2017. Adoption prior to December 15, 2016 is not permitted. In March 2016, the FASB clarified the implementation guidance on principal versus agent considerations and, in April 2016, clarification was made regarding certain aspects of identifying performance obligations and licensing implementation guidance. In May 2016, additional guidance was issued related to disclosure of remaining performance obligations, as well as other amendments to guidance on collectibility, non-cash consideration and the presentation of sales and other similar taxes collected from customers. The Company does not intend to early adopt this accounting standard and will apply the modified-retrospective method. The Company is currently evaluating the potential impact that the adoption of this standard will have on the Company's financial position, results of operations and cash flows.

In July 2015, accounting guidance was issued which clarifies the measurement of inventory. The new guidance requires inventory to be measured at the lower of cost and net realizable value. Net realizable value is the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. This guidance is effective for annual and interim periods beginning after December 15, 2016. The Company currently does not expect that the adoption of this standard will have a material effect on the Company's financial position, results of operations and cash flows.

In January 2016, accounting guidance was issued which primarily affects the classification and measurement of certain financial instruments, principally equity investments and certain financial liabilities. Under the new guidance, there will no longer be an available-for-sale classification for equity securities with readily determinable fair values. Changes to the fair value of equity investments will be recognized through earnings. Equity investments carried at cost should be adjusted for changes in observable prices, as applicable, and qualitatively assessed for impairment annually. Changes to the fair value of financial liabilities under the fair value option due to instrument specific credit risk will be recognized separately in other comprehensive income. The new guidance also requires financial assets and financial liabilities to be presented separately and grouped by measurement category in the notes to the financial statements. This guidance is effective for annual and interim

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

reporting periods beginning after December 15, 2017 and early adoption of certain provisions of this guidance is permitted. The Company currently does not expect that the adoption of this standard will have a material effect on the Company's financial position, results of operations and cash flows.

In February 2016, accounting guidance was issued regarding the accounting for leases. This new comprehensive lease standard amends various aspects of existing accounting guidance for leases. The core principle of the new guidance will require lessees to present the assets and liabilities that arise from leases on their balance sheets. This guidance is effective for annual and interim reporting periods beginning after December 15, 2018 and early adoption is permitted. The Company expects that the adoption of this standard will have a material effect on the Company's balance sheet classifications; however, it is not expected to have an overall material impact on the Company's financial position, results of operations and cash flows.

In March 2016, accounting guidance was issued which simplifies the accounting for share-based payment transactions, including the income tax consequences, classification of awards as either equity or liabilities and classification on the statement of cash flows. This guidance is effective for annual and interim reporting periods beginning after December 15, 2016 and early adoption is permitted. The Company expects that the adoption of this standard may have a material impact on the Company's financial position, results of operations and cash flows as the tax benefits in excess of compensation costs that are currently recorded in equity will be included in the Company's results of operations after adoption of this standard. In addition, the tax benefits in excess of compensation costs, which are currently included as an inflow from financing activities, will be included as operating activities after adoption of this standard. Furthermore, the impact of this standard after adoption is dependent on employee stock option exercise activity, which is not within the Company's control.

In June 2016, accounting guidance was issued that modifies the recognition of credit losses related to financial assets, such as debt securities, trade receivables, net investments in leases, off-balance sheet credit exposures, and other financial assets that have the contractual right to receive cash. Current guidance requires the recognition of a credit loss when it is considered probable that a loss event was incurred. The new guidance requires the measurement of expected credit losses to be based upon relevant information, including historical experience, current conditions, and reasonable and supportable forecasts that affect the collectability of the asset. As such, expected credit losses may be recognized sooner under the new guidance due to the broader range of information that will be required to determine credit loss estimates. The new guidance also amends the current other-than-temporary impairment model used for debt securities classified as available-for-sale. When the fair value of an available-for-sale debt security is below its amortized cost, the new guidance requires the total unrealized loss to be bifurcated into its credit and non-credit components. Any expected credit losses or subsequent recoveries will be recognized in earnings and any changes not considered credit related will continue to be recognized within other comprehensive income. This guidance is effective for annual and interim periods beginning after December 15, 2019. The Company currently does not expect that the adoption of this standard will have a material effect on the Company's financial position, results of operations and cash flows.

In August 2016, accounting guidance was issued that clarifies the classification of certain cash flows. The new guidance addresses eight specific areas where current accounting guidance is either unclear or does not specifically address classification issues. This guidance is effective for annual and interim periods beginning after December 15, 2018 and early adoption is permitted. The Company is currently evaluating the potential impact that the adoption of this standard will have on the Company's cash flows.

In October 2016, accounting guidance was issued regarding intra-entity transfers of assets other than inventory. The new guidance eliminates the deferral of tax effects on intra-entity transfers other than inventory and requires an entity to recognize the income tax consequences when the transfer occurs. This guidance is effective for annual and interim periods beginning after December 15, 2017 and early adoption is permitted. The Company is currently evaluating the potential impact that the adoption of this standard will have on the Company's financial position, results of operations and cash flows.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

In January 2017, accounting guidance was issued that clarifies the definition of a business. The new guidance provides a more robust framework to use in determining when a set of assets and activities is a business, thus narrowing the definition and the amount of transactions accounted for as business combinations. This guidance is effective for annual and interim periods beginning after December 15, 2017 and early application is permitted under certain circumstances. The Company is currently evaluating the potential impact that the adoption of this standard will have on the Company's financial position, results of operations and cash flows.

In January 2017, accounting guidance was issued that simplifies the accounting for goodwill impairment. The guidance eliminates step 2 of the goodwill impairment test, which requires a hypothetical purchase price allocation. This guidance is effective for annual and interim periods beginning after December 15, 2019 and early adoption is permitted. The Company currently does not expect that the adoption of this standard will have a material effect on the Company's financial position, results of operations and cash flows.

### 3 Marketable Securities

The Company's marketable securities within cash equivalents and investments included in the consolidated balance sheets are detailed as follows (in thousands):

	December 31, 2016			
	Amortized Cost	Unrealized Gain	Unrealized Loss	Fair Value
U.S. Treasury securities . . . . .	\$ 570,695	\$253	\$ (635)	\$ 570,313
Foreign government securities . . . . .	17,999	—	(8)	17,991
Corporate debt securities . . . . .	1,645,468	496	(2,126)	1,643,838
Time deposits . . . . .	199,906	—	—	199,906
Equity securities . . . . .	77	70	—	147
Total . . . . .	<u>\$2,434,145</u>	<u>\$819</u>	<u>\$(2,769)</u>	<u>\$2,432,195</u>

Amounts included in:

Cash equivalents . . . . .	\$ 124,793	\$ 1	\$ —	\$ 124,794
Investments . . . . .	2,309,352	818	(2,769)	2,307,401
Total . . . . .	<u>\$2,434,145</u>	<u>\$819</u>	<u>\$(2,769)</u>	<u>\$2,432,195</u>

	December 31, 2015			
	Amortized Cost	Unrealized Gain	Unrealized Loss	Fair Value
U.S. Treasury securities . . . . .	\$ 628,358	\$ 16	\$(1,218)	\$ 627,156
Foreign government securities . . . . .	15,216	—	(17)	15,199
Corporate debt securities . . . . .	1,325,398	159	(1,239)	1,324,318
Time deposits . . . . .	74,947	—	—	74,947
Equity securities . . . . .	77	70	—	147
Total . . . . .	<u>\$2,043,996</u>	<u>\$245</u>	<u>\$(2,474)</u>	<u>\$2,041,767</u>

Amounts included in:

Cash equivalents . . . . .	\$ 130,169	\$—	\$ —	\$ 130,169
Investments . . . . .	1,913,827	245	(2,474)	1,911,598
Total . . . . .	<u>\$2,043,996</u>	<u>\$245</u>	<u>\$(2,474)</u>	<u>\$2,041,767</u>

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

The estimated fair value of marketable debt securities by maturity date is as follows (in thousands):

	December 31, 2016	December 31, 2015
Due in one year or less .....	\$1,388,537	\$1,137,825
Due after one year through three years .....	843,605	828,848
Total .....	<u>\$2,232,142</u>	<u>\$1,966,673</u>

Realized gains and losses on sales of investments were not material in 2016, 2015 and 2014.

### 4 Inventories

Inventories are classified as follows (in thousands):

	December 31,	
	2016	2015
Raw materials .....	\$ 95,430	\$ 88,625
Work in progress .....	16,585	20,901
Finished goods .....	150,667	153,889
Total inventories .....	<u>\$262,682</u>	<u>\$263,415</u>

During 2016, 2015 and 2014, the Company recorded inventory-related excess and obsolescence provisions of \$9 million, \$5 million and \$5 million, respectively.

### 5 Property, Plant and Equipment

Property, plant and equipment consist of the following (in thousands):

	December 31,	
	2016	2015
Land and land improvements .....	\$ 35,720	\$ 38,735
Buildings and leasehold improvements .....	274,021	265,300
Production and other equipment .....	438,604	380,016
Construction in progress .....	20,204	20,477
Total property, plant and equipment .....	768,549	704,528
Less: accumulated depreciation and amortization .....	(431,431)	(371,173)
Property, plant and equipment, net .....	<u>\$ 337,118</u>	<u>\$ 333,355</u>

During 2016, 2015 and 2014, the Company retired and disposed of approximately \$15 million, \$29 million and \$10 million of property, plant and equipment, respectively, most of which was fully depreciated and no longer in use. Gains on disposal were immaterial for the years ended December 31, 2016 and 2014. During 2014, the Company recorded a \$5 million impairment charge related to a write-down in the fair value of a building in the U.K., which was designated as held for sale. During 2015, the Company sold the building for \$5 million in cash, which resulted in a gain on the sale of \$1 million.

### 6 Acquisitions

In September 2016, the Company acquired all of the outstanding stock of Rubotherm GmbH (“Rubotherm”), a manufacturer of gravimetric analysis systems, for approximately \$6 million in cash, \$5 million of which was paid

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

at closing and an additional \$1 million paid after closing to settle certain liabilities. Rubotherm develops and manufactures analytical test instruments for thermogravimetric and sorption measurements that are used in both industrial and academic research laboratories in disciplines that include chemistry, material science and engineering. The Rubotherm acquisition will help support and further expand product offerings within TA's thermal analysis business. The Company has allocated \$3 million of the purchase price to intangible assets comprised of completed technology, which will be amortized over ten years. The remaining purchase price of \$4 million was accounted for as goodwill, which is not deductible for tax purposes.

The fair values of the assets and liabilities acquired were determined using various income-approach valuation techniques, which use Level 3 inputs. The following table presents the fair values as of the acquisition date, as determined by the Company, of 100% of the assets and liabilities owned and recorded in connection with the acquisition of Rubotherm (in thousands):

Accounts receivable and current other assets .....	\$1,037
Inventory .....	976
Property, plant and equipment .....	160
Intangible assets .....	2,901
Goodwill .....	3,743
Total assets acquired .....	8,817
Accrued expenses and other liabilities .....	2,849
Deferred tax liability .....	782
Cash consideration paid .....	<u>\$5,186</u>

In November 2015, the Company acquired all of the outstanding stock of MPE Orbur Group Limited and its sole operating subsidiary, Midland Precision Equipment Company, Ltd. ("MPE"), a manufacturer of MS instrumentation components, for \$12 million, net of cash acquired. MPE is a highly skilled manufacturer and former Waters supplier that produces critical components that support the Company's MS instrument systems. MPE was acquired to bring this key supplier in house to reduce manufacturing costs in the future and to reduce risk to our supply chain.

In the fourth quarter of 2015, the Company acquired certain assets of its Malaysian sales and service distributor for \$2 million in cash.

In May 2015, the Company acquired the net assets of the ElectroForce® business of the Bose Corporation ("ElectroForce"), a manufacturer of testing systems, for \$9 million in cash. ElectroForce's core business is the manufacturing of dynamic mechanical testing systems used to characterize medical devices, biologic and engineered materials. The ElectroForce test instruments are based on unique motor designs that are quiet, energy-efficient, scalable and deliver precise performance over a wide range of force and frequency. ElectroForce was acquired to expand TA's product offering into new markets, while leveraging the technology, infrastructure and customer bases of the combined organizations.

