

2016 Annual Report

● Bruker Corporation

Innovation with Integrity

**Bruker's Scientific Instruments,
Analytical Tools and Diagnostic Solutions...**

**visualize
analyze
measure**

**at
microscopic**

molecular

cellular

scales, so scientists can

**explore
innovate**

optimize

**in life and
materials science**



• 2016 Highlights

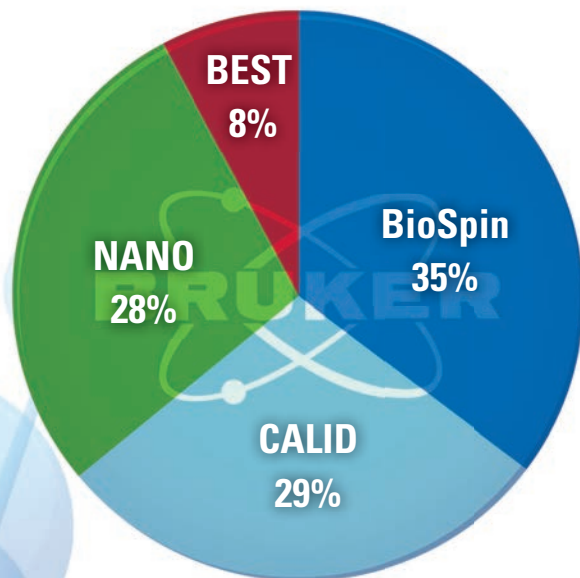
Non-GAAP Operating Margin*



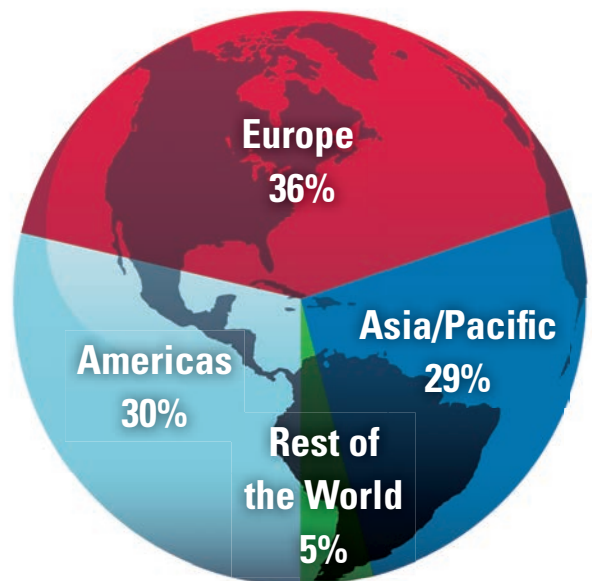
Non-GAAP EPS*



Percentage of Revenue (By Group)



Percentage of Revenue (By Region)



*Reconciliation of non-GAAP financial measures to the most directly comparable GAAP financial measures are included at the end of this report.

Focusing on Growth Markets...

Life Science Molecular Research

Intrinsically Disordered Proteins
Using high-field NMR for structural biology and IDPs



Biopharmaceutical & Applied Markets

Pharmaceutical Research
Screening of compounds in pharma drug discovery



...with High-Impact Innovation

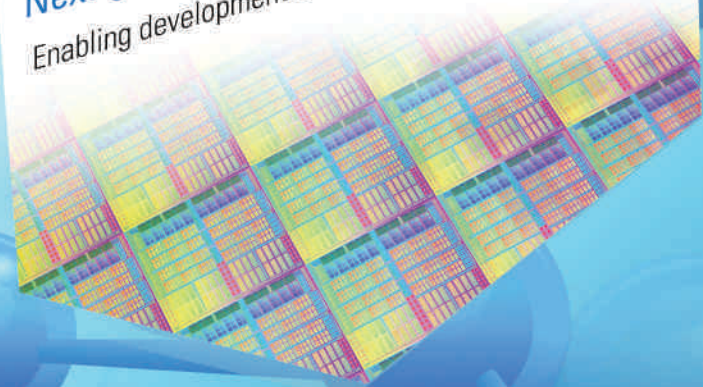
Clinical Research, Microbiology & Diagnostics

Clinical Microbiology, Phenomics
Research & Pathology Research
Faster and more accurate infection detection



Nano Analysis, Microscopy & Materials Research

Next-generation Semiconductor Metrology
Enabling development and production of next-gen chips



Dear Fellow Bruker Shareholders,

Despite challenging European and industrial market conditions in 2016, I am very pleased to report that Bruker has continued to deliver on our margin improvement and EPS growth commitments. In 2016, we exceeded our operating margin expansion and EPS targets, a notable achievement in light of significant headwinds in our European business in the first three quarters of 2016.

We believe our strong operating improvements in 2016 are further evidence that the transformation of Bruker into a more nimble and more profitable company is working. With our focus now on profitable growth acceleration and operational excellence, we are well positioned to deliver further operating margin gains, as well as accelerating revenue growth in 2017 and beyond.

2016 Financial Results

In 2016, Bruker's revenues declined 0.8% year-over-year. Revenue from acquisitions, primarily our November 2015 Jordan Valley addition, contributed 2.0% to revenue growth, while foreign exchange translation negatively impacted revenue by 0.5%. On an organic basis, Bruker's revenue was down 2.3% year-over-year, pressured by weak demand in our European academic markets in the first nine months of the year and sluggish global industrial demand.

Our 2016 non-GAAP operating margin was 14.8%, which represented an improvement of 150 basis points compared to 13.3% in 2015. Our original guidance for 2016 was for non-GAAP operating profit margin to improve approximately 100 basis points year-over-year—a target we exceeded even with a softer than originally anticipated top line. Over the past two years, our non-GAAP operating margin has improved 460 bps in total, the result of several years of hard work transforming the company to simplify our structure, take out costs, revamp our management team, systems and processes, and pursue higher margin growth.

Our 2016 non-GAAP EPS of \$1.19 increased 34% year-over-year from \$0.89 in 2015, driven by operational improvements, a favorable tax rate, benefits from foreign exchange transaction gains and a lower share count year-over-year, as we completed a significant share repurchase program.

"We believe our strong operating improvements in 2016 are further evidence that the transformation of Bruker into a more nimble and more profitable company is working."

Continuing to Leverage Our Transformation to Drive Further Margin Expansion

Our financial performance in 2016 benefited from the transformation we embarked on four years ago. As we enter into 2017 and over the next few years, we intend to build on this foundation, driving our operational excellence and lean initiatives for continuous improvements in our systems, operations, sales and marketing and managerial processes. We also intend to drive investment into strategic high growth areas and opportunities, while maintaining the operational discipline we have put in place.

Investment in High Growth Areas with Strong Long-Term Potential

Bruker prides itself on innovation, and in 2017 we plan to continue to invest in our four strategic growth areas, targeting opportunities that have attractive growth and fundamentally higher margins. Our four strategic growth areas are: (1) Life Science Molecular Research, (2) Biopharma & Applied Markets, (3) Clinical Research, Microbiology and Diagnostics and (4) Nano-analysis, Microscopy and Materials Research.

Specifically, we are channeling our investments to leverage our core technologies into higher growth areas that have significant long-term potential, including: phenomics, proteomics, biopharma, food analysis, microbiology, neuroscience, intrinsically disordered proteins, and next-generation semiconductor metrology tools. As we continue to shift our portfolio towards higher growth and higher margin opportunities, we expect to accelerate our top line growth.

“As we enter into 2017 and over the next few years, we intend to build on this foundation, driving our operational excellence and lean initiatives for continuous improvements in our systems, operations, sales and marketing and managerial processes.”

Strengthening Our Systems

Further strengthening our business management systems and processes remains a key priority. In January 2016, we merged our two largest SAP ERP platforms. We intend to continue to implement modern, uniform and integrated platforms for all our businesses. Two key areas for 2017 are rolling out a uniform Customer Relationship Management (CRM) system and harmonizing processes on our ERP platform.

Board and Leadership Additions

Bruker continues to attract experienced and accomplished leaders to serve on our Board of Directors. In May 2016, Dr. Cynthia Friend joined the Board. She is the Director of the Rowland Institute at Harvard University and Director of the Energy Frontier Research Center for Sustainable Catalysis at Harvard. Dr. Friend has numerous scientific accomplishments and we value her insights into scientific trends and research priorities that can help inform our investments and product development at Bruker.

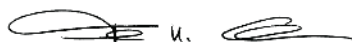
2017 Outlook

For 2017, we project revenue growth of 1.5% to 2.5%, including a 3.5% to 4% contribution from our 2016 and early 2017 acquisitions, offset by a projected 3% to 3.5% reduction from changes in foreign currency translation. We expect our non-GAAP operating margin to improve by an additional 40 bps to 70 bps, while we absorb a projected 40 bps negative impact from our 2016 and early 2017 acquisitions.

Our non-GAAP EPS are projected to be between \$1.05 and \$1.09 per share. The projected year-over-year decline in our non-GAAP EPS is due to our expectation for a substantially higher non-GAAP effective tax rate of approximately 25% in 2017, compared to 15.7% in 2016, which included non-recurring, non-cash tax benefits. We are again focused on delivering on our commitments to shareholders, customers and employees, while further improving our financial performance.

I want to thank our valued customers, my Bruker colleagues, our shareholders and our collaborators and business partners for their commitment and support over the past year. I look forward to reporting on our further progress in the future.

Sincerely,



Frank H. Laukien, Ph.D.
Chairman, President and Chief Executive Officer
April 17, 2017

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

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

Commission File Number 000-30833

BRUKER CORPORATION

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
Incorporation or organization)

04-3110160
(I.R.S. Employer Identification No.)

40 Manning Road, Billerica, MA
(Address of principal executive offices)

01821
(Zip Code)

Registrant's telephone number, including area code: **(978) 663-3660**

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

Title of Each Class	Name of Each Exchange on Which Registered
Common Stock, \$0.01 par value per share Securities registered pursuant to Section 12(g) of the Act:	The Nasdaq Global Select Market
	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 Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T 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 is not contained herein, and will not be contained, to the best of the registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

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

Large accelerated filer Accelerated filer Non-accelerated filer Smaller reporting company
(do not check if smaller reporting company)

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

The aggregate market value of the voting and non-voting stock held by non-affiliates of the registrant as of June 30, 2016 (the last business day of the registrant's most recently completed second fiscal quarter) was \$2,392,086,523, based on the reported last sale price on the Nasdaq Global Select Market. This amount excludes an aggregate of 56,316,142 shares of common stock held by officers and directors and each person known by the registrant to own 10% or more of the outstanding common stock of the registrant as of June 30, 2016. Exclusion of shares held by any person should not be construed to indicate that such person possesses the power, direct or indirect, to direct or cause the direction of management or policies of the registrant, or that such person is controlled by or under common control with the registrant. The number of shares of the registrant's common stock outstanding as of February 24, 2017 was 159,884,435.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the information required by Part III of this report (Items 10, 11, 12, 13 and 14) are incorporated by reference from the registrant's definitive Proxy Statement for its 2017 Annual Meeting of Stockholders to be filed within 120 days of the close of the registrant's fiscal year.

BRUKER CORPORATION
ANNUAL REPORT ON FORM 10-K
TABLE OF CONTENTS

		<u>Page</u>
Part I		
Item 1	Business	3
Item 1A	Risk Factors	17
Item 1B	Unresolved Staff Comments	33
Item 2	Properties	33
Item 3	Legal Proceedings	34
Item 4	Mine Safety Disclosure	35
Part II		
Item 5	Market for Registrant’s Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities	36
Item 6	Selected Financial Data	39
Item 7	Management’s Discussion and Analysis of Financial Condition and Results of Operations	41
Item 7A	Quantitative and Qualitative Disclosures About Market Risk	66
Item 8	Financial Statements and Supplementary Data	69
Item 9	Changes in and Disagreements with Accountants on Auditing and Financial Disclosure	121
Item 9A	Controls and Procedures	121
Item 9B	Other Information	124
Part III		
Item 10	Directors, Executive Officers and Corporate Governance	124
Item 11	Executive Compensation	124
Item 12	Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters	124
Item 13	Certain Relationships and Related Transactions and Director Independence	125
Item 14	Principal Accounting Fees and Services	125
Part IV		
Item 15	Exhibits, Financial Statements and Schedules	126
Item 16	Form 10-K Summary	129
	Signatures	130

Any statements contained in this Annual Report on Form 10-K that are not statements of historical fact may be deemed to be forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934. Without limiting the foregoing, the words “believes”, “anticipates”, “plans”, “expects”, “seeks”, “estimates”, “should” and similar expressions are intended to identify forward-looking statements. Any forward-looking statements contained herein are based on current expectations, but are subject to a number of risks and uncertainties. The factors that could cause actual future results to differ materially from current expectations include, but are not limited to, risks and uncertainties related to adverse changes in the economic and political conditions in the countries in which we operate, the integration of businesses we have acquired or may acquire in the future, our restructuring and cost-control initiatives, changing technologies, product development and market acceptance of our products, the cost and pricing of our products, manufacturing and outsourcing, competition, dependence on collaborative partners, key suppliers and third party distributors, capital spending and government funding policies, changes in governmental regulations,

intellectual property rights, litigation, exposure to foreign currency fluctuations, our ability to service our debt obligations and fund our anticipated cash needs and other factors, many of which are described in more detail in this Annual Report on Form 10-K under Item 1A. “Risk Factors” and from time to time in other filings we may make with the Securities and Exchange Commission. While the Company may elect to update forward-looking statements in the future, it specifically disclaims any obligation to do so, even if the Company’s estimates change, and readers should not rely on those forward-looking statements as representing the Company’s views as of any date subsequent to the date of the filing of this report.

References to “we,” “us,” “our,” “management” or the “Company” refer to Bruker Corporation and, in some cases, its subsidiaries, as well as all predecessor entities.

Our principal executive offices are located at 40 Manning Road, Billerica, MA 01821, and our telephone number is (978) 663-3660. Information about Bruker Corporation is available at www.bruker.com. The information on our website is not incorporated by reference into and does not form a part of this report. All trademarks, trade names or copyrights referred to in this report are the property of their respective owners.

PART I

ITEM 1 BUSINESS

Our Business

We are a developer, manufacturer and distributor of high-performance scientific instruments and analytical and diagnostic solutions that enable our customers to explore life and materials at microscopic, molecular and cellular levels. Many of our products are used to detect, measure and visualize structural characteristics of chemical, biological and industrial material samples. Our products address the rapidly evolving needs of a diverse array of customers in life science research, pharmaceuticals, biotechnology, applied markets, cell biology, clinical research, microbiology, in-vitro diagnostics, nanotechnology and materials science research. Our technology platforms include magnetic resonance technologies, mass spectrometry technologies, gas and liquid chromatography triple quadrupole mass spectrometry technologies, X-ray technologies, spark-optical emission spectroscopy, atomic force microscopy, stylus and optical metrology technology, fluorescence optical microscopy and infrared and Raman molecular spectroscopy technologies. We also develop, manufacture and distribute a broad range of field analytical systems for chemical, biological, radiological, nuclear and explosives, or CBRNE, detection. We also develop, manufacture and market high and low temperature superconducting materials and devices based primarily on metallic low temperature superconductors. Our corporate headquarters are located in Billerica, Massachusetts. We maintain major technical and manufacturing centers in Europe and North America, and we have sales offices located throughout the world.

Business Segments

We have two reportable segments, *Bruker Scientific Instruments (BSI)*, which represented approximately 93% of our revenues during the year ended December 31, 2016, and *Bruker Energy & Supercon Technologies (BEST)*, which represented the remainder of our revenues. Within BSI, we are organized into three operating segments: the Bruker BioSpin Group, the Bruker CALID Group and the Bruker Nano Group. For financial reporting purposes, the Bruker BioSpin, Bruker CALID and Bruker Nano operating segments are aggregated into the BSI reportable segment because each has similar economic characteristics, production processes, service offerings, types and classes of customers, methods of distribution and regulatory environments.

BSI Segment

Bruker BioSpin Group

The Bruker BioSpin Group comprises the Bruker Magnetic Resonance, Applied Industrial and Clinical, Preclinical Imaging and Service and Lifecycle Support Divisions and designs, manufactures and distributes enabling life science tools based on magnetic resonance technology. Magnetic resonance is a natural phenomenon occurring when a molecule placed in a magnetic field gives off a signature radio frequency. The signature radio frequency is characteristic of the particular molecule and provides a multitude of precise chemical and structural information. Depending on the intended application, we market and sell to our customers a NMR system or an EPR system (each as defined below).

Bruker BioSpin also manufactures and sells single and multiple modality systems using MRI, PET, SPECT, CT, MPI (each as defined below) and optical imaging technologies to preclinical markets. Bruker BioSpin's products, which have particular application in structural proteomics, drug discovery, pharmaceutical and biotechnology research and production, and food and materials science fields, provide customers with the ability to determine the structure, dynamics, and function of specific molecules, such as proteins, and to characterize and determine the composition of mixtures.

The vast majority of Bruker BioSpin's revenues are generated by academic and government research customers. Other customers include pharmaceutical and biotechnology companies and nonprofit laboratories, as well as chemical, food and beverage, clinical and polymer companies.

During 2016, we launched a number of new products and technologies, including NMR pesticide and toxscreeener profiling systems, NMR minispec technology and an optimized CryoProbe, as well as next generation software for our existing products. We also installed the first shielded ultra-high field one gigahertz nuclear magnetic resonance system.

Bruker BioSpin Group's instruments are based on the following technology platforms:

- **NMR**—Nuclear magnetic resonance;
- **EPR**—Electron paramagnetic resonance;
- **MRI**—Magnetic resonance imaging;
- **MPI**—Magnetic Particle Imaging;
- **PET**—Positron Emission Tomography;
- **SPECT**—Single Photon Emission Tomography;
- **CT**—Computed Tomography; and
- **OI**—Optical Imaging (fluorescence and bioluminescence).

NMR is a qualitative and quantitative analytical technique that is used to determine the molecular structure and purity of a sample. Molecules are placed in a magnetic field and give off a radio frequency, or rf, signature that is recorded by a sensitive detector. Analysis software helps to determine the molecular structure of the sample. The NMR technique is used in academia, pharmaceutical, biotechnology, food and beverage and clinical companies, and by other industrial users in life science and material science research.

EPR is a process of absorption of microwave radiation by paramagnetic ions or molecules with at least one unpaired electron that spins in the presence of a static magnetic field. EPR detects unpaired electrons unambiguously, whereas other techniques can only provide indirect evidence of their presence. In addition, EPR can identify the paramagnetic species that are detected, which present information on the molecular structure near the unpaired electron and give insight into dynamic processes such as molecular motions or fluidity. Our EPR instruments are used for a wide range of applications, including advanced materials research, materials analysis and quality control.

MRI is a process of creating an image from the manipulation of hydrogen atoms in a magnetic field. In the presence of an external magnetic field, atoms will align with or against the external magnetic field. Application of a radio frequency causes the atoms to jump between high and low energy states. MRI and magnetic resonance spectroscopy, or MRS, include many methods including diffusion-weighted, perfusion-weighted, molecular imaging and contrast-enhance. MRI offers high resolution morphologic information, as well as functional, metabolic or molecular information. Customers use our MRI systems in pharmaceutical research, including metabolomics, to study a number of diseases, including diabetes, neurology, oncology and cardiovascular disorders.

MPI is a process of creating an image from magnetic particles administered to the body of an animal. The magnetic particles are manipulated in a combination of oscillating magnetic fields exhibiting a field free zone. The response of the particles allows a real time 3D data set acquisition of the whole body of an animal, showing the contrast agent distributing in and flowing through the body. This imaging modality is used to detect cardiovascular disorders.

PET is a process of creating an image from positrons after administration of a positron emitting radionuclide to the body of an animal. Annihilation of the positron produces two photons which show an angle of 180° between them, distinguishing these photons from photons originating from other sources. The PET tracer enriches in certain regions of interest within the body and gains molecular information from the animal *in vivo*. This has widespread applications, most importantly for oncology, inflammation, neurology and cardiovascular disorders, as well as metabolic disease, drug discovery and bone disease.

SPECT uses a contrast agent containing radionuclides which directly emit single photons. The contrast agent enriches in certain parts of the body of an animal and generates images of the radionuclide distribution in the body. SPECT has widespread application in animal investigations *in vivo*, most importantly in oncology, neurology and cardiovascular disorders.

CT is a technology based on X-rays which are used to generate a complete 3D data set. The most important applications are tissue sample analysis or non-invasive *in vivo* animal imaging. CT offers the highest spatial resolution of all preclinical imaging modalities and is especially useful to generate morphological information about the object or animal under investigation. CT is being used in all fields of preclinical investigations such as bone-orthopedics, cardiovascular, pulmonary, oncology, metabolism and others.

OI is a process of creating an image from light emitted from within the body of an animal *in vivo*. This is achieved by administration of a fluorescent imaging agent and corresponding activation of fluorescence via an external light source, or fluorescence imaging. Alternatively, it is possible to manipulate the animal under investigation such that it contains molecules which emit light without external irradiation, or bioluminescence imaging. Optical imaging is a very sensitive imaging technology used for generating molecular information in an investigation. The main fields of application are oncology, neurology, inflammation, stem cell research and bone and infectious diseases.

Bruker CALID Group

The Bruker CALID Group comprises the Bruker Daltonics Division, which is a combination of the former Life Sciences and Clinical (LSC) and Chemical and Applied Markets (CAM) Divisions, and the Bruker Detection and Bruker Optics Divisions. The Bruker Daltonics Division primarily designs, manufactures and distributes life science mass spectrometry, or MS, instruments that can be integrated and used along with other sample preparation or chromatography instruments. These products are used in research, pharmaceutical and biotechnology development and clinical diagnostic settings. Mass spectrometers are sophisticated devices that measure the mass or weight of a molecule and can provide accurate information on the identity, quantity and primary structure of molecules. Mass spectrometry based solutions often combine advanced mass spectrometry instrumentation, automated sampling and sample preparation robots, reagent kits and other disposable products used in conducting tests, or assays, and bioinformatics software. We offer mass spectrometry systems and integrated solutions for applications in multiple existing and emerging life science markets and chemical and applied markets, including expression proteomics, clinical proteomics, metabolic and peptide biomarker profiling, drug discovery and development, molecular diagnostics research and molecular and systems biology, as well as basic molecular medicine research and clinical microbiology (for IVD use only in certain countries and certain configurations).

The Bruker Detection Division supplies various systems based on mass spectrometry, ion mobility spectrometry, infrared spectroscopy and radiological/nuclear detectors for Chemical, Biological, Radiological, Nuclear and Explosive (CBRNE) detection in emergency response, homeland security and defense applications.

The Bruker Optics Division manufactures and distributes research, analytical and process analysis instruments and solutions based on infrared and Raman molecular spectroscopy technologies. These

products are utilized in industry, government and academia for a wide range of applications and solutions for life science, pharmaceutical, food and agricultural analysis, quality control and process analysis applications. Infrared and Raman spectroscopy are widely used in both research and industry as simple, rapid, nondestructive and reliable techniques for applications ranging from basic sample identification and quality control to advanced research. The Bruker Optics Division also utilizes Fourier transform and dispersive Raman measurement techniques on an extensive range of laboratory and process spectrometers. The Bruker Optics Division's products are complemented by a wide range of sampling accessories and techniques, which include, among others microanalysis and high-throughput screening to help users find suitable solutions to analyze their samples effectively.

Customers of our Bruker CALID Group include pharmaceutical, biotechnology and diagnostics companies, contract research organizations, academic institutions, medical schools, nonprofit or for-profit forensics, agriculture, food and beverage safety, environmental and clinical microbiology laboratories, hospitals and government departments and agencies.

During 2016, we launched a number of new mass spectrometry based product solutions, including the timsTOF™, which is a research grade instrument for optimal separation and analysis of unresolved compounds and conformations. We also introduced the rapifleX MALDI PharmaPulse™ designed to assist in the acceleration of drug discovery. We also expanded the Raman product line with the introduction of the Senterra II, which is an easy-to-use confocal multi-laser imaging microscope. Software releases accompanied our instrument solutions launches in 2016.

The Bruker CALID Group's instruments are based on the following technology platforms:

- **MALDI-TOF**—Matrix-assisted laser desorption ionization time-of-flight mass spectrometry, including tandem time-of-flight systems (MALDI-TOF/TOF);
- **ESI-TOF**—Electrospray ionization time-of-flight spectrometry, including tandem mass spectrometry systems based on ESI-quadrupole-TOF mass spectrometry (ESI-Q-q-TOF);
- **FTMS**—Fourier transform mass spectrometry, including hybrid systems with a quadrupole front end (Q-q-FTMS);
- **ITMS**—Ion trap mass spectrometry;
- **GC-MS**—Gas chromatography-mass spectrometry systems utilizing triple-quadrupole time-of-flight mass spectrometry;
- **LC-MS**—Liquid chromatography-mass spectrometry systems utilizing triple-quadrupole time-of-flight mass spectrometry;
- **FT-IR**—Fourier transform-infrared spectroscopy;
- **NIR**—Near-infrared spectroscopy; and
- **Raman**—Raman spectroscopy.

MALDI-TOF mass spectrometers utilize an ionization process to analyze solid samples using a laser that combines high sample throughput with high mass range and sensitivity. Our MALDI-TOF mass spectrometers are particularly useful for applications in clinical diagnostics, environmental and taxonomical research and food processing and quality control. Specific applications include: oligonucleotide and synthetic polymer analysis; protein identification and quantification; peptide de novo sequencing; determination of post-translational modifications of proteins; interaction proteomics and protein function analysis; drug discovery and development; and fast body fluid and tissue peptide or protein biomarker detection. MALDI mass spectrometry allows users to classify and identify microorganisms quickly and reliably with minimal sample preparation efforts and life cycle costs. Our MALDI Biotyper solution, which serves the clinical microbiology market, enables identification,

taxonomical classification or dereplication of microorganisms like bacteria, yeasts and fungi. In 2016, we acquired a manufacturer of molecular assays, to broaden the Company's product offering and build up a second leg for Bruker's microbiology business, enter the molecular testing market, and leverage the large installed maldi-biotyper (MBT) base to lower the entry hurdle for PCR-MALDI assays.

ESI-TOF mass spectrometers utilize an electrospray ionization process to analyze liquid samples. This ionization process, which does not dissociate the molecules, allows for rapid data acquisition and analysis of large biological molecules. ESI-TOF mass spectrometers are particularly useful for: identification, protein analysis and functional complex analysis in proteomics and protein function; molecular identification in metabolomics, natural product and drug metabolite analysis; combinatorial chemistry high throughput screening; and fast liquid chromatography mass spectrometry, or liquid chromatography mass spectrometry (LC-MS), in drug discovery and development.

FTMS systems utilize high-field superconducting magnets to offer the highest resolution, selectivity, and mass accuracy currently achievable in mass spectrometry. Our systems based on this technology often eliminate the need for time-consuming separation techniques in complex mixture analyses. In addition, our systems can fragment molecular ions to perform exact mass analysis on all fragments to determine molecular structure. FTMS systems are particularly useful for: the study of structure and function of biomolecules, including proteins, DNA and natural products; complex mixture analysis including body fluids or combinatorial libraries; high-throughput proteomics and metabolomics; and top-down proteomics of intact proteins without the need for enzymatic digestion of the proteins prior to analysis. We offer next-generation hybrid FTMS systems that combine a traditional external quadrupole mass selector and hexapole collision cell with a high-performance FTMS for further ion dissociation, top-down proteomics tools and ultra-high resolution detection.

ITMS systems collect all ions simultaneously, which improves sensitivity relative to previous quadrupole mass spectrometers. Ion trap mass spectrometers are particularly useful for sequencing and identification based on peptide structural analysis, quantitative liquid chromatography mass spectrometry, identification of combinatorial libraries and generally enhancing the speed and efficiency of the drug discovery and development process.

GC-MS systems combine the features of gas chromatography and mass spectrometry to identify different substances within a test sample. The two components, used together, allow for a finer degree of substance identification than either system when used separately. The result is a quantitative analysis of the components and the mass spectrum of each component. Our GC-MS systems are available in triple quadrupole configurations and can be configured with a variety of options to suit a range of applications. Our GC-MS systems have applications in food and product safety, forensics, clinical and toxicology testing and environmental, pharmaceutical and chemical analysis.

LC-MS systems combine the separation features of liquid chromatography with the molecular identification features of mass spectrometry to separate, identify and quantify different substances within a test sample. As a complementary technique to GC-MS, which analyzes volatile compounds, LC-MS can be used to analyze a wide range of non-volatile compounds in complex samples. Our LC-MS systems are available in a wide range of configurations to suit a user's specific needs. Although primarily used for life science applications, our LC-MS systems also have applications in food and product safety, forensics and clinical and toxicology testing, as well as environmental, pharmaceutical and chemical analysis.

FT-IR spectrometers utilize the mid- and far-infrared regions of the electromagnetic spectrum. Our FT-IR systems are commonly used for various quality control and materials research applications.

NIR spectrometers utilize the near-infrared region of the electromagnetic spectrum. Our NIR instruments are primarily used for quality and process control applications in the pharmaceutical, food and agriculture and chemical industries. The pharmaceutical industry is the leading user of NIR

instruments, and applications include quality control, research and development and process analytical technology. The food and agricultural industry is the second largest user of NIR instrumentation, with an increasing demand for food, forage and beverage quality control.

Raman spectroscopy provides information on molecular structure. The mechanism of Raman scattering is different from that of infrared absorption, in that Raman and IR spectra provide complementary information. Raman is useful for the identification of both organic and inorganic compounds and functional groups. It is a nondestructive technique, and can be used for the analysis of both liquids and solids. Raman is well suited for use in the polymer and pharmaceutical industries, and has applications in the metals, electronics and semiconductors industries. The technique also has applications in life sciences, forensics and artwork authentication.

Additionally, our Detection Division offers a wide range of portable analytical and bioanalytical detection systems and related products for CBRNE detection. Our customers use these devices for nuclear, biological agent and chemical agent defense applications, anti-terrorism, law enforcement and process and facilities monitoring. Our CBRNE detection products use many of the same technology platforms as our life science products, as well as additional technologies, including infrared stand-off detection and ion mobility spectrometry, for handheld chemical detectors. We also provide integrated, comprehensive detection suites that include our multiple detection systems, consumables, training and simulators.

Bruker Nano Group

The Bruker Nano Group comprises the Bruker AXS, Bruker Nano Surfaces, Bruker Nano Analytics and Bruker Semiconductor Divisions. The Bruker AXS Division designs, manufactures and distributes advanced X-ray instruments that use electromagnetic radiation with extremely short wavelengths to determine the characteristics of matter and the three-dimensional structure of molecules. This includes a product portfolio that comprises instruments based on X-ray fluorescence spectroscopy (XRF), X-ray diffraction (XRD) and X-ray micro computed tomography (μ CT), as well as spark optical emission spectroscopy systems (S-OES) used to analyze the concentration of elements in metallic samples.

Bruker Nano Surfaces Division's products include atomic force microscopy instrumentation (AFM). Such instruments provide atomic or near atomic resolution of surface topography and mechanical, electrical and chemical information using nano scale probes. In addition, the Bruker Nano Surfaces Division provides advanced fluorescence optical microscopy instruments for multi-photon, multipoint scanning confocal, high-speed 3D super-resolution studies in life science. The Bruker Nano Surfaces Division also provides non-contact nanometer resolution topography through white light interferometry and stylus profilometry.

The Bruker Nano Analytics Division manufactures and markets analytical tools for electron microscopes, including energy-dispersive X-ray spectrometers (EDS), electron backscatter diffraction systems (EBSD) and μ CT accessories, as well as mobile and bench-top micro X-ray fluorescence (μ XRF), total reflection X-ray fluorescence spectrometers (TXRF) and handheld, portable and mobile X-ray fluorescence (HMP-XRF) spectrometry instruments.

The Bruker Semiconductor Division manufactures and markets X-ray metrology and defect-detection equipment for semiconductor process control.

Customers of our Bruker Nano Group include biotechnology and pharmaceutical companies, academic institutions, governmental customers, nanotechnology companies, semiconductor companies, raw material manufacturers, industrial companies and other businesses involved in materials analysis.

During 2016, we introduced an all optical simultaneous 3D simulation and multiphoton imaging system for optogenetics, which is used for multi-cell brain research, and a handheld elemental analyzer

system for advanced applications and research. We also released next generation models of several products, including the EBSD Detectors and software.