In July 2014, the Company acquired the net assets of Medimass Research, Development and Service Kft. ("Medimass"), a developer of mass spectrometry-related technologies with the potential to be used for a variety of applications, for \$23 million in cash. In addition, the Company potentially has to pay additional contingent consideration, which had an estimated fair value of \$3 million as of the closing date. The net assets acquired consist primarily of the Rapid Evaporative Ionization Mass Spectrometry ("REIMS") technology, including patent applications, software, databases and REIMS expertise. REIMS is an ambient pressure surface ionization technique that, when used with mass spectrometry, can characterize the molecular topography of complex surfaces, such as cell membranes. The contingent consideration payments are calculated based on a royalty due

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

on future sales of products containing the REIMS technology. The fair value of the contingent consideration recognized was estimated using a probability-weighted discounted cash flow model, using Level 3 inputs.

In January 2014, the Company acquired all of the outstanding stock of ULSP B.V. (“ULSP”), a manufacturer of instrumentation components that enable ultra low temperature generation, for \$4 million in cash. ULSP’s core business is the manufacturing and servicing of high quality low temperature coolers for thermal analysis and rheology applications, and these products are important accessories for many TA core instrument offerings. ULSP was acquired to bring the manufacturing of these devices in house and to expand the Company’s product offering.

The principal factor that resulted in recognition of goodwill in these acquisitions is that the purchase price was based, in part, on cash flow projections assuming the integration of any acquired technology, distribution channels and products with the Company’s products, which is of considerably greater value than utilizing each of the acquired companies’ technology, customer access or products on a standalone basis. The goodwill also includes value assigned to assembled workforce, which cannot be recognized as an intangible asset. Specifically, the goodwill acquired with MPE and Medimass consists of the values assigned to the respective workforces and the future incremental sales synergies anticipated.

In each acquisition, the sellers provided the Company with customary representations, warranties and indemnification, which would be settled in the future if and when a breach of the contractual representation or warranty condition occurs. The pro forma effect of the ongoing operations for Waters Corporation, Rubotherm, MPE, the Malaysian sales and service distributor, ElectroForce, Medimass and ULSP, either individually or in the aggregate, as though these acquisitions had occurred at the beginning of the periods covered by this report was immaterial.

### 7 Goodwill and Other Intangibles

The carrying amount of goodwill was \$352 million and \$357 million at December 31, 2016 and 2015, respectively. During the year ended December 31, 2016, the Company’s acquisitions increased goodwill by \$4 million (see Note 6) and the effect of foreign currency translation decreased goodwill by \$9 million.

The Company’s intangible assets included in the consolidated balance sheets are detailed as follows (in thousands):

	December 31, 2016			December 31, 2015		
	Gross Carrying Amount	Accumulated Amortization	Weighted- Average Amortization Period	Gross Carrying Amount	Accumulated Amortization	Weighted- Average Amortization Period
Capitalized software . . . . .	\$355,973	\$223,572	5 years	\$335,949	\$204,267	7 years
Purchased intangibles . . . . .	162,180	127,045	11 years	163,500	119,505	11 years
Trademarks and IPR&D . . . . .	13,544	—	—	14,364	—	—
Licenses . . . . .	4,632	3,851	6 years	5,396	4,046	6 years
Patents and other intangibles . . . .	61,646	36,452	8 years	58,519	31,888	8 years
Total . . . . .	<u>\$597,975</u>	<u>\$390,920</u>	7 years	<u>\$577,728</u>	<u>\$359,706</u>	8 years

During the year ended December 31, 2016, the Company acquired \$3 million of purchased intangibles as a result of the acquisition of Rubotherm (see Note 6). In addition, the gross carrying value of intangible assets and accumulated amortization for intangible assets decreased by \$21 million and \$13 million, respectively, in the year ended December 31, 2016 due to the effects of foreign currency translation. Amortization expense for



## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

intangible assets was \$45 million, \$45 million and \$48 million for the years ended December 31, 2016, 2015 and 2014, respectively. Amortization expense for intangible assets is estimated to be \$45 million per year for each of the next five years.

### 8 Debt

In May 2016, the Company issued the following senior unsecured notes:

<u>Senior Unsecured Notes</u>	<u>Term</u>	<u>Interest Rate</u>	<u>Face Value (in millions)</u>	<u>Maturity Date</u>
Series I .....	7 years	3.13%	\$ 50	May 2023
Series J .....	8 years	Floating Rate*	\$ 40	May 2024
Series K .....	10 years	3.44%	\$160	May 2026

\* Series J senior unsecured notes bear interest at 3 month LIBOR for that floating rate interest period plus 1.45%.

Of the \$250 million of proceeds received from the issuance of the new senior unsecured notes, \$225 million were used to repay outstanding portions of the revolving facilities. Interest on the Series I and K senior unsecured notes is payable semi-annually each year. Interest on Series J senior unsecured notes is payable quarterly. The Company may prepay all or some of the senior unsecured notes at any time in an amount not less than 10% of the aggregate principal amount outstanding, plus the applicable make-whole amount or prepayment premium for Series J senior unsecured notes. Other provisions for these senior unsecured notes are similar to the existing senior unsecured notes, as described below.

In June 2013, the Company entered into a credit agreement that provides for a \$1.1 billion revolving facility and a \$300 million term loan facility. In April 2015, Waters Corporation entered into an amendment to this agreement (the "Amended Credit Agreement"). The Amended Credit Agreement provides for an increase of the revolving commitments from \$1.1 billion to \$1.3 billion and extends the maturity of the original credit agreement from June 25, 2018 until April 23, 2020. The Company plans to use future proceeds from the revolving facility for general corporate purposes.

The interest rates applicable to the Amended Credit Agreement are, at the Company's option, equal to either the alternate base rate calculated daily (which is a rate per annum equal to the greatest of (a) the prime rate in effect on such day, (b) the federal funds effective rate in effect on such day plus 1/2% per annum, or (c) the adjusted LIBO rate on such day (or if such day is not a business day, the immediately preceding business day) for a deposit in U.S. dollars with a maturity of one month plus 1% per annum) or the applicable 1, 2, 3 or 6 month adjusted LIBO rate, in each case, plus an interest rate margin based upon the Company's leverage ratio, which can range between 0 to 12.5 basis points for alternate base rate loans and between 80 basis points and 117.5 basis points for adjusted LIBO rate loans. The facility fee on the Amended Credit Agreement ranges between 7.5 basis points and 20 basis points. The Amended Credit Agreement requires that the Company comply with an interest coverage ratio test of not less than 3.50:1 as of the end of any fiscal quarter for any period of four consecutive fiscal quarters and a leverage ratio test of not more than 3.50:1 as of the end of any fiscal quarter. In addition, the Amended Credit Agreement includes negative covenants, affirmative covenants, representations and warranties and events of default that are customary for investment grade credit facilities.

At December 31, 2016, \$125 million of the outstanding portion of the revolving facility was classified as short-term liabilities in the consolidated balance sheet due to the fact that the Company expects to repay this portion of the borrowing under the revolving line of credit within the next twelve months. The remaining \$705 million of the outstanding portion of the revolving facility was classified as long-term liabilities in the consolidated balance sheet, as this portion is not expected to be repaid within the next twelve months.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

As of December 31, 2016 and December 31, 2015, the Company had a total of \$700 million and \$500 million of outstanding senior unsecured notes, respectively. Interest on the fixed rate senior unsecured notes is payable semi-annually each year. Interest on the floating rate senior unsecured notes is payable quarterly. The Company may prepay all or some of the senior unsecured notes at any time in an amount not less than 10% of the aggregate principal amount outstanding, plus the applicable make-whole amount or prepayment premium for Series H and J senior unsecured notes. In the event of a change in control of the Company (as defined in the note purchase agreement), the Company may be required to prepay the senior unsecured notes at a price equal to 100% of the principal amount thereof, plus accrued and unpaid interest. These senior unsecured notes require that the Company comply with an interest coverage ratio test of not less than 3.50:1 for any period of four consecutive fiscal quarters and a leverage ratio test of not more than 3.50:1 as of the end of any fiscal quarter. In addition, these senior unsecured notes include customary negative covenants, affirmative covenants, representations and warranties and events of default.

The Company had the following outstanding debt at December 31, 2016 and 2015 (in thousands):

	December 31,	
	2016	2015
Foreign subsidiary lines of credit	\$ 297	\$ 322
Senior unsecured notes - Series C - 2.50%, due March 2016	—	50,000
Credit agreement	125,000	125,000
Unamortized debt issuance costs	—	(13)
Total notes payable and debt, current	<u>125,297</u>	<u>175,309</u>
Senior unsecured notes - Series B - 5.00%, due February 2020	100,000	100,000
Senior unsecured notes - Series D - 3.22%, due March 2018	100,000	100,000
Senior unsecured notes - Series E - 3.97%, due March 2021	50,000	50,000
Senior unsecured notes - Series F - 3.40%, due June 2021	100,000	100,000
Senior unsecured notes - Series G - 3.92%, due June 2024	50,000	50,000
Senior unsecured notes - Series H - floating rate*, due June 2024	50,000	50,000
Senior unsecured notes - Series I - 3.13%, due May 2023	50,000	—
Senior unsecured notes - Series J - floating rate**, due May 2024	40,000	—
Senior unsecured notes - Series K - 3.44%, due May 2026	160,000	—
Credit agreement	1,005,000	1,045,000
Unamortized debt issuance costs	<u>(3,034)</u>	<u>(1,973)</u>
Total long-term debt	<u>1,701,966</u>	<u>1,493,027</u>
Total debt	<u><u>\$1,827,263</u></u>	<u><u>\$1,668,336</u></u>

\* Series H senior unsecured notes bear interest at a 3-month LIBOR for that floating rate interest period plus 1.25%.

\*\* Series J senior unsecured notes bear interest at a 3-month LIBOR for that floating rate interest period plus 1.45%.

As of December 31, 2016 and 2015, the Company had a total amount available to borrow under existing credit agreements of \$468 million and \$428 million, respectively, after outstanding letters of credit. The weighted-average interest rates applicable to the senior unsecured notes and credit agreement borrowings collectively were 2.55% and 2.11% at December 31, 2016 and 2015, respectively. As of December 31, 2016, the Company was in compliance with all debt covenants.

The Company and its foreign subsidiaries also had available short-term lines of credit totaling \$79 million and \$97 million at December 31, 2016 and 2015, respectively, for the purpose of short-term borrowing and

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

issuance of commercial guarantees. At December 31, 2016 and 2015, the weighted-average interest rates applicable to these short-term borrowings were 1.49% and 1.24%, respectively.

Annual maturities of debt outstanding at December 31, 2016 are as follows (in thousands):

	<u>Total</u>
2017 .....	\$ 125,297
2018 .....	100,000
2019 .....	—
2020 .....	1,105,000
2021 .....	150,000
Thereafter .....	350,000
Total .....	<u>\$1,830,297</u>

### 9 Income Taxes

Income tax data for the years ended December 31, 2016, 2015 and 2014 is as follows (in thousands):

	<u>Year Ended December 31,</u>		
	<u>2016</u>	<u>2015</u>	<u>2014</u>
The components of income from operations before income taxes are as follows:			
Domestic .....	\$ 35,154	\$ 66,716	\$ 70,136
Foreign .....	564,960	475,203	420,604
Total .....	<u>\$600,114</u>	<u>\$541,919</u>	<u>\$490,740</u>

	<u>Year Ended December 31,</u>		
	<u>2016</u>	<u>2015</u>	<u>2014</u>
The current and deferred components of the provision for income taxes on operations are as follows:			
Current .....	\$77,407	\$66,285	\$57,537
Deferred .....	1,204	6,581	1,583
Total .....	<u>\$78,611</u>	<u>\$72,866</u>	<u>\$59,120</u>

The jurisdictional components of the provision for income taxes on operations are as follows:			
Federal .....	\$19,693	\$20,882	\$23,071
State .....	3,090	3,389	3,791
Foreign .....	55,828	48,595	32,258
Total .....	<u>\$78,611</u>	<u>\$72,866</u>	<u>\$59,120</u>

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

	Year Ended December 31,		
	2016	2015	2014
The differences between income taxes computed at the United States statutory rate and the provision for income taxes are summarized as follows:			
Federal tax computed at U.S. statutory income tax rate	\$ 210,040	\$ 189,672	\$ 171,759
Settlement of tax audits	345	(3,258)	—
State income tax, net of federal income tax benefit	2,008	2,601	2,464
Net effect of foreign operations	(133,518)	(112,426)	(109,240)
Other, net	(264)	(3,723)	(5,863)
Provision for income taxes	<u>\$ 78,611</u>	<u>\$ 72,866</u>	<u>\$ 59,120</u>

The four principal jurisdictions in which the Company manufactures are the U.S., Ireland, the U.K. and Singapore, where the marginal effective tax rates were approximately 37.5%, 12.5%, 20% and 0%, respectively, as of December 31, 2016. The Company has a contractual tax rate of 0% on qualifying activities in Singapore through March 2021, based upon the achievement of certain contractual milestones, which the Company expects to continue to meet. The current statutory tax rate in Singapore is 17%. The effect of applying the contractual tax rate rather than the statutory tax rate to income from qualifying activities in Singapore increased the Company's net income in 2016, 2015 and 2014 by \$23 million, \$20 million and \$20 million, respectively and increased the Company's net income per diluted share by \$0.29, \$0.25 and \$0.24, respectively.

The Company's effective tax rates for the years ended December 31, 2016, 2015 and 2014 were 13.1%, 13.4% and 12.0%, respectively. The change in the effective tax rates can be primarily attributed to differences in the proportionate amounts of pre-tax income recognized in jurisdictions with different effective tax rates. In addition, the income tax provision for 2016 included a \$3 million tax benefit related to a release of a valuation allowance on certain net operating loss carryforwards. In 2015, the income tax provision included a \$3 million tax benefit related to the completion of tax audit examinations.

The tax effects of temporary differences and carryforwards which give rise to deferred tax assets and deferred tax liabilities are summarized as follows (in thousands):

	December 31,	
	2016	2015
Deferred tax assets:		
Net operating losses and credits	\$ 76,027	\$ 83,428
Depreciation	8,310	8,223
Stock-based compensation	19,609	18,160
Deferred compensation	24,813	28,907
Revaluation of equity investments and licenses	4,707	5,396
Inventory	5,235	4,470
Accrued liabilities and reserves	8,814	10,129
Other	15,948	15,871
Total deferred tax assets	163,463	174,584
Valuation allowance	(61,225)	(68,595)
Deferred tax assets, net of valuation allowance	102,238	105,989
Deferred tax liabilities:		
Capitalized software	(15,323)	(15,336)
Amortization	(5,115)	(5,799)
Indefinite-lived intangibles	(19,680)	(18,924)
Total deferred tax liabilities	(40,118)	(40,059)
Net deferred tax assets	<u>\$ 62,120</u>	<u>\$ 65,930</u>

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

As of December 31, 2016, the Company has provided a deferred tax valuation allowance of \$61 million, of which \$57 million relates to certain foreign net operating losses. The Company's net deferred tax assets associated with net operating losses and tax credit carryforwards are approximately \$19 million as of December 31, 2016, which represent the future tax benefit of foreign net operating loss carryforwards that do not expire under current law.

The income tax benefits associated with non-qualified stock option compensation expense recognized for tax purposes and credited to additional paid-in capital were \$14 million, \$13 million and \$16 million for the years ended December 31, 2016, 2015 and 2014, respectively.

At December 31, 2016, there were unremitted earnings of foreign subsidiaries of approximately \$3 billion. The Company has not provided for U.S. income taxes or foreign withholding taxes on these earnings as it is the Company's current intention to permanently reinvest these earnings outside the U.S. Because of the complexity of U.S. and foreign tax rules applicable to the distribution of earnings from foreign subsidiaries to U.S. legal entities, the determination of the unrecognized deferred tax liability on these earnings is not practicable. Events that could trigger a tax might include U.S. acquisitions or other investments funded by cash distributions or loans from a foreign subsidiary.

The Company accounts for its uncertain tax return reporting positions in accordance with the accounting standards for income taxes, which require financial statement reporting of the expected future tax consequences of uncertain tax reporting positions on the presumption that all concerned tax authorities possess full knowledge of those tax reporting positions, as well as all of the pertinent facts and circumstances, but prohibit any discounting of unrecognized tax benefits associated with those reporting positions for the time value of money. The Company classified interest and penalties related to unrecognized tax benefits as a component of the provision for income taxes.

The following is a summary of the activity of the Company's unrecognized tax benefits for the years ended December 31, 2016, 2015 and 2014 (in thousands):

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Balance at the beginning of the period . . . . .	\$14,450	\$19,596	\$24,716
Changes resulting from completion of tax examinations . . . . .	(828)	(2,405)	—
Other changes in uncertain tax benefits . . . . .	(3,658)	(2,741)	(5,120)
Balance at the end of the period . . . . .	<u>\$ 9,964</u>	<u>\$14,450</u>	<u>\$19,596</u>

With limited exceptions, the Company is no longer subject to tax audit examinations in significant jurisdictions for the years ended on or before December 31, 2012. However, carryforward tax attributes that were generated in years beginning on or before January 1, 2013 may still be adjusted upon examination by tax authorities if the attributes are utilized. The Company continuously monitors the lapsing of statutes of limitations on potential tax assessments for related changes in the measurement of unrecognized tax benefits, related net interest and penalties, and deferred tax assets and liabilities.

During the year ended December 31, 2016, the Company concluded tax audit disputes outside the U.S. that, in part, related to matters for which the Company had recorded net uncertain tax benefits. The resolution of these tax disputes resulted in a \$1 million reduction in the measurement of its unrecognized tax benefits for the year ended December 31, 2016.

During the year ended December 31, 2015, the Company concluded U.S. tax audit disputes that, in part, related to matters for which the Company had recorded net uncertain tax benefits. The resolution of these tax disputes resulted in a \$2 million reduction in the measurement of its unrecognized tax benefits and a \$2 million decrease in its provision for income taxes for the year ended December 31, 2015.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

As of December 31, 2016, the Company expects to record additional reductions in the measurement of its unrecognized tax benefits and related net interest and penalties of approximately \$5 million within the next twelve months due to potential tax audit settlements and the lapsing of statutes of limitations on potential tax assessments. The Company does not expect to record any other material reductions in the measurement of its unrecognized tax benefits within the next twelve months.

### 10 Litigation

From time to time, the Company and its subsidiaries are involved in various litigation matters arising in the ordinary course of business. The Company believes it has meritorious arguments in its current litigation matters and believes any outcome, either individually or in the aggregate, will not be material to the Company's financial position, results of operations or cash flows. In both 2016 and 2015, the Company recorded \$4 million of litigation settlement provisions and related costs. The accrued patent litigation expense is in other current liabilities in the consolidated balance sheets at December 31, 2016 and 2015.

### 11 Other Commitments and Contingencies

Lease agreements, expiring at various dates through 2031, cover buildings, office equipment and automobiles. Rental expense was \$28 million for the year ended December 31, 2016 and \$27 million for each of the years ended December 31, 2015 and 2014. Future minimum rents payable as of December 31, 2016 under non-cancelable leases with initial terms exceeding one year are as follows (in thousands):

2017	\$21,864
2018	16,877
2019	13,361
2020	10,855
2021 and thereafter	27,152

The Company licenses certain technology and software from third parties. Future minimum license fees payable under existing license agreements as of December 31, 2016 are immaterial for the years ended December 31, 2017 and thereafter. The Company enters into licensing arrangements with third parties that require future milestone or royalty payments contingent upon future events. Upon the achievement of certain milestones in existing agreements, the Company could make additional future payments of up to \$12 million, as well as royalties on future net sales.

The Company enters into standard indemnification agreements in its ordinary course of business. Pursuant to these agreements, the Company indemnifies, holds harmless and agrees to reimburse the indemnified party for losses suffered or incurred by the indemnified party, generally the Company's business partners or customers, in connection with patent, copyright or other intellectual property infringement claims by any third party with respect to its current products, as well as claims relating to property damage or personal injury resulting from the performance of services by the Company or its subcontractors. The maximum potential amount of future payments the Company could be required to make under these indemnification agreements is unlimited. Historically, the Company's costs to defend lawsuits or settle claims relating to such indemnity agreements have been minimal and management accordingly believes the estimated fair value of these agreements is immaterial.

### 12 Stock-Based Compensation

In May 2012, the Company's shareholders approved the Company's 2012 Equity Incentive Plan ("2012 Plan"). As of December 31, 2016, the 2012 Plan has 3.1 million shares available for grant in the form of incentive or non-qualified stock options, stock appreciation rights ("SARs"), restricted stock, restricted stock units,



## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

performance stock units or other types of awards. The Company issues new shares of common stock upon exercise of stock options, restricted stock unit conversion or performance stock unit conversion. Under the 2012 Plan, the exercise price for stock options may not be less than the fair market value of the underlying stock at the date of grant. The 2012 Plan is scheduled to terminate on May 9, 2022. Options generally will expire no later than ten years after the date on which they are granted and will become exercisable as directed by the Compensation Committee of the Board of Directors and generally vest in equal annual installments over a five-year period. A SAR may be granted alone or in conjunction with an option or other award. Shares of restricted stock, and restricted stock units and performance stock units may be issued under the 2012 Plan for such consideration as is determined by the Compensation Committee of the Board of Directors. As of December 31, 2016, the Company had stock options, restricted stock and restricted and performance stock unit awards outstanding.

In May 2009, the Company's shareholders approved the 2009 Employee Stock Purchase Plan under which eligible employees may contribute up to 15% of their earnings toward the quarterly purchase of the Company's common stock. The plan makes available 0.9 million shares of the Company's common stock, which includes the remaining shares available under the 1996 Employee Stock Purchase Plan. As of December 31, 2016, 1.4 million shares have been issued under both the 2009 and 1996 Employee Stock Purchase Plans. Each plan period lasts three months beginning on January 1, April 1, July 1 and October 1 of each year. The purchase price for each share of stock is the lesser of 90% of the market price on the first day of the plan period or 100% of the market price on the last day of the plan period. Stock-based compensation expense related to this plan was \$1 million for each of the years ended December 31, 2016, 2015 and 2014, respectively.

The Company accounts for stock-based compensation costs in accordance with the accounting standards for stock-based compensation, which require that all share-based payments to employees be recognized in the statements of operations based on their grant date fair values. The Company recognizes the expense using the straight-line attribution method. The stock-based compensation expense recognized in the consolidated statements of operations is based on awards that ultimately are expected to vest; therefore, the amount of expense has been reduced for estimated forfeitures. The stock-based compensation accounting standards require forfeitures to be estimated at the time of grant and revised, if necessary, in subsequent periods if actual forfeitures differ from those estimates. Forfeitures were estimated based on historical experience. If actual results differ significantly from these estimates, stock-based compensation expense and the Company's results of operations could be materially impacted. In addition, if the Company employs different assumptions in the application of these standards, the compensation expense that the Company records in the future periods may differ significantly from what the Company has recorded in the current period.