The Bruker Nano Group's systems are based on the following technology platforms:

- **XRD**—Polycrystalline X-ray diffraction, often referred to as X-ray diffraction;
- **XRF**—X-ray fluorescence, also called X-ray spectrometry, including handheld XRF systems;
- **SC-XRD**—Single crystal X-ray diffraction, often referred to as X-ray crystallography;
- **μCT**—X-ray micro computed tomography;
- **EDS**—Energy dispersive X-ray spectroscopy on electron microscopes;
- **EBSD**—Electron backscatter diffraction on electron microscopes;
- **S-OES**—Spark optical emission spectroscopy;
- **CS/ONH**—Combustion analysis for carbon, sulfur, oxygen, nitrogen, and hydrogen in solids;
- **AFM**—Atomic force microscopy;
- **FM**—Fluorescence optical microscopy;
- **SOM**—Stylus and optical metrology; and
- **TMT**—Tribology and mechanical test systems for analysis of friction and wear.

XRD systems investigate polycrystalline samples or thin films with single wavelength X-rays. The atoms in the polycrystalline sample scatter the X-rays to create a unique diffraction pattern recorded by a detector. Computer software processes the pattern and produces a variety of information, including stress, texture, qualitative and quantitative phase composition, crystallite size, percent crystallinity and layer thickness, composition, defects and density of thin films and semiconductor material. Our XRD systems contribute to a reduction in the development cycles for new products in the catalyst, polymer, electronic, optical material and semiconductor industries. Customers also use our XRD systems academic and government research facilities, as well as a variety of other fields, including forensics, art and archaeology.

XRF systems determine the elemental composition of a material and provide a full qualitative and quantitative analysis. Our XRF systems direct X-rays at a sample, and the atoms in the sample absorb the X-ray energy. The elements in the sample then emit X-rays that are characteristic for each element. The system collects the X-rays, and the software analyzes the resulting data to determine the elements that are present. Our XRF products provide automated solutions on a turn-key basis for industrial users that require automated, controlled production processes that reduce product and process cost, increase output and improve product quality. Our XRF products cover substantially all of the periodic table and can analyze solid, powder or liquid samples.

SC-XRD systems determine the three-dimensional structures of molecules in a chemical, mineral, or biological substance being analyzed. **SC-XRD** systems have the capability to determine structure in both small chemical molecules and larger biomolecules. **SC-XRD** systems direct an X-ray beam at a solid, single crystal sample. The atoms in the crystal sample scatter the X-rays to create a precise diffraction pattern recorded by an electronic detector. Software then reconstructs a model of the structure and provides the unique arrangement of the atoms in the sample. This information on the exact arrangement of atoms in the sample is a critical part of molecular analysis and can provide insight into a variety of areas, including how a protein functions or interacts with a second molecule. Our **SC-XRD** systems are designed for use in the life sciences industry, academic research and a variety of other applications.

μ CT is X-ray imaging in 3D, by the same method used in hospital CT scans, but on a small scale with massively increased resolution. 3D microscopy allows users to image the internal structure of objects non-destructively on a very fine scale. Bruker μ CT is available in a range of easy-to-use desktop instruments, which generate 3D images of the sample's morphology and internal microstructure with resolution down to the sub-micron level. Our μ CT systems are used for numerous applications in materials research and in the life sciences industry.

EDS systems analyze the chemical composition of materials under investigation in electron microscopes by utilizing the fact that atoms of different chemical elements, when exposed to the high energy electron beam generated by the microscope, irradiate X-rays of different, characteristic energy. The evaluation of the energy spectrum collected by our spectrometer allows the determination of the qualitative and quantitative chemical sample composition at the current beam position. EDS systems allow for simultaneous analysis of all elements in the periodic table, beginning with atomic number 4 (beryllium). Our EDS systems are used for a range of applications, including nanotechnology and advanced materials research, as well as materials analysis and quality control. Customers for EDS systems include industrial customers, academia and government research facilities.

EBSD systems are used to perform quantitative microstructure analysis of crystalline samples in electron microscopes. The microscope's electron beam strikes the tilted sample and diffracted electrons form a pattern on a fluorescent screen. This pattern is characteristic of the crystal structure and orientation of the sample region from which it was generated. It provides the absolute crystal orientation with sub-micron resolution. EBSD can be used to characterize materials with regard to crystal orientation, texture, stress, strain and grain size. EBSD also allows the identification of crystalline phases and their distribution, and is applied to many industries such as metals processing, aerospace, automotive, microelectronics and earth sciences.

S-OES instruments are used for analyzing metals. S-OES covers a broad range of applications for metals analysis from pure metals trace analysis to high alloyed grades, and allow for analysis of a complete range of relevant elements simultaneously. S-OES instruments pass an electric spark onto a sample, which burns the surface of the sample and causes atoms to jump to a higher orbit. Our detectors quantify the light emitted by these atoms and help our customers to determine the elemental composition of the material. This technique is widely used in production control laboratories of foundries and steel mills.

CS/ONH carrier gas systems incorporate a furnace and infrared or thermal conductivity detection to analyze inorganic materials for the determination of carbon, sulfur, nitrogen, oxygen and hydrogen. Combustion and inert gas fusion analyzers are used for applications in metal production and processing, chemicals, ceramics and cement, coal processing and oil refining and semiconductors.

AFM systems provide atomic or near-atomic resolution of material surface topography using a nano-scale probe that is brought into light contact with the sample being investigated. In addition to presenting a surface image, AFM can also provide quantitative nano-scale measurements of feature sizes, material properties, electrical information, chemical properties and other sample characteristics. Our AFM systems are used for applications in academic and governmental materials and biological research and semiconductor, data storage hard drive, LED, battery, solar cells, polymers, and pharmaceutical product development and manufacturing.

FM products use fluorescence microscopy to determine the structure and composition of life science samples. Our products include two-photon microscopes, multipoint scanning confocal microscopes, laser illumination sources, photoactivation, photostimulation and photoablation accessories and synchronization and analysis software. Two-photon microscopes allow imaging deep into tissues and cells and are used widely in neuroscience. Multipoint scanning confocal systems allow live cell imaging with rapid acquisition of images for structural and composition analysis. We also offer super-resolution

and single-molecule localization microscopy products which can break the optical diffraction limit by an order of magnitude.

SOM systems provide atomic or near-atomic two dimensional and three dimensional surface resolution using white light interferometry, confocal optical and stylus profilometry methods. SOM profilers range from low-cost manual tools for single measurements to advanced, highly automated systems for production line quality assurance and quality control applications where the combination of throughput, repeatability and reproducibility is essential. SOM profilers support a range of applications in research, product development, tribology, quality control and failure analysis related to materials and machining in the automotive, orthopedic, ophthalmic, high brightness LED, semiconductor, data storage, optics and other markets.

TMT systems provide a platform for all types of common mechanical, friction, durability, scratch and indentation tests for a wide spectrum of materials. Tribology systems are utilized for both academic research of the fundamental material properties and industrial applications in the semiconductor, aerospace, petroleum, automotive and other industries.

BEST Segment

BEST designs, manufactures and distributes superconducting materials, primarily metallic low temperature superconductors, for use in magnetic resonance imaging, nuclear magnetic resonance, fusion energy research and other applications. BEST also develops, manufactures and markets ceramic, second generation high temperature superconductors for energy technology and magnet research applications. Additionally, BEST develops, manufactures and markets sophisticated devices and complex tools based primarily on metallic low temperature superconductors that have applications in “big science” research, including radio frequency accelerator cavities and modules, power couplers and linear accelerators. BEST also manufactures and sells non-superconducting high technology tools, such as synchrotron and beamline instrumentation, principally to customers engaged in materials research and “big science” research projects.

Sales and Marketing

We maintain direct sales forces throughout North America, Europe, Russia, China, Japan, Asia Pacific and Australia. We also utilize indirect sales channels to reach customers. We have various international distributors, independent sales representatives, and various other representatives in parts of Asia, Latin America, Africa, the Middle East and Eastern Europe. These entities augment our direct sales force and provide coverage in areas where we do not have direct sales personnel. In addition, we have adopted a distribution business model in which we engage in strategic distribution alliances with other companies to address certain market segments. The sales cycle for our products is dependent on the size and complexity of the system and budgeting cycles of our customers. Our sales cycle is typically three to twenty four months for academic and high-end research products and two weeks to six months for industrial products. The sales cycle of our low temperature superconducting materials is typically four to twelve months, with cycles of certain high-end materials exceeding one year. Sales of our high-end NMR and superconducting devices typically take more than one year and certain large, complex contracts can take more than two years to complete.

We have well-equipped applications and demonstration facilities and qualified application personnel who assist customers and provide product demonstrations in specific application areas. We maintain our primary demonstration facilities at our production facilities, as well as in other key market locations.

Seasonal Nature of Business

Historically we have higher levels of revenue in the fourth quarter and lower levels of revenues in the first quarter of the year, which we believe is influenced by our customers' budgeting cycles.

Major Customers

The Company has a broad and diversified customer base and we do not depend on any single customer. No single customer accounted for more than 10% of revenue in any of the last three fiscal years or more than 10% of accounts receivable as of December 31, 2016 or 2015.

Competition

Our existing products and solutions and any products and solutions that we develop in the future may compete in multiple, highly competitive markets. In addition, there has been a trend towards consolidation in our industries and many of our competitors have substantially greater financial, technical and marketing resources than we do. Our competitors may succeed in developing and offering products that could render our products or those of our strategic partners obsolete or noncompetitive. Our competitors may also have cost and price advantages based upon the value of their currencies compared with the U.S. dollar or Euro. In addition, many of these competitors have significantly more experience in the life sciences, chemical and materials markets. Our ability to compete successfully will depend on our ability to develop proprietary products that reach our target markets in a timely manner and are technologically superior to and/or less expensive, or more cost effective, than products marketed by our competitors. Current competitors or other companies may possess or develop technologies and products that are more effective than ours. Our technologies and products may be rendered obsolete or uneconomical by technological advances or by entirely different approaches developed by one or more of our competitors.

We also compete with companies that provide analytical or automation tools based on other technologies. These technologies may prove to be more successful in meeting demands in the markets that our products and solutions serve. In addition, other companies may choose to enter our fields in the future. We believe that the principal competitive factors in our markets are technology-based applications expertise, product specifications, functionality, reliability, marketing expertise, distribution capability, proprietary patent portfolios and cost effectiveness.

BSI Segment

Bruker BioSpin competes with companies that offer magnetic resonance spectrometers, mainly JEOL and Oxford Instruments. In the field of preclinical imaging, Bruker BioSpin competes with Perkin Elmer, Mediso, Trifoil, MR Solutions, RS2D, Visualsonics (Fuji Film) and others. Bruker CALID competes with a variety of companies that offer mass spectrometry based systems. Bruker CALID's competitors in the life science markets and chemical and applied markets include Danaher, Agilent, GE-Healthcare, Waters, Thermo Fisher Scientific, Shimadzu, Hitachi and JEOL. In the microbiology market, we compete with Biomerieux. Bruker CALID's CBRNE detection customers are highly fragmented, and we compete with a number of companies in this area, of which the most significant competitor is Smiths Detection. Bruker CALID also competes with a variety of companies that offer molecular spectrometry based systems, including Thermo Fisher Scientific, PerkinElmer, Agilent, Foss, ABB Bomem, Buchi, Shimadzu and Jasco. In addition, there are several smaller companies, specializing in various markets, with which we compete frequently. Bruker Nano competes with companies that offer analytical X-ray solutions, OES systems, AFM and SOM systems and optical fluorescence systems, primarily Rigaku, Oxford Instruments, Agilent, Thermo Fisher Scientific, Ametek's Spectro and Edax divisions, PANalytical, Olympus, Nikon, Zeiss and Danaher's Leica business.

BEST Segment

BEST competes with Luvata and Jastec Co., Ltd. in low temperature superconducting materials. In addition, BEST competes with Fujikura, SuperPower (a Furukawa company), Superconductor Technologies Inc. and SuNam Co., Ltd. in the market for second generation high temperature superconducting materials. BEST further competes with Zanon, Mitsubishi Electric and AES in the development and supply of accelerator cavities, with Thales, Toshiba and CPI International in the development and supply of radio frequency couplers, with Mitsubishi Heavy Industries in the development and supply of superconducting accelerator modules and with AES and Thales for electron linear accelerators.

Manufacturing and Supplies

Several of our manufacturing facilities are certified under ISO 9001:2008 and ISO 13485, an international quality standard. We manufacture and test our magnetic resonance products at our facilities in Faellanden, Switzerland; Wissembourg, France; and Karlsruhe, Germany. We manufacture and test our preclinical imaging products at our facilities in Ettlingen, Germany; Wissembourg, France; Kontich, Belgium; and Faellanden, Switzerland. We manufacture and test our mass spectrometry products, including CBRNE detection products, at our facilities in Bremen, Germany and Leipzig, Germany. We principally manufacture and test our molecular spectroscopy products at our facilities in Ettlingen, Germany. We manufacture and test our X-ray, OES and AFM products at our facilities in Karlsruhe, Germany; Berlin, Germany; Madison, Wisconsin, U.S.A.; Santa Barbara, California, U.S.A.; Kennewick, Washington, U.S.A.; and Migdal Ha'Emek, Israel. We manufacture and test the majority of our energy and superconducting products at our facilities in Hanau, Germany; Bergisch Gladbach, Germany; Perth, Scotland and Carteret, New Jersey, U.S.A. Manufacturing processes at our facilities in Europe, Israel and California, U.S.A. include all phases of manufacturing, such as machining, fabrication, subassembly, system assembly, and final testing. Our other facilities primarily perform high-level assembly, system integration and final testing. We typically manufacture critical components in-house to ensure key competence. Over the last three years, we have been in the process of outsourcing the manufacturing of various non-critical components, such as circuit boards and certain electronics, to third party contract manufacturers as part of our cost saving initiatives.

We purchase materials and components from various suppliers that are either standard products or built to our specifications. We obtain some of the components included in our products from a limited group of suppliers or from a single-source supplier for items such as charge coupled device area detectors, X-ray tubes, robotics, infrared optics and others. Bruker AXS has an ongoing collaboration and joint development project with the Siemens Medical Solutions Vacuum Technology Division in Germany for the development of X-ray tubes. Some Bruker AXS subsidiaries, Bruker Nano GmbH and Bruker AXS Handheld Inc. presently procure key X-ray detector chips and certain OES optical detectors and miniaturized X-ray sources from single-source suppliers. In addition, BEST sources niobium titanium and other niobium products from a single supplier.

Research and Development

We commit substantial capital and resources to internal and collaborative research and development projects in order to provide innovative products and solutions to our customers. We conduct research primarily to enhance system performance and improve the reliability of existing products, and to develop revolutionary new products and solutions. We expensed \$149.0 million (9.2% of revenue), \$145.7 million (9.0% of revenue) and \$174.2 million (9.6% of revenue) in 2016, 2015 and 2014, respectively, for research and development purposes. Our research and development efforts are conducted for the relevant products within each of the operating segments, as well as in collaboration with others on areas such as microfluidics, automation and workflow management software. We have been the recipient of government grants from Germany and the U.S. for various projects related to

early-stage research and development. We have generally retained, at a minimum, non-exclusive rights to any items or enhancements we develop under these grants. The German government requires that we use and market technology developed under grants in order to retain our rights to the technology. We have also accepted some sponsored research contracts from private sources.

BSI Segment

The research and development performed in the BSI Segment is primarily conducted at our facilities in Bremen, Ettlingen, Karlsruhe and Leipzig, Germany; Faellanden, Switzerland; Wissembourg, France; Billerica, Massachusetts, U.S.A.; Madison, Wisconsin, U.S.A.; and Santa Barbara, California, U.S.A.

The Bruker BioSpin Group maintains technical competencies in core magnetic resonance technologies and single- and multimodal imaging technologies and capabilities, including NMR, EPR, MRI, MPI, PET, CT and OI. Recent projects include the development of solid state dynamic nuclear polarization technologies, an ongoing development that enables gains in sensitivity for NMR, high field EPR instrumentation with dedicated cryogen free magnets, high field magnet technology for preclinical MRI, basic NMR research and quadrupole tuned cryoprobes for biological research, as well as MPI imaging for preclinical application.

The Bruker CALID Group maintains technical competencies in core mass spectrometry technologies and capabilities, including: MALDI, ESI, EI/CI ion sources; TOF, TOF/TOF, ion traps, FTMS, quadrupole and IMS analyzers; and bioinformatics and related software. Recent projects include the rapifleX MALDI Tissue typer, Bruker Daltonics' high-throughput MALDI imaging solution that provides enhanced high-resolution molecular information and distribution in tissues. The Bruker CALID Group also maintains technical competencies in core vibrational spectroscopy technologies and capabilities, including FT-IR, NIR and Raman. Recent projects include the innovative timsTOF mass spectrometers for separation and analysis of unresolved compounds and conformations.

The Bruker Nano Group maintains technical competencies in core X-ray technologies and capabilities, including detectors used to sense X-ray and X-ray diffraction patterns, X-ray sources and optics that generate and focus the X-rays, robotics and sample handling equipment that holds and manipulates the experimental material, and software that generates the structural data. Recent projects include refining next-generation high brilliancy optics and microsources, developing new high-power X-ray sources for X-ray diffraction and protein crystallography applications, developing a TXRF system for trace element analysis in semiconductor metrology, developing a new large solid angle, high-resolution, high-throughput energy dispersive X-ray detector for microanalysis, creating a high sensitivity area detector system and developing other solution-based technologies and software applications, including a product for X-ray scattering investigations of protein crystals. The Bruker Nano Group also has competencies in atomic force microscopy (AFM) technology, which involve sub-angstrom level position and motion control, as well as sub-pico newton force control. The Bruker Nano Group technologies also include 3D optical inference based microscopy, stylus profilometry, tribology testing, nano-indentation, optical fluorescence two-photon microscopy, multipoint scanning microscopy and high-speed, 3D super-resolution fluorescence microscopy. Recent innovations include elemental analyzer systems for advanced applications and research and simultaneous, all-optical stimulation and imaging platform for neuroscience applications.

BEST Segment

The research and development performed in the BEST Segment is primarily conducted at our facilities in Hanau, Bergisch Gladbach and Alzenau, Germany and Carteret, New Jersey, U.S.A. BEST maintains technical competencies in the production and development of low and high temperature superconducting materials and devices.

Intellectual Property

Our intellectual property consists of patents, copyrights, trade secrets, know-how, and trademarks. Protection of our intellectual property is a strategic priority for our businesses because of the length of time and expense associated with bringing new products through the development process and to the marketplace. We have a substantial patent portfolio, and we intend to file additional patent applications as appropriate. We believe our owned and licensed patent portfolio provides us with a competitive advantage. This portfolio permits us to maintain access to a number of key technologies. We license our owned patent rights where appropriate. We intend to enforce our patent rights against infringers, if necessary. The patent positions of life sciences tools companies involve complex legal and factual questions. As a result, we cannot predict the enforceability of our patents with certainty. In addition, we are aware of the existence from time to time of patents in certain countries, which, if valid, could impair our ability to manufacture and sell products in these countries.

We also rely upon trade secrets, know-how, trademarks, copyright protection and licensing to develop and maintain our competitive position. We generally require the execution of confidentiality agreements by our employees, consultants, and other scientific advisors. These agreements provide that all confidential information made known during the course of a relationship with us will be held in confidence and used only for our benefit. In addition, these agreements provide that we own all inventions generated during the course of the relationship.

Government Contracts

We are a party to various government contracts. Under some of these government contracts, the government may receive license or similar rights to intellectual property developed under the contract. However, under government contracts we enter we generally receive at least non-exclusive rights to any items or technologies we develop. Although we transact business with various government agencies, we believe that no government contract is of such magnitude that a renegotiation of profits or termination of the contract or subcontracts at the election of the government would have a material adverse effect on our financial results.

Government Regulation

We are required to comply with federal, state, and local environmental protection regulations. We do not expect this compliance to have a significant impact on our capital spending, earnings or competitive position.

Prior to introducing a product in the United States, our Bruker AXS subsidiary provides notice to the U.S. Food and Drug Administration, or FDA, in the form of a Radiation Safety Initial Product Abbreviated Report, which provides identification information and operating characteristics of the product. If the FDA finds that the report is complete, it provides approval in the form of what is known as an accession number. Bruker AXS may not market a product until it has received an accession number. In addition, Bruker AXS submits an annual report to the FDA that includes the radiation safety history of all products it sells in the United States. Bruker AXS is required to report to the FDA incidents of accidental exposure to radiation arising from the manufacture, testing, or use of any of its products. Bruker AXS also reports installations of its products to state government regulatory agencies responsible for the regulation of radiation emitting devices. For sales in Germany, Bruker AXS registers each system with the local authorities. In some countries where Bruker AXS sells systems, Bruker AXS uses the license we obtained from the federal authorities in Germany to assist it in obtaining a license from the country in which the sale occurs. In addition, as indicated above, we are subject to various other foreign and domestic environmental, health and safety laws and regulations in connection with our operations. Apart from these areas, we are subject to the laws and regulations generally applicable to businesses in the jurisdictions in which we operate.

Our Bruker AXS subsidiary possesses low-level radiation materials licenses from the U.S. Nuclear Regulatory Commission in agreement with the State of Wisconsin for its facility in Madison, Wisconsin; from the local radiation safety authority, Gewerbeaufsichtsamt Karlsruhe, for its facility in Karlsruhe, Germany; and from the local radiation safety authority, Kanagawa Prefecture, for its facility in Yokohama, Japan, as well as from various other countries in which it sells its products. Our Bruker Daltonics subsidiary possesses low-level radiation licenses for facilities in Billerica, Massachusetts and Leipzig, Germany. The U.S. Nuclear Regulatory Commission also has regulations concerning the exposure of our employees to radiation.

Certain of our clinical products are subject to regulation in the United States by the FDA and by similar regulatory bodies in other countries where such products are sold. For example, our MALDI Biotyper CA system is subject to regulation by the FDA and our IVD-CE Certified MALDI BioTyper system is subject to regulation in the European Union under the provisions of Directive 98/79/EC. These, and similar local regulations elsewhere in the world, govern a wide variety of product-related activities, from quality management, design and development to labeling, manufacturing, promotion, sales and distribution. As such, we continually invest in our manufacturing infrastructure to gain and maintain certifications necessary for the relevant level of regulatory clearance.

Working Capital Requirements

There were no credit terms extended to customers that would have a material adverse effect on our working capital.

We recognize revenue from system sales when persuasive evidence of an arrangement exists, the price is fixed or determinable, title and risk of loss has been transferred to the customer, and collectability of the resulting receivable is reasonably assured. Title and risk of loss generally transfers upon shipping terms, or for certain systems, based upon customer acceptance for a system that has been delivered to the customer and installed at a customer facility. For systems that include customer-specific acceptance criteria, we are required to assess when we can demonstrate the acceptance criteria has been met, which generally is upon successful factory acceptance testing or customer acceptance and evidence of installation. Systems that have been shipped to customers, but not yet accepted by the customer, are included as finished goods in-transit. Finished goods in-transit was \$37.5 million and \$44.7 million at December 31, 2016 and 2015, respectively. We also have well-equipped applications and demonstration facilities and qualified application personnel who assist customers and provide product demonstrations in specific application areas. In total, we held \$34.8 million and \$38.8 million of demonstration inventory at December 31, 2016 and 2015, respectively.

Backlog

Our backlog consists of firm orders under non-cancellable purchase orders received from customers. Total system backlog at December 31, 2016 and 2015 was approximately \$932 million and \$856 million, respectively. We anticipate that approximately 78% of the backlog as of December 31, 2016 will be filled in 2017. We experience variable and fluctuating revenues in the first three quarters of the year, while our fourth quarter revenues have historically been stronger than the rest of the year. As a result, backlog on any particular date can be indicative of our short-term revenue performance, but is not necessarily a reliable indicator of long-term revenue performance.

Employees

As of December 31, 2016 and 2015, we had approximately 6,000 full-time employees worldwide. Of these employees, approximately 1,075 and 980 were located in the United States as of December 31, 2016 and 2015, respectively. Our employees in the United States are not unionized or affiliated with any labor organizations. Employees based outside the U.S. are primarily located in Europe, with labor

unions primarily in Germany and France. Several of our international subsidiaries are parties to contracts with labor unions and workers' councils. We believe that we have good relationships with our employees and the workers' councils.

As of December 31, 2016, we had approximately 2,975 employees in production and distribution, 1,500 employees in selling and marketing and 940 employees in research and development, with general and administrative employees representing the remainder. As of December 31, 2015, we had approximately 2,880 employees in production and distribution, 1,490 employees in selling and marketing and 950 employees in research and development, with general and administrative employees representing the remainder.

Financial Information about Geographic Areas and Segments

Financial information about our geographic areas and segments may be found in Note 19 to our Consolidated Financial Statements in this Annual Report on Form 10-K, included as part of Item 8 to this report, which includes information about our revenues from external customers, measure of profit and total assets by reportable segment.

Available Information

We are subject to the informational requirements of the Securities Exchange Act of 1934 ("Exchange Act"). Therefore, we file periodic reports, proxy statements and other information with the Securities and Exchange Commission ("SEC"). Such reports, proxy statements and other information may be read and copied by visiting the Public Reference Room of the SEC at 100 F Street N.E., Washington, D.C. 20549. You may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330. In addition, the SEC maintains an Internet site (<http://www.sec.gov>) that contains reports, proxy and information statements and other information regarding issuers that file electronically.

Our website is located at *www.brucker.com*. We make available free of charge through this website our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to those reports filed with or furnished to the SEC pursuant to Section 13(a) or 15(d) of the Exchange Act, as soon as reasonably practicable after they are electronically filed with or furnished to the SEC. The contents of our website are not incorporated into this report.

ITEM 1A RISK FACTORS

The following risk factors should be considered in conjunction with the other information included in this Annual Report on Form 10-K. This report may include forward-looking statements that involve risks and uncertainties. In addition to those risk factors discussed elsewhere in this report, we identify the following risk factors, which could affect our actual results and cause actual results to differ materially from those in the forward-looking statements.

We may lose money when we exchange foreign currency received from international sales into U.S. dollars.

A significant portion of our business is conducted in currencies other than the U.S. dollar, which is our reporting currency. As a result, currency fluctuations among the U.S. dollar and the currencies in which we do business have caused, and will continue to cause, foreign currency translation gains and losses. In addition, currency fluctuations could cause the price of our products to be more or less competitive than our principal competitors' products. Currency fluctuations will increase or decrease our cost structure relative to those of our competitors, which could lessen the demand for our products and affect our competitive position. From time to time we enter into certain hedging transactions and/or option and foreign currency exchange contracts which are intended to offset some of the market risk associated with our sales denominated in foreign currencies. We cannot predict the effectiveness of these transactions or their impact upon our future operating results, and from time to time they may negatively affect our quarterly earnings.

Our reported financial results may be adversely affected by fluctuations in currency exchange rates.

In addition to the foreign currency exposure associated with differences between where our products are manufactured and sold by us and our competitors, our exposure to currency exchange rate fluctuations results from the currency translation exposure associated with the preparation of our consolidated financial statements, as well as from the exposure associated with transactions of our subsidiaries that are denominated in a currency other than the respective subsidiary's functional currency. While our financial results are reported in U.S. Dollars, the financial statements of many of our subsidiaries outside the U.S. are prepared using the local currency as the functional currency. During consolidation, these results are translated into U.S. Dollars by applying appropriate exchange rates. As a result, fluctuations in the exchange rate of the U.S. Dollar relative to the local currencies in which our foreign subsidiaries report could cause significant fluctuations in our reported results. Moreover, as exchange rates vary, revenue and other operating results may differ materially from our expectations. The unfavorable effects of changes in currency exchange rates decreased our 2016 and 2015 revenues by approximately \$8.3 million or 0.5% and \$184.4 million, or 10.2%, respectively. Adjustments resulting from financial statement translations are included as a separate component of shareholders' equity. In the year ended December 31, 2016, we recorded net losses from currency translation adjustments of \$27.6 million. In the year ended December 31, 2015, we recorded net losses from currency translation adjustments of \$63.8 million.

Additionally, to the extent monetary assets and liabilities, including cash and debt, are held in a different currency than the reporting subsidiary's functional currency, fluctuations in currency exchange rates may have a significant impact on our reported financial results, and may lead to increased earnings volatility. We may record significant gains or losses related to both the translation of assets and liabilities held by our subsidiaries into local currencies and the remeasurement of inter-company receivables and loan balances.

Unfavorable economic or political conditions in the countries in which we operate may have an adverse impact on our business results or financial condition.

Our businesses and results of operations are affected by international, national and regional economic and political conditions. Many of the countries in which we operate, including the U.S., China, Japan, Southeast Asia, Russia, and certain countries in Europe, have experienced and will continue to experience uncertain economic conditions. Our businesses or financial results may be adversely impacted by unfavorable changes in economic or political conditions in these countries, including adverse changes in interest rates or tax rates, volatile financial and commodity markets, contraction in the availability of credit in the marketplace, and changes in capital spending patterns.

Our revenue from U.S. operations represented approximately 27% and 23% of total consolidated revenue for fiscal 2016 and 2015, respectively. Our revenue from operations in Europe represented approximately 36% and 42% of total consolidated revenue for the corresponding periods. Our revenue from operations in the Asia Pacific region represented approximately 28% and 26% of total consolidated revenue for the corresponding periods. If economic growth in the major countries in which we conduct our businesses slows or does not improve, current economic conditions do not improve or deteriorate further, or if the level of government funding for scientific research is reduced, our current or potential customers may delay or reduce purchases which could, in turn, result in reductions in sales of our products, materially and adversely affecting our results of operations and cash flows.

Continued volatility and disruption of global financial markets could limit our customers' ability to obtain adequate financing to maintain operations and proceed with planned or new capital spending initiatives, leading to a reduction in sales volume that could materially and adversely affect our results of operations and cash flow. Continuation of an economic downturn may also lead to increased pricing

pressure for our products and services and a reduction in our operating margins and profitability. In addition, a decline in our customers' ability to pay as a result of a slow-down in the general global or local economy may lead to increased difficulties in the collection of our accounts receivable, higher levels of allowances for doubtful accounts and write-offs of accounts receivable, and higher operating costs as a percentage of revenues. We cannot predict how current or worsening economic conditions or political instability will affect our customers and suppliers or how any negative impact on our customers and suppliers might adversely impact our business results or financial condition.

We derive a significant portion of our revenue from international sales and are subject to the risks of doing business in foreign countries.

International sales account, and are expected to continue to account, for a significant portion of our total revenues. Our revenue from non-U.S. operations represented approximately 73% and 77% of our total consolidated revenue for fiscal 2016 and 2015, respectively. Our international operations are, and will continue to be, subject to a variety of risks associated with conducting business internationally, many of which are beyond our control. These risks, which may adversely affect our ability to achieve and maintain profitability and our ability to sell our products internationally, include:

- changes in foreign currency translation rates;
- changes in regulatory requirements;
- legislation and regulation, including tariffs, relating to the import or export of high technology products;
- the imposition of government controls;
- political and economic instability, including international hostilities, acts of terrorism and governmental restrictions, inflation, trade relationships and military and political alliances;
- costs and risks of deploying systems in foreign countries;
- compliance with export laws and controls and trade embargoes in multiple jurisdictions;
- limited intellectual property rights;
- the burden of complying with a wide variety of complex foreign laws and treaties, including unfavorable labor regulations, specifically those applicable to our European operations; and
- compliance with U.S. and local laws affecting the activities of U.S. companies abroad, including the United States Foreign Corrupt Practices Act, or FCPA, and local anti-bribery laws.

While the impact of these factors is difficult to predict, any one or more of these factors could adversely affect our operations in the future.

We could be negatively impacted by proposed changes to the current tax treatment of corporations.

The present federal income tax treatment of corporations may be modified by legislative, administrative or judicial changes or interpretations at any time. For example, the current U.S. administration has called for substantial change to fiscal and tax policies, which may include comprehensive tax reform and a reduction of the corporate statutory tax rate. A decline in the federal corporate tax rate may lower our income tax provision while other changes regarding the deductibility of costs of products made outside of the United States that are later sold in the United States may increase our income tax provision. If the President and Congress of the United States approve comprehensive tax reform, current tax positions taken by us could be at risk. We are unable to predict whether or when any of these changes, or other proposals, will ultimately be enacted.

We have identified a material weakness in our internal control over financial reporting which could, if not remediated, result in material misstatements in our consolidated financial statements.

Our management is responsible for establishing and maintaining adequate internal control over our financial reporting, as such term is defined in Rule 13a-15(f) under the Exchange Act. As disclosed in our Amendment No. 1 to our Annual Report on Form 10-K/A for the year ended December 31, 2015, in our Amendments No.1 to our Quarterly Reports for the periods ended March 31, 2016 and June 30, 2016, Quarterly Report on Form 10-Q for the period ended September 30, 2016, and this Annual Report on Form 10-K for the year ended December 31, 2016, management identified a material weakness in our internal control over financial reporting over the accounting for income taxes, including the income tax provision and related tax assets and liabilities. Specifically, management did not design and maintain controls with a level of precision that would identify a material misstatement. This control deficiency resulted in immaterial errors to deferred tax assets and liabilities, income taxes payable and income tax expense accounts in the Company's consolidated financial statements for the year ended December 31, 2015.

A material weakness is defined as a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis. Although this material weakness has not required us to restate our financial results, if we are unable to satisfactorily address the deficiencies underlying this material weakness in a timely fashion, or if additional material weaknesses in our internal control over financial reporting are discovered or occur in the future, then our consolidated financial statements may contain material misstatements and we could be required to restate our financial results and the price of our common stock could be adversely impacted.

If we are not able to successfully integrate the businesses we acquire through mergers, acquisitions or strategic alliances, we may not be able to realize all of the cost savings and other benefits that we expect to result from the transactions and our financial results may be different than expected.

Our strategy includes expanding our technology base and product offerings through selected mergers, acquisitions and strategic alliances. For example, since 2014 to December 31, 2016, we have completed the acquisition of seven businesses to expand our technologies and product offerings.

Successful integration of the businesses we acquire involves a number of risks, including, among others, risks related to:

- coordinating or consolidating geographically separate organizations and integrating personnel with different business backgrounds and corporate cultures;
- integrating previously autonomous departments in sales and marketing, distribution, accounting and administrative functions, and information and management systems;
- diversion of resources and management time;
- disruption of our ongoing business;
- potential impairment of relationships with customers as a result of changes in management or otherwise arising out of such transactions; and
- retention of key employees of the acquired businesses within the first one to two years after the acquisition, including the risk that they may compete with us subsequently.

We may have difficulty developing, manufacturing and marketing the products of a newly acquired company or business in a way that enhances the performance of our combined businesses or product lines. As a result, we may not realize the value from expected synergies. Transactions such as

acquisitions have resulted, and may in the future result, in unexpected significant costs and expenses. In the future, we may be required to record charges to earnings during the period if we determine there is an impairment of goodwill or intangible assets, up to the full amount of the value of the assets.

It may be difficult for us to implement our strategies for improving margins, profitability and cash flow.

We have been pursuing a number of strategies to improve our financial performance, including implementing various productivity improvement initiatives at both BSI and BEST in an effort to streamline our operations. These initiatives include the divestiture of certain non-core businesses, outsourcing of various manufacturing activities and transferring or ceasing operations at certain facilities.

We may not be able to successfully implement these strategies, and these efforts may not result in the expected improvement in our margins, profitability or cash flow. Anticipated benefits to our operating and financial performance might be reduced or delayed as a result of difficulties in implementing these initiatives, which may include complications in the transfer of assets and production knowledge, loss of key employees and/or customers, the disruption of ongoing business and possible inconsistencies in standards, controls and procedures. Implementation costs also might exceed our expectations and further cost reduction measures might become necessary, resulting in additional future charges. Our ability to successfully implement these strategies and achieve our objectives will also depend on our ability to identify, attract and retain management and other personnel with the skills and experience needed to effectively manage the restructuring process and drive our operating performance improvement during and after implementation of our restructuring initiatives.

These restructuring actions may also have unintended consequences, such as attrition beyond our intended reduction in workforce, reduced employee morale and loss of customer relationships. We also may undertake additional restructuring activities in the future. Because of these and other factors, we cannot predict whether we will realize the purpose and anticipated benefits of our restructuring and related measures, and if we do not, our business and results of operations may be adversely affected.

Goodwill, intangible assets and other long-lived assets are subject to impairment.

We have recorded goodwill, intangible assets and other long-lived assets which must be periodically evaluated for potential impairment. We assess the realizability of the reported goodwill, intangible assets and other long-lived assets annually, as well as whenever events or changes in circumstances indicate that the assets may be impaired. These events or circumstances generally include operating losses or a significant decline in the earnings associated with the reporting unit these assets are reported within. A decline in our stock price and market capitalization may also cause us to consider whether goodwill, intangible assets and other long-lived assets may require an impairment assessment. Our ability to realize the value of these assets will depend on the future cash flows of the reporting unit in addition to how well we integrate the businesses we acquire. We have recorded impairment losses of \$0.8 million, \$4.6 million and \$11.5 million for the years ended December 31, 2016, 2015 and 2014, respectively.

If our products fail to achieve and sustain sufficient market acceptance across their broad intended range of applications, we will not generate expected revenue.

Our business strategy depends on our ability to successfully commercialize a broad range of products based on our technology platforms, including magnetic resonance technology, pre-clinical imaging technology, mass spectrometry technology, X-ray technology, atomic force microscopy technology, stylus and optical metrology technology, fluorescence microscopy technology, infrared and superconducting magnet technologies for use in a variety of life science, chemistry and materials analysis applications. Some of our products have only recently been commercially launched and have

achieved only limited sales to date. The commercial success of our products depends on obtaining and expanding market acceptance by a diverse array of industrial, academic, clinical, pharmaceutical, biotechnology, medical research and governmental customers around the world. We may fail to achieve or sustain substantial market acceptance for our products across the full range of our intended applications or in one or more of our principal intended applications. Any such failure could decrease our sales and revenue. To succeed, we must convince substantial numbers of potential customers to invest in new systems or replace their existing techniques with techniques employing our systems. Limited funding available for capital acquisitions by our customers, as well as our customers' own internal purchasing approval policies, could hinder market acceptance of our products. Our intended customers may be reluctant to make the substantial capital investment generally needed to acquire our products or to incur the training and other costs involved with replacing their existing systems with our products. We also may not be able to convince our intended customers that our systems are an attractive and cost-effective alternative to other technologies and systems for the acquisition, analysis and management of molecular, cellular and microscopic information. Additionally, if ethical and other concerns surrounding the use of genetic information, gene therapy or genetically modified organisms become widespread, we may have less demand for our products. Because of these and other factors, our products may fail to gain or sustain market acceptance.

Our products compete in markets that are subject to rapid technological change, and one or more of the technologies underlying our products could be made obsolete by new technology.

The market for discovery and analysis tools is characterized by rapid technological change and frequent new product introductions. Rapidly changing technology could make some or our entire product lines obsolete unless we are able to continually improve our existing products and develop new products. Because substantially all of our products are based on our technology platforms, including magnetic resonance technology, mass spectrometry technology, X-ray technology, atomic force microscopy technology, fluorescence microscopy technology, stylus and optical metrology technology and infrared technology, we are particularly vulnerable to any technological advances that would make these techniques obsolete as the basis for analytical systems in any of our markets. To meet the evolving needs of our customers, we must rapidly and continually enhance our current and planned products and services and develop and introduce new products and services. In addition, our product lines are based on complex technologies which are subject to rapid change as new technologies are developed and introduced in the marketplace. We may have difficulty in keeping abreast of the rapid changes affecting each of the different markets we serve or intend to serve. If we fail to develop and introduce products in a timely manner in response to changing technology, market demands or the requirements of our customers, our product sales may decline, and we could experience significant losses. Currently in our backlog, we have orders totaling \$102.0 million for ultra-high field magnets. If we are unable to reach the technical feasibility for these magnets, we will be unable to fulfill customer orders where alternate arrangements have not been provided for in customer contracts. Additional risks include extraordinary warranty expenses, rework and potential inventory write-offs.

Our business could be harmed if our collaborations fail to advance our product development.

Demand for our products will depend, in part, upon the extent to which our collaborations with pharmaceutical, biotechnology and proteomics companies are successful in developing, or helping us to develop, new products and new applications for our existing products. In addition, we collaborate with academic institutions and government research laboratories on product development. We have limited or no control over the resources that any collaborator may devote to our products. Any of our present or future collaborators may not perform their obligations as expected. If we fail to enter into or maintain appropriate collaboration agreements, or if any of these events occur, we may not be able to develop some of our new products, which could materially impede our ability to generate revenue or profits.

We face substantial competition.

We face substantial competition in our industries and we expect that competition in all of our markets will increase further. Currently, our principal competition comes from established companies providing products using existing technologies that perform many of the same functions for which we market our products. A number of our competitors have expanded their market share in recent years through business combinations. Other companies also may choose to enter our fields in the future. Our competitors may develop or market products that are more effective or commercially attractive than our current or future products or that may render our products obsolete. Competition has in the past subjected, and is likely in the future to subject, our products to pricing pressure. Many of our competitors have more experience in the market and substantially greater financial, operational, marketing and technical resources than we do, which could give them a competitive edge in areas such as research and development, production, marketing and distribution. Our ability to compete successfully will depend, in part, on our ability to develop proprietary products that reach the market in a timely manner and are technologically superior to, less expensive than, or more cost-effective than, other currently marketed products.

If we lose our strategic partners, our marketing and sales efforts could be impaired.

A substantial portion of our sales of selected products consists of sales to third parties who incorporate our products into their systems. These third parties are responsible for the marketing and sales of their systems. We have little or no control over their marketing and sales activities or how they use their resources. Our present or future strategic partners may or may not purchase sufficient quantities of products from us or perform appropriate marketing and sales activities. In addition, if we are unable to maintain our relationships with strategic partners, our businesses may suffer. Failures by our present or future strategic partners, or our inability to maintain or enter into new arrangements with strategic partners for product distribution, could materially impede the growth of our businesses and our ability to generate sufficient revenue and profits.

We face risks related to sales through distributors and other third parties that we do not control, which could harm our business.

We sell some products through third party agents, including distributors and value-added resellers. This exposes us to various risks, including competitive pressure, concentration of sales volumes, credit risks, and compliance risks. We may rely on one or a few key distributors for a product or market, and the loss of these distributors could reduce our revenue and net earnings. Distributors may also face financial difficulties, including bankruptcy, which could harm our collection of accounts receivables. Risks related to our use of distributors may reduce sales, increase expenses, and weaken our competitive position. Moreover, violations of the FCPA or similar anti-bribery laws by distributors or other third party agents could materially and adversely impact our business and results of operations.

Dependence on contract manufacturing may adversely affect our ability to bring products to market and damage our reputation.

As part of our efforts to streamline our operations and reduce our operating costs, we outsource aspects of our manufacturing processes and continue to evaluate additional outsourcing. If our contract manufacturers fail to perform their obligations in a timely manner or at satisfactory quality levels, our ability to bring products to market and our reputation could suffer. For example, during a market upturn, our contract manufacturers may be unable to meet our demand requirements, which may preclude us from fulfilling our customers' orders on a timely basis. The ability of these manufacturers to perform is largely outside of our control. Additionally, changing or replacing our contract manufacturers could cause disruptions or delays. Problems with outsourced manufacturing could result

in lower revenues and unexecuted efficiencies, and adversely affect our financial condition and results of operations.

If investment in life and material science research spending declines, our ability to generate revenue may suffer.

We are dependent, both directly and indirectly, upon general investment in life science research, particularly in the research and development budgets of the pharmaceutical and biotechnology industries, and in material science research as well as upon the financial condition and funding priorities of various governments and government agencies. Since our inception, both we and our academic collaborators and customers have benefited from various governmental contracts and research grants. Whether we or our academic collaborators will continue to be able to attract these grants depends not only on the quality of our products, but also on general spending patterns of public institutions.

Any reduction in the capital resources or government funding of our customers could reduce our sales and impede our ability to generate revenue.

A significant portion of our sales are capital purchases by our customers. The spending policies of our customers could have a significant effect on the demand for our products. These policies are based on a wide variety of factors, including the resources available to make purchases, the spending priorities among various types of equipment, policies regarding spending during recessionary periods and changes in the political climate. Any changes in capital spending or changes in the capital budgets of our customers could significantly reduce demand for our products. The capital resources of our life science and other corporate customers may be limited by the availability of equity or debt financing. Any significant decline in research and development expenditures by our life science and material science customers could significantly decrease our sales. In addition, a substantial portion of our sales are to non-profit and government entities, which are dependent on government support for scientific research. Any decline in this support could decrease the ability of these customers to purchase our products.

Disruptions at any of our manufacturing facilities could adversely affect our business.

We have manufacturing facilities located in the United States, Europe and Israel. Many of our products are developed and manufactured at single locations, with limited alternate facilities. If we experience any significant disruption of those facilities for any reason, such as strikes or other labor unrest, power interruptions, fire, earthquakes, or other events beyond our control, we may be unable to manufacture the relevant products at previous levels or at all. During 2016, we implemented a restructuring plan to close manufacturing facilities in Billerica, Massachusetts and Kalkar, Germany and move production to other existing facilities in Germany. The closure of these facilities was completed in 2016. A reduction or interruption in manufacturing could harm our customer relationships, impede our ability to generate revenues from our backlog or obtain new orders and could have a material adverse effect on our business, results of operations, financial condition and cash flows.

If employees were to engage in a strike or other work stoppage or interruption, our business, results of operations, financial condition and liquidity could be materially adversely affected.

Some of our employees are represented by works councils and labor unions in certain jurisdictions, primarily in Germany and France. Although we believe that our relations with our employees are satisfactory, if disputes with these employees arise, or if our workers engage in a strike or other work stoppage or interruption, we could experience a significant disruption of, or inefficiencies in, our operations or incur higher labor costs, which could have a material adverse effect on our business, results of operations, financial condition and liquidity.

Our operations are dependent upon a limited number of suppliers and contract manufacturers.

We currently purchase components used in our products from a limited number of outside suppliers. Our reliance on a limited number of suppliers could result in time delays associated with redesigning a product due to an inability to obtain an adequate supply of required components and reduced control over pricing, quality and timely delivery. Any of these factors could adversely affect our revenues and profitability. In particular, our X-ray microanalysis business, which manufactures and sells accessories for electron microscopes, is partially dependent on cooperation from larger manufacturers of electron microscopes. Additionally, our elemental analysis business purchases certain optical detectors from a single supplier, PerkinElmer, Inc., the sole supplier of these detector components. Bruker CALID purchases detectors and power supplies from sole or limited source suppliers and its focal plane array detectors from a single supplier, Lockheed Martin Corporation. Similarly, Bruker BioSpin obtains various components from sole or limited source suppliers and BEST obtains various raw materials and uses key production equipment from sole or limited source suppliers or contract manufacturers. There are limited, if any, available alternatives to these suppliers. The existence of shortages of these components or the failure of delivery with regard to these components could have a material adverse effect upon our revenues and margins. In addition, price increases from these suppliers or contract manufacturers could have a material adverse effect upon our gross margins.

Because of the scarcity of some components, we may be unable to obtain an adequate supply of components, or we may be required to pay higher prices or to purchase components of lesser quality. Any delay or interruption in the supply of these or other components could impair our ability to manufacture and deliver our products, harm our reputation and cause a reduction in our revenues. In addition, any increase in the cost of the components that we use in our products could make our products less competitive and decrease our gross profits. We may not be able to obtain sufficient quantities of required components on the same or substantially the same terms. Additionally, consolidation among our suppliers could result in other sole source suppliers for us in the future.

Supply shortages and increasing prices of raw materials could adversely affect the gross profit of the Bruker BioSpin Group and of our Bruker Energy & Supercon Technologies business.

The last few years have seen periodic supply shortages and sharp increases in the prices for various raw materials, in part due to high demand from developing countries. Bruker BioSpin and BEST rely on some of these materials for the production of their products. In particular, for its superconducting magnet production, both for the horizontal and vertical magnet series, Bruker BioSpin relies on the availability of copper, steel and the metallic raw materials for traditional low-temperature superconducting wires. Similarly, BEST relies on the availability of niobium titanium for its production of low-temperature superconducting materials and devices. Higher prices for these commodities will increase the production cost of superconducting wires and superconducting magnets and may adversely affect gross profits.

The prices of copper and certain other raw materials used for superconductors have increased significantly over the last decade. Since copper is a main constituent of low temperature superconductors, this may affect the price of superconducting wire. This type of increase would have an immediate effect on the production costs of superconducting magnets and may negatively affect the profit margins for those products. In addition, an increase in raw material cost affects the production cost of the superconducting wire produced by BEST and of superconducting wire used by Bruker BioSpin.

Regulations related to “conflict minerals” may cause us to incur additional expenses and could limit the supply and increase the cost of certain metals used in manufacturing our products.

Regulations require disclosures by public companies of specified minerals, known as conflict minerals, that are necessary to the functionality or production of products manufactured or contracted to be manufactured. This requires the performance of due diligence to determine whether or not such minerals originate from the Democratic Republic of Congo or an adjoining country. These regulations could affect sourcing at competitive prices and availability in sufficient quantities of certain minerals used in the manufacture of our products, including tantalum, tin, gold and tungsten. The number of suppliers who provide conflict-free minerals may be limited. In addition, there may be material costs associated with complying with the disclosure requirements, such as costs related to determining the source of certain minerals used in our products, as well as costs of possible changes to products, processes or sources of supply as a consequence of such verification activities. As our supply chain is complex and we use contract manufacturers for some of our products, we may not be able to sufficiently verify the origins of the relevant minerals used in our products through the due diligence procedures that we implement, which may harm our reputation. In addition, we may encounter challenges to satisfy those customers who require that all of the components of our products be certified as conflict-free, which could place us at a competitive disadvantage if we are unable to do so.

Our manufacture and sale of products could lead to product liability claims for which we could have substantial liability.

The manufacture and sale of our products expose us to product liability claims if any of our products cause injury or are found otherwise unsuitable during manufacturing, marketing, sale or customer use. In particular, if one of our CBRNE detection products malfunctions, this could lead to civilian or military casualties in a time of unrest, exposing us to increased potential for high-profile liability. If our CBRNE detection products malfunction by generating a false-positive to a potential threat, we could be exposed to liabilities associated with actions taken that otherwise would not have been required. Additionally, the nuclear magnetic resonance, research magnetic resonance imaging, Fourier transform mass spectrometry and certain electron paramagnetic resonance magnets of Bruker BioSpin utilize high magnet fields and cryogenics to operate at approximately 4 Kelvin, the temperature of liquid helium. There is an inherent risk of potential product liability due to the existence of these high magnetic fields, associated stray fields outside the magnet, and the handling of the cryogens associated with superconducting magnets. In addition, our MALDI Biotyper product has an IVD-CE mark and is used for the identification of microorganisms. Misidentification or a false-negative of certain bacteria, yeasts or fungi could lead to inappropriate treatment for patients, and could expose us to product liability claims.

A successful product liability claim brought against us in excess of, or outside the coverage of, our insurance coverage could have a material adverse effect on our business, financial condition and results of operations. We may not be able to maintain product liability insurance on acceptable terms, if at all, and insurance may not provide adequate coverage against potential liabilities.

Responding to claims relating to improper handling, storage or disposal of hazardous chemicals and radioactive and biological materials which we use could be time consuming and costly.

We use controlled hazardous and radioactive materials in our business and generate wastes that are regulated as hazardous wastes under U.S. federal, and Massachusetts, California, New Jersey, Washington and Wisconsin state, environmental and atomic energy regulatory laws and under equivalent provisions of law in those and other jurisdictions in which our research and manufacturing facilities are located. Our use of these substances and materials is subject to stringent, and periodically changing, regulation that can impose costly compliance obligations on us and have the potential to adversely affect our manufacturing activities. The risk of accidental contamination or injury from these

materials cannot be completely eliminated. If an accident with these substances occurs, we could be held liable for any damages that result, in addition to incurring clean-up costs and liabilities, which can be substantial. Additionally, an accident could damage our research and manufacturing facilities resulting in delays and increased costs.

We are subject to environmental laws and regulations which may impose significant compliance or other costs on us.

Our manufacturing, product development, research and development operations and processes involve the controlled use of certain hazardous materials. In addition, we own and/or lease a number of facilities, some of which have been in operation for many decades, where we or others may have used substances or generated and disposed of wastes which are considered hazardous or may be considered hazardous in the future. We also have acquired various companies which historically may have used certain hazardous materials and which may have owned and/or leased facilities at which hazardous materials have been used. For all of these reasons, we are subject to federal, state, foreign, and local laws and regulations governing the use, manufacture, storage, transportation, handling, treatment, remediation, and disposal of hazardous materials and certain waste products. We have potential liability under these laws and regulations with respect to the remediation of past contamination in certain of the facilities we now own or lease. Additionally, in the future our facilities and the disposal sites owned by others to which we send or sent waste, may be identified as contaminated and require remediation. Accordingly, we may become subject to additional compliance costs or environmental liabilities which may be significant and could materially harm our results of operations or financial condition.

In addition to the risks applicable to our life science and materials analysis products, our CBRNE detection products are subject to a number of additional risks, including lengthy product development and contract negotiation periods and certain risks inherent in long-term government contracts.

Our CBRNE detection products are subject to many of the same risks associated with our life science products, including vulnerability to rapid technological change, dependence on mass spectrometry and other technologies and substantial competition. In addition, our CBRNE detection products and certain FT-IR products are generally sold to government agencies under long-term contracts. These contracts generally involve lengthy pre-contract negotiations and product development. We may be required to devote substantial working capital and other resources prior to obtaining product orders. As a result, we may incur substantial costs before we recognize revenue from these products. Moreover, in return for larger, longer-term contracts, our customers for these products often demand more stringent acceptance criteria. These criteria may also cause delays in our ability to recognize revenue from sales of these products. Furthermore, we may not be able to accurately predict in advance our costs to fulfill our obligations under these long-term contracts. If we fail to accurately predict our costs, due to inflation or other factors, we could incur significant losses. Also, the presence or absence of such contracts may cause substantial variation in our results of operations between fiscal periods and, as a result, our results of operations for any given fiscal period may not be predictive of our results for subsequent fiscal periods. The resulting uncertainty may have an adverse impact on our stock price.

We are subject to existing and potential additional regulation and government inquiry, which can impose burdens on our operations and narrow the markets for our products.

We are subject, both directly and indirectly, to the adverse impact of existing and potential future government regulation of our operations and markets. For example, exportation of our products, particularly our CBRNE detection products, is subject to strict regulatory control in a number of jurisdictions. The failure to satisfy export control criteria or obtain necessary clearances could delay or prevent shipment of products, which could adversely affect our revenues and profitability.

In addition, as a result of our international operations, we are subject to compliance with various laws and regulations, including the FCPA and local anti-bribery laws in the jurisdictions in which we do business, which generally prohibit companies and their intermediaries or agents from engaging in bribery or making improper payments to foreign officials or their agents. The FCPA also requires proper record keeping and characterization of such payments in our reports filed with the SEC. Despite maintaining policies and procedures that require our employees to comply with these laws and our standards of ethical conduct, we cannot ensure that these policies and procedures will always protect us from intentional, reckless or negligent acts committed by our employees or agents.

The Korea Fair Trade Commission (“KFTC”) has conducted an investigation into improper bidding by Bruker Korea Co., Ltd. and several other companies in connection with bids for sales of X-ray systems in 2010 and 2012. Three of the bids under investigation involved Bruker Korea. We have cooperated fully with the KFTC regarding this matter. In September 2016, the KFTC fined Bruker Korea approximately \$15,000 and referred the matter to the Korean Public Prosecutor’s Office for criminal prosecution. Additional monetary penalties may also result from the ongoing criminal proceeding. Since December 2016, various Korean governmental entities have imposed suspensions on Bruker Korea, with suspension periods ranging from three to six months. During the periods of these suspensions, which are overlapping, Bruker Korea is prohibited from bidding for or conducting sales to Korean governmental agencies.

In December 2014, we resolved an investigation of the SEC into possible violations of the FCPA arising from past conduct of our subsidiaries operating in China, following our voluntary disclosure to the U.S. Department of Justice and the SEC in 2011 of the results of an investigation by the Audit Committee of our Board of Directors regarding these matters. In connection with the resolution, we consented to the entry of an administrative cease-and-desist order by the SEC concerning violations of the books and records and internal controls provisions of the FCPA and paid an aggregate amount of approximately \$2.4 million, consisting of \$1.7 million in disgorgement, \$0.3 million in prejudgment interest, and a \$0.4 million penalty. Additionally, we incurred legal and professional fees associated with the investigation and settlement of approximately \$25.1 million. Any future investigations or violations of the FCPA or other anti-bribery laws and regulations could result in severe fines and penalties, criminal sanctions, and restrictions on our business conduct and on our ability to offer our products in one or more countries, and could also materially affect our reputation, our relationships with existing customers, distributors and agents, our ability to obtain new customers and partners and our operating results.

Moreover, the life sciences industry, which is the market for our principal products, has historically been heavily regulated. There are, for example, laws in several jurisdictions restricting research in genetic engineering, which can operate to narrow our markets. Given the evolving nature of this industry, legislative bodies or regulatory authorities may adopt additional regulation that adversely affects our market opportunities. Our business is also directly affected by a wide variety of government regulations applicable to business enterprises generally and to companies operating in the life sciences industry in particular.

As a result of developing and selling products which are the subject of such regulations, we have been, are, and expect to be in the future, subject to inquiries from the government agencies which enforce these regulations, including the U.S. Department of State, the U.S. Department of Commerce, the U.S. Food and Drug Administration, the U.S. Internal Revenue Service, the U.S. Department of Homeland Security, the U.S. Department of Justice, the Securities and Exchange Commission, the Federal Trade Commission, the U.S. Customs and Border Protection and the U.S. Department of Defense, among others, as well as from state or foreign governments and their departments and agencies. As a result, from time to time, the attention of our management and other resources may be diverted to attend to these inquiries. In addition, failure to comply with these regulations or obtain or maintain necessary permits and licenses could result in a variety of fines or other censures or an

interruption in our business operations which may have a negative impact on our ability to generate revenues and could adversely affect our financial condition and results of operations.

Our clinical products are subject to regulation by the FDA. These regulations govern a wide variety of product related activities, from quality management, design and development to labeling, manufacturing, promotion, sales and distribution. If we or any of our suppliers or distributors fail to comply with FDA and other applicable regulatory requirements, or are perceived to potentially have failed to comply, we may face, among other things, warning letters; adverse publicity affecting both us and our customers; investigations or notices of non-compliance, fines, injunctions, and civil penalties; import or export restrictions; partial suspensions or total shutdown of production facilities or the imposition of operating restrictions; increased difficulty in obtaining required FDA clearances or approvals or foreign equivalents; seizures or recalls of our products or those of our customers; or the inability to sell such products. Any such FDA actions could disrupt our business and operations, lead to significant remedial costs and have a material adverse impact on our financial position and results of operations.

Our success depends on our ability to operate without infringing or misappropriating the proprietary rights of others.

Our commercial success depends on avoiding the infringement of other parties' patents and proprietary rights as well as avoiding the breach of any licenses relating to our technologies and products. Given that there may be patents of which we are unaware, particularly in the United States where patent applications are confidential, avoidance of patent infringement may be difficult. Various third parties hold patents which may relate to our technology, and we may be found in the future to infringe these or other patents or proprietary rights of third parties, either with products we are currently marketing or developing or with new products which we may develop in the future. If a third party holding rights under a patent successfully asserts an infringement claim with respect to any of our current or future products, we may be prevented from manufacturing or marketing our infringing product in the country or countries covered by the patent we infringe, unless we can obtain a license from the patent holder. We may not be able to obtain a license on commercially reasonable terms, if at all, especially if the patent holder is a competitor. In addition, even if we can obtain the license, it may be non-exclusive, which will permit others to practice the same technology licensed to us. We also may be required to pay substantial damages to the patent holder in the event of an infringement. Under some circumstances in the United States these damages could include damages equal to triple the actual damages the patent holder incurs. If we have supplied infringing products to third parties for marketing by them or licensed third parties to manufacture, use or market infringing products, we may be obligated to indemnify these third parties for any damages they may be required to pay to the patent holder and for any losses the third parties may sustain themselves as the result of lost sales or license payments they are required to make to the patent holder. Any successful infringement action brought against us may also adversely affect marketing of the infringing product in other markets not covered by the infringement action, as well as our marketing of other products based on similar technology. Furthermore, we will suffer adverse consequences from a successful infringement action against us even if the action is subsequently reversed on appeal, nullified through another action or resolved by settlement with the patent holder. The damages or other remedies awarded, if any, may be significant. As a result, any successful infringement action against us may harm our business.

If we are unable to effectively protect our intellectual property, third parties may use our technology, which would impair our ability to compete in our markets.

Our continued success will depend in significant part on our ability to obtain and maintain meaningful patent protection for our products throughout the world. We rely on patents to protect a significant part of our intellectual property and to enhance our competitive position. However, our

presently pending or future patent applications may not issue as patents, and any patent previously issued to us may be challenged, invalidated, held unenforceable or circumvented. Furthermore, the claims in patents which have been issued, or which may be issued to us in the future, may not be sufficiently broad to prevent third parties from producing competing products similar to our products. In addition, the laws of various foreign countries in which we compete may not protect our intellectual property to the same extent as do the laws of the U.S. Failure to obtain adequate patent protection for our proprietary technology could materially impair our ability to be commercially competitive.

In addition to patent protection, we also rely on the protection of trade secrets, know-how and confidential and proprietary information. To maintain the confidentiality of trade secrets and proprietary information, we generally seek to enter into confidentiality agreements with our employees, consultants and strategic partners upon the commencement of a relationship with us. However, we may not obtain these agreements in all circumstances. In the event of unauthorized use or disclosure of this information, these agreements, even if obtained, may not provide meaningful protection for our trade secrets or other confidential information. In addition, adequate remedies may not exist in the event of unauthorized use or disclosure of this information. The loss or exposure of our trade secrets and other proprietary information would impair our competitive advantages and could have a material adverse effect on our operating results, financial condition and future growth prospects. Furthermore, others may have, or may in the future independently develop, substantially similar or superior know-how and technology.

We may be involved in lawsuits to protect or enforce our patents that are brought by us which could be expensive and time consuming and, if determined adversely, could adversely affect our patent position.

In order to protect or enforce our patent rights, we may initiate patent litigation against third parties, and we may be similarly sued by others. We may also become subject to interference proceedings conducted in the patent and trademark offices of various countries to determine the priority of inventions. The defense and prosecution, if necessary, of intellectual property suits, interference proceedings and related legal and administrative proceedings is costly and diverts our technical and management personnel from their normal responsibilities. We may not prevail in any of these suits. An adverse determination of any litigation or defense proceedings could put our patents at risk of being invalidated or interpreted narrowly and could put our patent applications at risk of not issuing.

Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. In addition, during the course of this kind of litigation, there could be public announcements of the results of hearings, motions or other interim proceedings or developments in the litigation. If securities analysts or investors perceive these results to be negative, it could have a substantial negative effect on the trading price of our common stock.

We rely on information technology to support our operations and reporting environments. A security failure of that technology could impact our ability to operate our businesses effectively, adversely affect our financial results, damage our reputation and expose us to potential liability or litigation.

We use information systems to carry out our operations and maintain our business records. Some systems are internally managed and some are maintained by third-party service providers. We and our service providers employ what we believe are adequate security measures. Our ability to conduct business could be materially and adversely affected if these systems or resources are compromised, damaged or fail. This could be a result of a cyber-incident, natural disaster, hardware or software corruption, failure or error, telecommunications system failure, service provider error or failure, intentional or unintentional personnel actions or other disruption.

In the ordinary course of business, we collect and store sensitive data, including intellectual property, other proprietary information and personally identifiable information. If this data is compromised, destroyed or inappropriately disclosed, it could have a material adverse effect, including damage to our reputation, loss of customers, significant expenses to address and resolve the issues, or litigation or other proceedings by affected individuals, business partners or regulatory authorities.

Our debt may adversely affect our cash flow and may restrict our investment opportunities or limit our activities.

As of December 31, 2016, we had outstanding an aggregate principal amount of debt totaling approximately \$411.7 million, including \$240.0 million of senior unsecured notes, \$171.0 million of long-term borrowings under our revolving loan facility and \$1.5 million of other debt, offset by unamortized debt issuance costs for the senior unsecured notes of \$0.8 million. We also had the ability to borrow an additional \$327.9 million from our existing credit facilities. Most of our outstanding debt is in the United States and there are substantial cash requirements in the United States to service debt interest obligations, fund operations, capital expenditures and our declared dividends and finance potential acquisitions or share repurchases. Our ability to satisfy our debt obligations and meet our other liquidity needs depends on our future operating performance and on economic, financial, competitive and other factors beyond our control. Our business may not generate sufficient cash flow to meet our debt obligations or provide sufficient funds for our other objectives. If we are unable to service our debt or obtain additional financing, we may be forced to delay strategic acquisitions, capital expenditures or research and development expenditures or suspend our dividend payments and share repurchases. We may not be able to obtain additional financing on terms acceptable to us or at all. Furthermore, a majority of our cash, cash equivalents and short-term investments is generated from foreign operations, with \$460.9 million, or 92% held by foreign subsidiaries as of December 31, 2016. Our financial condition and results of operations could be adversely impacted if we are unable to maintain a sufficient level of cash flow in the United States to address our funding requirements through cash from operations, efficient and timely repatriation of cash from overseas or other sources obtained at an acceptable cost.