The consolidated statements of operations for the years ended December 31, 2016, 2015 and 2014 include the following stock-based compensation expense related to stock option awards, restricted stock awards, restricted stock unit awards, performance stock unit awards and the employee stock purchase plan (in thousands):

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Cost of sales .....	\$ 2,738	\$ 2,590	\$ 2,732
Selling and administrative expenses .....	34,451	26,431	26,128
Research and development expenses .....	3,809	4,347	4,138
Total stock-based compensation .....	<u>\$40,998</u>	<u>\$33,368</u>	<u>\$32,998</u>

During the year ended December 31, 2016, the Company recognized \$7 million of stock compensation expense related to the modification of certain stock awards upon the retirement of senior executives.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

### *Stock Options*

In determining the fair value of the stock options, the Company makes a variety of assumptions and estimates, including volatility measures, expected yields and expected stock option lives. The fair value of each option grant was estimated on the date of grant using the Black-Scholes option pricing model. The Company uses implied volatility on its publicly-traded options as the basis for its estimate of expected volatility. The Company believes that implied volatility is the most appropriate indicator of expected volatility because it is generally reflective of historical volatility and expectations of how future volatility will differ from historical volatility. The expected life assumption for grants is based on historical experience for the population of non-qualified stock option exercises. The risk-free interest rate is the yield currently available on U.S. Treasury zero-coupon issues with a remaining term approximating the expected term used as the input to the Black-Scholes model. The relevant data used to determine the value of the stock options granted during 2016, 2015 and 2014 are as follows:

<b>Options Issued and Significant Assumptions Used to Estimate Option Fair Values</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
Options issued in thousands	324	673	569
Risk-free interest rate	1.9%	1.8%	1.6%
Expected life in years	6	6	6
Expected volatility	0.247	0.257	0.266
Expected dividends	—	—	—

<b>Weighted-Average Exercise Price and Fair Value of Options on the Date of Grant</b>	<b>2016</b>	<b>2015</b>	<b>2014</b>
Exercise price	\$135.02	\$127.63	\$112.56
Fair value	\$ 37.44	\$ 35.84	\$ 32.61

The following table summarizes stock option activity for the plans for the year ended December 31, 2016 (in thousands, except per share data):

	<b>Number of Shares</b>	<b>Exercise Price per Share</b>	<b>Weighted-Average Exercise Price</b>
Outstanding at December 31, 2015	3,154	\$ 38.09 to \$134.37	\$ 96.73
Granted	324	\$117.68 to \$139.51	\$135.02
Exercised	(730)	\$ 41.20 to \$113.36	\$ 76.55
Canceled	(51)	\$ 79.15 to \$128.93	\$109.53
Outstanding at December 31, 2016	<u>2,697</u>	\$ 38.09 to \$139.51	\$106.55

The following table details the options outstanding at December 31, 2016 by range of exercise prices (in thousands, except per share data):

<b>Exercise Price Range</b>	<b>Number of Shares Outstanding</b>	<b>Weighted-Average Exercise Price</b>	<b>Remaining Contractual Life of Options Outstanding</b>	<b>Number of Shares Exercisable</b>	<b>Weighted-Average Exercise Price</b>
\$38.09 to \$79.99	490	\$ 74.22	4.1	483	\$ 74.20
\$80.00 to \$113.36	1,228	\$100.68	7.0	670	\$ 97.52
\$113.37 to \$139.51	979	\$130.09	9.3	157	\$125.36
Total	<u>2,697</u>	\$106.55	7.3	<u>1,310</u>	\$ 92.26

During 2016, 2015 and 2014, the total intrinsic value of the stock options exercised (i.e., the difference between the market price at exercise and the price paid by the employee to exercise the options) was \$53 million, \$48 million and \$63 million, respectively. The total cash received from the exercise of these stock options was \$56 million, \$47 million and \$69 million for the years ended December 31, 2016, 2015 and 2014, respectively.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

The aggregate intrinsic value of the outstanding stock options at December 31, 2016 was \$76 million. Options exercisable at December 31, 2016, 2015 and 2014 were 1.3 million, 1.5 million and 1.7 million, respectively. The weighted-average exercise prices of options exercisable at December 31, 2016, 2015 and 2014 were \$92.26, \$80.71 and \$70.03, respectively. The weighted-average remaining contractual life of the exercisable outstanding stock options at December 31, 2016 was 6 years.

At December 31, 2016, the Company had 2.7 million stock options which are vested and expected to vest. The intrinsic value, weighted-average price and remaining contractual life of the vested and expected to vest stock options were \$76 million, \$106.34 and 7.2 years, respectively, at December 31, 2016.

As of December 31, 2016, there were \$44 million of total unrecognized compensation costs related to unvested stock option awards that are expected to vest. These costs are expected to be recognized over a weighted-average period of 3.6 years.

### *Restricted Stock*

During the years ended December 31, 2016, 2015 and 2014, the Company granted 8 thousand, 10 thousand and 12 thousand shares of restricted stock, respectively. The weighted-average fair value per share on the grant date of the restricted stock granted in 2016, 2015 and 2014 was \$130.35, \$113.88 and \$99.22, respectively. The Company has recorded \$1 million, \$1 million and \$2 million of compensation expense in each of the years ended December 31, 2016, 2015 and 2014, respectively, related to the restricted stock grants. As of December 31, 2016, the Company had 8 thousand unvested shares of restricted stock outstanding, which have been fully expensed.

### *Restricted Stock Units*

The following table summarizes the unvested restricted stock unit award activity for the year ended December 31, 2016 (in thousands, except for per share amounts):

	Shares	Weighted-Average Price
Unvested at December 31, 2015 .....	497	\$104.16
Granted .....	138	\$118.16
Vested .....	(169)	\$ 98.67
Forfeited .....	(13)	\$108.80
Unvested at December 31, 2016 .....	<u>453</u>	\$110.34

Restricted stock units are generally granted annually in February and vest in equal annual installments over a five-year period. The amount of compensation costs recognized for the years ended December 31, 2016, 2015 and 2014 on the restricted stock units expected to vest were \$17 million, \$16 million and \$16 million, respectively. As of December 31, 2016, there were \$36 million of total unrecognized compensation costs related to the restricted stock unit awards that are expected to vest. These costs are expected to be recognized over a weighted-average period of 3.0 years.

### *Performance Stock Units*

During year ended December 31, 2016, the Company issued performance stock units, which are equity compensation awards with a market vesting condition based on the Company's Total Shareholder Return ("TSR") relative to the TSR of the components of the S&P Health Care Index. TSR is the change in value of a stock price over time, including the reinvestment of dividends. The vesting schedule ranges from 0% to 200% of the target shares awarded.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

In determining the fair value of the performance stock units, the Company makes a variety of assumptions and estimates, including volatility measures, expected yields and expected terms. The fair value of each performance stock unit grant was estimated on the date of grant using the Monte Carlo simulation model. The Company uses implied volatility on its publicly-traded options as the basis for its estimate of expected volatility. The Company believes that implied volatility is the most appropriate indicator of expected volatility because it is generally reflective of historical volatility and expectations of how future volatility will differ from historical volatility. The expected life assumption for grants is based on the performance period of the underlying performance stock units. The risk-free interest rate is the yield currently available on U.S. Treasury zero-coupon issues with a remaining term approximating the expected term used as the input to the Monte Carlo simulation model. The correlation coefficient is used to model the way in which each company in the S&P Health Care Index tends to move in relation to each other during the performance period. The relevant data used to determine the value of the performance stock units granted during 2016 are as follows:

<b>Performance Stock Units Issued and Significant Assumptions Used to Estimate Fair Values</b>	<b>2016</b>
Performance stock units issued in thousands .....	27
Risk-free interest rate .....	1.4%
Expected life in years .....	3
Expected volatility .....	0.233
Average volatility of peer companies .....	0.261
Correlation Coefficient .....	0.386
Expected dividends .....	—

The following table summarizes the unvested performance stock unit award activity for the year ended December 31, 2016 (in thousands, except for per share amounts):

	<b>Shares</b>	<b>Weighted-Average Fair Value</b>
Unvested at December 31, 2015 .....	—	\$ —
Granted .....	<u>27</u>	\$171.16
Unvested at December 31, 2016 .....	<u>27</u>	\$171.16

The amount of compensation cost recognized for the year ended December 31, 2016 on the performance stock units expected to vest was less than \$1 million. As of December 31, 2016, there were \$4 million of total unrecognized compensation costs related to the restricted stock unit awards that are expected to vest. These costs are expected to be recognized over a weighted-average period of 3.0 years.

### 13 Earnings Per Share

Basic and diluted EPS calculations are detailed as follows (in thousands, except per share data):

	<b>Year Ended December 31, 2016</b>		
	<b>Net Income (Numerator)</b>	<b>Weighted-Average Shares (Denominator)</b>	<b>Per Share Amount</b>
Net income per basic common share .....	\$521,503	80,786	\$ 6.46
Effect of dilutive stock option, restricted stock, performance stock unit and restricted stock unit securities .....	<u>—</u>	<u>631</u>	<u>(0.05)</u>
Net income per diluted common share .....	<u>\$521,503</u>	<u>81,417</u>	<u>\$ 6.41</u>

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

	Year Ended December 31, 2015		
	Net Income (Numerator)	Weighted-Average Shares (Denominator)	Per Share Amount
Net income per basic common share .....	\$469,053	82,336	\$ 5.70
Effect of dilutive stock option, restricted stock and restricted stock unit securities .....	—	751	(0.05)
Net income per diluted common share .....	<u>\$469,053</u>	<u>83,087</u>	<u>\$ 5.65</u>

	Year Ended December 31, 2014		
	Net Income (Numerator)	Weighted-Average Shares (Denominator)	Per Share Amount
Net income per basic common share .....	\$431,620	84,358	\$ 5.12
Effect of dilutive stock option, restricted stock and restricted stock unit securities .....	—	793	(0.05)
Net income per diluted common share .....	<u>\$431,620</u>	<u>85,151</u>	<u>\$ 5.07</u>

For the years ended December 31, 2016, 2015 and 2014, the Company had 0.9 million, 1.2 million and 1.0 million stock options that were antidilutive, respectively, due to having higher exercise prices than the Company's average stock price during the period. These securities were not included in the computation of diluted EPS. The effect of dilutive securities was calculated using the treasury stock method.

### 14 Accumulated Other Comprehensive Income

The components of accumulated other comprehensive income are detailed as follows (in thousands):

	Currency Translation	Unrealized Gain (Loss) on Retirement Plans	Unrealized Gain (Loss) on Investments	Accumulated Other Comprehensive Income (Loss)
Balance at December 31, 2015 .....	\$(103,570)	\$(40,946)	\$(2,210)	\$(146,726)
Other comprehensive loss, net of tax .....	(66,996)	(2,948)	390	(69,554)
Balance at December 31, 2016 .....	<u>\$(170,566)</u>	<u>\$(43,894)</u>	<u>\$(1,820)</u>	<u>\$(216,280)</u>

### 15 Retirement Plans

U.S. employees are eligible to participate in the Waters Employee Investment Plan, a 401(k) defined contribution plan, immediately upon hire. Employees may contribute up to 60% of eligible pay on a pre-tax or post-tax basis and the Company makes matching contributions of 100% for contributions up to 6% of eligible pay. Employees are 100% vested in employee and Company matching contributions. For the years ended December 31, 2016, 2015 and 2014, the Company's matching contributions amounted to \$15 million, \$14 million and \$13 million, respectively.

The Company maintains two defined benefit plans in the U.S. for which the pay credit accruals have been frozen, the Waters Retirement Plan and the Waters Retirement Restoration Plan (collectively, the "U.S. Pension Plans"). The Company also sponsors other employee benefit plans in the U.S., including a retiree healthcare plan, which provides reimbursement for medical expenses and is contributory. There are various employee benefit plans outside the United States (both defined benefit and defined contribution plans). Certain non-U.S. defined benefit plans ("Non-U.S. Pension Plans") are included in the disclosures below, which are required under the accounting standards for retirement benefits. The Company made one-time contributions totaling \$21 million to certain of these Non-U.S. Pension Plans during 2014.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

The Company contributed \$12 million, \$11 million and \$11 million in the years ended December 31, 2016, 2015 and 2014, respectively, to the non-U.S. plans (primarily defined contribution plans) which are currently outside of the scope of the required disclosures. The eligibility and vesting of non-U.S. plans are consistent with local laws and regulations.

The net periodic pension cost is made up of several components that reflect different aspects of the Company's financial arrangements as well as the cost of benefits earned by employees. These components are determined using the projected unit credit actuarial cost method and are based on certain actuarial assumptions. The Company's accounting policy is to reflect in the projected benefit obligation all benefit changes to which the Company is committed as of the current valuation date; use a market-related value of assets to determine pension expense; amortize increases in prior service costs on a straight-line basis over the expected future service of active participants as of the date such costs are first recognized; and amortize cumulative actuarial gains and losses in excess of 10% of the larger of the market-related value of plan assets and the projected benefit obligation over the expected future service of active participants.

Summary data for the U.S. Pension Plans, U.S. Retiree Healthcare Plan and Non-U.S. Pension Plans are presented in the following tables, using the measurement dates of December 31, 2016 and 2015, respectively.