Additionally, the agreements governing our debt require that we maintain certain financial ratios related to maximum leverage and minimum interest coverage and contain negative covenants, including among others, restrictions on liens, indebtedness of the Company and its subsidiaries, asset sales, dividends and transactions with affiliates. Our ability to comply with these financial restrictions and covenants is dependent on our future performance, which is subject to prevailing economic conditions and other factors, including factors that are beyond our control such as foreign currency translation rates and interest rates. Our failure to comply with any of these restrictions or covenants may result in an event of default under the applicable debt instrument, which could permit acceleration of the debt under the facility and require us to prepay the debt before its scheduled due date.

Various international tax risks could adversely affect our earnings and cash flows.

We are subject to international tax risks. We could be subject to double taxation on income related to operations in certain countries that do not have tax treaties with the country of the trading partner. In addition, we may have a higher effective income tax rate than that of other companies in our industry if losses incurred by one operating company are not available to offset the income of an operating company located in another country. Also, distributions of earnings and other payments received from our subsidiaries may be subject to withholding taxes imposed by the countries where they are operating or are incorporated. If these foreign countries do not have income tax treaties with the U.S. or the countries where our subsidiaries are incorporated, we could be subject to high rates of withholding taxes on these distributions and payments. Additionally, the amount of the credit that we may claim against our U.S. federal income tax for foreign income taxes paid or accrued is subject to

many limitations which may significantly restrict our ability to claim a credit for all of the foreign taxes we pay.

We currently have reserves established for potential tax liabilities. If these reserves are challenged, and we are unable to successfully defend our tax positions, a negative impact to our cash flows could result.

The unpredictability and fluctuation of our quarterly results may adversely affect the trading price of our common stock.

Our revenues and results of operations have in the past and will in the future vary from quarter to quarter due to a number of factors, many of which are outside of our control and any of which may cause our stock price to fluctuate. The primary factors that may affect us include the following:

- the timing of sales of our products and services;
- the timing of recognizing revenue and deferred revenue under U.S. GAAP;
- changes in our pricing policies or the pricing policies of our competitors;
- increases in sales and marketing, product development or administration expenses;
- the mix of services provided by us and third-party contractors;
- our ability to attain and maintain quality levels for our products;
- costs related to acquisitions of technology or businesses; and
- the effectiveness of transactions entered into to hedge the risks associated with foreign currency and interest rate fluctuations.

We can experience quarter-to-quarter fluctuations in our operating results as a result of various factors, some of which are outside of our control, such as:

- the timing of governmental stimulus programs and academic research budgets;
- the time it takes between the date customer orders and deposits are received, systems are shipped and accepted by our customers and full payment is received;
- the time it takes for customers to construct or prepare their facilities for our products; and
- the time required to obtain governmental licenses.

These factors have in the past affected the amount and timing of revenue recognized on sales of our products and receipt of related payments and will continue to do so in the future. Accordingly, our operating results in any particular quarter may not necessarily be an indication of any future quarter's operating performance.

Historically we have higher levels of revenue in the fourth quarter of the year compared to the first, second and third quarters, which we believe is primarily the result of our customers' budgeting cycles. Quarter-to-quarter comparisons of our results of operations should not be relied upon as an indication of our future performance. It is likely that in some future quarters, our results of operations may be below the expectations of public market analysts and investors. In this event, the price of our common stock may fall.

Existing stockholders have significant influence over us.

As of February 24, 2017, Laukien family members, including our Chairman, President and Chief Executive Officer Frank Laukien and Director and Executive Chairman of the Bruker BioSpin Group Joerg Laukien, owned, in the aggregate, approximately 34.8% of our outstanding common stock. As a

result, these stockholders will be able to exercise substantial influence over all matters requiring stockholder approval, including the election of directors and approval of significant corporate transactions. This could have the effect of delaying or preventing a change in control of our company and will make some transactions difficult to accomplish without the support of these stockholders.

Other companies may have difficulty acquiring us, even if doing so would benefit our stockholders, due to provisions under our corporate charter and bylaws, as well as Delaware law.

Provisions in our certificate of incorporation, as amended, and our bylaws, as well as Delaware law could make it more difficult for other companies to acquire us, even if doing so would benefit our stockholders. Our certificate of incorporation, as amended, and bylaws contain the following provisions, among others, which may inhibit an acquisition of our company by a third party:

- a staggered Board of Directors, where stockholders elect only a minority of the board each year;
- advance notification procedures for matters to be brought before stockholder meetings;
- a limitation on who may call stockholder meetings; and
- the ability of our Board of Directors to issue up to 5,000,000 shares of preferred stock without a stockholder vote.

ITEM 1B UNRESOLVED STAFF COMMENTS

We have not received any written comments from the staff of the Securities and Exchange Commission regarding our periodic or current reports that (1) we believe are material, (2) were issued not less than 180 days before the end of our 2016 fiscal year end, and (3) remain unresolved.

ITEM 2 PROPERTIES

We believe that our existing principal facilities are well maintained and in good operating condition and that they are adequate for our foreseeable business needs. During 2016, we implemented a restructuring plan to close two of our manufacturing facilities in the United States and Germany and move production to existing facilities in Germany. We also completed the closure of one of our German facilities and moved our production of high-field magnets to Switzerland and France. We will continue to assess restructuring and outsourcing initiatives and the impact on our properties in the future.

In addition to the principal facilities noted below we lease additional facilities for sales, applications and service support in various countries throughout the world including Australia, Austria, Belgium, Brazil, China, Czech Republic, Estonia, France, Germany, Hong Kong, India, Israel, Italy, Japan, Malaysia, Mexico, Netherlands, Poland, Portugal, Russia, Singapore, South Africa, South Korea, Spain, Sweden, Switzerland, Taiwan, Thailand, Turkey, Ukraine, the United Kingdom and the U.S. If we should require additional or alternative facilities, we believe that such facilities can be obtained on short notice at competitive rates.

The location and general character of our principal properties by operating segment are as follows:

BSI Segment:

Bruker BioSpin's five principal facilities are located in Rheinstetten, Ettlingen and Karlsruhe, Germany; Faellanden, Switzerland; and Wissembourg, France. These facilities, which incorporate manufacturing, research and development, application and demonstration, marketing and sales and administration functions for the businesses of Bruker BioSpin, include:

- an owned 475,000 square foot facility in Rheinstetten, Germany;

- an owned 360,000 square foot facility in Ettlingen, Germany;
- an owned 345,000 square foot facility in Karlsruhe, Germany;
- an owned 300,000 square foot facility and a leased 70,000 square foot facility in Faellanden, Switzerland; and
- an owned 175,000 square foot facility and a leased 16,000 square foot facility in Wissembourg, France.

Bruker CALID's three principal facilities are located in Bremen, Ettlingen and Leipzig, Germany. These facilities, which incorporate manufacturing, research and development, application and demonstration, marketing and sales and administration functions for the mass spectrometry and CBRNE businesses of Bruker CALID, include:

- an owned 270,500 square foot facility in Bremen, Germany;
- an owned 205,000 square foot facility in Ettlingen, Germany; and
- an owned 165,000 square foot facility in Leipzig, Germany.

Bruker Nano's five principal facilities are located in Karlsruhe, Berlin, Germany; Migdal Ha'Emek, Israel; Madison, Wisconsin, U.S.A.; and Santa Barbara, California, U.S.A. These facilities, which incorporate manufacturing, research and development, application and demonstration, marketing and sales and administration functions for the businesses of Bruker Nano, include:

- an owned 76,000 square foot facility and an owned 46,000 square foot facility in Karlsruhe, Germany;
- an owned 100,000 square foot facility in Santa Barbara, California, U.S.A.;
- an owned 87,000 square foot facility in Berlin, Germany;
- an owned 43,000 square foot facility in Madison, Wisconsin, U.S.A.; and
- a leased 22,000 square foot facility in Migdal Ha'Emek, Israel.

BEST Segment:

BEST's five principal facilities are located in Hanau, Bergisch Gladbach and Alzenau, Germany, Carteret, New Jersey, U.S.A., and Perth, Scotland. These facilities, which incorporate manufacturing, research and development, application and demonstration, marketing and sales and administration functions for the business of BEST, include:

- an owned 47,000 square foot facility in Perth, Scotland;
- a leased 170,000 square foot facility in Hanau, Germany;
- a leased 97,000 square foot facility in Bergisch Gladbach, Germany;
- a leased 107,000 square foot facility in Carteret, New Jersey, U.S.A.; and
- a leased 31,000 square foot facility in Alzenau, Germany.

ITEM 3 LEGAL PROCEEDINGS

We are involved in lawsuits, claims, investigations and proceedings, including, but not limited to, patent and commercial matters, which arise in the ordinary course of business. There are no matters pending that we currently believe are reasonably possible of having a material impact on our business or to our consolidated financial statements.

The Korea Fair Trade Commission (“KFTC”) has conducted an investigation into improper bidding by Bruker Korea Co., Ltd. and several other companies in connection with bids for sales of X-ray systems in 2010 and 2012. Three of the bids under investigation involved Bruker Korea. We cooperated fully with the KFTC regarding this matter. In September 2016, the KFTC fined Bruker Korea approximately \$15,000 and referred the matter to the Korean Public Prosecutor’s Office for criminal prosecution. Additional monetary penalties may also result from the ongoing criminal proceeding. Since December 2016, various Korean governmental entities have imposed suspensions on Bruker Korea, with suspension periods ranging from three to six months. During the periods of these suspensions, which are overlapping, Bruker Korea is prohibited from bidding for or conducting sales to Korean governmental agencies. Sales to these customers were less than 1% of our revenue for the year ended December 31, 2016. In the course of normal business, we conduct business in Korea with other non-governmental customers that are not affected by these suspensions. We do not expect that these matters will have a material adverse effect on our business or results of operations.

ITEM 4 *MINE SAFETY DISCLOSURE*

Not applicable.

PART II

ITEM 5 MARKET FOR REGISTRANT'S COMMON EQUITY, RELATED STOCKHOLDER MATTERS AND ISSUER PURCHASES OF EQUITY SECURITIES

Market Prices

Our common stock is traded on the Nasdaq Global Select Market under the symbol "BRKR." The following table sets forth, for the period indicated, the high and low sales prices for our common stock as reported on the Nasdaq Global Select Market:

	<u>High</u>	<u>Low</u>
First Quarter 2016	\$29.23	\$20.90
Second Quarter 2016	29.85	21.76
Third Quarter 2016	25.37	21.38
Fourth Quarter 2016	23.52	19.59
First Quarter 2015	\$20.06	\$17.95
Second Quarter 2015	22.32	18.02
Third Quarter 2015	21.73	16.22
Fourth Quarter 2015	25.23	15.78

As of February 24, 2017, there were approximately 89 holders of record of our common stock. This number does not include individual beneficial owners of shares held in nominee name or within clearinghouse positions of brokerage firms and banks.

Dividends

On February 22, 2016, we announced the establishment of a dividend policy and the declaration by our Board of Directors of an initial quarterly cash dividend in the amount of \$0.04 per share of our issued and outstanding common stock. Cash dividends paid in 2016 totaled \$0.04 per share in each of March, June, September and December. Under the dividend policy, we will target a cash dividend to our stockholders in the amount of \$0.16 per share per annum, payable in equal quarterly installments. Subsequent dividend declarations and the establishment of record and payment dates for such future dividend payments, if any, are subject to the Board of Directors' continuing determination that the dividend policy is in the best interests of our stockholders. The dividend policy may be suspended or cancelled at the discretion of the Board of Directors at any time. We are in compliance with restrictions that the terms of certain debt facilities place on the amount of cash dividends that we could potentially pay.

Recent Sales of Unregistered Securities

On December 14, 2016, the Company issued an aggregate of 90,066 restricted shares of common stock in connection with the acquisition of Active Spectrum, Inc. The shares were issued pursuant to an exemption from registration provided by Section 4(a)(2) of the Securities Act of 1933, as amended, and Rule 506 of Regulation D promulgated thereunder.

Issuer Purchases of Equity Securities

The following table sets forth all purchases made by or on behalf of the Company or any “affiliated purchaser,” as defined in Rule 10b-18(a)(3) under the Exchange Act, of shares of our common stock during each month in the fourth quarter of 2016.

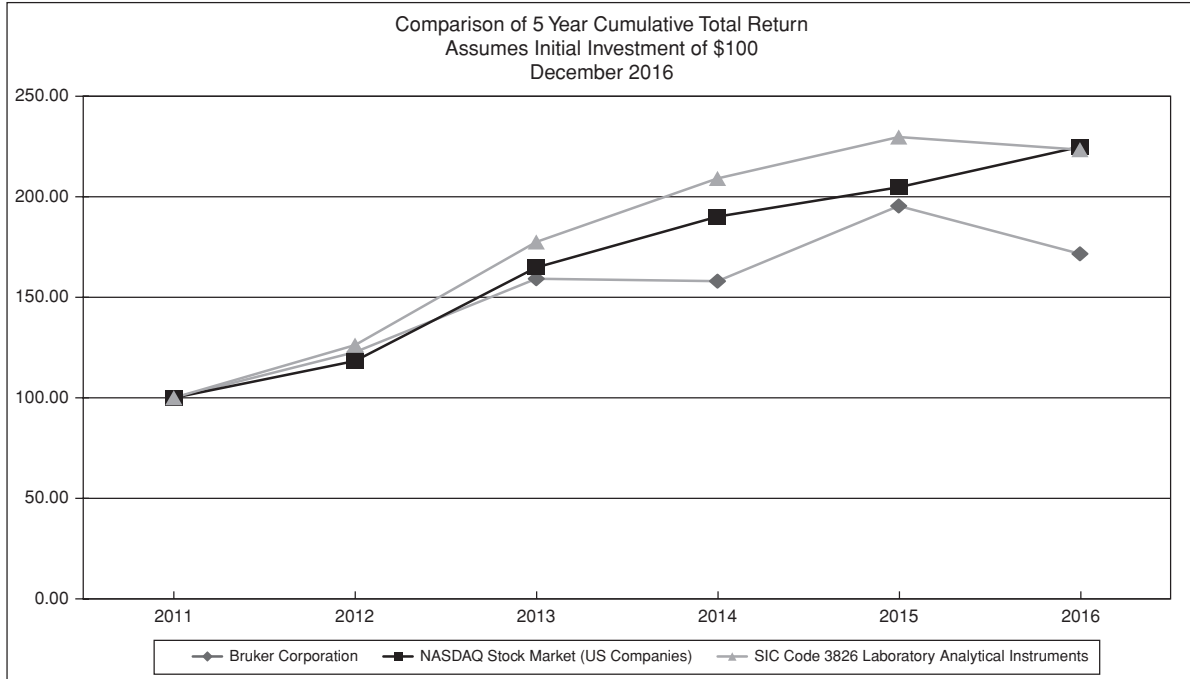
Period	Total Number of Shares Purchased (1)	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs (2)	Maximum Number of Shares (or approximate dollar value) that May Yet Be Purchased Under the Plans or Programs (3)
October 1-October 31, 2016	—	\$ —	—	\$16,467,569.00
November 1-November 30, 2016	238,124	22.96	236,000	11,049,182
December 1-December 31, 2016	502,596	22.18	497,871	6
	740,720	\$22.43	733,871	

- (1) Includes (i) shares repurchased under a \$225.0 million share repurchase program approved by the Board of Directors and announced on November 13, 2015 (the “Repurchase Program”) and (ii) 2,124 shares and 4,725 shares purchased in open market transactions by Frank H. Laukien, the Company’s Chief Executive Officer and Chairman of the Board of Directors, which were previously disclosed on a Form 4 filed with the SEC on November 28, 2016 and December 15, 2016, respectively.
- (2) Represents shares repurchased under the Repurchase Program.
- (3) The Repurchase Program authorized purchases of up to \$225.0 million of the Company’s common stock over a two-year period commencing November 12, 2015. As of December 31, 2016, the Company completed all purchases of its common stock under the Repurchase Program. The Company had previously announced on May 20, 2015 a program approved by the Board of Directors (the “Anti-Dilutive Repurchase Program”) under which repurchases were authorized in an amount intended to approximately offset, on an annual basis, the dilutive effect of shares that are or may be issued pursuant to stock option and restricted stock awards under our long-term incentive plans. The Anti-Dilutive Repurchase Program was suspended until January 1, 2017 upon the approval of the Repurchase Program.

Stock Price Performance Graph

The graph below shows the cumulative stockholder return, assuming the investment of \$100 (and the reinvestment of any dividends thereafter) for the period beginning on December 31, 2011 and ending on December 31, 2016, for our common stock, stocks traded on Nasdaq, and a peer group consisting of U.S. Public Companies with a Standard Industry Classification, or SIC, code 3826 Laboratory Analytical Instruments. The stock price performance of Bruker Corporation shown in the following graph is not indicative of future stock price performance.

Comparison of 5 Year Cumulative Total Return
Assumes Initial Investment of \$100
December 2016



Cumulative Total Return Index for:

	2011	2012	2013	2014	2015	2016
Bruker Corporation	\$100.0	\$122.7	\$159.2	\$158.0	\$195.4	\$171.6
NASDAQ Stock Market (US companies)	100.0	118.3	164.8	190.1	204.7	224.8
SIC Code 3826 Laboratory Analytical Instruments	100.0	126.2	177.5	209.1	229.7	223.4

The data for this performance graph was compiled by Zack’s Investment Research, Inc. and is used with their permission.

ITEM 6 *SELECTED FINANCIAL DATA*

The consolidated statements of income and comprehensive income (loss) data for each of the years ended December 31, 2016, 2015 and 2014, and the consolidated balance sheet data as of December 31, 2016 and 2015, have been derived from our audited consolidated financial statements included in Item 8 in this Annual Report on Form 10-K.

The data presented below was derived from consolidated financial statements that were prepared in accordance with U.S. generally accepted accounting principles and should be read with the consolidated and combined financial statements, including the notes thereto, and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” included elsewhere in this Annual Report on Form 10-K.

	Year Ended December 31,				
	2016(1)	2015(2)	2014(3)	2013(4)	2012(5)
	(in millions, except per share data)				
Consolidated/Combined Statements of Income Data:					
Product revenue	\$1,345.4	\$1,381.1	\$1,571.9	\$1,611.4	\$1,556.5
Service revenue	254.7	235.5	231.8	219.3	210.0
Other revenue	11.2	7.2	5.2	8.7	24.9
Total revenue	1,611.3	1,623.8	1,808.9	1,839.4	1,791.4
Total costs and operating expenses	1,434.1	1,478.1	1,703.5	1,691.2	1,635.4
Operating income	177.2	145.7	105.4	148.2	156.0
Net income attributable to Bruker Corporation	153.6	101.6	56.7	80.1	77.5
Net income per common share attributable to Bruker Corporation shareholders:					
Basic	\$ 0.95	\$ 0.60	\$ 0.34	\$ 0.48	\$ 0.47
Diluted	\$ 0.95	\$ 0.60	\$ 0.33	\$ 0.48	\$ 0.46
Cash dividends declared per common share	\$ 0.16	\$ —	\$ —	\$ —	\$ —

- (1) 2016 includes \$20.8 million of restructuring costs and \$0.8 million of other long-lived assets.
- (2) 2015 includes \$29.3 million of restructuring costs and \$4.6 million of impairment of goodwill, definite-lived intangible assets and other long-lived assets.
- (3) 2014 includes \$36.1 million of restructuring costs and \$11.5 million of impairment of definite-lived intangible assets and other long-lived assets.
- (4) 2013 includes \$25.3 million of restructuring costs.

- (5) 2012 includes \$23.8 million of an impairment of assets of goodwill, definite-lived intangible assets and other long-lived assets.

	Year Ended December 31,				
	2016 (1)	2015	2014 (2)	2013	2012
	(in millions)				
Consolidated/Combined Balance Sheet Data:					
Cash and cash equivalents	\$ 342.4	\$ 267.1	\$ 319.5	\$ 438.7	\$ 310.6
Short-term investments	157.9	201.2	178.0	—	—
Working capital (3)	751.2	677.0	783.6	783.3	627.9
Total assets	1,808.4	1,730.0	1,863.7	1,987.1	1,855.0
Total debt	411.7	265.8	353.9	353.8	335.8
Other long-term liabilities	199.0	177.4	156.2	135.2	129.0
Total shareholders' equity	693.1	732.9	771.7	850.2	709.7

- (1) In 2016, the Company adopted Accounting Standards Update 2015-03, *Simplifying the Presentation of Debt Issuance Costs*, and reclassified the debt issuance costs associated with the senior unsecured notes to a reduction of the carrying amount of debt instead of as an other asset as of each of the years presented above. The impact was \$0.9 million, \$1.1 million, \$1.2 million and \$1.4 million in each of the years ended December 31, 2015, 2014, 2013, and 2012, respectively.
- (2) In 2014, the Company commenced a program to enter into time deposits with varying maturity dates as well as call deposits. Based on the call and maturity dates, certain of these investments have been classified as short-term investments.
- (3) Working capital is defined in the above table as current assets less current liabilities.

ITEM 7 *MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS*

The following Management's Discussion and Analysis of Financial Condition and Results of Operations, or MD&A, describes the principal factors affecting the results of our operations, financial condition and changes in financial condition, as well as our critical accounting policies and estimates. Our MD&A is organized as follows:

- *Overview.* This section provides a brief discussion of our reportable segments' results of operations, significant recent developments in our businesses, and challenges and risks that may impact our businesses in the future.
- *Results of Operations.* This section provides our analysis of the significant line items on our consolidated statements of income and comprehensive income (loss) for the year ended December 31, 2016 compared to the year ended December 31, 2015 and for the year ended December 31, 2015 compared to the year ended December 31, 2014.
- *Liquidity and Capital Resources.* This section provides an analysis of our liquidity and cash flow and a discussion of our outstanding debt and commitments.
- *Critical Accounting Policies and Estimates.* This section discusses the accounting estimates that are considered important to our financial condition and results of operations and require us to exercise subjective or complex judgments in their application. All of our significant accounting policies are summarized in Note 2 to our consolidated financial statements in Item 8 of this Annual Report on Form 10-K.
- *Recent Accounting Pronouncements.* This section provides a summary of recent accounting pronouncements and discusses their potential impact on our consolidated financial statements.
- *Transactions with Related Parties.* This section summarizes transactions with related parties.

Statements contained in Management's Discussion and Analysis of Financial Condition and Results of Operations, which express that we "believe," "anticipate," "plan," "expect," "seek," "estimate," or "should," as well as other statements which are not historical fact, are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Actual events or results may differ materially from those set forth in forward-looking statements. Certain factors that might cause such a difference are discussed in "Risk Factors" and "Management's Discussion and Analysis of Financial Condition and Results of Operations" in this Annual Report on Form 10-K for the year ended December 31, 2016.

To supplement our consolidated financial statements, which are prepared and presented in accordance with U.S. generally accepted accounting principles (GAAP), we use organic revenue and free cash flow, non-GAAP financial measures, in this Annual Report on Form 10-K. We define the term organic revenue as GAAP revenue, excluding the effect of foreign currency changes and the effect of acquisitions and divestitures, and believe it is a useful measure to evaluate our continuing business. We define free cash flow as net cash provided by operating activities less additions to property, plant, and equipment. We believe free cash flow is a useful measure to evaluate our business as it indicates the amount of cash generated after additions to property, plant, and equipment which is available for, among other things, investments in our business, acquisitions, and repayment of debt.

The presentation of these non-GAAP financial measures is not intended to be a substitute for, or superior to, the financial information prepared and presented in accordance with GAAP and may be different from non-GAAP financial measures used by other companies, and therefore, may not be comparable among companies. We believe these non-GAAP financial measures provide meaningful supplemental information regarding our performance. Specifically, management believes that the non-GAAP measures mentioned above provide relevant and useful information which is widely used by

analysts, investors and competitors in our industry, as well as by our management, in assessing both consolidated and business unit performance.

We use these non-GAAP financial measures to evaluate our period-over-period operating performance because our management believes this provides a more comparable measure of our continuing business as it adjusts for certain items that are not reflective of the underlying performance of our business. These measures may also be useful to investors in evaluating the underlying operating performance of our business and forecasting future results. We regularly use these non-GAAP financial measures internally to understand, manage, and evaluate our business results and make operating decisions. We also measure our employees and compensate them, in part, based on such non-GAAP measures and use this information for our planning and forecasting activities.

OVERVIEW

We are organized into four operating segments: the Bruker BioSpin Group, the Bruker CALID Group, the Bruker Nano Group and the Bruker Energy & Supercon Technologies (BEST) Segment.

Revenue decreased by \$12.5 million, or 0.8%, to \$1,611.3 million for the year ended December 31, 2016, compared to \$1,623.8 million for the year ended December 31, 2015. Included in revenue was an increase of approximately \$32.4 million related primarily to the acquisition of Jordan Valley, offset in part by a decrease of approximately \$8.3 million from the impact of foreign currency translation caused by the strengthening of the U.S. Dollar versus the Euro, Swiss Franc and other currencies. Excluding the effects of foreign currency translation and our recent acquisitions, our organic revenue, a non-GAAP measure, decreased by \$36.6 million, or 2.3%, driven primarily by declines in the Bruker CALID Group and the Bruker Nano Group caused largely by funding delays in European research and global industrial markets. These revenue declines were partially offset by revenue growth in the Bruker BioSpin Group driven primarily by sales of high-end NMR products, greater aftermarket and service revenues and price increases.

Our gross profit margin increased to 46.1% from 43.6% during the year ended December 31, 2016 as compared to the year ended December 31, 2015. The increase in gross margin percentage was primarily caused by operating cost improvements as a result of recent restructuring and operational initiatives, the impact of pricing increases and a favorable business mix within our Bruker BioSpin Group, as well as the impact of our acquisition of Jordan Valley. The beneficial impact of these items was offset in part by weakness in Bruker Nano Group global industrial markets and delays in European academic funding within our Bruker CALID and Bruker Nano Groups during the first three quarters of 2016.

Selling, general and administrative expenses and research and development costs during the year ended December 31, 2016 increased by approximately \$1.6 million from the prior year, which was caused by additional expenses incurred in 2016 related to our acquisition of Jordan Valley and other recent acquisitions, and largely offset by the favorable impacts of our outsourcing and restructuring initiatives and foreign currency translation.

The income tax provision in each of the years ended December 31, 2016 and 2015 was \$23.1 million, representing effective tax rates of 13.0% and 18.0%, respectively. The decrease in our effective tax rate for the year ended December 31, 2016 was principally driven by the release of our remaining valuation allowances and the recognition of previously unrecognized tax benefits due to the closure of tax audits.

Earnings per share increased from \$0.60 to \$0.95 per diluted share for the year ended December 31, 2016 when compared to the year ended December 31, 2015. The increase was primarily caused by increased gross profit, operating profit improvements, the Jordan Valley acquisition, a lower

effective tax rate and the favorable impacts of foreign currency transaction and our share repurchase program.

Operating cash flow for the year ended December 31, 2016 was a source of cash of \$130.8 million. For the year ended December 31, 2016, our free cash flow was \$93.7 million, calculated as follows:

	<u>Year Ended December 31,</u>		
	<u>2016</u>	<u>2015</u>	<u>2014</u>
Net cash provided by operating activities	\$130.8	\$229.2	\$114.3
Less: Purchases of property, plant and equipment	37.1	34.2	33.8
Free Cash Flow	<u>\$ 93.7</u>	<u>\$195.0</u>	<u>\$ 80.5</u>

Our free cash flow was lower for the year ended December 31, 2016 than for the year ended December 31, 2015, which was primarily the result of higher than normal collections of receivables and significant new product related customer advances received in the fourth quarter of 2015, an increase in inventory in 2016 as a result of inventory build for 2017 orders within the Bruker BioSpin Group and BEST Segment, and income tax payments for audit settlements and withholding tax payments made in the first quarter of 2016 related to our 2015 European cash repatriation.

In November 2015, our Board of Directors approved a share repurchase program (the “Repurchase Program”) that authorized repurchases of up to \$225.0 million of common stock. A total of 6,475,480 shares were repurchased at an aggregate cost of \$160.0 million during the year ended December 31, 2016 and 9,312,522 shares were repurchased at an aggregate cost of \$225.0 million from the inception of the Repurchase Program through December 31, 2016. No additional repurchases are authorized under the Repurchase Program.

On February 22, 2016, we announced the establishment of a dividend policy and the declaration by our Board of Directors of an initial quarterly cash dividend in the amount of \$0.04 per share of our issued and outstanding common stock. Dividends amounting to \$6.5 million were paid in March and June and \$6.4 million were paid in September and December of 2016. Future dividend payments, if any are subject to approval of our Board of Directors. We are targeting a cash dividend to our shareholders in the amount of \$0.16 per share per annum, payable in equal quarterly installments.

In the year ended December 31, 2016, we completed various acquisitions that either complimented our existing market offerings or added aftermarket and software capabilities to our existing microbiology business. The impact of the acquired companies on revenues, net income and total assets was not material.

In 2016, we began a restructuring initiative to address lower demand in the Bruker CALID and Bruker Nano Groups as a result of delays in European academic funding and ongoing weakness in several of the industrial end market segments served by the Bruker Nano Group. This initiative is intended to improve the Bruker CALID and Bruker Nano Group operating results in response to these market conditions. Restructuring actions will result in a reduction of approximately 125 employees within the Bruker CALID and Bruker Nano Groups. In the year ended December 31, 2016, we recorded \$10.4 million of restructuring charges associated with this initiative. Total restructuring and other one-time charges related to this initiative in 2017 are expected to be between \$0.6 and \$2.6 million. We expect to generate approximately \$10.0 to \$13.0 million in annualized savings upon completion of this initiative, expected to take full effect in the second quarter of 2017.

We can experience quarter-to-quarter fluctuations in our operating results as a result of various factors, some of which are outside of our control, such as:

- the timing of governmental stimulus programs and academic research budgets;
- the time it takes between the date customer orders and deposits are received, systems are shipped and accepted by our customers and full payment is received;
- the time it takes for customers to construct or prepare their facilities for our products; and
- the time required to obtain governmental licenses.

These factors have in the past affected the amount and timing of revenue recognized on sales of our products and receipt of related payments and will continue to do so in the future. Accordingly, our operating results in any particular quarter may not necessarily be an indication of any future quarter's operating performance.

RESULTS OF OPERATIONS

Year Ended December 31, 2016 Compared to the Year Ended December 31, 2015

Consolidated Results

The following table presents our results for the years ended December 31, 2016 and 2015 (dollars in millions, except per share data):

	Year Ended December 31,	
	2016	2015
Product revenue	\$1,345.4	\$1,381.1
Service revenue	254.7	235.5
Other revenue	11.2	7.2
Total revenue	1,611.3	1,623.8
Cost of product revenue	714.2	774.2
Cost of service revenue	150.0	139.7
Cost of other revenue	4.6	1.3
Total cost of revenue	868.8	915.2
Gross profit	742.5	708.6
Operating expenses:		
Selling, general and administrative	390.5	392.2
Research and development	149.0	145.7
Other charges	25.8	25.0
Total operating expenses	565.3	562.9
Operating income	177.2	145.7
Interest and other income (expense), net	0.4	(17.7)
Income before income taxes and noncontrolling interest in consolidated subsidiaries	177.6	128.0
Income tax provision	23.1	23.1
Consolidated net income	154.5	104.9
Net income attributable to noncontrolling interest in consolidated subsidiaries	0.9	3.3
Net income attributable to Bruker Corporation	<u>\$ 153.6</u>	<u>\$ 101.6</u>
Net income per common share attributable to Bruker Corporation shareholders:		
Basic	\$ 0.95	\$ 0.60
Diluted	\$ 0.95	\$ 0.60
Weighted average common shares outstanding:		
Basic	161.4	168.2
Diluted	162.2	169.1

Revenue

For the year ended December 31, 2016, our revenue decreased by \$12.5 million, or 0.8%, to \$1,611.3 million, compared to \$1,623.8 million for the year ended December 31, 2015. Included in revenue was an increase of approximately \$32.4 million attributable primarily to the acquisition of

Jordan Valley and a decrease of approximately \$8.3 million from the impact of foreign currency translation caused by the strengthening of the U.S. Dollar versus the Euro, Swiss Franc and other currencies. Excluding the effects of foreign currency translation and our recent acquisitions, our organic revenue, a non-GAAP measure, decreased by \$36.6 million, or 2.3%.