The reconciliation of the projected benefit obligations for the plans at December 31, 2016 and 2015 is as follows (in thousands):

	2016			2015		
	U.S. Pension Plans	U.S. Retiree Healthcare Plan	Non-U.S. Pension Plans	U.S. Pension Plans	U.S. Retiree Healthcare Plan	Non-U.S. Pension Plans
Projected benefit obligation, January 1 . . . . .	\$155,003	\$12,963	\$75,677	\$155,693	\$13,512	\$82,006
Service cost . . . . .	377	473	4,954	—	577	5,087
Employee contributions . . . . .	—	987	584	—	864	573
Interest cost . . . . .	6,931	557	1,699	6,128	470	1,503
Actuarial losses (gains) . . . . .	2,338	586	6,510	(3,266)	(1,552)	(3,956)
Benefits paid . . . . .	(5,233)	(645)	(2,141)	(3,552)	(908)	(2,503)
Plan amendments . . . . .	—	—	—	—	—	(645)
Plan settlements . . . . .	—	—	—	—	—	(577)
Other plans . . . . .	—	—	1,305	—	—	—
Currency impact . . . . .	—	—	(3,277)	—	—	(5,811)
Projected benefit obligation, December 31 . . . . .	<u>\$159,416</u>	<u>\$14,921</u>	<u>\$85,311</u>	<u>\$155,003</u>	<u>\$12,963</u>	<u>\$75,677</u>

The accumulated benefit obligations for the plans at December 31, 2016 and 2015 are as follows (in thousands):

	2016			2015		
	U.S. Pension Plans	U.S. Retiree Healthcare Plan	Non-U.S. Pension Plans	U.S. Pension Plans	U.S. Retiree Healthcare Plan	Non-U.S. Pension Plans
Accumulated benefit obligation . . . . .	\$159,416	**	\$72,618	\$155,003	**	\$63,883

\*\* Not applicable.



## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

The reconciliation of the fair value of the plan assets at December 31, 2016 and 2015 is as follows (in thousands):

	2016			2015		
	U.S. Pension Plans	U.S. Retiree Healthcare Plan	Non-U.S. Pension Plans	U.S. Pension Plans	U.S. Retiree Healthcare Plan	Non-U.S. Pension Plans
Fair value of plan assets, January 1 . . . . .	\$136,128	\$8,001	\$60,441	\$135,887	\$7,526	\$59,568
Actual return on plan assets . . . . .	8,621	510	4,741	(486)	71	611
Company contributions . . . . .	5,149	289	4,579	4,279	448	7,082
Employee contributions . . . . .	—	987	584	—	864	573
Plan settlements . . . . .	—	—	—	—	—	(577)
Benefits paid . . . . .	(5,233)	(645)	(2,141)	(3,552)	(908)	(2,503)
Other plans . . . . .	—	—	262	—	—	—
Currency impact . . . . .	—	—	(2,918)	—	—	(4,313)
Fair value of plan assets, December 31 . . . . .	<u>\$144,665</u>	<u>\$9,142</u>	<u>\$65,548</u>	<u>\$136,128</u>	<u>\$8,001</u>	<u>\$60,441</u>

The summary of the funded status for the plans at December 31, 2016 and 2015 is as follows (in thousands):

	2016			2015		
	U.S. Pension Plans	U.S. Retiree Healthcare Plan	Non-U.S. Pension Plans	U.S. Pension Plans	U.S. Retiree Healthcare Plan	Non-U.S. Pension Plans
Projected benefit obligation . . . . .	\$(159,416)	\$(14,921)	\$(85,311)	\$(155,003)	\$(12,963)	\$(75,677)
Fair value of plan assets . . . . .	144,665	9,142	65,548	136,128	8,001	60,441
Projected benefit obligation in excess of fair value of plan assets . . . . .	<u>\$ (14,751)</u>	<u>\$ (5,779)</u>	<u>\$(19,763)</u>	<u>\$ (18,875)</u>	<u>\$ (4,962)</u>	<u>\$(15,236)</u>

The summary of the amounts recognized in the consolidated balance sheets for the plans at December 31, 2016 and 2015 is as follows (in thousands):

	2016			2015		
	U.S. Pension Plans	U.S. Retiree Healthcare Plan	Non-U.S. Pension Plans	U.S. Pension Plans	U.S. Retiree Healthcare Plan	Non-U.S. Pension Plans
Long-term assets . . . . .	\$ —	\$ —	\$ 1,084	\$ —	\$ —	\$ 1,402
Current liabilities . . . . .	(1,343)	(289)	—	(1,324)	(447)	—
Long-term liabilities . . . . .	(13,408)	(5,490)	(20,847)	(17,551)	(4,515)	(16,638)
Net amount recognized at December 31 . . .	<u>\$(14,751)</u>	<u>\$(5,779)</u>	<u>\$(19,763)</u>	<u>\$(18,875)</u>	<u>\$(4,962)</u>	<u>\$(15,236)</u>

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

The summary of the components of net periodic pension costs for the plans for the years ended December 31, 2016, 2015 and 2014 is as follows (in thousands):

	2016			2015			2014		
	U.S. Pension Plans	U.S. Retiree Healthcare Plan	Non-U.S. Pension Plans	U.S. Pension Plans	U.S. Retiree Healthcare Plan	Non-U.S. Pension Plans	U.S. Pension Plans	U.S. Retiree Healthcare Plan	Non-U.S. Pension Plans
Service cost .....	\$ 377	\$ 473	\$ 4,954	\$ —	\$ 577	\$ 5,087	\$ —	\$ 791	\$ 4,579
Interest cost .....	6,931	557	1,699	6,128	470	1,503	6,417	463	2,195
Expected return on plan assets .....	(9,635)	(519)	(1,596)	(9,145)	(497)	(1,542)	(9,060)	(435)	(1,520)
Settlement loss .....	—	—	—	—	—	95	—	—	557
Net amortization:									
Prior service (credit) cost .....	—	—	(192)	—	—	39	—	(51)	(176)
Net actuarial loss (gain) .....	2,702	—	753	3,278	—	1,031	2,216	(35)	375
Net periodic pension cost (benefit) .....	<u>\$ 375</u>	<u>\$ 511</u>	<u>\$ 5,618</u>	<u>\$ 261</u>	<u>\$ 550</u>	<u>\$ 6,213</u>	<u>\$ (427)</u>	<u>\$ 733</u>	<u>\$ 6,010</u>

The summary of the changes in amounts recognized in other comprehensive loss for the plans for the years ended December 31, 2016, 2015 and 2014 is as follows (in thousands):

	2016			2015			2014		
	U.S. Pension Plans	U.S. Retiree Healthcare Plan	Non-U.S. Pension Plans	U.S. Pension Plans	U.S. Retiree Healthcare Plan	Non-U.S. Pension Plans	U.S. Pension Plans	U.S. Retiree Healthcare Plan	Non-U.S. Pension Plans
Prior service cost (credit) .....	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 645	\$ —	\$ —	\$ (796)
Net (loss) gain arising during the year .....	(3,352)	(594)	(3,361)	(6,365)	1,126	3,025	(19,965)	(1,155)	(15,168)
Amortization:									
Prior service (credit) cost .....	—	—	(192)	—	—	39	—	(51)	(176)
Net loss (gain) .....	2,702	—	753	3,278	—	1,126	2,216	(35)	932
Other Plans .....	—	—	(360)	—	—	—	—	—	—
Currency impact .....	—	—	884	—	—	1,760	—	—	2,287
Total recognized in other comprehensive loss ..	<u>\$ (650)</u>	<u>\$ (594)</u>	<u>\$ (2,276)</u>	<u>\$ (3,087)</u>	<u>\$ 1,126</u>	<u>\$ 6,595</u>	<u>\$ (17,749)</u>	<u>\$ (1,241)</u>	<u>\$ (12,921)</u>

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

The summary of the amounts included in accumulated other comprehensive loss in stockholders' equity for the plans at December 31, 2016 and 2015 is as follows (in thousands):

	2016			2015		
	U.S. Pension Plans	U.S. Retiree Healthcare Plan	Non-U.S. Pension Plans	U.S. Pension Plans	U.S. Retiree Healthcare Plan	Non-U.S. Pension Plans
Net actuarial (loss) gain . . . . .	\$(49,486)	\$575	\$(19,638)	\$(48,835)	\$1,170	\$(17,478)
Prior service credit . . . . .	—	—	1,348	—	—	1,465
Total . . . . .	<u>\$(49,486)</u>	<u>\$575</u>	<u>\$(18,290)</u>	<u>\$(48,835)</u>	<u>\$1,170</u>	<u>\$(16,013)</u>

The summary of the amounts included in accumulated other comprehensive loss expected to be included in next year's net periodic benefit cost for the plans at December 31, 2016 is as follows (in thousands):

	2016		
	U.S. Pension Plans	U.S. Retiree Healthcare Plan	Non-U.S. Pension Plans
Net actuarial loss . . . . .	\$(2,733)	\$—	\$(909)
Prior service credit . . . . .	—	—	180
Total . . . . .	<u>\$(2,733)</u>	<u>\$—</u>	<u>\$(729)</u>

The plans' investment asset mix is as follows at December 31, 2016 and 2015:

	2016			2015		
	U.S. Pension Plans	U.S. Retiree Healthcare Plan	Non-U.S. Pension Plans	U.S. Pension Plans	U.S. Retiree Healthcare Plan	Non-U.S. Pension Plans
Equity securities . . . . .	74%	58%	7%	76%	61%	6%
Debt securities . . . . .	25%	42%	18%	23%	32%	19%
Cash and cash equivalents . . . . .	1%	0%	6%	1%	7%	8%
Insurance contracts and other . . . . .	0%	0%	69%	0%	0%	67%
Total . . . . .	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>	<u>100%</u>

The plans' investment policies include the following asset allocation guidelines:

	U.S. Pension and U.S. Retiree Healthcare Plans		Non-U.S. Pension Plans
	Policy Target	Range	Policy Target
Equity securities . . . . .	70%	50% - 90%	5%
Debt securities . . . . .	25%	20% - 60%	20%
Cash and cash equivalents . . . . .	5%	0% - 20%	10%
Insurance contracts and other . . . . .	0%	0% - 20%	65%

The asset allocation policy for the U.S. Pension Plans and U.S. Retiree Healthcare Plan was developed in consideration of the following long-term investment objectives: achieving a return on assets consistent with the investment policy, achieving portfolio returns which exceed the average return for similarly invested funds and

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

maximizing portfolio returns with at least a return of 2.5% above the one-year constant maturity Treasury bond yield over reasonable measurement periods and based on reasonable market cycles.

Within the equity portfolio of the U.S. retirement plans, investments are diversified among market capitalization and investment strategy. The Company targets a 30% allocation of its U.S. retirement plans' equity portfolio to be invested in financial markets outside of the United States. The Company does not invest in its own stock within the U.S. retirement plans' assets.

Plan assets are measured at fair value using the following valuation techniques and inputs:

- Level 1: The fair value of these types of investments is based on market and observable sources from daily quoted prices on nationally recognized securities exchanges.
- Level 2: The fair value of the money market funds held with financial institutions is based on the net asset value of the underlying treasury bill and commercial paper, which are valued using third-party pricing services that utilize inputs such as benchmark yields, credit spreads and broker/dealer quotes to determine the value.
- Level 3: These bank and insurance investment contracts are issued by well-known, highly-rated companies. The fair value disclosed represents the present value of future cash flows under the terms of the respective contracts. Significant assumptions used to determine the fair value of these contracts include the amount and timing of future cash flows and counterparty credit risk.

There have been no changes in the above valuation techniques associated with determining the value of the plans' assets during the years ended December 31, 2016 and 2015.

In 2016, the Company adopted new accounting guidance related to the presentation of certain investments using the net asset value per share ("NAV") practical expedient. The accounting guidance exempts investments using this practical expedient from categorization within the fair value hierarchy. The Company applied the adoption of this standard retrospectively and removed certain investments from the fair value hierarchy in both periods. Other than this change in presentation, the adoption of this standard did not have an impact on the Company's consolidated financial statements.