BSI Segment revenue decreased by \$6.6 million, or 0.4%, to \$1,492.6 million for the year ended December 31, 2016, compared to \$1,499.2 million for the year ended December 31, 2015. BEST Segment revenue decreased by \$3.5 million, or 2.6%, to \$130.2 million for the year ended December 31, 2016, compared to \$133.7 million for the year ended December 31, 2015.

Please see the Segment Results section later in this section for additional discussion of our revenue.

Gross Profit

Our gross profit for the year ended December 31, 2016 was \$742.5 million, resulting in a gross profit margin of 46.1%, compared to \$708.6 million, resulting in a gross profit margin of 43.6%, for the year ended December 31, 2015. The increase in our gross profit margin was caused primarily by operating cost improvements as a result of recent restructuring and operational initiatives, the impact of pricing increases and a favorable business mix within the Bruker BioSpin Group and the impact of the Jordan Valley acquisition. The favorable effect of these items was partially offset by weakness in Bruker Nano Group industrial market segments and delays in European academic funding within our Bruker CALID and Bruker Nano Groups during the first three quarters of 2016.

Selling, General and Administrative

Our selling, general and administrative expenses for the year ended December 31, 2016 decreased to \$390.5 million, or 24.2% of revenue, from \$392.2 million, or 24.2% of revenue, for the year ended December 31, 2015. Selling, general and administrative expenses remained consistent as a percentage of revenue compared to the year ended December 31, 2015 as the favorable impacts of our outsourcing and restructuring initiatives was offset by additional expenses incurred related to our 2015 acquisition of Jordan Valley and other recent acquisitions.

Research and Development

Our research and development expenses for the year ended December 31, 2016 increased to \$149.0 million, or 9.2% of revenue, from \$145.7 million, or 9.0% of revenue, for the year ended December 31, 2015. The increase was attributable to new initiatives related to our recent acquisitions and our expanded technological portfolio.

Other Charges, Net

Other charges, net was \$25.8 million for the year ended December 31, 2016, of which \$25.2 million related to the BSI Segment and \$0.6 million related to the BEST Segment. The charges consisted primarily of \$9.8 million of restructuring costs related to closing facilities and implementing outsourcing and other restructuring initiatives, \$9.0 million related primarily to additional contingent consideration recognized for Jordan Valley based upon an increase in revenue levels of the acquired business which increased the amount of expected earn out payments, \$6.2 million of costs associated with our global information technology (IT) transformation initiative and impairment charges of \$0.8 million comprised of other long-lived assets related to the restructuring actions within the Bruker CALID and Bruker Nano Groups during the year.

Other charges, net was \$25.0 million for the year ended December 31, 2015 and related almost entirely to the BSI Segment. The charges consisted primarily of a \$10.2 million one-time, non-cash

settlement charge as the plan assets and pension obligations for the retirees and other certain members of the population within our pension plan in Switzerland were transferred to an outside insurance provider, \$8.1 million of restructuring costs related to closing facilities and implementing outsourcing and other restructuring initiatives, \$8.9 million of costs associated with our global IT transformation initiative and impairment charges of \$4.6 million comprised of goodwill, definite-lived intangible assets and other long-lived assets, related to the restructuring actions within the Bruker BioSpin Group, partially offset by (\$7.2) million of contingent consideration reversals, as it was determined that certain financial targets related to the applicable acquisitions would not meet the required thresholds for payment.

In 2017, we expect to incur \$6.0 to \$8.0 million of expense related to various outsourcing initiatives and other restructuring activities that were implemented in 2016 or will commence in 2017.

At December 31, 2016 and 2015, we performed our annual goodwill and indefinite-lived intangible impairment evaluation and concluded the fair values of each of our reporting units were significantly greater than their carrying amounts, and therefore, no additional impairment is required.

We will continue to monitor goodwill and long-lived intangible assets, as well as long-lived tangible assets, for possible future impairment.

Operating Income

Operating income for the year ended December 31, 2016 was \$177.2 million, resulting in an operating margin of 11.0%, compared to income from operations of \$145.7 million, resulting in an operating margin of 9.0%, for the year ended December 31, 2015. The increase in operating margin was primarily attributable to the gross margin improvements discussed above, operating cost improvements as a result of our restructuring initiatives and prudent cost controls.

Interest and Other Income (Expense), Net

Interest and other income (expense), net during the year ended December 31, 2016 was \$0.4 million, compared to (\$17.7) million for the year ended December 31, 2015.

During the year ended December 31, 2016, the major components within interest and other income (expense), net were a gain on acquisition of \$9.2 million, realized and unrealized gains on foreign currency denominated transactions of \$4.1 million, partially offset by net interest expense of \$12.9 million. The \$9.2 million gain on acquisition related to the acquisition of OST within the BEST Segment as the value of the assets purchased exceeded the consideration paid. During the year ended December 31, 2015, the major components within interest and other income (expense), net were net interest expense of \$11.8 million and realized and unrealized losses on foreign currency denominated transactions of \$5.5 million.

We expect to incur approximately \$16.0 million of interest expense in 2017.

Income Tax Provision

The income tax provision in each of the years ended December 31, 2016 and 2015 was \$23.1 million, representing effective tax rates of 13.0% and 18.0%, respectively. The decrease in our effective tax rate for the year ended December 31, 2016, compared to 2015, was primarily attributable to the release of our remaining valuation allowances and the recognition of previously unrecognized tax benefits due to the closure of tax audits. Our tax rate may change over time as the amount and mix of jurisdictional income changes.

We expect our income tax provision to be approximately 25.0% for the year ended December 31, 2017.

Net Income Attributable to Noncontrolling Interests

Net income attributable to noncontrolling interests for the year ended December 31, 2016 was \$0.9 million compared to \$3.3 million for the year ended December 31, 2015. The net income attributable to noncontrolling interests represented the minority shareholders' proportionate share of the net income recorded by our majority-owned indirect subsidiaries.

Net Income Attributable to Bruker Corporation

Our net income attributable to Bruker Corporation for the year ended December 31, 2016 was \$153.6 million, or \$0.95 per diluted share, compared to net income of \$101.6 million, or \$0.60 per diluted share, for 2015. The increase for the year ended December 31, 2016 was primarily caused by increased gross profit, operating profit improvements, a lower effective tax rate and the positive impact of foreign currency translation and our share repurchase program.

Segment Results

Revenue

The following table presents revenue, change in revenue, and revenue growth by reportable segment for the years ended December 31, 2016 and 2015 (dollars in millions):

	<u>2016</u>	<u>2015</u>	<u>Dollar Change</u>	<u>Percentage Change</u>
BSI	\$1,492.6	\$1,499.2	\$ (6.6)	(0.4)%
BEST	130.2	133.7	(3.5)	(2.6)%
Eliminations (a)	<u>(11.5)</u>	<u>(9.1)</u>	<u>(2.4)</u>	
	<u>\$1,611.3</u>	<u>\$1,623.8</u>	<u>\$(12.5)</u>	(0.8)%

(a) Represents product and service revenue between reportable segments.

BSI Segment Revenues

For financial reporting purposes, we aggregate the Bruker BioSpin, Bruker CALID and Bruker Nano operating segments into the Bruker Scientific Instruments (BSI) reportable segment, which represented approximately 93% of the Company's revenues during the year ended December 31, 2016. This aggregation reflects these operating segments' similar economic characteristics, production processes, customer services provided, types and classes of customers, methods of distribution and regulatory environments. Our BEST Segment is our other reportable segment and represents the remainder of our revenues.

BSI Segment revenue decreased by \$6.6 million, or 0.4%, to \$1,492.6 million for the year ended December 31, 2016, compared to \$1,499.2 million for the year ended December 31, 2015. Included in revenue was an increase of approximately \$26.6 million related to the acquisition of Jordan Valley, offset in part by approximately \$7.6 million from the impact of foreign currency translation caused by the strengthening of the U.S. Dollar versus the Euro, Swiss Franc and other currencies. Excluding the effects of foreign currency translation and our recent acquisitions, our organic revenue, a non-GAAP measure, decreased by \$25.6 million, or 1.7%.

Bruker BioSpin Group revenue increased by \$15.7 million to \$562.7 million for the year ended December 31, 2016, compared to \$547.0 million for the year ended December 31, 2015. The Bruker BioSpin Group increase in revenue was primarily due to increased pricing and the recognition of revenues from the sale of the first shielded ultra-high field gigahertz nuclear magnetic resonance system.

Bruker CALID Group revenue decreased by \$17.2 million to \$475.4 million for the year ended December 31, 2016, compared to \$492.6 million for the year ended December 31, 2015. The Bruker CALID Group experienced lower revenue primarily due to delays in European academic funding in the first three quarters of 2016 and lower sales of our MALDI Biotyper in China and the United States in the first half of 2016.

Bruker Nano Group revenue decreased by \$5.2 million to \$454.6 million for the year ended December 31, 2016, compared to \$459.8 million for the year ended December 31, 2015. The Bruker Nano Group experienced lower revenue primarily due to delays in European academic funding in the first three quarters of 2016 as well as continued weaker demand within global industrial markets.

System revenue and aftermarket revenue as a percentage of total BSI Segment revenue were as follows during the years ended December 31, 2016 and 2015 (dollars in millions):

	2016		2015	
	Revenue	Percentage of Segment Revenue	Revenue	Percentage of Segment Revenue
System revenue	\$1,092.8	73.2%	\$1,119.7	74.7%
Aftermarket revenue	399.8	26.8%	379.5	25.3%
Total revenue	<u>\$1,492.6</u>	<u>100.0%</u>	<u>\$1,499.2</u>	<u>100.0%</u>

BEST Segment Revenues

BEST Segment revenue decreased by \$3.5 million, or 2.6%, to \$130.2 million for the year ended December 31, 2016, compared to \$133.7 million for the year ended December 31, 2015. The decline in revenue was primarily attributable to the completion and final acceptance of the ROSATOM pilot line in Russia, and high margin customer projects (DESY particle acceleration and ITER magnetic fusion) in the year ended December 31, 2015.

System and wire revenue and aftermarket revenue as a percentage of total BEST Segment revenue were as follows during the years ended December 31, 2016 and 2015 (dollars in millions):

	2016		2015	
	Revenue	Percentage of Segment Revenue	Revenue	Percentage of Segment Revenue
System and wire revenue	\$126.9	97.5%	\$129.7	97.0%
Aftermarket revenue	3.3	2.5%	4.0	3.0%
Total revenue	<u>\$130.2</u>	<u>100.0%</u>	<u>\$133.7</u>	<u>100.0%</u>

Gross Profit and Operating Expenses

For the year ended December 31, 2016, gross profit margin in the BSI Segment increased to 48.1% from 45.5% in the year ended December 31, 2015. The increase in gross margin percentage was caused primarily by operating cost improvements resulting from recent restructuring and operational initiatives, the impact of pricing increases within the Bruker BioSpin Group and the impact of the Jordan Valley acquisition within the Bruker Nano Group. These effects were partially offset by revenue weakness in certain Bruker Nano and Bruker CALID Group market segments resulting from delays in European academic funding during the first three quarters of 2016. The BEST Segment gross profit margin decreased to 17.1% from 19.5% for the year ended December 31, 2015. Lower gross margins resulted primarily from the completion of the ROSATOM pilot line and the DESY and ITER orders in 2015.

For the year ended December 31, 2016, selling, general and administrative expenses and research and development expenses in the BSI Segment remained consistent at \$524.0 million, or 35.1% of segment revenue, from \$524.2 million, or 35.0% of segment revenue, for the comparable period in 2015. Selling, general and administrative expenses and research and development expenses in the BEST Segment increased to \$15.5 million, or 11.9% of segment revenue, in 2016 compared to \$13.7 million, or 10.2% of segment revenue, in 2015. The increase in BEST Segment operating expenses was primarily attributable to increased costs associated with selective research and development initiatives.

Operating Income

The following table presents operating income and operating margins on revenue by reportable segment for the years ended December 31, 2016 and 2015 (dollars in millions):

	2016		2015	
	Operating Income	Percentage of Segment Revenue	Operating Income	Percentage of Segment Revenue
BSI	\$168.9	11.3%	\$133.2	8.9%
BEST	6.6	5.1%	11.5	8.6%
Corporate, eliminations and other (a)	1.7		1.0	
Total operating income	<u>\$177.2</u>	11.0%	<u>\$145.7</u>	9.0%

(a) Represents corporate costs and eliminations not allocated to the reportable segments.

BSI operating income for the year ended December 31, 2016 was \$168.9 million, resulting in an operating margin of 11.3%, compared to income from operations of \$133.2 million, resulting in an operating margin of 8.9%, for the year ended December 31, 2015. Our operating margin increased primarily because of the gross profit improvements noted above, as well as operational improvements as a result of our restructuring initiatives.

BEST operating income for the year ended December 31, 2016 was \$6.6 million, resulting in an operating margin of 5.1%, compared to operating income of \$11.5 million, resulting in an operating margin of 8.6%, for the year ended December 31, 2015. The decrease in operating margin is primarily the result of the decreased gross margins as a result of the completion of the ROSATOM pilot line and the DESY and ITER projects in 2015.

Year Ended December 31, 2015 Compared to the Year Ended December 31, 2014

Consolidated Results

The following table presents our results for the years ended December 31, 2015 and 2014 (dollars in millions, except per share data):

	Year Ended December 31,	
	2015	2014
Product revenue	\$1,381.1	\$1,571.9
Service revenue	235.5	231.8
Other revenue	7.2	5.2
Total revenue	1,623.8	1,808.9
Cost of product revenue	774.2	896.0
Cost of service revenue	139.7	149.6
Cost of other revenue	1.3	—
Total cost of revenue	915.2	1,045.6
Gross profit	708.6	763.3
Operating expenses:		
Selling, general and administrative	392.2	451.0
Research and development	145.7	174.2
Other charges	25.0	32.7
Total operating expenses	562.9	657.9
Operating income	145.7	105.4
Interest and other income (expense), net	(17.7)	(4.1)
Income before income taxes and noncontrolling interest in consolidated subsidiaries	128.0	101.3
Income tax provision	23.1	41.7
Consolidated net income	104.9	59.6
Net income attributable to noncontrolling interest in consolidated subsidiaries	3.3	2.9
Net income attributable to Bruker Corporation	<u>\$ 101.6</u>	<u>\$ 56.7</u>
Net income per common share attributable to Bruker Corporation shareholders:		
Basic	\$ 0.60	\$ 0.34
Diluted	\$ 0.60	\$ 0.33
Weighted average common shares outstanding:		
Basic	168.2	167.8
Diluted	169.1	169.5

Revenue

For the year ended December 31, 2015, our revenue decreased by \$185.1 million, or 10.2%, to \$1,623.8 million, compared to \$1,808.9 million for the year ended December 31, 2014. Included in revenue was a decrease of approximately \$184.4 million from the impact of foreign currency translation caused by the strengthening of the U.S. Dollar versus the Euro, Japanese Yen and other currencies, and a decrease of approximately \$37.1 million attributable to divestitures, which was partially offset by the acquisition of Jordan Valley. Excluding the effects of foreign currency translation and our recent

acquisitions and divestitures, our organic revenue, a non-GAAP measure, increased by \$36.4 million, or 2.1%.

BSI Segment revenue decreased by \$175.4 million, or 10.5%, to \$1,499.2 million for the year ended December 31, 2015, compared to \$1,674.6 million for the year ended December 31, 2014. BEST Segment revenue decreased by \$19.2 million, or 12.6%, to \$133.7 million for the year ended December 31, 2015, compared to \$152.9 million for the year ended December 31, 2014.

Please see the Segment Results section later in this section for additional discussion of our revenue.

Gross Profit

Our gross profit for the year ended December 31, 2015 was \$708.6 million, resulting in a gross profit margin of 43.6%, compared to \$763.3 million, resulting in a gross profit margin of 42.2%, for the year ended December 31, 2014. The higher gross profit margin is primarily attributable to the favorable impact of changes in foreign currency translation rates, the increased business volume in certain product lines, the favorable impact of recent operational improvement initiatives, product pricing within the Bruker BioSpin Group, outsourcing of various manufacturing activities and recent divestiture and restructuring actions, including, among others, those within our former CAM Division.

Selling, General and Administrative

Our selling, general and administrative expenses for the year ended December 31, 2015 decreased to \$392.2 million, or 24.2% of revenue, from \$451.0 million, or 24.9% of revenue, for the year ended December 31, 2014. The decrease was primarily attributable to the favorable impact of changes in foreign currency translation rates and divestitures within our former CAM Division.

Research and Development

Our research and development expenses for the year ended December 31, 2015 decreased to \$145.7 million, or 9.0% of revenue, from \$174.2 million, or 9.6% of revenue, for the year ended December 31, 2014. The decrease was attributable to the favorable impact of changes in foreign currency translation rates, recent divestitures and restructuring actions, primarily within our former CAM Division, lower material costs and improved efficiency of our product development processes.

Other Charges, Net

Other charges, net was \$25.0 million for the year ended December 31, 2015 are almost entirely related to the BSI Segment. The charges consisted primarily of a \$10.2 million one-time, non-cash settlement charge as the plan assets and pension obligations for the retirees and other certain members of the population within our pension plan in Switzerland were transferred to an outside insurance provider, \$8.1 million of restructuring costs related to closing facilities and implementing outsourcing and other restructuring initiatives and \$8.9 million of costs associated with our global information technology (IT) transformation initiative and impairment charges of \$4.6 million, comprised of goodwill, definite-lived intangible assets and other long-lived assets, related to the restructuring actions within the Bruker BioSpin Group, partially offset by (\$7.2) million of contingent consideration reversals, as it was determined that certain financial targets related to the applicable acquisitions would not meet the required thresholds for payment.

Other charges, net was \$32.7 million for the year ended December 31, 2014, \$27.6 million related to the BSI Segment and \$5.1 million related to the BEST Segment. The charges consisted of impairment charges of \$11.5 million, comprising definite-lived intangible asset and other long-lived assets, relating to our former CAM Division and an impairment charge of \$5.1 million within our

BEST Segment, \$11.1 million of restructuring costs related to closing facilities and implementing outsourcing and other restructuring initiatives, \$3.2 million of legal and other professional service fees associated with our internal investigation and review of our operations in China, \$2.9 million of acquisition-related costs and \$4.0 million of costs associated with our global IT transformation initiative.

At December 31, 2015 and 2014, we performed our annual goodwill and indefinite-lived intangible impairment evaluation and concluded the fair values of each of our reporting units were significantly greater than their carrying amounts, and therefore, no additional impairment is required.

Operating Income

Operating income for the year ended December 31, 2015 was \$145.7 million, resulting in an operating margin of 9.0%, compared to income from operations of \$105.4 million, resulting in an operating margin of 5.8% for the year ended December 31, 2014. The increase in operating margin was caused by the improvements in gross profit margins and reduction of operating expenses as discussed above.

Interest and Other Income (Expense), Net

Interest and other income (expense), net during the year ended December 31, 2015 was (\$17.7) million, compared to (\$4.1) million for the year ended December 31, 2014.

During the year ended December 31, 2015, the major components within interest and other income (expense), net were net interest expense of \$11.8 million and realized and unrealized losses on foreign currency denominated transactions of \$5.5 million. The realized and unrealized losses on foreign currency denominated transactions during the year ended December 31, 2015 were primarily caused by the fluctuations of the U.S. dollar, the Euro and the Swiss Franc. During the year ended December 31, 2014, the major components within interest and other income (expense), net were net interest expense of \$12.5 million, a settlement charge related to the review of our operations in China of \$2.4 million and realized and unrealized losses on foreign currency transactions of \$2.0 million. These expenses were partially offset by gains on the sale of product lines of \$8.3 million, driven by the divestiture of product lines within the former CAM Division noted above, an insurance claim reimbursement of \$2.5 million and an incentive from the Commonwealth of Massachusetts of \$1.1 million.

Income Tax Provision

The income tax provision for the year ended December 31, 2015 was \$23.1 million compared to an income tax provision of \$41.7 million for the year ended December 31, 2014, representing effective tax rates of 18.0% and 41.2%, respectively. The decrease in the effective tax rate is primarily attributable to a partial release of U.S. valuation allowances previously recorded against deferred tax assets, and by changes in the mix of earnings among tax jurisdictions. Our valuation allowance at December 31, 2015 decreased \$20.2 million as compared to December 31, 2014, including a reduction to the beginning of the year valuation allowance of \$20.8 million, to account for a change in judgment with respect to the realizability of our U.S. deferred tax assets. This decrease was primarily attributable to U.S. net operating loss and foreign tax credit usage as a result of the repatriation of \$235.3 million of foreign earnings to the United States during 2015 prompted by adverse interest rate conditions in Europe that were unfavorably impacting cash balances. Among the evidence supporting our conclusion with respect to the realizability of these deferred tax assets was the elimination of recent cumulative U.S. losses as well as expected future near term U.S. taxable income. Our tax rate may change over time as the amount and mix of jurisdictional income changes.

Net Income Attributable to Noncontrolling Interests

Net income attributable to noncontrolling interests for the year ended December 31, 2015 was \$3.3 million compared to \$2.9 million for the year ended December 31, 2014. The net income attributable to noncontrolling interests represents the minority shareholders' proportionate share of the net income recorded by our majority-owned indirect subsidiaries.

Net Income Attributable to Bruker Corporation

Our net income attributable to Bruker Corporation for the year ended December 31, 2015 was \$101.6 million, or \$0.60 per diluted share, compared to net income of \$56.7 million, or \$0.33 per diluted share, for 2014. The increase for the year ended December 31, 2015 was primarily caused by increased operating income and a favorable effective tax rate as discussed above.

Segment Results

Revenue

The following table presents revenue, change in revenue, and revenue growth by reportable segment for the years ended December 31, 2015 and 2014 (dollars in millions):

	<u>2015</u>	<u>2014</u>	<u>Dollar Change</u>	<u>Percentage Change</u>
BSI	\$1,499.2	\$1,674.6	\$(175.4)	(10.5)%
BEST	133.7	152.9	(19.2)	(12.6)%
Eliminations (a)	<u>(9.1)</u>	<u>(18.6)</u>	<u>9.5</u>	
	<u>\$1,623.8</u>	<u>\$1,808.9</u>	<u>\$(185.1)</u>	(10.2)%

(a) Represents product and service revenue between reportable segments.

BSI Segment Revenues

For financial reporting purposes, we aggregate the Bruker BioSpin, Bruker CALID and Bruker Nano operating segments into the Bruker Scientific Instruments (BSI) reportable segment, which represented approximately 92% of the Company's revenues during the year ended December 31, 2015. This aggregation reflects these operating segments' similar economic characteristics, production processes, customer services provided, types and classes of customers, methods of distribution and regulatory environments. Our BEST Segment is our other reportable segment and represents the remainder of our revenues.

BSI Segment revenue decreased by \$175.4 million, or 10.5%, to \$1,499.2 million for the year ended December 31, 2015, compared to \$1,674.6 million for the year ended December 31, 2014. Included in revenue was a decrease of approximately \$160.9 million from the impact of foreign currency translation caused by the strengthening of the U.S. Dollar versus the Euro, Japanese Yen and other currencies and a decrease of approximately \$37.1 million attributable to the divestiture of the former CAM Division, partially offset by the acquisition of Jordan Valley. Excluding the effects of foreign currency translation and our recent acquisitions and divestitures, our organic revenue, a non-GAAP measure, increased by \$22.6 million, or 1.3%.

Bruker BioSpin Group revenue decreased \$75.8 million to \$547.0 million for the year ended December 31, 2015, compared to \$622.8 million for the year ended December 31, 2014. The Bruker BioSpin Group decrease in revenue was primarily attributable to a decline in revenue for MRI, Molecular Imaging (MI) and EPR products, which was partially offset by increased sales of NMR products predominantly in the second half of 2015. The increase in sales of NMR products of

\$54.2 million resulted from increased levels of new order bookings over the comparable period in 2014. In addition, the year ended December 31, 2014 benefited from the recognition of a significant 21 Tesla high-field magnet sale.

Bruker CALID Group revenue decreased by \$60.9 million to \$492.6 million for the year ended December 31, 2015, compared to \$553.5 million for the year ended December 31, 2014. Excluding a foreign currency translation impact of \$59.2 million and \$39.6 million due to the divestiture of the CAM Division, the Bruker CALID Group experienced higher revenue levels for certain mass spectrometry products (primarily MALDI-TOF and MALDI Biotyper) caused primarily by strong underlying academic, pharma, biotech and contract research markets. CBRNE products sales were higher as a result of certain large orders and newly launched explosive trace detection products sold to European airports. The increase in organic revenue was partially offset by a decline in sales of MIR products caused by weaker demand in end markets.

Bruker Nano Group revenue decreased by \$38.5 million to \$459.8 million for the year ended December 31, 2015, compared to \$498.3 million for the year ended December 31, 2014. Excluding a \$46.6 million negative impact from foreign currency translation, the Bruker Nano Group experienced an increase in revenue levels in the X-ray diffraction, single crystal X-ray diffraction, and electron microscope analyzer markets, which was partially offset by a decrease in revenue caused by continued weakness in the semiconductor, data storage and industrial markets. Improvements in commercial processes, such as improved sales forecasting resulting in better production planning, improved understanding of customer site readiness and better scheduling of installation services also contributed to the sales increase.

System revenue and aftermarket revenue as a percentage of total BSI Segment revenue were as follows during the years ended December 31, 2015 and 2014 (dollars in millions):

	2015		2014	
	Revenue	Percentage of Segment Revenue	Revenue	Percentage of Segment Revenue
System revenue	\$1,119.7	74.7%	\$1,316.5	78.6%
Aftermarket revenue	379.5	25.3%	358.1	21.4%
Total revenue	<u>\$1,499.2</u>	<u>100.0%</u>	<u>\$1,674.6</u>	<u>100.0%</u>

BEST Segment Revenues

BEST Segment revenue decreased by \$19.2 million, or 12.6%, to \$133.7 million for the year ended December 31, 2015, compared to \$152.9 million for the year ended December 31, 2014. The decline in revenue was primarily caused by the impact of changes in foreign currency translation, which was partially offset by increases resulting from the completion of the ROSATOM pilot line and the timing of certain large projects (DESY particle acceleration and ITER magnetic fusion).

System and wire revenue and aftermarket revenue as a percentage of total BEST Segment revenue were as follows during the years ended December 31, 2015 and 2014 (dollars in millions):

	2015		2014	
	Revenue	Percentage of Segment Revenue	Revenue	Percentage of Segment Revenue
System and wire revenue	\$129.7	97.0%	\$148.4	97.1%
Aftermarket and other revenue	4.0	3.0%	4.5	2.9%
Total revenue	<u>\$133.7</u>	<u>100.0%</u>	<u>\$152.9</u>	<u>100.0%</u>

Gross Profit and Operating Expenses

For the year ended December 31, 2015, gross profit margin in the BSI Segment increased to 45.5% from 43.7% in the comparable period in 2014. The increase in gross profit margin percentage was primarily caused by the favorable impact of changes in foreign currency translation rates and the positive impact of higher business volume in certain product lines, recent operational improvement initiatives, increased product pricing, outsourcing of various manufacturing activities, and recent divestiture and restructuring activities. The BEST Segment gross profit margin increased to 19.5% from 18.8% for the comparable period in 2014. Higher gross margins resulted primarily from the completion of certain large projects during the year and from changes in foreign currency translation rates.

For the year ended December 31, 2015, selling, general and administrative expenses and research and development expenses in the BSI Segment decreased to \$524.2 million, or 35.0% of segment revenue, from \$604.8 million, or 36.1% of segment revenue, for the comparable period in 2014. The decrease reflected the favorable impact of changes in foreign currency translation and recent divestiture and restructuring actions within the former CAM Division. Selling, general and administrative expenses and research and development expenses in the BEST Segment decreased to \$13.7 million, or 10.2% of segment revenue, in 2015 compared to \$20.4 million, or 13.3% of segment revenue, in 2014. The decrease was primarily attributable to the favorable impact of changes in foreign currency translation rates.

Operating Income

The following table presents operating income and operating margins on revenue by reportable segment for the years ended December 31, 2015 and 2014 (dollars in millions):

	2015		2014	
	Operating Income	Percentage of Segment Revenue	Operating Income	Percentage of Segment Revenue
BSI	\$133.2	8.9%	\$ 99.8	6.0%
BEST	11.5	8.6%	3.4	2.2%
Corporate, eliminations and other (a)	1.0		2.2	
Total operating income	<u>\$145.7</u>	9.0%	<u>\$105.4</u>	5.8%

(a) Represents corporate costs and eliminations not allocated to the reportable segments.

BSI operating income for the year ended December 31, 2015 was \$133.2 million, resulting in an operating margin of 8.9%, compared to income from operations of \$99.8 million, resulting in an operating margin of 6.0%, for the year ended December 31, 2014. Increases in operating margins were primarily caused by higher gross margin levels and lower operating expenses as discussed above.

BEST operating income for the year ended December 31, 2015 was \$11.5 million, resulting in an operating margin of 8.6%, compared to operating income of \$3.4 million, resulting in an operating margin of 2.2%, for the year ended December 31, 2014. The increase in operating margin is primarily attributable to the increased gross margins as a result of the completion of certain large orders during the year as discussed above.

LIQUIDITY AND CAPITAL RESOURCES

We currently anticipate that our existing cash and credit facilities will be sufficient to support our operating and investing needs for at least the next twelve months. Our future cash requirements could be affected by acquisitions that we may complete, repurchases of our common stock, or the payment of dividends in the future. Historically, we have financed our growth and liquidity needs through cash flow

generation and a combination of debt financings and issuances of common stock. In the future, there are no assurances that additional financing alternatives will be available to us, if required, or if available, will be obtained on terms favorable to us.

During the year ended December 31, 2016, net cash provided by operating activities was \$130.8 million, resulting primarily from consolidated net income adjusted for non-cash items of \$219.6 million, offset by a net increase in operating assets and liabilities, net of acquisitions and divestitures, of \$88.8 million. The increase in operating assets and liabilities, net of acquisitions and divestitures, for the year ended December 31, 2016 was primarily caused by the timing of customer payments, as the fourth quarter of 2015 included higher than normal collections of receivables, an increase in inventory in 2016 as a result of inventory build for 2017 orders with the Bruker BioSpin Group and BEST Segment, income tax payments for audit settlements and withholding tax payments made in the first quarter of 2016 related to the Company's 2015 European cash repatriation.

During the year ended December 31, 2015, net cash provided by operating activities was \$229.2 million, resulting primarily from consolidated net income adjusted for non-cash items of \$182.9 million, and a decrease in operating assets and liabilities, net of acquisitions and divestitures, of \$46.3 million. The decrease in working capital for the year ended December 31, 2015 was primarily caused by improved efficiency in accounts receivable collections and an increase in income taxes payable caused, in part by, additional withholding taxes on repatriated funds. The time elapsed between the date customer orders are taken, deposits from the customers are received, and our receipt of full payments for the orders can fluctuate significantly from period to period. This cycle had a significantly positive effect on our cash flow generation in 2015.

During the year ended December 31, 2016, net cash used in investing activities was \$21.8 million, compared to net cash used in investing activities of \$102.4 million during the year ended December 31, 2015. Cash used in investing activities during the year ended December 31, 2016 was primarily caused by capital expenditures of \$37.1 million and cash paid for acquisitions, net of cash acquired, of \$24.3 million offset, in part, by maturities, net of purchases, of short-term investments of \$38.5 million. During the year ended December 31, 2015, net cash used in investing activities was \$102.4 million primarily caused by purchases, net of maturities, of short-term investments of \$40.7 million, capital expenditures of \$34.2 million and cash paid for acquisitions, net of cash acquired, of \$28.6 million.

We expect capital expenditures in 2017 to amount to approximately \$45.0 million.

During the year ended December 31, 2016, net cash used in financing activities was \$27.2 million, compared to net cash provided by financing activities of \$168.0 million during the year ended December 31, 2015. Cash used in financing activities during the year ended December 31, 2016 was primarily caused by the repurchase of common stock of \$160.0 million and \$25.8 million used for the payment of dividends, partially offset by borrowings of \$146.0 million under the revolving line of credit and \$11.5 million of proceeds from the issuance of common stock in connection with stock option exercises. Cash used in financing activities during the year ended December 31, 2015 was primarily caused by the repayment of the revolving line of credit from the proceeds of the repatriation of certain non U.S. cash balances related to previously taxed earnings, net of additional proceeds of \$87.5 million, and repurchases of common stock of \$90.0 million, partially offset by proceeds of \$10.8 million from the issuance of common stock in connection with stock option exercises of \$10.8 million.