Investments valued at NAV consist of hedge funds in the U.S. Pension Plans, which are valued based on underlying investments in equity securities of U.S. companies where the hedge fund manager is targeting a particular net long or net short position on the underlying stock. The fair value of these funds is initially based on market and observable sources from daily quoted prices on nationally recognized securities exchanges and then adjustments are made to the net asset value of the hedge fund to account for the effects of any liquidation or redemption restrictions. The redemption terms for the hedge funds are generally quarterly with a 90 day notification period and there are no redemption restrictions.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

The fair value of the Company's retirement plan assets are as follows at December 31, 2016 (in thousands):

	Total at December 31, 2016	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
U.S. Pension Plans:				
Mutual funds <sup>(a)</sup> . . . . .	\$136,548	\$136,548	\$—	\$ —
Cash equivalents <sup>(b)</sup> . . . . .	<u>728</u>	<u>—</u>	<u>728</u>	<u>—</u>
Total U.S. Pension Plans . . . . .	137,276	136,548	728	—
U.S. Retiree Healthcare Plan:				
Mutual funds <sup>(c)</sup> . . . . .	<u>9,142</u>	<u>9,142</u>	<u>—</u>	<u>—</u>
Total U.S. Retiree Healthcare Plan . . . . .	9,142	9,142	—	—
Non-U.S. Pension Plans:				
Cash equivalents <sup>(d)</sup> . . . . .	3,718	3,718	—	—
Mutual funds <sup>(e)</sup> . . . . .	16,737	16,737	—	—
Bank and insurance investment contracts <sup>(f)</sup> . . . . .	<u>45,093</u>	<u>—</u>	<u>—</u>	<u>45,093</u>
Total Non-U.S. Pension Plans . . . . .	<u>65,548</u>	<u>20,455</u>	<u>—</u>	<u>45,093</u>
Total fair value of retirement plan assets . . . . .	<u>211,966</u>	<u>\$166,145</u>	<u>\$728</u>	<u>\$45,093</u>
Investments valued at NAV . . . . .	<u>7,389</u>			
Total retirement plan assets . . . . .	<u>\$219,355</u>			

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

The fair value of the Company's retirement plan assets are as follows at December 31, 2015 (in thousands):

	Total at December 31, 2015	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
U.S. Pension Plans:				
Mutual funds <sup>(g)</sup> .....	\$124,961	\$124,961	\$ —	\$ —
Common stocks <sup>(h)</sup> .....	3,138	3,138	—	—
Cash equivalents <sup>(b)</sup> .....	634	—	634	—
Total U.S. Pension Plans .....	128,733	128,099	634	—
U.S. Retiree Healthcare Plan:				
Mutual funds <sup>(i)</sup> .....	7,476	7,476	—	—
Cash equivalents <sup>(b)</sup> .....	525	—	525	—
Total U.S. Retiree Healthcare Plan .....	8,001	7,476	525	—
Non-U.S. Pension Plans:				
Cash equivalents <sup>(d)</sup> .....	5,061	5,061	—	—
Mutual funds <sup>(i)</sup> .....	14,809	14,809	—	—
Bank and insurance investment contracts <sup>(f)</sup> .....	40,571	—	—	40,571
Total Non-U.S. Pension Plans .....	60,441	19,870	—	40,571
Total fair value of retirement plan assets .....	197,175	<u>\$155,445</u>	<u>\$1,159</u>	<u>\$40,571</u>
Investments valued at NAV .....	7,395			
Total retirement plan assets .....	<u>\$204,570</u>			

- (a) The mutual fund balance in the U.S. Pension Plans are invested in the following categories: 35% in the common stock of large-cap U.S. companies, 38% in the common stock of international growth companies, and 27% in fixed income bonds issued by U.S. companies and by the U.S. government and its agencies.
- (b) Primarily represents money market funds held with various financial institutions.
- (c) The mutual fund balance in the U.S. Retiree Healthcare Plan is invested in the following categories: 38% in the common stock of large-cap U.S. companies, 19% in the common stock of international growth companies and 43% in fixed income bonds of U.S. companies and U.S. government.
- (d) Primarily represents deposit account funds held with various financial institutions.
- (e) The mutual fund balance in the Non-U.S. Pension Plans is primarily invested in the following categories: 56% in international bonds, 30% in the common stock of international companies, 8% in mortgages and real estate, and 6% in various other global investments.
- (f) Amount represents bank and insurance guaranteed investment contracts.
- (g) The mutual fund balance in the U.S. Pension Plans are invested in the following categories: 42% in the common stock of large-cap U.S. companies, 33% in the common stock of international growth companies, and 25% in fixed income bonds issued by U.S. companies and by the U.S. government and its agencies.
- (h) Represents primarily amounts invested in common stock of technology, healthcare, financial, energy and consumer staples and discretionary U.S. companies.
- (i) The mutual fund balance in the U.S. Retiree Healthcare Plan is invested in the following categories: 48% in the common stock of large-cap U.S. companies, 19% in the common stock of international growth companies and 33% in fixed income bonds of U.S. companies and U.S. government.
- (j) The mutual fund balance in the Non-U.S. Pension Plans is invested in the following categories: 60% in international bonds and 23% in the common stock of international companies, 10% in mortgages and real estate, and 7% in various other global investments.



## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

The following table summarizes the changes in fair value of the Level 3 retirement plan assets for the years ended December 31, 2016 and 2015 (in thousands):

	<b>Insurance Guaranteed Investment Contracts</b>
Fair value of assets, December 31, 2014 .....	\$38,943
Net purchases (sales) and appreciation (depreciation) .....	1,628
Fair value of assets, December 31, 2015 .....	40,571
Net purchases (sales) and appreciation (depreciation) .....	4,522
Fair value of assets, December 31, 2016 .....	<u>\$45,093</u>

The weighted-average assumptions used to determine the benefit obligation in the consolidated balance sheets at December 31, 2016, 2015 and 2014 are as follows:

	<b>2016</b>		<b>2015</b>		<b>2014</b>	
	<b>U.S.</b>	<b>Non-U.S.</b>	<b>U.S.</b>	<b>Non-U.S.</b>	<b>U.S.</b>	<b>Non-U.S.</b>
Discount rate .....	4.41%	1.71%	4.59%	2.23%	3.92%	1.98%
Increases in compensation levels .....	**	2.47%	**	2.45%	**	2.58%

\*\* Not applicable

The weighted-average assumptions used to determine the net periodic pension cost at December 31, 2016, 2015 and 2014 are as follows:

	<b>2016</b>		<b>2015</b>		<b>2014</b>	
	<b>U.S.</b>	<b>Non-U.S.</b>	<b>U.S.</b>	<b>Non-U.S.</b>	<b>U.S.</b>	<b>Non-U.S.</b>
Discount rate .....	4.42%	2.20%	3.71%	1.98%	4.64%	3.25%
Return on plan assets .....	6.47%	2.74%	6.35%	2.58%	6.95%	2.84%
Increases in compensation levels .....	**	2.50%	**	2.57%	**	2.58%

\*\* Not applicable

To develop the expected long-term rate of return on assets assumption, the Company considered historical returns and future expectations for returns for each asset class, as well as the target asset allocation of the pension portfolio and historical expenses paid by the plan. A one-quarter percentage point increase in the assumed long-term rate of return on assets would decrease the Company's net periodic benefit cost for the Waters Retirement Plan by less than \$1 million. A one-quarter percentage point increase in the discount rate would decrease the Company's net periodic benefit cost for the Waters Retirement Plan by less than \$1 million.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

During fiscal year 2017, the Company expects to contribute a total of approximately \$6 million to \$11 million to the Company's defined benefit plans. Estimated future benefit payments from the plans as of December 31, 2016 are as follows (in thousands):

	U.S. Pension and Retiree Healthcare Plans	Non-U.S. Pension Plans	Total
2017 .....	\$ 9,318	\$ 2,579	\$11,897
2018 .....	8,824	1,957	10,781
2019 .....	9,480	1,459	10,939
2020 .....	9,820	1,923	11,743
2021 .....	10,504	1,994	12,498
2022 - 2026 .....	57,387	15,814	73,201

### 16 Business Segment Information

The accounting standards for segment reporting establish standards for reporting information about operating segments in annual financial statements and require selected information for those segments to be presented in interim financial reports of public business enterprises. They also establish standards for related disclosures about products and services, geographic areas and major customers. The Company's business activities, for which discrete financial information is available, are regularly reviewed and evaluated by the chief operating decision maker. As a result of this evaluation, the Company determined that it has two operating segments: Waters and TA.

The Waters operating segment is primarily in the business of designing, manufacturing, distributing and servicing LC and MS instruments, columns and other chemistry consumables that can be integrated and used along with other analytical instruments. The TA operating segment is primarily in the business of designing, manufacturing, distributing and servicing thermal analysis, rheometry and calorimetry instruments. The Company's two operating segments have similar economic characteristics; product processes; products and services; types and classes of customers; methods of distribution; and regulatory environments. Because of these similarities, the two segments have been aggregated into one reporting segment for financial statement purposes. Please refer to the consolidated financial statements for financial information regarding the one reportable segment of the Company.

Net sales for the Company's products and services are as follows for the years ended December 31, 2016, 2015 and 2014 (in thousands):

	2016	2015	2014
Product net sales:			
Waters instrument systems .....	\$ 943,218	\$ 895,626	\$ 871,048
Chemistry .....	345,413	317,941	312,890
TA instrument systems .....	171,665	171,689	162,791
Total product sales .....	1,460,296	1,385,256	1,346,729
Service net sales:			
Waters service .....	639,432	593,301	579,759
TA service .....	67,695	63,775	62,856
Total service sales .....	707,127	657,076	642,615
Total net sales .....	<u>\$2,167,423</u>	<u>\$2,042,332</u>	<u>\$1,989,344</u>

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

Geographic sales information is presented below for the years ended December 31, 2016, 2015 and 2014 (in thousands):

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Net Sales:			
United States .....	\$ 665,280	\$ 656,361	\$ 596,549
Europe .....	577,257	555,886	607,080
Asia:			
China .....	331,354	278,600	238,892
Japan .....	167,977	145,184	163,468
Asia Other .....	283,653	272,179	237,668
Total Asia .....	782,984	695,963	640,028
Other .....	141,902	134,122	145,687
Total net sales .....	<u>\$2,167,423</u>	<u>\$2,042,332</u>	<u>\$1,989,344</u>

The Other category includes Canada, Latin America and Puerto Rico. Net sales are attributable to geographic areas based on the region of destination. None of the Company's individual customers accounts for more than 2% of annual Company sales.

Long-lived assets information at December 31, 2016 and 2015 is presented below (in thousands):

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Long-lived assets:			
United States .....	\$207,062	\$192,352	\$181,851
Europe .....	114,848	128,189	126,080
Asia .....	14,376	11,868	12,416
Other .....	832	946	1,236
Total long-lived assets .....	<u>\$337,118</u>	<u>\$333,355</u>	<u>\$321,583</u>

The Other category includes Canada, Latin America and Puerto Rico. Long-lived assets exclude goodwill, other intangible assets and other assets.

## NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)

### 17 Unaudited Quarterly Results

The Company's unaudited quarterly results are summarized below (in thousands, except per share data):

<b>2016</b>	<b>First Quarter</b>	<b>Second Quarter</b>	<b>Third Quarter</b>	<b>Fourth Quarter</b>	<b>Total</b>
Net sales .....	\$475,246	\$536,560	\$526,830	\$628,787	\$2,167,423
Costs and operating expenses:					
Cost of sales .....	201,151	220,379	218,344	251,579	891,453
Selling and administrative expenses .....	129,351	129,581	123,861	130,238	513,031
Research and development expenses .....	29,438	32,578	30,418	32,753	125,187
Purchased intangibles amortization .....	2,644	2,411	2,476	2,358	9,889
Litigation provisions .....	—	—	—	3,524	3,524
Total costs and operating expenses .....	362,584	384,949	375,099	420,452	1,543,084
Operating income .....	112,662	151,611	151,731	208,335	624,339
Interest expense .....	(10,119)	(10,983)	(11,707)	(12,102)	(44,911)
Interest income .....	4,087	4,827	5,426	6,346	20,686
Income from operations before income taxes ....	106,630	145,455	145,450	202,579	600,114
Provision for income tax expense .....	12,578	17,238	20,594	28,201	78,611
Net income .....	<u>\$ 94,052</u>	<u>\$128,217</u>	<u>\$124,856</u>	<u>\$174,378</u>	<u>\$ 521,503</u>
Net income per basic common share .....	1.16	1.59	1.55	2.17	6.46
Weighted-average number of basic common shares .....	81,275	80,804	80,677	80,366	80,786
Net income per diluted common share .....	1.15	1.57	1.53	2.15	6.41
Weighted-average number of diluted common shares and equivalents .....	81,974	81,455	81,388	80,954	81,417
<b>2015</b>	<b>First Quarter</b>	<b>Second Quarter</b>	<b>Third Quarter</b>	<b>Fourth Quarter</b>	<b>Total</b>
Net sales .....	\$460,404	\$494,740	\$500,578	\$586,610	\$2,042,332
Costs and operating expenses:					
Cost of sales .....	189,246	208,707	206,804	237,915	842,672
Selling and administrative expenses .....	119,751	122,660	124,655	128,681	495,747
Research and development expenses .....	28,951	30,555	30,703	28,336	118,545
Purchased intangibles amortization .....	2,474	2,500	2,573	2,576	10,123
Litigation provisions .....	—	—	—	3,939	3,939
Acquired in-process research and development ..	—	—	—	3,855	3,855
Total costs and operating expenses .....	340,422	364,422	364,735	405,302	1,474,881
Operating income .....	119,982	130,318	135,843	181,308	567,451
Interest expense .....	(8,975)	(9,046)	(9,017)	(9,205)	(36,243)
Interest income .....	2,340	2,500	2,736	3,135	10,711
Income from operations before income taxes ....	113,347	123,772	129,562	175,238	541,919
Provision for income tax expense .....	17,286	18,115	13,281	23,961	72,866
Net income .....	<u>\$ 96,061</u>	<u>\$105,657</u>	<u>\$116,281</u>	<u>\$151,277</u>	<u>\$ 469,053</u>
Net income per basic common share .....	1.16	1.28	1.42	1.85	5.70
Weighted-average number of basic common shares .....	83,025	82,564	82,036	81,650	82,336
Net income per diluted common share .....	1.15	1.27	1.40	1.84	5.65
Weighted-average number of diluted common shares and equivalents .....	83,752	83,332	82,784	82,382	83,087