In November 2015, our Board of Directors suspended the previously announced Anti-Dilutive Repurchase Program until January 1, 2017 and approved an additional share repurchase program (the "Repurchase Program") authorizing repurchases of common stock up to \$225.0 million. A total of 6,475,480 shares were repurchased at an aggregate cost of \$160.0 million during the year ended December 31, 2016 and 9,312,522 shares were repurchased at an aggregate cost of \$225.0 million from the inception of the Repurchase Program through December 31, 2016. No additional repurchases are authorized under the Repurchase Program.

Cash, cash equivalents and short-term investments at December 31, 2016 and 2015 totaled \$500.3 million and \$468.3 million, respectively, of which \$460.9 million and \$420.9 million, respectively, related to cash, cash equivalents and short-term investments held outside of the U.S. in our foreign subsidiaries, most significantly in the Netherlands and Switzerland.

We assert that our foreign earnings, with the exception of our foreign earnings that have been previously taxed by the U.S., are indefinitely reinvested. We regularly evaluate our assertion that our foreign earnings are indefinitely reinvested. If the cash, cash equivalents and short-term investments held by our foreign subsidiaries are needed to fund operations in the United States, or we otherwise elect to repatriate the unremitted earnings of our foreign subsidiaries in the form of dividends or otherwise, or if the shares of the subsidiaries were sold or transferred, we would likely be subject to additional U.S. income taxes, net of the impact of any available tax credits, which could result in a higher effective tax rate in the future.

At December 31, 2016, we had outstanding debt totaling \$411.7 million, consisting of \$240.0 million outstanding under the Note Purchase Agreement described below, \$171.0 million outstanding under the revolving loan component of the 2015 Credit Agreement described above and \$1.5 million under capital lease obligations and other loans. These amounts were offset by unamortized debt issuance costs under the Note Purchase Agreement of \$0.8 million. At December 31, 2015, we had outstanding debt totaling \$265.8 million, consisting of \$240.0 million outstanding under the Note Purchase Agreement described below, \$25.0 million outstanding under the revolving loan component of the Amended Credit Agreement described above and \$1.7 million under capital lease obligations and other loans. These amounts were offset by unamortized debt issuance costs under the Note Purchase Agreement of \$0.9 million.

The following is a summary of the maximum commitments and the net amounts available to us under the 2015 Credit Agreement and other lines of credit with various financial institutions located primarily in Germany and Switzerland that are unsecured and typically due upon demand with interest payable monthly, at December 31, 2016 (in millions):

	<u>Weighted Average Interest Rate</u>	<u>Total Amount Committed by Lenders</u>	<u>Outstanding Borrowings</u>	<u>Outstanding Letters of Credit</u>	<u>Total Amount Available</u>
2015 Credit Agreement	2.0%	\$500.0	\$171.0	\$ 1.1	\$327.9
Other lines of credit	—	<u>232.7</u>	—	<u>130.4</u>	<u>102.3</u>
Total revolving loans		<u>\$732.7</u>	<u>\$171.0</u>	<u>\$131.5</u>	<u>\$430.2</u>

In May 2011, we entered into an amendment to, and restatement of, our then existing credit agreement, referred to as the Amended Credit Agreement. The Amended Credit Agreement provided a maximum commitment on our revolving credit line of \$250.0 million and a maturity date of May 2016. Borrowings under the revolving credit line of the Amended Credit Agreement accrued interest, at our option, at either (a) the greater of (i) the prime rate, (ii) the federal funds rate plus 0.50% and (iii) adjusted LIBOR plus 1.00% or (b) LIBOR, plus margins ranging from 0.80% to 1.65%. There was also a facility fee ranging from 0.20% to 0.35%. The Amended Credit Agreement was repaid in full in October 2015.

On October 27, 2015, we entered into a new revolving credit agreement, referred to as the 2015 Credit Agreement, and terminated the Amended Credit Agreement. The 2015 Credit Agreement provides a maximum commitment on the Company's revolving credit line of \$500 million and a maturity date of October 2020. Borrowings under the revolving credit line of the 2015 Credit Agreement accrue interest, at the Company's option, at either (a) the greater of (i) the prime rate, (ii) the federal funds rate plus 0.50% and (iii) adjusted LIBOR plus 1.00%, plus margins ranging from

0.00% to 0.30% or (b) LIBOR, plus margins ranging from 0.90% to 1.30%. There is also a facility fee ranging from 0.10% to 0.20%.

Borrowings under the 2015 Credit Agreement are secured by guarantees from certain material subsidiaries, as defined in the 2015 Credit Agreement. The 2015 Credit Agreement also requires us to maintain certain financial ratios related to maximum leverage and minimum interest coverage. Specifically, our leverage ratio cannot exceed 3.5 and our interest coverage ratio cannot be less than 2.5. In addition to the financial ratios, the 2015 Credit Agreement contains negative covenants, including among others, restrictions on liens, indebtedness of the Company and its subsidiaries, asset sales, dividends and transactions with affiliates. Failure to comply with any of these restrictions or covenants may result in an event of default on the 2015 Credit Agreement, which could permit acceleration of the debt and require us to prepay the debt before its scheduled due date.

As of December 31, 2016, we were in compliance with the covenants, as defined by the 2015 Credit Agreement, as our leverage ratio was 1.49 and our interest coverage ratio was 15.5.

In January 2012, we entered into a note purchase agreement, referred to as the Note Purchase Agreement, with a group of accredited institutional investors. Under the Note Purchase Agreement we issued and sold \$240.0 million of senior notes, which consist of the following:

- \$20.0 million 3.16% Series 2012A senior notes due January 18, 2017;
- \$15.0 million 3.74% Series 2012A senior notes due January 18, 2019;
- \$105.0 million 4.31% Series 2012A senior notes due January 18, 2022; and
- \$100.0 million 4.46% Series 2012A senior notes due January 18, 2024.

Under the terms of the Note Purchase Agreement, we may issue and sell additional senior notes up to an aggregate principal amount of \$600 million, subject to certain conditions. Interest on the Senior Notes is payable semi-annually on January 18 and July 18 of each year. The Senior Notes are unsecured obligations of us and are fully and unconditionally guaranteed by certain of our direct and indirect subsidiaries. The Senior Notes rank pari passu in right of repayment with our other senior unsecured indebtedness. We may prepay some or all of the Senior Notes at any time in an amount not less than 10% of the original aggregate principal amount of the Senior Notes to be prepaid, at a price equal to the sum of (a) 100% of the principal amount thereof, plus accrued and unpaid interest, and (b) the applicable make-whole amount, upon not less than 30 and no more than 60 days written notice to the holders of the Senior Notes. In the event of a change in control of the Company, as defined in the Note Purchase Agreement, we may be required to prepay the Notes at a price equal to 100% of the principal amount thereof, plus accrued and unpaid interest.

The Note Purchase Agreement contains affirmative covenants, including, without limitation, maintenance of corporate existence, compliance with laws, maintenance of insurance and properties, payment of taxes, addition of subsidiary guarantors and furnishing notices and other information. The Note Purchase Agreement also contains certain restrictive covenants that restrict our ability to, among other things, incur liens, transfer or sell assets, engage in certain mergers and consolidations and enter into transactions with affiliates. The Note Purchase Agreement also includes customary representations and warranties and events of default. In the case of an event of default arising from specified events of bankruptcy or insolvency, all outstanding Senior Notes will become due and payable immediately without further action or notice. In the case of payment events of defaults, any holder of Senior Notes affected thereby may declare all Senior Notes held by it due and payable immediately. In the case of any other event of default, a majority of the holders of the Senior Notes may declare all the Senior Notes to be due and payable immediately. Pursuant to the Note Purchase Agreement, so long as any Senior Notes are outstanding we will not permit (i) our leverage ratio, as determined pursuant to the Note Purchase Agreement, as of the end of any fiscal quarter to exceed 3.50 to 1.00, (ii) our interest

coverage ratio as determined pursuant to the Note Purchase Agreement as of the end of any fiscal quarter for any period of four consecutive fiscal quarters to be less than 2.50 to 1 or (iii) priority debt at any time to exceed 25% of consolidated net worth, as determined pursuant to the Note Purchase Agreement.

As of December 31, 2016, we were in compliance with the covenants of the Note Purchase Agreement. Our leverage ratio (as defined in the Note Purchase Agreement) was 1.49 and our interest coverage ratio (as defined in the Note Purchase Agreement) was 15.5.

As of December 31, 2016, we have approximately \$40.2 million net operating loss carryforwards available to reduce state taxable income. We also have approximately \$41.0 million of German Trade Tax net operating losses that are carried forward indefinitely. Additionally, we have \$23.1 million of other foreign net operating losses that are expected to expire at various times beginning in 2018. We also have U.S. federal tax credits of approximately \$15.1 million available to offset future tax liabilities that expire at various dates, which include research and development tax credits of \$12.2 million expiring at various times through 2035, foreign tax credits of \$2.9 million expiring at various times through 2025, and state research and development tax credits of \$7.8 million. Utilization of these credits and state net operating losses may be subject to annual limitations due to the ownership percentage change limitations provided by the Internal Revenue Code Section 382 and similar state provisions. In the event of a deemed change in control under Internal Revenue Code Section 382, an annual limitation on the utilization of net operating losses and credits may result in the expiration of all or a portion of the net operating loss and credit carryforwards.

Uncertain tax contingencies are positions taken or expected to be taken on an income tax return that may result in additional payments to tax authorities. If a tax authority agrees with the tax position taken or expected to be taken or the applicable statute of limitations expires, then additional payments will not be necessary.

The following table summarizes maturities for our significant financial obligations as of December 31, 2016 (dollars in millions):

<u>Contractual Obligations</u>	<u>Total</u>	<u>Less than 1 Year</u>	<u>1-3 Years</u>	<u>4-5 Years</u>	<u>More than 5 Years</u>
Revolving lines of credit	\$171.0	\$ —	\$ —	\$171.0	\$ —
Other long-term debt, including current portion . . .	240.7	20.1	15.1	—	205.5
Interest payable on long-term debt and revolving lines of credit	70.4	13.6	25.9	20.9	10.0
Unconditional purchase commitments (1)	149.3	135.6	11.4	2.3	—
Acquisition-related contingent consideration (2) . . .	16.6	13.5	3.1	—	—
Operating lease obligations	75.9	20.9	25.5	15.5	14.0
Pension liabilities	38.9	2.1	5.2	6.7	24.9
Uncertain tax contingencies	5.8	2.4	1.0	0.1	2.3
	<u>\$768.6</u>	<u>\$208.2</u>	<u>\$87.2</u>	<u>\$216.5</u>	<u>\$256.7</u>

- (1) Unconditional purchase commitments include agreements to purchase goods, services, or fixed assets that are enforceable and legally binding and that specify all significant terms, including: fixed or minimum quantities to be purchased; fixed, minimum or variable price provisions; and the approximate timing of the transaction. Purchase commitments exclude agreements that are cancellable at any time without penalty.
- (2) Acquisition-related contingent considerations represents the estimated fair value of future payments to the former shareholders of applicable acquired companies based on achieving annual revenue and gross margin targets in certain years as specified in the purchase and sale agreements.

CRITICAL ACCOUNTING POLICIES AND ESTIMATES

This discussion and analysis of our financial condition and results of operations is based upon our consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States of America, or U.S. GAAP. The preparation of these financial statements requires that we make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and reported amounts of revenues and expenses during the reporting period. On an ongoing basis, management evaluates its estimates and judgments, including those related to: revenue recognition; the expensing and capitalization of software development costs; stock-based compensation expense; restructuring and other related charges; income taxes, including the recoverability of deferred tax assets; allowances for doubtful accounts; inventory reductions for excess and obsolete inventories; estimated fair values of long-lived assets used to measure the recoverability of long-lived assets; intangible assets and goodwill; expected future cash flows used to measure the recoverability of intangible assets and long-lived assets; warranty costs; derivative financial instruments; and contingent liabilities. We base our estimates and judgments on our historical experience, current market and economic conditions, industry trends, and other assumptions that we believe are reasonable and form the basis for making judgments about the carrying value of assets and liabilities that are not readily apparent from other sources. Actual results could differ from these estimates.

We believe the following critical accounting policies and estimates to be both those most important to the portrayal of our financial position and results of operations and those that require the most estimation and subjective judgment.

Revenue recognition. We recognize revenue from system sales when persuasive evidence of an arrangement exists, the price is fixed or determinable, title and risk of loss has been transferred to the customer, and collectability of the resulting receivable is reasonably assured. Title and risk of loss generally transfers upon shipping terms, or for certain systems, based upon customer acceptance for a system that has been delivered to the customer and installed at a customer facility. For systems that include customer-specific acceptance criteria, we are required to assess when we can demonstrate the acceptance criteria has been met, which generally is upon successful factory acceptance testing or customer acceptance and evidence of installation.

When products are sold through an independent distributor or a strategic distribution partner who assumes responsibility for installation, we recognize the system sale when the product has been shipped and title and risk of loss have been transferred to the distributor. Our distributors do not have price protection rights or rights of return; however, our products are typically warranted to be free from defect for a period of one year. Revenue is deferred until cash is received when collectability is not reasonably assured or when the price is not fixed or determinable.

For transactions that include multiple elements, arrangement consideration is allocated to each element using the fair value hierarchy as required by ASU No. 2009-13. We limit the amount of revenue recognized for delivered elements to the amount that is not contingent on the future delivery of products or services, future performance obligations, or subject to customer-specific return or refund privileges.

We determine the fair value of products and services based upon vendor specific objective evidence (“VSOE”). We determine VSOE based on normal selling pricing and discounting practices for the specific product or service when sold on a stand-alone basis. In determining VSOE, our policy requires a substantial majority of selling prices for a product or service to be within a reasonably narrow range. We also consider the class of customer, method of distribution and the geographies into which products and services are being sold when determining VSOE.

If VSOE cannot be established, we attempt to establish the selling price based on third-party evidence (“TPE”). VSOE cannot be established in instances where a product or service has not been sold separately, stand-alone sales are too infrequent or product pricing is not within a sufficiently narrow range. TPE is determined based on competitor prices for similar deliverables when sold separately.

When we cannot determine VSOE or TPE, we use estimated selling price (“ESP”) in our allocation of arrangement consideration. The objective of ESP is to determine the price at which we would typically transact a stand-alone sale of the product or service. ESP is determined by considering a number of factors including our pricing policies, internal costs and gross profit objectives, method of distribution, market research and information, recent technological trends, competitive landscape and geographies. We analyze the selling prices used in our allocation of arrangement consideration, at a minimum, on an annual basis. Selling prices will be analyzed more frequently if a significant change in our business occurs or other factors necessitate more frequent analysis, or if we experience significant variances in our selling prices.

Revenue from accessories and consumable parts is generally recognized upon shipping terms. Service revenue is recognized as the services are performed or ratably over the contractual obligation and includes maintenance contracts, extended warranty, training, application support and on-demand services.

We also have contracts for which we apply the percentage-of-completion model and completed contract model of revenue recognition. Application of the percentage-of-completion method requires us to make reasonable estimates of the extent of progress toward completion of the contract and the total costs we will incur under the contract and losses are recorded immediately when we estimate that contracts will ultimately result in a loss. Changes in the estimates could affect the timing of revenue recognition.

Other revenues are primarily comprised of development arrangements recognized on a cost-plus-fixed-fee basis and licensing arrangements recognized ratably over the term of the related contracts.

Income taxes. The determination of income tax expense requires us to make certain estimates and judgments concerning the annual effective tax rate, the calculation of deferred tax assets and liabilities, the forecasted profitability of our subsidiaries in certain geographic jurisdictions, as well as the deductions, carryforwards and credits that are available to reduce taxable income. Deferred tax assets and liabilities arise from differences in the timing of the recognition of revenue and expenses for financial statement and tax purposes. Deferred tax assets and liabilities are measured using the tax rates in effect for the year in which these temporary differences are expected to be settled. We estimate the degree to which tax assets and loss carryforwards will result in a benefit based on expected profitability by tax jurisdiction, and we provide a valuation allowance for tax assets and loss carryforwards that we believe will more likely than not go unused. If it becomes more likely than not that a tax asset or loss carryforward will be used for which a valuation allowance has been provided, we reverse the related valuation allowance. If our actual future taxable income by tax jurisdiction differs from estimates, additional allowances or reversals of a valuation allowance may be necessary. In addition, we only recognize benefits for tax positions that we believe are more likely than not of being sustained upon review by a taxing authority with knowledge of all relevant information. We reevaluate our uncertain tax positions on a quarterly basis and any changes to these positions as a result of tax audits, tax laws or other facts and circumstances could result in additional charges or credits to operations. The expiration of statutes of limitations affecting estimates made for uncertain tax positions can cause higher earnings.

Inventories. Inventories are stated at the lower of cost or market, with costs determined by the first-in, first-out method for a majority of subsidiaries and by average cost for certain other subsidiaries.

We record provisions to account for excess and obsolete inventory to reflect the expected non-saleable or non-refundable inventory based on an evaluation of slow moving products or products no longer offered for sale. Inventories also include demonstration units located in our demonstration laboratories or installed at the sites of potential customers. We consider our demonstration units to be available for sale and have a history of selling these demonstration units. We reduce the carrying value of demonstration inventories for differences between cost and estimated net realizable value, taking into consideration usage in the preceding twelve months, expected demand, technological obsolescence and other information including the physical condition of the unit. If ultimate usage or demand varies significantly from expected usage or demand, additional write-downs may be required, resulting in additional charges to operations.

Goodwill, other intangible assets and other long-lived assets. We evaluate goodwill for impairment annually and when events occur or circumstances change. We test goodwill for impairment at the reporting unit level, which is the operating segment or one level below an operating segment. Under U.S. GAAP, we have the option of performing a qualitative assessment to determine whether further impairment testing is necessary before performing a two-step quantitative assessment. The qualitative assessment requires significant judgments about macro-economic conditions including the entity's operating environment; its industry and other market considerations; entity-specific events related to financial performance or loss of key personnel; and other events that could impact the reporting unit. If, as a result of our qualitative assessment, it is more-likely-than-not that the fair value of a reporting unit is less than its carrying amount, the quantitative impairment test will be required. Otherwise, no further testing is required. If a quantitative impairment test is performed, the first step involves comparing the fair values of the applicable reporting units with their aggregate carrying values, including goodwill. We generally determine the fair value of our reporting units using a weighting of both the market approach and the income approach methodologies. The income approach valuation methodology includes discounted cash flow estimates. Estimating the fair value of the reporting units requires significant judgment about the future cash flows. If the carrying amount of a reporting unit exceeds the fair value of the reporting unit, we perform the second step of the goodwill impairment test to measure the amount of the impairment. In the second step of the goodwill impairment test, we compare the implied fair value of the reporting unit's goodwill with the carrying value of that goodwill. At December 31, 2016, we performed our annual goodwill and indefinite-lived intangible impairment evaluation using a qualitative impairment test and concluded the fair values of each of our reporting units were significantly greater than their carrying amounts, and therefore, no additional impairment was required.

We also review definite-lived intangible assets and other long-lived assets when indications of potential impairment exist. Should the fair value of our long-lived assets decline because of reduced operating performance, market declines or other indicators of an impairment, a charge to operations for impairment may be necessary.

Post retirement plan assumptions. Substantially all of our employees in Switzerland, France and Japan, as well as certain employees in Germany, are covered by defined benefit pension plans. Retirement benefits are generally earned based on years of service and compensation during active employment. Retirement plan costs are a significant cost of doing business. They represent obligations that will ultimately be settled sometime in the future and, therefore, are subject to estimation. Pension accounting is intended to reflect the recognition of future benefit costs over the employees' average expected future service based on the terms of the plans and investment and funding decisions. To estimate the impact of these future payments and our decisions concerning funding of these obligations, we are required to make assumptions using actuarial concepts within the framework of U.S. GAAP. Two critical assumptions are the discount rate and the expected long-term return on plan assets. Other important assumptions include, expected future salary increases, expected future increases to benefit payments, expected retirement dates, employee turnover, retiree mortality rates and portfolio composition. We evaluate these assumptions at least annually.

The discount rate is used to determine the present value of future benefit payments at the measurement date which is December 31. For 2016 and 2015, the discount rates were determined on the basis of the yield on corporate bonds with a rating of AA or AAA and the projected benefit obligation cash flows. Lower discount rates increase present values and subsequent year pension expense; higher discount rates decrease present values and subsequent year pension expense. If we changed our discount rates by 1 percent, the impact would be approximately \$4.0 million on annual pension expense.

The expected long-term return on plan assets is estimated using current and expected asset allocations, as well as historical and expected returns on various asset categories of plan assets. Plan assets are valued at fair value. We apply the expected rate of return to a market-related value of assets, which stabilizes variability in assets to which the expected return is applied. If we changed our estimated return on assets by 1 percent, the impact would be approximately \$1.1 million on annual pension expense. For 2016, actual return on assets was below expectations, which increased the next year's pension cost, net of contributions during the year, as well as decreased the funded status at December 31, 2016.

The net periodic benefit costs recorded in operations were \$11.3 million, \$21.7 million, and \$5.4 million for the years ended December 31, 2016, 2015 and 2014, respectively. The net periodic benefit costs for the year ended December 31, 2015 includes a one-time, non-cash settlement loss of \$10.2 million as we outsourced our pension plan in Switzerland to an outside insurance provider, transferred certain plan assets and pension obligations for retirees and other certain members of the population, made certain plan design changes and re-measured the liability.

We use a corridor approach to amortize actuarial gains and losses. Under this approach, net actuarial gains or losses in excess of ten percent of the larger of the projected benefit obligation or the fair value of plan assets are amortized over the average remaining service of active participants who are expected to receive benefits under the plans.

At December 31, 2016, we expect to contribute \$2.1 million to our existing defined benefit pension plans in 2017.

RECENT ACCOUNTING PRONOUNCEMENTS

In January 2017, the Financial Accounting Standards Boards ("FASB") issued Accounting Standards Update ("ASU") 2017-04, *Intangibles-Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment*. The new standard simplifies the subsequent measurement of goodwill by eliminating the second step of the goodwill impairment test. This ASU will be applied prospectively and is effective for annual or interim goodwill impairment tests in fiscal years beginning after December 15, 2019. The adoption of this standard is not expected to have a material impact on our financial position, results of operations or statements of cash flows upon adoption.

In January 2017, the FASB issued ASU No. 2017-01, *Business Combinations (Topic 805): Clarifying the Definition of a Business*. This new standard clarifies the definition of a business and provides a screen to determine when an integrated set of assets and activities is not a business. The screen requires that when substantially all of the fair value of the gross assets acquired (or disposed of) is concentrated in a single identifiable asset or a group of similar identifiable assets, the set is not a business. This new standard will be effective as of January 1, 2018. We are evaluating the provisions of this standard, including which period to adopt, and have not determined what impact the adoption of ASU No. 2017-01 will have on our consolidated financial statements.

In October 2016, the FASB issued ASU No. 2016-16, *Income Taxes (Topic 740)—Intra-Entity Transfer of Assets Other than Inventory*. The new standard requires recognition of current and deferred income taxes resulting from an intra-entity transfer of any asset (excluding inventory) when the transfer

occurs. This is a change from existing U.S. GAAP which prohibits recognition of current and deferred income taxes until the asset is sold to a third party. The new standard is effective as of January 1, 2018 and early adoption is permitted. We are evaluating the provisions of this standard, including which period to adopt, and have not determined what impact the adoption of ASU No. 2016-16 will have on our consolidated financial statements.

In August 2016, the FASB issued ASU 2016-15, *Statement of Cash Flows (Topic 230)*. The objective of this update is to provide additional guidance and reduce diversity in practice when classifying certain transactions within the statement of cash flows. In November 2016, the FASB issued ASU 2016-18, *Statement of Cash Flows (Topic 230): Restricted Cash*. The new standard requires that the statement of cash flows explain the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. These standards are effective for financial statements issued for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. We are currently evaluating this guidance to determine the impact it may have on our consolidated financial statements.

In March 2016, the FASB issued ASU No. 2016-09, *Stock Compensation—Improvements to Employee Share-Based Payment Accounting*. The new standard simplifies accounting for share-based payment transactions, including income tax consequences and the classification of the tax impact on the statement of cash flows. The new standard is effective as of January 1, 2017, and early adoption is permitted. This new standard will be effective for us on January 1, 2017. The adoption of this standard is not expected to have a material impact on our financial position, results of operations or statements of cash flows upon adoption.

In February 2016, the FASB issued ASU No. 2016-02, *Leases*. The new standard provides guidance on the recognition, measurement, presentation, and disclosure of leases. The new standard supersedes present U.S. GAAP guidance on leases and requires substantially all leases to be reported on the balance sheet as right-of-use assets and lease liabilities, as well as additional disclosures. The new standard is effective as of January 1, 2019, and early adoption is permitted. We are evaluating the provisions of this standard, including which period to adopt, and have not determined what impact the adoption of ASU No. 2016-02 will have on our consolidated financial statements.

In July 2015, the FASB issued Accounting Standards Update ASU No. 2015-11, *Simplifying the Measurement of Inventory*. The new guidance eliminates the measurement of inventory at market value, and inventory will now be measured at the lower of cost and net realizable value. The ASU defines net realizable value as the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. No other changes were made to the current guidance on inventory measurement. ASU No. 2015-11 is effective for interim and annual periods beginning after December 15, 2016. Early application is permitted and should be applied prospectively. We are evaluating the provisions of this standard and have not determined what impact the adoption of ASU No. 2015-11 will have on our consolidated financial statements.

In May 2014, the FASB issued ASU No. 2014-09, *Revenue from Contracts with Customers*, which supersedes the revenue recognition requirements under Accounting Standards Codification (ASC) Topic 605. The new guidance was the result of a joint project between the FASB and the International Accounting Standards Board to clarify the principles for recognizing revenue and to develop common revenue standards for U.S. GAAP and International Financial Reporting Standards. The core principle of the new guidance is that revenue should be recognized to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. ASU No. 2014-09 was originally effective prospectively for annual periods beginning after December 15, 2016, and interim periods within those years. Early application was not permitted. In August 2015, the FASB elected to defer the effective date of ASU No. 2014-09 by one year to annual periods beginning after December 15, 2017, with early application

permitted as of the original effective date. The new guidance may be applied on a retrospective basis for all prior periods presented, or on a modified retrospective basis with the cumulative effect of the new guidance as of the date of initial application. The new guidance will be effective for us as of January 1, 2018 and we currently expect to use the modified retrospective transition method.

During 2016, we substantially completed the impact assessment phase of our evaluation of ASU 2014-09. As a result of our impact assessment, we will be implementing additional processes and controls, including additional disclosures, to comply with the new standard. The largest financial impact will relate to the timing of revenue recognition for certain project-based orders for which we currently apply the percentage-of-completion or completed contract model. Under the new guidance, there are specific criteria to determine if a performance obligation should be recognized over time or at a point in time. We expect that in some cases the revenue recognition timing under the new guidance will change from current practice based on applying the specific criteria. We have not yet quantified the impact the adoption of ASU No. 2014-09 will have on our consolidated financial statements.

TRANSACTIONS WITH RELATED PARTIES

We lease certain office space from certain of our principal shareholders, including a director and executive officer and another member of our Board of Directors, and members of their immediate families, which have expiration dates ranging from 2017 to 2020. Total rent expense under these leases was \$3.9 million, \$1.8 million and \$2.0 million for each of the years ended December 31, 2016, 2015 and 2014, respectively.

During the year ended December 31, 2014, we incurred expenses of \$2.4 million to a law firm in which one of the former members of our Board of Directors is a partner.

During the year ended December 31, 2014, we incurred expenses of \$0.1 million to a financial services firm in which one of the former members of our Board of Directors is a partner.

During the year ended December 31, 2014, we recorded revenue of \$0.9 million from commercial transactions with a life science supply company in which a member of our Board of Directors is Chairman, President and Chief Executive Officer and another member of our Board of Directors was formerly a director.

During the years ended December 31, 2016, 2015 and 2014, we recorded revenue of \$1.1 million, \$0.7 million and \$1.9 million, respectively, and incurred expenses of \$0.1 million in the year ended December 31, 2014, arising from commercial transactions with a life sciences company in which a member of our Board of Directors, who joined the Board of Directors in 2014, is Chairman and Chief Executive Officer.

During the year ended December 31, 2016 and 2015, we recorded revenue of \$0.2 million and \$0.5 million, respectively from commercial transactions with a thermal analysis company for which a member of our Board of Directors serves as a consultant.

ITEM 7A *QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK*

We are potentially exposed to market risks associated with changes in foreign currency translation rates, interest rates and commodity prices. We selectively use financial instruments to reduce these risks. All transactions related to risk management techniques are authorized and executed pursuant to our policies and procedures. Analytical techniques used to manage and monitor foreign currency translation and interest rate risk include market valuations and sensitivity analysis.

Impact of Foreign Currencies

We generate a substantial portion of our revenues in international markets, principally Germany and other countries in the European Union, Switzerland and Japan, which exposes our operations to the risk of exchange rate fluctuations. The impact of currency exchange rate movement can be positive or negative in any period. Our costs related to sales in foreign currencies are largely denominated in the same respective currencies, limiting our transaction risk exposure. However, for foreign currency denominated sales in certain regions, such as Japan, where we do not incur significant costs denominated in Japanese Yen, we are more exposed to the impact of foreign currency fluctuations. For sales not denominated in U.S. Dollars, if there is an increase in the rate at which a foreign currency is exchanged for U.S. Dollars, it will require more of the foreign currency to equal a specified amount of U.S. Dollars than before the rate increase. In such cases, if we price our products in the foreign currency, we will receive less in U.S. Dollars than we would have received before the rate increase went into effect. If we price our products in U.S. Dollars and competitors price their products in local currency, an increase in the relative strength of the U.S. Dollar could result in our prices not being competitive in a market where business is transacted in the local currency. In the years ended December 31, 2016 and 2015 our revenue by geography was as follows (dollars in millions):

	2016		2015	
	Revenue	Percentage of Revenue	Revenue	Percentage of Revenue
United States	\$ 428.2	26.6%	\$ 380.4	23.4%
Europe	582.9	36.2%	678.5	41.8%
Asia Pacific	458.1	28.4%	414.9	25.6%
Rest of world	142.1	8.8%	150.0	9.2%
Total revenue	<u>\$1,611.3</u>	<u>100.0%</u>	<u>\$1,623.8</u>	<u>100.0%</u>

Changes in foreign currency exchange rates decreased our revenue by approximately 0.5% and 10.2% in the years ended December 31, 2016 and 2015, respectively.

Assets and liabilities of our foreign subsidiaries, where the functional currency is the local currency, are translated into U.S. dollars using year-end exchange rates, or historical rates, as appropriate. Revenues and expenses of foreign subsidiaries are translated at the average exchange rates in effect during the year. Adjustments resulting from financial statement translations are included as a separate component of shareholders' equity. In the year ended December 31, 2016, we recorded net losses from currency translation adjustments of \$27.6 million. In the year ended December 31, 2015, we recorded net losses from currency translation of \$63.8 million. A 10% depreciation in functional currencies, relative to the U.S. dollar, at December 31, 2016, would have resulted in a reduction of shareholders' equity of approximately \$83.3 million.

Gains and losses resulting from foreign currency transactions are reported in interest and other income (expense), net in the consolidated statements of income and comprehensive income (loss). Our foreign currency translation gains (losses), net were \$4.1 million and (\$5.5) million for years ended December 31, 2016 and 2015, respectively.

From time to time, we have entered into foreign currency contracts in order to minimize the volatility that fluctuations in exchange rates have on our cash flows related to purchases and sales denominated in foreign currencies. Under these arrangements, we agree to purchase a fixed amount of a foreign currency in exchange for a fixed amount of U.S. Dollars or other currencies on specified dates, typically with maturities of less than twelve months. These transactions do not qualify for hedge accounting and, accordingly, the instrument is recorded at fair value with the corresponding gains and losses recorded in interest and other income (expense), net in the consolidated statements of income and comprehensive income (loss).