## **NOTES TO CONSOLIDATED FINANCIAL STATEMENTS — (Continued)**

The Company typically experiences an increase in sales in the fourth quarter, as a result of purchasing habits for capital goods of customers that tend to exhaust their spending budgets by calendar year end. Selling and administrative expenses are typically higher in the second and third quarters over the first quarter in each year as the Company's annual payroll merit increases take effect. Selling and administrative expenses will vary in the fourth quarter in relation to performance in the quarter and for the year.

In the first quarter of 2016, the Company recorded \$7 million of stock compensation expense in selling and administrative expenses related to the modification of certain stock awards upon the retirement of senior executives. In the fourth quarters of 2016 and 2015, the company recorded \$4 million provisions related to litigation (see Note 10). In the fourth quarter of 2015, the Company recorded a \$4 million charge related to acquired in-process research and development (see Note 2).

**Item 9: *Changes in and Disagreements with Accountants on Accounting and Financial Disclosure***

None.

**Item 9A: *Controls and Procedures***

*Evaluation of Disclosure Controls and Procedures*

The Company's chief executive officer and chief financial officer (principal executive and principal financial officer), with the participation of management, evaluated the effectiveness of the Company's disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Exchange Act) as of the end of the period covered by this annual report on Form 10-K. Based on this evaluation, the Company's chief executive officer and chief financial officer concluded that the Company's disclosure controls and procedures were effective as of December 31, 2016 (1) to ensure that information required to be disclosed by the Company, including its consolidated subsidiaries, in the reports that it files or submits under the Exchange Act is accumulated and communicated to the Company's management, including its chief executive officer and chief financial officer, to allow timely decisions regarding the required disclosure and (2) to provide reasonable assurance that information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms.

*Management's Annual Report on Internal Control Over Financial Reporting*

See Management's Report on Internal Control Over Financial Reporting in Item 8 on page 44 of this Form 10-K.

*Report of the Independent Registered Public Accounting Firm*

See the report of PricewaterhouseCoopers LLP in Item 8 on page 45 of this Form 10-K.

*Changes in Internal Controls Over Financial Reporting*

No change was identified in the Company's internal control over financial reporting (as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act) during the quarter ended December 31, 2016 that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

**Item 9B: *Other Information***

None.



### **PART III**

#### **Item 10: Directors, Executive Officers and Corporate Governance**

Information regarding the Company's directors is contained in the definitive proxy statement for the 2017 Annual Meeting of Stockholders under the headings "Election of Directors", "Directors Meetings and Board Committees", "Corporate Governance", "Report of the Audit Committee of the Board of Directors" and "Compensation of Directors and Executive Officers". Information regarding compliance with Section 16(a) of the Exchange Act is contained in the Company's definitive proxy statement for the 2017 Annual Meeting of Stockholders under the heading "Section 16(a) Beneficial Ownership Reporting Compliance." Information regarding the Company's Audit Committee and Audit Committee Financial Expert is contained in the definitive proxy statement for the 2017 Annual Meeting of Stockholders under the headings "Report of the Audit Committee of the Board of Directors" and "Directors Meetings and Board Committees". Such information is incorporated herein by reference. Information regarding the Company's executive officers is contained in Part I of this Form 10-K.

The Company has adopted a Code of Business Conduct and Ethics (the "Code") that applies to all of the Company's employees (including its executive officers) and directors and that is in compliance with Item 406 of Regulation S-K. The Code has been distributed to all employees of the Company. In addition, the Code is available on the Company's website, [www.waters.com](http://www.waters.com), under the caption "Governance". The Company intends to satisfy the disclosure requirement regarding any amendment to, or waiver of a provision of, the Code applicable to any executive officer or director by posting such information on its website. The Company shall also provide to any person without charge, upon request, a copy of the Code. Any such request must be made in writing to the Secretary of the Company, c/o Waters Corporation, 34 Maple Street, Milford, MA 01757.

The Company's corporate governance guidelines and the charters of the audit committee, compensation committee, and nominating and corporate governance committee of the Board of Directors are available on the Company's website, [www.waters.com](http://www.waters.com), under the caption "Governance". The Company shall provide to any person without charge, upon request, a copy of any of the foregoing materials. Any such request must be made in writing to the Secretary of the Company, c/o Waters Corporation, 34 Maple Street, Milford, MA 01757.

The Company has not made any material changes to the procedures by which security holders may recommend nominees to the Company's Board of Directors.

#### **Item 11: Executive Compensation**

This information is contained in the Company's definitive proxy statement for the 2017 Annual Meeting of Stockholders under the headings "Compensation of Directors and Executive Officers", "Compensation Committee Interlocks and Insider Participation" and "Compensation Committee Report". Such information is incorporated herein by reference.

#### **Item 12: Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters**

Except for the Equity Compensation Plan information set forth below, this information is contained in the Company's definitive proxy statement for the 2017 Annual Meeting of Stockholders under the heading "Security Ownership of Certain Beneficial Owners and Management". Such information is incorporated herein by reference.

### Equity Compensation Plan Information

The following table provides information as of December 31, 2016 about the Company's common stock that may be issued upon the exercise of options, warrants, and rights under its existing equity compensation plans (in thousands):

	A	B	C
	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 (A))
Equity compensation plans approved by security holders . . . . .	2,697	\$106.55	3,840
Equity compensation plans not approved by security holders . . . . .	—	—	—
Total . . . . .	<u>2,697</u>	<u>\$106.55</u>	<u>3,840</u>

See Note 12, Stock-Based Compensation, in the Notes to Consolidated Financial Statements for a description of the material features of the Company's equity compensation plans.

### Item 13: *Certain Relationships and Related Transactions and Director Independence*

This information is contained in the Company's definitive proxy statement for the 2017 Annual Meeting of Stockholders under the headings "Directors Meetings and Board Committees", "Corporate Governance" and "Compensation of Directors and Executive Officers". Such information is incorporated herein by reference.

### Item 14: *Principal Accountant Fees and Services*

This information is contained in the Company's definitive proxy statement for the 2017 Annual Meeting of Stockholders under the headings "Ratification of Selection of Independent Registered Public Accounting Firm" and "Report of the Audit Committee of the Board of Directors". Such information is incorporated herein by reference.

## PART IV

### Item 15: Exhibits, Financial Statement Schedules

(a) Documents filed as part of this report:

(1) Financial Statements:

The consolidated financial statements of the Company and its subsidiaries are filed as part of this Form 10-K and are set forth on pages 46 to 89. The report of PricewaterhouseCoopers LLP, an independent registered public accounting firm, dated February 24, 2017, is set forth on page 45 of this Form 10-K.

(2) Financial Statement Schedule:

See (c) below.

(3) Exhibits:

<u>Exhibit Number</u>	<u>Description of Document</u>
3.1	Second Amended and Restated Certificate of Incorporation of Waters Corporation.(1)
3.2	Certificate of Amendment of Second Amended and Restated Certificate of Incorporation of Waters Corporation, dated as of May 12, 1999.(3)
3.3	Certificate of Amendment of Second Amended and Restated Certificate of Incorporation of Waters Corporation, dated as of July 27, 2000.(4)
3.4	Certificate of Amendment of Second Amended and Restated Certificate of Incorporation of Waters Corporation, dated as of May 25, 2001.(5)
3.5	Amended and Restated Bylaws of Waters Corporation, dated as of October 16, 2013.(20)
10.1	Waters Corporation Retirement Plan.(2)(*)
10.2	Waters Corporation 2003 Equity Incentive Plan.(6)(*)
10.3	First Amendment to the Waters Corporation 2003 Equity Incentive Plan.(7)(*)
10.4	Form of Director Stock Option Agreement under the Waters Corporation 2003 Equity Incentive Plan, as amended.(8)(*)
10.5	Form of Director Restricted Stock Agreement under the Waters Corporation 2003 Equity Incentive Plan, as amended.(8)(*)
10.6	Form of Executive Officer Stock Option Agreement under the Waters Corporation 2003 Equity Incentive Plan, as amended.(8)(*)
10.7	Second Amendment to the Waters Corporation 2003 Equity Incentive Plan.(9)(*)
10.8	Third Amendment to the Waters Corporation 2003 Equity Incentive Plan.(10)(*)
10.9	Amended and Restated Waters 401(k) Restoration Plan, effective January 1, 2008.(11)(*)
10.10	Change of Control/Severance Agreement, dated as of February 27, 2008, between Waters Corporation and Mark T. Beaudouin.(12)(*)
10.11	Change of Control/Severance Agreement, dated as of February 27, 2008, between Waters Corporation and Arthur G. Caputo.(12)(*)
10.12	Change of Control/Severance Agreement, dated as of February 27, 2008, between Waters Corporation and Elizabeth B. Rae.(12)(*)

<u>Exhibit Number</u>	<u>Description of Document</u>
10.13	Change of Control/Severance Agreement, dated as of February 27, 2008, between Waters Corporation and Eugene G. Cassis.(23)(*)
10.14	Amended and Restated Waters Retirement Restoration Plan, effective January 1, 2008.(13)(*)
10.15	Amended and Restated Waters Corporation 1996 Non-Employee Director Deferred Compensation Plan, Effective January 1, 2008.(13)(*)
10.16	2014 Waters Corporation Management Incentive Plan.(23)(*)
10.17	Waters Corporation 2009 Employee Stock Purchase Plan.(14)(*)
10.18	Note Purchase Agreement, dated as of February 1, 2010, between Waters Corporation and the purchases named therein.(15)
10.19	First Amendment to the Note Purchase Agreement, dated as of February 1, 2010.(16)
10.20	Note Purchase Agreement, dated March 15, 2011, between Waters Corporation and the purchases named therein.(16)
10.21	Waters Corporation 2012 Equity Incentive Plan.(17)(*)
10.22	Form of Waters 2012 Stock Option Agreement - Executive Officers.(18)(*)
10.23	Form of Waters 2012 Stock Option Agreement - Directors.(18)(*)
10.24	Form of Waters 2012 Restricted Stock Agreement - Directors.(18)(*)
10.25	Credit Agreement, dated as of June 25, 2013, among Waters Corporation, JPMorgan Chase Bank, N.A., JP Morgan Europe Limited and other Lenders party thereto.(19)
10.26	Form of Waters 2012 Restricted Stock Unit Agreement for Executive Officers - Five Year Vesting.(21)(*)
10.27	Form of Waters 2012 Restricted Stock Unit Agreement for Executive Officers - One Year Vesting.(21)(*)
10.28	Note Purchase Agreement, dated June 30, 2014, between Waters Corporation and the purchases named therein.(22)
10.29	Change of Control/Severance Agreement, dated as of April 1, 2015, between Waters Corporation and Michael F. Silveira.(24)(*)
10.30	Credit Agreement, dated as of April 23, 2015, among Waters Corporation, JPMorgan Chase Bank, N.A., JP Morgan Europe Limited and other Lenders party thereto.(24)
10.31	President and Chief Executive Employment Agreement.(25)(*)
10.32	Change of Control/Severance Agreement, dated as of September 8, 2015, between Waters Corporation and Christopher J. O'Connell.(25)(*)
10.33	Note Purchase Agreement, dated as of May 12, 2016, between Waters Corporation and the purchasers named therein.(26)
10.34	Form of Waters 2012 Performance Stock Unit Award Agreement.(27)(*)
10.35	Senior Vice President and Chief Financial Officer Employment Agreement.(*)
10.36	Change of Control/Severance Agreement, dated as of January 9, 2017, between Waters Corporation and Sherry L. Buck.(*)