At December 31, 2016 and 2015, we had foreign currency contracts with notional amounts aggregating \$40.7 million and \$36.2 million, respectively. At December 31, 2016, the Company had the following notional amounts outstanding under foreign currency contracts (in millions):

<u>Buy</u>	<u>Notional Amount in Buy Currency</u>	<u>Sell</u>	<u>Maturity</u>	<u>Notional Amount in U.S. Dollars</u>	<u>Fair Value of Assets</u>	<u>Fair Value of Liabilities</u>
December 31, 2016:						
Euro	21.1	U.S. Dollars	January 2017	\$23.3	\$—	\$1.1
Swiss Francs	7.9	U.S. Dollars	January 2017	8.0	—	0.3
U.S. Dollars	4.0	Israel Shekel	January 2017	<u>4.0</u>	<u>—</u>	<u>—</u>
Israel Shekel	15.3	U.S. Dollars	January 2017	4.0	—	—
Euro	1.4	Polish Zloty	January 2017	<u>1.4</u>	<u>—</u>	<u>—</u>
				<u>\$40.7</u>	<u>\$—</u>	<u>\$1.4</u>

Based on the contractual maturities of these contracts and exchange rates as of December 31, 2016, we anticipate that these contracts will result in net cash outflows of \$1.4 million in 2017. At December 31, 2016, assuming all other variables are constant, if the U.S. Dollar weakened by 10%, the market value of our foreign currency contracts would have increased by approximately \$1.3 million and if the U.S. Dollar strengthened by 10%, the market value of our foreign currency contracts would have decreased by approximately \$1.3 million.

We will continue to evaluate our currency risks and in the future may utilize foreign currency contracts more frequently as part of a transactional hedging program.

Impact of Interest Rates

We regularly invest excess cash in short-term investments that are subject to changes in interest rates. We believe that the market risk arising from holding these financial instruments is minimal because of our policy of investing in short-term financial instruments issued by highly rated financial institutions.

Our exposure related to adverse movements in interest rates is derived primarily from outstanding floating rate debt instruments that are indexed to short-term market rates. We currently have a higher level of fixed rate debt than variable rate debt, which limits our exposure to adverse movements in interest rates.

Impact of Commodity Prices

We are exposed to certain commodity risks associated with prices for various raw materials. The prices of copper and certain other raw materials, particularly niobium-tin, used to manufacture superconductors have increased significantly over the last decade. Copper and niobium-tin are the main components of low temperature superconductors and continued commodity price increases for copper and niobium, as well as other raw materials, may negatively affect our profitability. Periodically, we enter into commodity forward purchase contracts to minimize the volatility that fluctuations in the price of copper have on our sales of these products. At December 31, 2016 and 2015, we had fixed price commodity contracts with notional amounts aggregating \$2.7 million and \$2.0 million, respectively. The fair value of the fixed price commodity contracts at December 31, 2016 and 2015 was \$0.2 million and (\$0.4) million, respectively. We will continue to evaluate our commodity risks and may utilize commodity forward purchase contracts more frequently in the future.

Inflation

We do not believe inflation had a material impact on our business or operating results during any of the periods presented.

ITEM 8 FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA

Index of Consolidated Financial Statements

	<u>Page</u>
Reports of Independent Registered Public Accounting Firms	70
Consolidated Balance Sheets as of December 31, 2016 and 2015	73
Consolidated Statements of Income and Comprehensive Income (Loss) for the years ended December 31, 2016, 2015 and 2014	74
Consolidated Statements of Shareholders' Equity for the years ended December 31, 2016, 2015 and 2014	75
Consolidated Statements of Cash Flows for the years ended December 31, 2016, 2015 and 2014 .	76
Notes to Consolidated Financial Statements	77

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Shareholders of
Bruker Corporation

In our opinion, the accompanying consolidated balance sheet as of December 31, 2016 and the related consolidated statements of income and comprehensive income (loss), of shareholders' equity and of cash flows for the year then ended present fairly, in all material respects, the financial position of Bruker Corporation and its subsidiaries at December 31, 2016, and the results of their operations and their cash flows for the year then ended in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company did not maintain, 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) because a material weakness in internal control over financial reporting related to the accounting for income taxes, including the income tax provision and related tax assets and liabilities, existed as of that date. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the annual or interim financial statements will not be prevented or detected on a timely basis. The material weakness referred to above is described in Management's Report on Internal Control over Financial Reporting appearing under Item 9A. We considered this material weakness in determining the nature, timing, and extent of audit tests applied in our audit of the 2016 consolidated financial statements, and our opinion regarding the effectiveness of the Company's internal control over financial reporting does not affect our opinion on those consolidated financial statements. The Company's management is responsible for these financial statements, for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting included in management's report referred to above. Our responsibility is to express opinions on these financial statements and on the Company's internal control over financial reporting based on our integrated audit. We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit 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 audit 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 audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides 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

March 1, 2017

Report of Independent Registered Public Accounting Firm

The Board of Directors and Shareholders of
Bruker Corporation

We have audited the accompanying consolidated balance sheet of Bruker Corporation as of December 31, 2015, and the related consolidated statements of income and comprehensive income (loss), statements of shareholders' equity, and cash flows for each of the two years in the period ended December 31, 2015. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these financial statements based on our 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 audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the consolidated financial position of Bruker Corporation at December 31, 2015, and the consolidated results of its operations and its cash flows for each of the two years in the period ended December 31, 2015, in conformity with U.S. generally accepted accounting principles.

/s/ Ernst & Young LLP

Boston, Massachusetts
February 26, 2016

BRUKER CORPORATION
CONSOLIDATED BALANCE SHEETS
(In millions, except share and per share data)

	December 31,	
	2016	2015
ASSETS		
Current assets:		
Cash and cash equivalents	\$ 342.4	\$ 267.1
Short-term investments	157.9	201.2
Accounts receivable, net	243.9	234.7
Inventories	440.4	422.0
Other current assets	91.3	106.5
Total current assets	1,275.9	1,231.5
Property, plant and equipment, net	239.1	231.1
Goodwill	130.6	130.6
Intangible assets, net	69.7	74.7
Deferred tax assets	76.5	53.0
Other long-term assets	16.6	9.1
Total assets	\$1,808.4	\$1,730.0
LIABILITIES AND SHAREHOLDERS' EQUITY		
Current liabilities:		
Current portion of long-term debt	\$ 20.1	\$ 0.6
Accounts payable	86.1	72.1
Customer advances	149.0	178.3
Other current liabilities	269.5	303.5
Total current liabilities	524.7	554.5
Long-term debt	391.6	265.2
Long-term deferred revenue	46.8	44.4
Deferred tax liabilities	10.1	9.5
Accrued pension	102.5	91.6
Other long-term liabilities	39.6	31.9
Commitments and contingencies (Note 14)		
Shareholders' equity:		
Preferred stock, \$0.01 par value 5,000,000 shares authorized, none issued or outstanding at December 31, 2016 and 2015	—	—
Common stock, \$0.01 par value 260,000,000 shares authorized, 170,552,890 and 169,644,644 shares issued and 159,854,695 and 165,354,180 outstanding at December 31, 2016 and 2015, respectively	1.7	1.7
Treasury stock at cost, 10,698,195 and 4,290,527 shares at December 31, 2016 and 2015, respectively	(249.3)	(90.9)
Additional paid-in capital	124.7	102.1
Retained earnings	885.2	757.4
Accumulated other comprehensive loss	(75.9)	(44.2)
Total shareholders' equity attributable to Bruker Corporation	686.4	726.1
Noncontrolling interest in consolidated subsidiaries	6.7	6.8
Total shareholders' equity	693.1	732.9
Total liabilities and shareholders' equity	\$1,808.4	\$1,730.0

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

BRUKER CORPORATION
CONSOLIDATED STATEMENTS OF INCOME AND COMPREHENSIVE INCOME (LOSS)
(In millions, except per share data)

	Year Ended December 31,		
	2016	2015	2014
Product revenue	\$1,345.4	\$1,381.1	\$1,571.9
Service revenue	254.7	235.5	231.8
Other revenue	11.2	7.2	5.2
Total revenue	<u>1,611.3</u>	<u>1,623.8</u>	<u>1,808.9</u>
Cost of product revenue	714.2	774.2	896.0
Cost of service revenue	150.0	139.7	149.6
Cost of other revenue	4.6	1.3	—
Total cost of revenue	<u>868.8</u>	<u>915.2</u>	<u>1,045.6</u>
Gross profit	742.5	708.6	763.3
Operating expenses:			
Selling, general and administrative	390.5	392.2	451.0
Research and development	149.0	145.7	174.2
Other charges, net	25.8	25.0	32.7
Total operating expenses	<u>565.3</u>	<u>562.9</u>	<u>657.9</u>
Operating income	177.2	145.7	105.4
Interest and other income (expense), net	0.4	(17.7)	(4.1)
Income before income taxes and noncontrolling interest in consolidated subsidiaries	177.6	128.0	101.3
Income tax provision	23.1	23.1	41.7
Consolidated net income	154.5	104.9	59.6
Net income attributable to noncontrolling interest in consolidated subsidiaries . . .	0.9	3.3	2.9
Net income attributable to Bruker Corporation	<u>\$ 153.6</u>	<u>\$ 101.6</u>	<u>\$ 56.7</u>
Net income per common share attributable to Bruker Corporation shareholders:			
Basic	\$ 0.95	\$ 0.60	\$ 0.34
Diluted	\$ 0.95	\$ 0.60	\$ 0.33
Weighted average common shares outstanding:			
Basic	161.4	168.2	167.8
Diluted	162.2	169.1	169.5
Consolidated net income	\$ 154.5	\$ 104.9	\$ 59.6
Foreign currency translation adjustments	(27.6)	(63.8)	(131.7)
Pension liability adjustments (net of tax of \$2.1 million, \$2.1 million and \$6.5 million, respectively)	(4.4)	(9.6)	(22.6)
Net comprehensive income (loss)	122.5	31.5	(94.7)
Less: Comprehensive income attributable to noncontrolling interests	0.6	2.3	2.8
Comprehensive income (loss) attributable to Bruker Corporation	<u>\$ 121.9</u>	<u>\$ 29.2</u>	<u>\$ (97.5)</u>
Dividend declared	\$ 0.16	\$ —	\$ —

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

BRUKER CORPORATION
CONSOLIDATED STATEMENTS OF SHAREHOLDERS' EQUITY

(In millions, except share data)

	Common Shares	Common Stock Amount	Treasury Shares	Treasury Stock Amount	Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive Income	Total Shareholders' Equity Attributable to Bruker Corporation	Noncontrolling Interests in Consolidated Subsidiaries	Total Shareholders' Equity
Balance at December 31, 2013	167,579,204	\$1.7	39,835	\$ (0.6)	\$ 63.5	\$599.1	\$ 182.4	\$ 846.1	\$ 4.1	\$ 850.2
Restricted shares issued	112,129	—	—	—	—	—	—	—	—	—
Stock options exercised	851,820	—	—	—	8.2	—	—	8.2	—	8.2
Stock based compensation	—	—	—	—	9.4	—	—	9.4	—	9.4
Treasury stock acquired	(15,569)	—	15,569	(0.3)	—	—	—	(0.3)	—	(0.3)
Distributions to noncontrolling interests	—	—	—	—	—	—	—	—	(1.1)	(1.1)
Consolidated net income	—	—	—	—	—	56.7	—	56.7	2.9	59.6
Other comprehensive income (loss)	—	—	—	—	—	—	(154.2)	(154.2)	(0.1)	(154.3)
Balance at December 31, 2014	168,527,584	\$1.7	55,404	\$ (0.9)	\$ 81.1	\$655.8	\$ 28.2	\$ 765.9	\$ 5.8	\$ 771.7
Restricted shares issued	135,677	—	—	—	—	—	—	—	—	—
Restricted shares terminated	(145,857)	—	145,857	—	—	—	—	—	—	—
Stock options exercised	926,042	—	—	—	10.8	—	—	10.8	—	10.8
Stock based compensation	—	—	—	—	8.0	—	—	8.0	—	8.0
Excess tax benefit related to exercise of stock awards	—	—	—	—	2.2	—	—	2.2	—	2.2
Shares repurchased	(4,082,042)	—	4,082,042	(89.9)	—	—	—	(89.9)	—	(89.9)
Treasury stock acquired	(7,224)	—	7,224	(0.1)	—	—	—	(0.1)	—	(0.1)
Distributions to noncontrolling interests	—	—	—	—	—	—	—	—	(1.3)	(1.3)
Consolidated net income	—	—	—	—	—	101.6	—	101.6	3.3	104.9
Other comprehensive income (loss)	—	—	—	—	—	—	(72.4)	(72.4)	(1.0)	(73.4)
Balance at December 31, 2015	165,354,180	\$1.7	4,290,527	\$ (90.9)	\$102.1	\$757.4	\$ (44.2)	\$ 726.1	\$ 6.8	\$ 732.9
Restricted shares issued	13,105	—	—	—	—	—	—	—	—	—
Restricted shares terminated	(1,375)	—	1,375	—	—	—	—	—	—	—
Stock options exercised	895,078	—	—	—	12.0	—	—	12.0	—	12.0
Stock based compensation	—	—	—	—	9.4	—	—	9.4	—	9.4
Excess tax benefit related to exercise of stock awards	—	—	—	—	1.3	—	—	1.3	—	1.3
Shares issued for acquisition	90,066	—	(90,066)	2.1	(0.1)	—	—	2.0	—	2.0
Shares repurchased	(6,475,480)	—	6,475,480	(160.0)	—	—	—	(160.0)	—	(160.0)
Treasury stock acquired	(20,879)	—	20,879	(0.5)	—	—	—	(0.5)	—	(0.5)
Distributions to noncontrolling interests	—	—	—	—	—	—	—	—	(0.7)	(0.7)
Cash dividends paid to common stockholders	—	—	—	—	—	(25.8)	—	(25.8)	—	(25.8)
Consolidated net income	—	—	—	—	—	153.6	—	153.6	0.9	154.5
Other comprehensive income (loss)	—	—	—	—	—	—	(31.7)	(31.7)	(0.3)	(32.0)
Balance at December 31, 2016	159,854,695	\$1.7	10,698,195	\$(249.3)	\$124.7	\$885.2	\$ (75.9)	\$ 686.4	\$ 6.7	\$ 693.1

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

BRUKER CORPORATION
CONSOLIDATED STATEMENTS OF CASH FLOWS
(In millions)

	Year Ended December 31,		
	2016	2015	2014
Cash flows from operating activities:			
Consolidated net income	\$ 154.5	\$ 104.9	\$ 59.6
Adjustments to reconcile consolidated net income to cash flows from operating activities:			
Depreciation and amortization	54.3	53.3	59.7
Write-down of demonstration inventories to net realizable value	16.5	19.4	28.2
Stock-based compensation expense	9.4	8.0	9.4
Deferred income taxes	(22.7)	(29.4)	(9.2)
Gain (loss) on disposal of product lines	—	0.2	(8.3)
Impairment and other non-cash expenses, net	7.6	26.5	14.2
Changes in operating assets and liabilities, net of acquisitions:			
Accounts receivable	(8.4)	45.0	(14.5)
Inventories	(43.2)	(5.4)	4.6
Accounts payable and accrued expenses	(19.6)	12.6	9.0
Income taxes payable, net	(26.8)	22.7	5.6
Deferred revenue	4.9	3.8	12.9
Customer advances	(7.3)	1.4	(48.2)
Other changes in operating assets and liabilities, net	11.6	(33.8)	(8.7)
Net cash provided by operating activities	<u>130.8</u>	<u>229.2</u>	<u>114.3</u>
Cash flows from investing activities:			
Purchase of short-term investments	(126.5)	(159.4)	(211.6)
Maturity of short-term investments	165.0	118.7	19.0
Cash paid for acquisitions, net of cash acquired	(24.3)	(28.6)	(3.9)
Proceeds from disposal of product lines	—	0.2	25.3
Purchases of property, plant and equipment	(37.1)	(34.2)	(33.8)
Proceeds from sales of property, plant and equipment	1.1	0.9	3.1
Net cash used in investing activities	<u>(21.8)</u>	<u>(102.4)</u>	<u>(201.9)</u>
Cash flows from financing activities:			
Repayments of revolving lines of credit	—	(129.5)	—
Proceeds from revolving lines of credit	146.0	42.0	—
Repayment of other debt, net	(0.1)	(0.6)	(0.8)
Proceeds from issuance of common stock, net	11.5	10.8	7.9
Payment of contingent consideration	—	(3.0)	—
Payment of dividends to common stockholders	(25.8)	—	—
Repurchase of common stock	(160.0)	(90.0)	—
Changes in restricted cash	0.7	1.4	0.7
Cash payments to noncontrolling interests	(0.7)	(1.3)	(1.1)
Excess tax benefits related to stock option awards	1.2	2.2	—
Net cash (used in) provided by financing activities	<u>(27.2)</u>	<u>(168.0)</u>	<u>6.7</u>
Effect of exchange rate changes on cash and cash equivalents	(6.5)	(11.2)	(38.3)
Net change in cash and cash equivalents	75.3	(52.4)	(119.2)
Cash and cash equivalents at beginning of year	267.1	319.5	438.7
Cash and cash equivalents at end of year	<u>\$ 342.4</u>	<u>\$ 267.1</u>	<u>\$ 319.5</u>
Supplemental cash flow information:			
Cash paid for interest	<u>\$ 12.5</u>	<u>\$ 12.2</u>	<u>\$ 12.7</u>
Cash paid for taxes	<u>\$ 72.4</u>	<u>\$ 56.6</u>	<u>\$ 55.9</u>

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

BRUKER CORPORATION
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

Note 1—Description of Business

Bruker Corporation, together with its consolidated subsidiaries (“Bruker” or the “Company”), develops and manufactures high-performance scientific instruments and analytical and diagnostic solutions that enable its customers to explore life and materials at microscopic, molecular and cellular levels. Many of the Company’s products are used to detect, measure and visualize structural characteristics of chemical, biological and industrial material samples. The Company’s products address the rapidly evolving needs of a diverse array of customers in life science research, pharmaceuticals, biotechnology, applied markets, cell biology, clinical research, microbiology, in-vitro diagnostics, nanotechnology and materials science research.

The Company has two reportable segments, *Bruker Scientific Instruments (BSI)*, which represented approximately 93% and 92% of the Company’s revenues during the year ended December 31, 2016 and 2015, respectively, and *Bruker Energy & Supercon Technologies (BEST)*, which represented the remainder of the Company’s revenues. Within BSI, the Company is organized into three operating segments: the Bruker BioSpin Group, the Bruker CALID Group and the Bruker Nano Group. For financial reporting purposes, the Bruker BioSpin, Bruker CALID and Bruker Nano operating segments are aggregated into the BSI reportable segment because each has similar economic characteristics, production processes, service offerings, types and classes of customers, methods of distribution and regulatory environments.

Bruker BioSpin—The Bruker BioSpin Group manufactures and distributes enabling life science tools based on magnetic resonance technology. The majority of Bruker BioSpin’s revenues are generated by academic and government research customers. Other customers include pharmaceutical and biotechnology companies and nonprofit laboratories, as well as chemical, food and beverage, clinical and polymer companies.

Bruker CALID (Chemicals, Applied Markets, Life Science, In-Vitro Diagnostics, Detection)—The Bruker CALID Group designs, manufactures and distributes life science mass spectrometry and ion mobility spectrometry systems, infrared spectroscopy and radiological/nuclear detectors for Chemical, Biological, Radiological, Nuclear and Explosive (CBRNE) detection in emergency response, homeland security and defense applications, and analytical and process analysis instruments and solutions based on infrared and Raman molecular spectroscopy technologies. Customers of the Bruker CALID Group include pharmaceutical, biotechnology and diagnostics companies, contract research organizations, academic institutions, medical schools, nonprofit or for-profit forensics, agriculture, food and beverage safety, environmental and clinical microbiology laboratories, hospitals and government departments and agencies.

Bruker Nano—The Bruker Nano Group designs, manufactures and distributes advanced X-ray instruments, atomic force microscopy instrumentation, advanced fluorescence optical microscopy instruments, analytical tools for electron microscopes and X-ray metrology, defect-detection equipment for semiconductor process control, handheld, portable and mobile X-ray fluorescence spectrometry instruments and spark optical emission spectroscopy systems. Customers of the Bruker Nano Group include biotechnology and pharmaceutical companies, academic institutions, governmental customers, nanotechnology companies, semiconductor companies, raw material manufacturers, industrial companies and other businesses involved in materials analysis.

The Company’s BEST reportable segment develops and manufactures superconducting and non-superconducting materials and devices for use in renewable energy, energy infrastructure, healthcare and “big science” research. The segment focuses on metallic low temperature

superconductors for use in magnetic resonance imaging, nuclear magnetic resonance, fusion energy research and other applications, as well as ceramic high temperature superconductors primarily for energy grid and magnet applications.

Note 2—Summary of Significant Accounting Policies

The accompanying consolidated financial statements reflect the application of certain significant accounting policies as described below and elsewhere in the notes to the consolidated financial statements.

Principles of Consolidation

The accompanying consolidated financial statements include the accounts of the Company and all majority and wholly-owned subsidiaries. All intercompany accounts and transactions have been eliminated.

Noncontrolling Interests

Noncontrolling interests represents the minority shareholders' proportionate share of the Company's majority-owned subsidiaries. The portion of net income or net loss attributable to non-controlling interests is presented as net income attributable to noncontrolling interests in consolidated subsidiaries in the consolidated statements of income and comprehensive income (loss), and the portion of other comprehensive income (loss) of these subsidiaries is presented in the consolidated statements of shareholders' equity.

Subsequent Events

The Company has evaluated all subsequent events and determined that there are no material recognized or unrecognized subsequent events, or any subsequent events required to be mentioned in the footnotes to the consolidated financial statements, other than those disclosed in Note 23—Subsequent Events.

Cash and Cash Equivalents

Cash and cash equivalents primarily include cash on hand, money market funds and time deposits with original maturities of three months or less at the date of acquisition. Time deposits represent amounts on deposit in banks and temporarily invested in instruments with maturities of three months or less at the time of purchase. Certain of these investments represent deposits which are not insured by the FDIC or any other government agency. Cash equivalents are carried at cost, which approximates fair value.

Short-term Investments

Short-term investments represent time and call deposits with original maturities of greater than three months at the date of acquisition. Short-term investments are classified as available-for-sale and are reported at fair value. There were no unrealized gains (losses) recorded as of December 31, 2016 and 2015, as cost approximates current fair value.

Restricted Cash

The Company has certain subsidiaries which are required by local governance to maintain restricted cash balances to cover future employee benefit payments. Restricted cash balances are classified as non-current unless, under the terms of the applicable agreements, the funds will be released from restrictions within one year from the balance sheet date. The current and non-current

portion of restricted cash is recorded within other current assets and other long-term assets, respectively, in the accompanying consolidated balance sheets.

Derivative Financial Instruments and Hedging Activities

All derivatives, whether designated in a hedging relationship or not, are recorded on the consolidated balance sheets at fair value. The accounting for changes in fair value of a derivative instrument depends on whether it has been designated and qualifies as part of a hedging relationship and further, on the type of hedging relationship. For those derivative instruments that are designated and qualify as hedging instruments, the Company must designate the hedging instrument, based on the exposure being hedged, as a fair value hedge, cash flow hedge, foreign currency hedge or a hedge of a net investment in a foreign operation.

Fair Value of Financial Instruments

The Company applies the following hierarchy to determine the fair value of financial instruments, which prioritizes the inputs used to measure fair value into three levels and bases the categorization within the hierarchy upon the lowest level of input that is available and significant to the fair value measurement. The levels in the hierarchy are defined as follows:

- *Level 1:* Inputs to the valuation methodology are quoted prices (unadjusted) for identical assets or liabilities in active markets.
- *Level 2:* Inputs to the valuation methodology include quoted prices for similar assets and liabilities in active markets, and inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the financial instrument.
- *Level 3:* Inputs to the valuation methodology are unobservable and significant to the fair value measurement.

The valuation techniques that may be used by the Company to determine the fair value of Level 2 and Level 3 financial instruments are the market approach, the income approach and the cost approach. The market approach uses prices and other relevant information generated by market transactions involving identical or comparable assets or liabilities. The income approach uses valuation techniques to convert future amounts to a single present value based on current market expectations about those future amounts, including present value techniques, option-pricing models and the excess earnings method. The cost approach is based on the amount that would be required to replace the service capacity of an asset (replacement cost).

The Company's financial instruments consist primarily of cash equivalents, short-term investments, restricted cash, derivative instruments consisting of forward foreign exchange contracts, commodity contracts, derivatives embedded in certain purchase and sale contracts, accounts receivable, borrowings under a revolving credit agreement, accounts payable, contingent consideration and long-term debt. The carrying amounts of the Company's cash equivalents, short-term investments and restricted cash, accounts receivable, borrowings under a revolving credit agreement and accounts payable approximate fair value caused by their short-term nature. Derivative assets and liabilities are measured at fair value on a recurring basis. The Company's long-term debt consists principally of a private placement arrangement entered into in 2012 with various fixed interest rates based on the maturity date.

The Company has evaluated the estimated fair value of financial instruments using available market information and management's estimates. The use of different market assumptions and/or estimation methodologies could have a significant effect on the estimated fair value amounts.

Concentration of Credit Risk

Financial instruments which subject the Company to credit risk consist of cash, cash equivalents, short-term investments, derivative instruments, accounts receivables and restricted cash. The risk with respect to cash, cash equivalents and short-term investments is minimized by the Company's policy of investing in short-term financial instruments issued by highly-rated financial institutions. The risk with respect to derivative instruments is minimized by the Company's policy of entering into arrangements with highly-rated financial institutions. The risk with respect to accounts receivables is minimized by the creditworthiness and diversity of the Company's customers. The Company performs periodic credit evaluations of its customers' financial condition and generally requires an advanced deposit for a portion of the purchase price. Credit losses have been within management's expectations and the allowance for doubtful accounts totaled \$7.9 million and \$9.1 million as of December 31, 2016 and 2015, respectively. As of December 31, 2016 and 2015, no single customer represented 10% or more of the Company's accounts receivable. For the years ended December 31, 2016, 2015 and 2014, no single customer represented 10% or more of the Company's total revenue.

Inventories

Components of inventory include raw materials, work-in-process, demonstration units and finished goods. Demonstration units include systems which are located in the Company's demonstration laboratories or installed at the sites of potential customers and are considered available for sale. Finished goods include in-transit systems that have been shipped to the Company's customers, but not yet installed and accepted by the customer. All inventories are stated at the lower of cost or market. Cost is determined principally by the first-in, first-out method for a majority of subsidiaries and by average-cost for certain other subsidiaries. The Company reduces the carrying value of its inventories for differences between cost and estimated net realizable value, taking into consideration usage in the preceding twelve months, expected demand, technological obsolescence and other information including the physical condition of demonstration inventories. The Company records a charge to cost of product revenue for the amount required to reduce the carrying value of inventory to net realizable value. Costs associated with the procurement of inventories, such as inbound freight charges and purchasing and receiving costs, are capitalized as part of inventory and are also included in the cost of product revenue line item within the consolidated statements of income and comprehensive income (loss).

Property, Plant and Equipment

Property, plant and equipment are stated at cost less accumulated depreciation and amortization. Major improvements are capitalized while expenditures for maintenance, repairs and minor improvements are charged to expense as incurred. When assets are retired or otherwise disposed of, the assets and related accumulated depreciation and amortization are eliminated from the accounts and any resulting gain or loss is reflected in the consolidated statements of income and comprehensive income (loss). Depreciation and amortization are calculated on a straight-line basis over the estimated useful lives of the assets as follows:

Buildings	25-40 years
Machinery and equipment	3-10 years
Computer equipment and software	3-5 years
Furniture and fixtures	3-10 years
Leasehold improvements	Lesser of 15 years or the remaining lease term

Goodwill and Intangible Assets

Goodwill and indefinite-lived intangible assets are not amortized, but are evaluated for impairment on an annual basis, or on an interim basis when events or changes in circumstances indicate that the

carrying value may not be recoverable. In assessing the recoverability of goodwill and indefinite-lived intangible assets, the Company must make assumptions regarding the estimated future cash flows, and other factors, to determine the fair value of these assets. If these estimates or their related assumptions change in the future, the Company may be required to record impairment charges against these assets in the reporting period in which the impairment is determined.

The Company tests goodwill for impairment at the reporting unit level, which is the operating segment or one level below an operating segment. The Company has the option of performing a qualitative assessment to determine whether further impairment testing is necessary before performing the two-step quantitative assessment. If as a result of the qualitative assessment, it is more-likely-than-not that the fair value of a reporting unit is less than its carrying amount, a quantitative impairment test will be required. Otherwise, no further testing will be required. If a quantitative impairment test is performed, the first step involves comparing the fair values of the applicable reporting units with their aggregate carrying values, including goodwill. The Company generally determines fair value of reporting units using a weighting of both the market and the income methodologies. Estimating the fair value of the reporting units requires significant judgment by management. If the carrying amount of a reporting unit exceeds the fair value of the reporting unit, the Company performs the second step of the goodwill impairment test to measure the amount of the impairment. In the second step of the goodwill impairment test the Company compares the implied fair value of the reporting unit's goodwill with the carrying value of that goodwill.

In process research and development, or IPR&D, acquired as part of business combinations under the acquisition method represents ongoing development work associated with enhancements to existing products, as well as the development of next generation products. IPR&D is initially capitalized at fair value as an intangible asset with an indefinite life and assessed for impairment on an annual basis, or when indicators of impairment are identified. When the IPR&D project is complete, it is reclassified as a finite-lived intangible asset and is amortized over its estimated useful life. If an IPR&D project is abandoned before completion or is otherwise determined to be impaired, the value of the asset or the amount of the impairment is charged to the consolidated statements of income and comprehensive income (loss) in the period the project is abandoned or impaired.

Intangible assets with a finite useful life are amortized on a straight-line basis over their estimated useful lives as follows:

Existing technology and related patents	3-10 years
Customer and distributor relationships	5-12 years
Trade names	5-10 years

Impairment of Long-Lived Assets

Impairment losses are recorded on long-lived assets used in operations when indicators of impairment are present and the quoted market price, if available or the estimated fair value of those assets are less than the assets' carrying value and are not recoverable. Determination of recoverability is based on an estimate of undiscounted future cash flows resulting from the use of the asset and its eventual disposition. In the event that such cash flows are not expected to be sufficient to recover the carrying amount of the assets, the assets are written-down to their fair values. Impairment losses are charged to the consolidated statements of income and comprehensive income (loss) for the difference between the fair value and carrying value of the asset.

Warranty Costs and Deferred Revenue

The Company typically provides a one year parts and labor warranty with the purchase of equipment. The anticipated cost for this warranty is accrued upon recognition of the sale and is

included as a current liability on the accompanying consolidated balance sheets. The Company's warranty reserve reflects estimated material and labor costs for potential product issues for which the Company expects to incur an obligation. The Company's estimates of anticipated rates of warranty claims and costs are primarily based on historical information. The Company assesses the adequacy of the warranty reserve on a quarterly basis and adjusts the amount as necessary. If the historical data used to calculate the adequacy of the warranty reserve is not indicative of future requirements, additional or reduced warranty reserves may be required.

The Company also offers to its customers extended warranty and service agreements extending beyond the initial warranty for a fee. These fees are recorded as deferred revenue and recognized ratably into income over the life of the extended warranty contract or service agreement.

Income Taxes

Deferred tax assets and liabilities are recognized for the expected future tax consequences of temporary differences between the financial statement carrying amounts and the income tax basis of assets and liabilities. A valuation allowance is applied against any net deferred tax asset if, based on the available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized.

The Company records liabilities related to uncertain tax positions in accordance with the guidance that clarifies the accounting for uncertainty in income taxes recognized in a Company's financial statements. This guidance prescribes a minimum recognition threshold and measurement attribute for the financial statement recognition and measurement of a tax position taken or expected to be taken in a tax return. The Company includes accrued interest and penalties related to unrecognized tax benefits and income tax liabilities, when applicable, in income tax expense.

Customer Advances

The Company typically requires an advance deposit under the terms and conditions of contracts with customers. These deposits are recorded as a current or long-term liability until revenue is recognized on the specific contract in accordance with the Company's revenue recognition policy.

Revenue Recognition

The Company recognizes revenue from systems sales when persuasive evidence of an arrangement exists, the price is fixed or determinable, title and risk of loss has been transferred to the customer and collectability of the resulting receivable is reasonably assured. Title and risk of loss generally transfers upon shipping terms, or for certain systems, based upon customer acceptance for a system that has been delivered and installed at a customer facility. For systems that include customer-specific acceptance criteria, the Company is required to assess when it can demonstrate the acceptance criteria has been met, which generally is upon successful factory acceptance testing or customer acceptance and evidence of installation.

When products are sold through an independent distributor or a strategic distribution partner who assumes responsibility for installation, the Company recognizes the system sale when the product has been shipped and title and risk of loss have been transferred to the distributor. The Company's distributors do not have price protection rights or rights of return; however, the Company's products are typically warranted to be free from defect for a period of one year. Revenue is deferred until cash is received when collectability is not reasonably assured or when the price is not fixed or determinable.