<u>Exhibit Number</u>	<u>Description of Document</u>
21.1	Subsidiaries of Waters Corporation.
23.1	Consent of PricewaterhouseCoopers LLP, an independent registered public accounting firm.
31.1	Chief Executive Officer Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
31.2	Chief Financial Officer Certification Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
32.1	Chief Executive Officer Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.(**)
32.2	Chief Financial Officer Certification Pursuant to 18 U.S.C. Section 1350, as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.(**)
101	The following materials from Waters Corporation's Annual Report on Form 10-K for the year ended December 31, 2016, formatted in XBRL (Extensible Business Reporting Language): (i) the Consolidated Balance Sheets, (ii) the Consolidated Statements of Operations, (iii) the Consolidated Statements of Comprehensive Income (iv) the Consolidated Statements of Cash Flows, (v) the Consolidated Statements of Stockholders' Equity and (vi) Notes to Consolidated Financial Statements.
<hr/>	
(1)	Incorporated by reference to the Registrant's Report on Form 10-K dated March 29, 1996 (File No. 001-14010).
(2)	Incorporated by reference to the Registrant's Registration Statement on Form S-1 (File No. 333-96934).
(3)	Incorporated by reference to the Registrant's Report on Form 10-Q dated August 11, 1999 (File No. 001-14010).
(4)	Incorporated by reference to the Registrant's Report on Form 10-Q dated August 8, 2000 (File No. 001-14010).
(5)	Incorporated by reference to the Registrant's Report on Form 10-K dated March 28, 2002 (File No. 001-14010).
(6)	Incorporated by reference to the Registrant's Report on Form S-8 dated November 20, 2003 (File No. 333-110613).
(7)	Incorporated by reference to the Registrant's Report on Form 10-K dated March 12, 2004 (File No. 001-14010).
(8)	Incorporated by reference to the Registrant's Report on Form 10-Q dated November 10, 2004 (File No. 001-14010).
(9)	Incorporated by reference to the Registrant's Report on Form 10-Q dated August 5, 2005 (File No. 001-14010).
(10)	Incorporated by reference to the Registrant's Report on Form 10-K dated March 1, 2007 (File No. 001-14010).
(11)	Incorporated by reference to the Registrant's Report on Form 10-Q dated November 2, 2007 (File No. 001-14010).
(12)	Incorporated by reference to the Registrant's Report on Form 10-K dated February 29, 2008 (File No. 001-14010).
(13)	Incorporated by reference to the Registrant's Report on Form 10-K dated February 27, 2009 (File No. 001-14010).

- (14) Incorporated by reference to the Registrant's Report on Form S-8 dated July 10, 2009 (File No. 333-160507).
- (15) Incorporated by reference to the Registrant's Report on Form 10-K dated February 26, 2010 (File No. 001-14010).
- (16) Incorporated by reference to the Registrant's Report on Form 10-Q dated May 6, 2011 (File No. 001-14010).
- (17) Incorporated by reference to the Registrant's Report on Form S-8 dated September 5, 2012 (File No. 333-183721).
- (18) Incorporated by reference to the Registrant's Report on Form 8-K dated December 11, 2012 (File No. 001-14010).
- (19) Incorporated by reference to the Registrant's Report on Form 10-Q dated August 1, 2013 (File No. 001-14010).
- (20) Incorporated by reference to the Registrant's Report on Form 10-Q dated November 1, 2013 (File No. 001-14010).
- (21) Incorporated by reference to the Registrant's Report on Form 8-K dated December 11, 2013 (File No. 001-14010).
- (22) Incorporated by reference to the Registrant's Report on Form 10-Q dated August 1, 2014 (File No. 001-14010).
- (23) Incorporated by reference to the Registrant's Report on Form 10-K dated February 27, 2015 (File No. 001-14010).
- (24) Incorporated by reference to the Registrant's Report on Form 10-Q dated May 8, 2015 (File No. 001-14010).
- (25) Incorporated by reference to the Registrant's Report on Form 10-Q dated August 7, 2015 (File No. 001-14010).
- (26) Incorporated by reference to the Registrant's Report on Form 10-Q dated August 5, 2016 (File No. 001-14010).
- (27) Incorporated by reference to the Registrant's Report on Form 8-K dated December 15, 2016 (File No. 001-14010).
- (\*) Management contract or compensatory plan required to be filed as an Exhibit to this Form 10-K.
- (\*\*) This exhibit shall not be deemed "filed" for purposes of Section 18 of the Exchange Act, or otherwise subject to the liability of that section, nor shall it be deemed incorporated by reference into any filing under the Securities Act of 1933, as amended, or the Exchange Act, whether made before or after the date hereof and irrespective of any general incorporation language in any filing, except to the extent the Company specifically incorporates it by reference.
- (b) See Item 15 (a) (3) above.
- (c) Financial Statement Schedule:



The following additional financial statement schedule should be considered in conjunction with the consolidated financial statements. All other schedules have been omitted because the required information is either not applicable or not sufficiently material to require submission of the schedule.

**WATERS CORPORATION AND SUBSIDIARIES**  
**SCHEDULE II - VALUATION AND QUALIFYING ACCOUNTS**  
**For each of the three years in the period ended December 31, 2016**

	<u>Balance at Beginning of Period</u>	<u>Charged to Provision for Income Taxes*</u>	<u>Other**</u>	<u>Balance at End of Period</u>
Valuation allowance for deferred tax assets:				
2016 .....	\$68,595	\$(5,473)	\$ (1,897)	\$61,225
2015 .....	\$82,550	\$ 1,363	\$(15,318)	\$68,595
2014 .....	\$94,952	\$ 1,505	\$(13,907)	\$82,550

\* These amounts have been recorded as part of the income statement provision for income taxes. The income statement effects of these amounts have largely been offset by amounts related to changes in other deferred tax balance sheet accounts.

\*\* The change in the valuation allowance during the year ended December 31, 2016 is primarily due to the effect of foreign currency translation on a valuation allowance related to a net operating loss carryforward and the release of a valuation allowance related to a foreign tax credit carryforward due to expiration. The change in the valuation allowance during the year ended December 31, 2015 is primarily due to the effect of foreign currency translation on a valuation allowance related to a net operating loss carryforward.

**Item 16: Form 10-K Summary**

The optional summary in Item 16 has not been included in this Form 10-K.

## SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

WATERS CORPORATION

\_\_\_\_\_  
/s/ SHERRY L. BUCK

Sherry L. Buck  
*Senior Vice President and  
Chief Financial Officer*

Date: February 24, 2017

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed by the following persons on behalf of the registrant and in the capacities indicated on February 24, 2017.

<p>_____ /s/ CHRISTOPHER J. O'CONNELL Christopher J. O'Connell</p>	<p>President and Chief Executive Officer (principal executive officer)</p>
<p>_____ /s/ SHERRY L. BUCK Sherry L. Buck</p>	<p>Senior Vice President and Chief Financial Officer (principal financial officer) (principal accounting officer)</p>
<p>_____ /s/ DOUGLAS A. BERTHIAUME Douglas A. Berthiaume</p>	<p>Chairman of the Board of Directors</p>
<p>_____ /s/ JOSHUA BEKENSTEIN Joshua Bekenstein</p>	<p>Director</p>
<p>_____ /s/ DR. MICHAEL J. BERENDT Dr. Michael J. Berendt</p>	<p>Director</p>
<p>_____ /s/ EDWARD CONARD Edward Conard</p>	<p>Director</p>
<p>_____ /s/ DR. LAURIE H. GLIMCHER Dr. Laurie H. Glimcher</p>	<p>Director</p>
<p>_____ /s/ CHRISTOPHER A. KUEBLER Christopher A. Kuebler</p>	<p>Director</p>
<p>_____ /s/ WILLIAM J. MILLER William J. Miller</p>	<p>Director</p>
<p>_____ /s/ JOANN A. REED JoAnn A. Reed</p>	<p>Director</p>
<p>_____ /s/ THOMAS P. SALICE Thomas P. Salice</p>	<p>Director</p>

## Directors

**Douglas A. Berthiaume**  
Chairman of the Board,  
Waters Corporation

**Christopher J. O'Connell**  
President and  
Chief Executive Officer,  
Waters Corporation

**Joshua Bekenstein**  
Managing Director,  
Bain Capital, LLC

**Michael J. Berendt, Ph.D.**  
Life Sciences Industry Consultant  
and Investor

**Edward Conard**  
Independent Director and Investor

**Laurie H. Glimcher, M.D.**  
President and CEO,  
Dana-Farber Cancer Institute

Principal Investigator and Director,  
Dana-Farber/Harvard Cancer Center

Richard and Susan Smith Professor  
of Medicine, Harvard Medical School

**Christopher A. Kuebler**  
Retired Chairman and Chief  
Executive Officer, Covance Inc.

**William J. Miller**  
Independent Director and Investor

**JoAnn A. Reed**  
Health Care Services Consultant

**Thomas P. Salice**  
Managing Member,  
SFW Capital Partners, LLC

## Executive Officers

**Christopher J. O'Connell**  
President and Chief  
Executive Officer

**Mark T. Beaudouin**  
Senior Vice President,  
General Counsel and Secretary

**Sherry L. Buck**  
Senior Vice President and  
Chief Financial Officer

**Eugene G. Cassis**  
Senior Vice President

**Michael C. Harrington, Ph.D.**  
Senior Vice President,  
Global Markets

**Terrence P. Kelly**  
Senior Vice President and President,  
TA Instruments

**Rohit Khanna, Ph.D.**  
Senior Vice President,  
Applied Technology

**Ian S. King**  
Senior Vice President,  
Instrument Technology

**Elizabeth B. Rae**  
Senior Vice President,  
Global Human Resources

**David Terricciano**  
Senior Vice President,  
Global Operations

## Transfer Agent and Registrar

Shareholder correspondence  
should be mailed to:

**Computershare**  
P.O. Box 30170  
College Station, TX 77842-3170

Overnight correspondence  
should be mailed to:

**Computershare**  
211 Quality Circle, Suite 210  
College Station, TX 77845-4470

Shareholder website:  
[https://www-us.computershare.com/  
investor](https://www-us.computershare.com/investor)

Shareholder online inquiries:  
[https://www-us.computershare.com/  
investor/Contact](https://www-us.computershare.com/investor/Contact)

## Independent Registered Public Accounting Firm

**PricewaterhouseCoopers LLP**  
101 Seaport Boulevard  
Boston, MA 02210  
Phone: 617-530-5000

## Attorneys

**Ropes & Gray LLP**  
Prudential Tower  
800 Boylston Street  
Boston, MA 02199-3600  
Phone: 617-951-7000

## Stockholders' Meeting

Date: Tuesday, May 09, 10:30 a.m.  
Location:

**Waters Corporation**  
34 Maple Street  
Milford, MA 01757  
Directions: Call 800-252-4752,  
Ext. 3314 or  
[www.waters.com/directionsMilford](http://www.waters.com/directionsMilford)

## Stocklist Symbol

NYSE: WAT

## Investor Relations

**John Lynch**  
Vice President , Treasurer, and  
Investor Relations  
Phone: 508-482-2314  
[john\\_lynch@waters.com](mailto:john_lynch@waters.com)

## Form 10-K

A copy of the Company's 10-K, filed  
with the Securities and Exchange  
Commission, is available without  
charge upon written request to:

**Waters Corporation**  
34 Maple Street  
Milford, MA 01757

## Offices

Corporate Headquarters  
**Waters Corporation**  
34 Maple Street  
Milford, MA 01757  
Phone: 508-478-2000  
Toll Free: 800-252-4752  
Fax: 508-872-1990  
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# Waters

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