For transactions that include multiple elements, arrangement consideration is allocated to each element using the fair value hierarchy as required by ASU No. 2009-13. The Company limits the amount of revenue recognized for delivered elements to the amount that is not contingent on the future delivery of products or services, future performance obligations, or subject to customer-specific return or refund privileges.

The Company determines the fair value of its products and services based upon vendor specific objective evidence (“VSOE”). The Company determines VSOE based on its normal selling pricing and discounting practices for the specific product or service when sold on a stand-alone basis. In determining VSOE, the Company’s policy requires a substantial majority of selling prices for a product or service to be within a reasonably narrow range. The Company also considers the class of customer, method of distribution and the geographies into which products and services are being sold when determining VSOE.

If VSOE cannot be established, the Company attempts to establish the selling price based on third-party evidence (“TPE”). VSOE cannot be established in instances where a product or service has not been sold separately, stand-alone sales are too infrequent or product pricing is not within a sufficiently narrow range. TPE is determined based on competitor prices for similar deliverables when sold separately.

When the Company cannot determine VSOE or TPE, it uses estimated selling price (“ESP”) in its allocation of arrangement consideration. The objective of ESP is to determine the price at which the Company would typically transact a stand-alone sale of the product or service. ESP is determined by considering a number of factors including the Company’s pricing policies, internal costs and gross profit objectives, method of distribution, market research and information, recent technological trends, competitive landscape and geographies. The Company analyzes the selling prices used in its allocation of arrangement consideration, at a minimum, on an annual basis. Selling prices will be analyzed more frequently if a significant change in the Company’s business or other factors necessitate more frequent analysis or if the Company experiences significant variances in its selling prices.

Revenue from accessories and parts is generally recognized based on shipping terms. Service revenue is recognized as the services are performed or ratably over the contractual obligation and includes maintenance contracts, extended warranty, training, application support and on-demand services.

The Company also has contracts for which it applies the percentage-of-completion model and completed contract model of revenue recognition. Application of the percentage-of-completion method requires the Company to make reasonable estimates of the extent of progress toward completion of the contract and the total costs the Company will incur under the contract and losses are recorded immediately when we estimate that contracts will ultimately result in a loss. Changes in the estimates could affect the timing of revenue recognition.

Other revenues are primarily comprised of development arrangements recognized on a cost-plus-fixed-fee basis and licensing arrangements recognized ratably over the term of the related contracts.

Shipping and Handling Costs

The Company includes costs incurred in connection with shipping and handling of products within selling, general and administrative expenses in the accompanying consolidated statements of income and comprehensive income (loss). Shipping and handling costs were \$21.3 million, \$20.6 million and \$26.2 million in the years ended December 31, 2016, 2015 and 2014, respectively. Amounts billed to customers in connection with these costs are included in total revenues.

Research and Development

The Company commits substantial capital and resources to internal and collaborative research and development projects in order to provide innovative products and solutions to their customers. The Company conducts research primarily to enhance system performance and improve the reliability of existing products, and to develop revolutionary new products and solutions. Research and development costs are expensed as incurred and include salaries, wages and other personnel related costs, material costs and depreciation, consulting costs and facility costs.

Capitalized Software

Purchased software is capitalized at cost and is amortized over the estimated useful life, generally three years. Software developed for use in the Company's products is expensed as incurred to research and development expense until technological feasibility is achieved. Subsequent to the achievement of technological feasibility, amounts are capitalizable; however, to date such amounts have not been material.

Advertising

The Company expenses advertising costs as incurred. Advertising expenses were \$12.7 million, \$12.9 million and \$10.7 million during the years ended December 31, 2016, 2015 and 2014, respectively.

Stock-Based Compensation

The Company recognizes stock-based compensation expense in the consolidated statements of income and comprehensive income (loss) based on the fair value of the share-based award at the grant date. The Company's primary types of share-based compensation are stock options, restricted stock awards and restricted stock units. The Company recorded stock-based compensation expense for the years ended December 31, 2016, 2015 and 2014, as follows (in millions):

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Stock options	\$7.5	\$7.1	\$6.7
Restricted stock awards	1.6	0.9	2.7
Restricted stock units	0.3	—	—
Total stock-based compensation	<u>\$9.4</u>	<u>\$8.0</u>	<u>\$9.4</u>
	<u>2016</u>	<u>2015</u>	<u>2014</u>
Costs of product revenue	\$1.4	\$1.2	\$1.2
Selling, general and administrative	6.6	5.6	5.6
Research and development	1.4	1.2	2.6
Total stock-based compensation	<u>\$9.4</u>	<u>\$8.0</u>	<u>\$9.4</u>

Compensation expense is amortized on a straight-line basis over the underlying vesting terms of the share-based award. Stock options to purchase the Company's common stock are periodically awarded to executive officers and other employees of the Company, and members of the Company's Board of Directors, subject to a vesting period of three to five years. The fair value of each option award is estimated on the date of grant using the Black-Scholes option-pricing model. Assumptions

regarding volatility, expected term, dividend yield and risk-free interest rates are required for the Black-Scholes model and are presented in the table below:

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Risk-free interest rates	1.23%-2.21%	1.58%-1.91%	1.78%-2.10%
Expected life	5.75-7.02 years	6.0-6.25 years	6.0-6.25 years
Volatility	33.57%-41.60%	35.10%-52.23%	53.07%-56.24%
Expected dividend yield	0.0%-0.78%	—	—

Risk-free interest rates are based on the yield on zero-coupon U.S. Treasury securities for a period that is commensurate with the expected life assumption. Expected life is determined through a calculation based on historical data and the Company believes that this is the best estimate of the expected term of a new option. Expected volatility is based on a number of factors, but the Company currently believes that the exclusive use of its historical volatility results in the best estimate of the expectations of future volatility over the expected term. The expected dividend yield was included in the option pricing formula beginning in February of 2016 as the Company adopted a dividend policy. In addition, the Company utilizes an estimated forfeiture rate when calculating the stock-based compensation expense for the period. The Company has applied estimated forfeiture rates derived from an analysis of historical data of 6.2%, 5.8% and 5.1% for the years ended December 31, 2016, 2015 and 2014, respectively, in determining the expense recorded in the accompanying consolidated statements of income and comprehensive income (loss).

Earnings Per Share

Net income per common share attributable to Bruker Corporation shareholders is calculated by dividing net income attributable to Bruker Corporation by the weighted-average shares outstanding during the period. The diluted net income per share computation includes the effect of shares which would be issuable upon the exercise of outstanding stock options and the vesting of restricted stock, reduced by the number of shares which are assumed to be purchased by the Company under the treasury stock method.

The following table sets forth the computation of basic and diluted weighted average shares outstanding for the years ended December 31, (in millions, except per share data):

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Net income attributable to Bruker Corporation, as reported	<u>\$153.6</u>	<u>\$101.6</u>	<u>\$ 56.7</u>
Weighted average shares outstanding:			
Weighted average shares outstanding-basic	161.4	168.2	167.8
Effect of dilutive securities:			
Stock options, restricted stock awards and restricted stock units	<u>0.8</u>	<u>0.9</u>	<u>1.7</u>
	<u>162.2</u>	<u>169.1</u>	<u>169.5</u>
Net income per common share attributable to Bruker Corporation shareholders:			
Basic	<u>\$ 0.95</u>	<u>\$ 0.60</u>	<u>\$ 0.34</u>
Diluted	<u>\$ 0.95</u>	<u>\$ 0.60</u>	<u>\$ 0.33</u>

Stock options and restricted stock units to purchase approximately 0.6 million shares, 1.3 million shares and 0.1 million shares were excluded from the computation of diluted earnings per share for the years ended December 31, 2016, 2015 and 2014, respectively, because their effect would have been anti-dilutive.

Post Retirement Benefit Plans

The Company recognizes the over-funded or under-funded status of defined benefit pension and other postretirement defined benefit plans as an asset or liability, respectively, in its consolidated balance sheets and recognizes changes in the funded status in the year in which the changes occur through other comprehensive income (loss).

Other Comprehensive Income (Loss)

Other comprehensive income (loss) refers to revenues, expenses, gains and losses that are excluded from net income as these amounts are recorded directly as an adjustment to shareholders' equity, net of tax. The Company's other comprehensive income (loss) was composed of foreign currency translation adjustments and pension liability adjustments.

Foreign Currency Translation

Assets and liabilities of the Company's foreign subsidiaries, where the functional currency is the local currency, are translated into U.S. dollars using year-end exchange rates, or historical rates, as appropriate. Revenues and expenses of foreign subsidiaries are translated at the average exchange rates in effect during the year. Adjustments resulting from financial statement translations are included as a separate component of shareholders' equity. Gains and losses resulting from translation of foreign currency monetary transactions are reported in interest and other income (expense), net in the consolidated statements of income and comprehensive income (loss) for all periods presented. The Company has certain intercompany foreign currency transactions that are deemed to be of a long-term investment nature. Exchange adjustments related to those transactions are made directly to a separate component of shareholders' equity.

Risk and Uncertainties

The Company is subject to risks common to its industry including, but not limited to, global economic conditions, rapid technological change, government and academic funding levels, changes in commodity prices, spending patterns from its customers, protection of its intellectual property, availability of key raw materials and components, compliance with existing and future regulation by government agencies and fluctuations in foreign currency exchange rates.

Loss Contingencies

Loss contingency provisions are recorded if the potential loss from any claim, asserted or unasserted, or legal proceeding related to patents, products and other matters, is considered probable and the amount can be reasonably estimated or a range of loss can be determined. These accruals represent management's best estimate of probable loss. Disclosure is provided when it is reasonably possible that a loss will be incurred or when it is reasonably possible that the amount of a loss will exceed the recorded provision.

Use of Estimates

The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and reported amounts of revenues and expenses during the reporting period.

Significant estimates and judgments made by management in preparing these financial statements include revenue recognition, allowances for doubtful accounts, write-downs for excess and obsolete

inventory, estimated fair values used to record impairment charges related to intangible assets, goodwill, and other long-lived assets, amortization periods, expected future cash flows used to evaluate the recoverability of long-lived assets, stock-based compensation expense, warranty allowances, restructuring and other related charges, contingent liabilities and the recoverability of the Company's net deferred tax assets.

Although the Company regularly reassesses the assumptions underlying these estimates, actual results could differ materially from these estimates. Changes in estimates are recorded in the period in which they become known. The Company bases its estimates on historical experience and various other assumptions that it believes to be reasonable under the circumstances. Actual results may differ from management's estimates if these results differ from historical experience or other assumptions prove not to be substantially accurate, even if such assumptions are reasonable when made.

Note 3—Acquisitions

2016

On December 14, 2016, we acquired 100% of the stock of Active Spectrum Inc., a manufacturer of magnetic resonance spectroscopy. On November 17, 2016, we acquired 100% of the membership interests of Oxford Instruments Superconducting Wire LLC (OST), a manufacturer of low-temperature superconductors. On November 2, 2016, we acquired the assets of Renishaw Diagnostics Ltd., a developer and producer of molecular assays for applications in microbiology. On November 21, 2016, we acquired the preclinical imaging business of OncoVision, a leading provider of innovative medical imaging devices. On June 20, 2016, we acquired the assets of Yingsheng Technology Pty Ltd., which comprise a technology for advanced minerals identification and characterization. The products of the acquired companies are intended to complement the Company's existing product portfolio and technology base. The following table reflects the consideration transferred and the respective reporting segment for each of the acquisitions:

<u>Name of Acquisition</u>	<u>Segment</u>	<u>Consideration</u>	<u>Cash Consideration</u>
Yingsheng Technology Pty Ltd	BSI	\$ 1.7	\$ 1.2
Renishaw Diagnostics Ltd.	BSI	3.6	1.2
Oxford Instruments Superconducting Wire LLC	BEST	15.9	15.9
Preclinical Imaging Business of OncoVision	BSI	7.4	6.0
Active Spectrum Inc.	BSI	2.8	—
		<u>\$31.4</u>	<u>\$24.3</u>

The components and fair value allocation of the consideration transferred in connection with these acquisitions were as follows (in millions):

Consideration Transferred:	
Cash paid	\$ 25.9
Cash acquired	(1.6)
Shares issued	2.0
Contingent consideration	5.1
Total consideration transferred	<u>\$ 31.4</u>
Allocation of Consideration Transferred:	
Accounts receivable	\$ 6.9
Inventories	19.1
Other current assets	0.1
Property, plant and equipment	7.5
Intangible assets:	
Customer relationships	2.0
Existing technology	14.6
Trade name	0.6
Goodwill	1.0
Bargain purchase gain	(9.2)
Deferred taxes, net	(1.0)
Liabilities assumed	<u>(10.2)</u>
Total consideration transferred	<u>\$ 31.4</u>

The Company completed the fair value allocation for these acquisitions at December 31, 2016. The fair value allocation included contingent consideration in the amount of \$5.1 million, which represented the estimated fair value of future payments to the former shareholders of the acquired companies based on achieving annual revenue and gross margin targets in future years. The future payments of the contingent consideration may differ from the fair value recorded based on the financial results of the acquired businesses. The amortization period for intangible assets is between 5 and 7 years. The bargain purchase gain of \$9.2 million related to the acquisition of OST, and has been recorded within interest and other income, net on the consolidated statements of income and comprehensive income (loss). The acquisition resulted in a bargain purchase gain as the assets acquired exceeded the consideration paid. Pro forma financial information reflecting these acquisitions have not been presented because the impact on revenues, net income and total assets is not material.

2015

In October 2015, the Company completed the acquisition of Jordan Valley Semiconductors, Ltd. (“Jordan Valley”), a company headquartered in Israel that provides X-ray metrology and defect-detection equipment for semiconductor process control. The acquisition of Jordan Valley was accounted

for under the acquisition method. The components and fair value allocation of the consideration transferred in connection with the acquisition of Jordan Valley were as follows (in millions):

Consideration Transferred:	
Cash paid	\$35.4
Cash acquired	(6.8)
Contingent consideration	4.1
Total consideration transferred	<u>\$32.7</u>
Allocation of Consideration Transferred:	
Accounts receivable	\$ 3.8
Inventories	10.5
Other current assets	2.2
Property, plant and equipment	1.6
Intangible assets:	
Customer relationships	6.8
Existing technology	6.0
Trade name	1.5
Goodwill	6.3
Liabilities assumed	<u>(6.0)</u>
Total consideration transferred	<u>\$32.7</u>

The Company completed the fair value allocation in the fourth quarter of 2015. The fair value allocation included contingent consideration in the amount of \$4.1 million, which represented the estimated fair value of future payments to the former shareholders of Jordan Valley based on achieving annual revenue and gross margin targets for the years 2016-2017. During the year ended December 31, 2016, the Company recorded an additional \$7.7 million to other charges, net for additional consideration based on 2016 revenue and gross margin achievements. The maximum potential future payments related to the contingent consideration is \$4 million at December 31, 2016. The amortization period for intangible assets acquired in connection with Jordan Valley is 7 years for customer relationships, existing technology and trade name.

The results of Jordan Valley, including the amount allocated to goodwill which is attributable to expected synergies and not expected to be deductible for tax purposes, have been included in the BSI Segment from the date of acquisition. Pro forma financial information reflecting the acquisition of Jordan Valley has not been presented because the impact on revenues, net income and total assets is not material.

2014

On July 28, 2014 the Company completed the acquisition of Vutara, Inc. a manufacturer of high-speed, three-dimensional (3D), super-resolution fluorescence microscopy for life science applications.

<u>Name of Acquisition</u>	<u>Segment</u>	<u>Consideration</u>	<u>Cash Consideration</u>
Vutara Inc.	BSI	\$8.5	\$3.9

Note 4—Fair Value of Financial Instruments

The Company measures the following financial assets and liabilities at fair value on a recurring basis. The following tables set forth the Company’s financial instruments and presents them within the

fair value hierarchy using the lowest level of input that is significant to the fair value measurement at December 31, 2016 and 2015 (in millions):

		Quoted Prices in Active Markets Available (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
December 31, 2016	Total			
Assets:				
Embedded derivatives in purchase and delivery contracts	\$ 4.0	\$—	\$4.0	\$ —
Fixed price commodity contracts	<u>0.2</u>	<u>—</u>	<u>0.2</u>	<u>—</u>
Total assets recorded at fair value	<u>\$ 4.2</u>	<u>\$—</u>	<u>\$4.2</u>	<u>\$ —</u>
Liabilities:				
Contingent consideration	\$16.6	\$—	\$ —	\$16.6
Foreign exchange contracts	1.4	—	1.4	—
Embedded derivatives in purchase and delivery contracts	<u>0.3</u>	<u>—</u>	<u>0.3</u>	<u>—</u>
Total liabilities recorded at fair value	<u>\$18.3</u>	<u>\$—</u>	<u>\$1.7</u>	<u>\$16.6</u>
		Quoted Prices in Active Markets Available (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
December 31, 2015	Total			
Assets:				
Embedded derivatives in purchase and delivery contracts .	<u>\$0.5</u>	<u>\$—</u>	<u>\$0.5</u>	<u>\$ —</u>
Total assets recorded at fair value	<u>\$0.5</u>	<u>\$—</u>	<u>\$0.5</u>	<u>\$ —</u>
Liabilities:				
Contingent consideration	\$4.6	\$—	\$ —	\$4.6
Foreign exchange contracts	1.3	—	1.3	—
Embedded derivatives in purchase and delivery contracts .	<u>0.5</u>	<u>—</u>	<u>0.5</u>	<u>—</u>
Fixed price commodity contracts	<u>0.4</u>	<u>—</u>	<u>0.4</u>	<u>—</u>
Total liabilities recorded at fair value	<u>\$6.8</u>	<u>\$—</u>	<u>\$2.2</u>	<u>\$4.6</u>

Derivative financial instruments are classified within level 2 because there is not an active market for each derivative contract. However, the inputs used to calculate the value of the instruments are obtained from active markets.

The fair value of the long-term fixed interest rate debt, which has been classified as Level 2, was \$253.3 million and \$252.1 million at December 31, 2016 and 2015, respectively, based on market and observable sources with similar maturity dates.

The Company measures certain assets and liabilities at fair value with changes in fair value recognized in earnings. Fair value treatment may be elected either upon initial recognition of an eligible asset or liability or, for an existing asset or liability, if an event triggers a new basis of accounting. The Company did not elect to remeasure any of its existing financial assets or liabilities during the year ended December 31, 2016.

Excluded from the table above are cash equivalents, restricted cash and short-term investments as the cost approximates current fair value. The Company has a program to enter into time deposits with varying maturity dates ranging from one to twelve months, as well as call deposits for which the Company has the ability to redeem the invested amounts over a period of 31 to 95 days. The Company has classified these investments within cash and cash equivalents or short-term investments within the

consolidated balance sheets based on call and maturity dates. There are no cash equivalents, \$3.4 million and \$4.2 million of restricted cash and \$157.9 million and \$201.2 million of short-term investments outstanding as of December 31, 2016 and 2015, respectively. On a quarterly basis, the Company reviews its short-term investments to determine if there have been any events that could create an impairment. None were noted for the years ended December 31, 2016 and 2015.

As part of certain acquisitions in 2016, 2015 and 2014, the Company recorded contingent consideration liabilities that have been classified as Level 3 in the fair value hierarchy. The contingent consideration represents the estimated fair value of future payments to the former shareholders of applicable acquired companies based on achieving annual revenue and gross margin targets in certain years as specified in the purchase and sale agreements. The Company initially valued the contingent consideration by using a Monte Carlo simulation which models future revenue and costs of goods sold projections and discounts the average results to present value. Changes to the fair value of the contingent consideration recognized in earnings for the years ended December 31, 2016 and December 31, 2015 were \$6.9 million and (\$7.7) million, respectively, and were recorded to other charges, net in the consolidated statements of income and comprehensive income (loss) for increases (reversals) of contingent consideration representing expected achievement of financial targets. The following table sets forth the changes in contingent consideration liabilities for the years ended December 31, 2016 and 2015 (in millions):

Balance at December 31, 2014	\$11.9
Current period additions	4.1
Current period adjustments	(7.7)
Current period settlements	(3.6)
Foreign currency effect	<u>(0.1)</u>
Balance at December 31, 2015	4.6
Current period additions	5.1
Current period adjustments	6.9
Current period settlements	—
Foreign currency effect	<u>—</u>
Balance at December 31, 2016	<u>\$16.6</u>

Note 5—Accounts Receivable

The following is a summary of trade accounts receivable at December 31, (in millions):

	<u>2016</u>	<u>2015</u>
Gross accounts receivable	\$251.8	\$243.8
Allowance for doubtful accounts	<u>(7.9)</u>	<u>(9.1)</u>
Accounts receivable, net	<u>\$243.9</u>	<u>\$234.7</u>

The allowance for doubtful accounts is management's estimate of credit losses in the accounts receivable. The allowance for doubtful accounts is based on a number of factors, including an evaluation of customer credit worthiness, the age of the outstanding receivable, economic trends and historical experience. The allowance for doubtful accounts is reviewed on a quarterly basis and changes in estimates are reflected in the period in which they become known. The Company records account balances against the allowance after all means of collection have been exhausted and the potential for recovery is considered remote. Provisions for doubtful accounts are recorded in selling, general and administrative expenses in the accompanying consolidated statements of income and comprehensive income (loss).

The following is a summary of the activity in the Company's allowance for doubtful accounts at December 31, (in millions):

	<u>Balance at Beginning of Period</u>	<u>Additions Charged to Expense</u>	<u>Deductions Amounts Written Off</u>	<u>Foreign Currency Impact</u>	<u>Balance at End of Period</u>
2016	\$ 9.1	\$0.9	\$(2.0)	\$(0.1)	\$ 7.9
2015	10.1	2.1	(2.5)	(0.6)	9.1
2014	7.9	5.5	(2.5)	(0.8)	10.1

Note 6—Inventories

Inventories consisted of the following at December 31, (in millions):

	<u>2016</u>	<u>2015</u>
Raw materials	\$132.8	\$158.8
Work-in-process	181.0	131.1
Finished goods	91.8	93.3
Demonstration units	34.8	38.8
Inventories	<u>\$440.4</u>	<u>\$422.0</u>

Finished goods include in-transit systems that have been shipped to the Company's customers but not yet installed and accepted by the customer. As of December 31, 2016 and 2015, inventory-in-transit was \$37.5 million and \$44.7 million, respectively.

The Company reduces the carrying value of its demonstration inventories for differences between its cost and estimated net realizable value through a charge to cost of product revenue that is based on a number of factors including the age of the unit, the physical condition of the unit and an assessment of technological obsolescence. Amounts recorded in cost of product revenue related to the write-down of demonstration units to net realizable value were \$16.5 million, \$19.4 million and \$28.2 million for the years ended December 31, 2016, 2015 and 2014, respectively.

Note 7—Property, Plant and Equipment, Net

The following is a summary of property, plant and equipment, net by major asset class at December 31, (in millions):

	<u>2016</u>	<u>2015</u>
Land	\$ 26.7	\$ 27.6
Building and leasehold improvements	266.7	261.9
Machinery, equipment, software and furniture and fixtures	323.1	314.0
	616.5	603.5
Less accumulated depreciation and amortization	(377.4)	(372.4)
Property, plant and equipment, net	<u>\$ 239.1</u>	<u>\$ 231.1</u>

Depreciation expense, which includes the amortization of leasehold improvements, for the years ended December 31, 2016, 2015 and 2014 was \$32.6 million, \$32.6 million and \$39.5 million, respectively.

During the years ended December 31, 2016 and 2015, the Company recorded impairment charges of \$0.8 million and \$2.1 million, respectively, representing the write down to fair value of certain property, plant and equipment, net related to restructuring and outsourcing activities undertaken during

the respective years. These impairment charges are recorded within other charges, net in the accompanying consolidated statements of income and comprehensive income (loss). Please see Note 17—other charges, net, for additional details on the restructuring activities.

In July 2014, the Company’s Board of Directors approved a plan (the “Plan”) to divest certain assets and implement a restructuring program in the former Chemical and Applied Markets (CAM) Division within the Bruker CALID Group. The Plan was developed as a result of management’s conclusion that the former CAM business would be unable to achieve acceptable financial performance in the next two years. Please see Note 17—other charges, net, for additional details on the Plan. The Company determined the Plan was an indicator requiring the evaluation of property, plant and equipment within that reporting unit for recoverability. The Company performed a valuation during 2014 and determined that the property, plant and equipment within the former CAM Division were impaired. The Company recorded an impairment charge of \$5.5 million in the year ended December 31, 2014 to reduce the remaining value of those assets to fair value. In addition, the Company determined, based upon projected cash flows generated by certain assets in the BEST Segment, that an impairment charge of \$5.1 million was necessary during the year ended December 31, 2014 to reduce the carrying value of those assets to their estimated fair values. These impairment charges are recorded within “other charges, net” in the accompanying consolidated statements of income and comprehensive income (loss).

Note 8—Goodwill and Intangible Assets

Goodwill

The following table sets forth the changes in the carrying amount of goodwill for the years ended December 31, 2016, 2015 and 2014 (in millions):

Balance at December 31, 2013	\$127.4
Current period additions/adjustments	5.0
Foreign currency impact	<u>(4.6)</u>
Balance at December 31, 2014	\$127.8
Current period additions/adjustments	6.8
Impairment	(0.7)
Foreign currency impact	<u>(3.3)</u>
Balance at December 31, 2015	130.6
Current period additions/adjustments	1.0
Foreign currency impact	<u>(1.0)</u>
Balance at December 31, 2016	<u>\$130.6</u>

At December 31, 2016 and 2015, all goodwill was allocated within the BSI Segment. During the year ended December 31, 2015, the Company recorded an impairment charge of \$0.7 million representing the impairment of goodwill in the Bruker BioSpin Group related to certain restructuring and outsourcing activities during the year. The Company performed its annual impairment evaluation using a qualitative approach at December 31, 2016 and 2014 and a quantitative approach at December 31, 2015 and concluded it was more likely than not that goodwill has not been impaired. Based on the most recent quantitative analysis the fair values of each of our reporting units was significantly greater than their carrying amounts, and therefore, no additional impairment was required.

Intangible Assets

The following is a summary of intangible assets at December 31, (in millions):

	2016			2015		
	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount	Gross Carrying Amount	Accumulated Amortization	Net Carrying Amount
Existing technology and related						
patents	\$169.0	\$(113.9)	\$55.1	\$154.5	\$ (95.5)	\$59.0
Customer relationships	20.0	(7.9)	12.1	18.4	(5.9)	12.5
Non compete contracts	1.8	(1.1)	0.7	1.8	(0.6)	1.2
Trade names	1.6	(0.4)	1.2	1.6	(0.2)	1.4
Intangible assets subject to amortization	192.4	(123.3)	69.1	176.3	(102.2)	74.1
In-process research and development	0.6	—	0.6	0.6	—	0.6
Intangible assets	<u>\$193.0</u>	<u>\$(123.3)</u>	<u>\$69.7</u>	<u>\$176.9</u>	<u>\$(102.2)</u>	<u>\$74.7</u>

For the years ended December 31, 2016, 2015 and 2014, the Company recorded amortization expense of approximately \$21.7 million, \$20.7 million and \$20.2 million, respectively, in the consolidated statements of income and comprehensive income (loss). During the year ended December 31, 2015, the Company recorded an impairment charge of \$1.8 million representing the impairment of intangible assets in the Bruker BioSpin Group related to certain restructuring and outsourcing activities during the year.

The estimated future amortization expense related to amortizable intangible assets at December 31, 2016 is as follows (in millions):

2017	\$24.4
2018	20.0
2019	8.2
2020	7.3
2021	6.5
Thereafter	2.7
Total	<u>\$69.1</u>

Note 9—Other Current Liabilities

The following is a summary of other current liabilities at December 31, (in millions):

	2016	2015
Deferred revenue	\$ 75.5	\$ 77.0
Accrued compensation	83.8	88.5
Accrued warranty	18.7	19.6
Contingent consideration	13.5	4.6
Income taxes payable	11.3	25.1
Other taxes payable	12.4	25.4
Derivative liabilities	1.8	2.2
Other accrued expenses	52.5	61.1
Other current liabilities	<u>\$269.5</u>	<u>\$303.5</u>

The following table sets forth the changes in accrued warranty for the years ended December 31, 2016 and 2015 (in millions):

Balance at December 31, 2014	\$ 21.6
Accruals for warranties issued during the year	21.1
Settlements of warranty claims	(21.7)
Foreign currency impact	<u>(1.4)</u>
Balance at December 31, 2015	19.6
Accruals for warranties issued during the year	17.4
Settlements of warranty claims	(17.8)
Foreign currency impact	<u>(0.5)</u>
Balance at December 31, 2016	<u>\$ 18.7</u>

Note 10—Debt

The Company's debt obligations consist of the following as of December 31, (in millions):

	<u>2016</u>	<u>2015</u>
US Dollar revolving loan under the 2015 Credit Agreement	\$171.0	\$ 25.0
US Dollar notes under the Note Purchase Agreement	240.0	240.0
Unamortized debt issuance costs under the Note Purchase Agreement	(0.8)	(0.9)
Capital lease obligations and other loans	<u>1.5</u>	<u>1.7</u>
Total debt	411.7	265.8
Current portion of long-term debt	<u>(20.1)</u>	<u>(0.6)</u>
Total long-term debt, less current portion	<u>\$391.6</u>	<u>\$265.2</u>

Credit Agreements

In May 2011, the Company entered into an amendment to, and restatement of, its credit agreement, referred to as the Amended Credit Agreement. The Amended Credit Agreement provided a maximum commitment on the Company's revolving credit line of \$250.0 million and a maturity date of May 2016. Borrowings under the revolving credit line of the Amended Credit Agreement accrued interest, at the Company's option, at either (a) the greater of (i) the prime rate, (ii) the federal funds rate plus 0.50% and (iii) adjusted LIBOR plus 1.00% or (b) LIBOR, plus margins ranging from 0.80% to 1.65%. There was also a facility fee ranging from 0.20% to 0.35%. The Amended Credit Agreement was repaid in full in October 2015.

On October 27, 2015, the Company entered into a new revolving credit agreement, referred to as the 2015 Credit Agreement, and terminated the Amended Credit Agreement. The 2015 Credit Agreement provides a maximum commitment on the Company's revolving credit line of \$500 million and a maturity date of October 2020. Borrowings under the revolving credit line of the 2015 Credit Agreement accrue interest, at the Company's option, at either (a) the greater of (i) the prime rate, (ii) the federal funds rate plus 0.50% and (iii) adjusted LIBOR plus 1.00%, plus margins ranging from 0.00% to 0.30% or (b) LIBOR, plus margins ranging from 0.90% to 1.30%. There is also a facility fee ranging from 0.10% to 0.20%.

Borrowings under the 2015 Credit Agreement are secured by guarantees from certain material subsidiaries, as defined in the 2015 Credit Agreement. The 2015 Credit Agreement also requires the Company to maintain certain financial ratios related to maximum leverage and minimum interest coverage (as defined in the 2015 Credit Agreement). Specifically, the Company's leverage ratio cannot

exceed 3.5 and the Company's interest coverage ratio cannot be less than 2.5. In addition to the financial ratios, the 2015 Credit Agreement contains negative covenants, including among others, restrictions on liens, indebtedness of the Company and its subsidiaries, asset sales, dividends and transactions with affiliates. Failure to comply with any of these restrictions or covenants may result in an event of default on the 2015 Credit Agreement, which could permit acceleration of the debt and require the Company to prepay the debt before its scheduled due date.

As of December 31, 2016, the Company was in compliance with the covenants of the 2015 Credit Agreement. The Company's leverage ratio (as defined in the 2015 Credit Agreement) was 1.49 and interest coverage ratio (as defined in the 2015 Credit Agreement) was 15.5.

The following is a summary of the maximum commitments and the net amounts available to the Company under the 2015 Credit Agreement and other lines of credit with various financial institutions located primarily in Germany and Switzerland that are unsecured and typically due upon demand with interest payable monthly, at December 31, 2016 (in millions):

	<u>Weighted Average Interest Rate</u>	<u>Total Amount Committed by Lenders</u>	<u>Outstanding Borrowings</u>	<u>Outstanding Letters of Credit</u>	<u>Total Amount Available</u>
2015 Credit Agreement	2.0%	\$500.0	\$171.0	\$ 1.1	\$327.9
Other lines of credit	—	<u>232.7</u>	—	<u>130.4</u>	<u>102.3</u>
Total revolving loans		<u>\$732.7</u>	<u>\$171.0</u>	<u>\$131.5</u>	<u>\$430.2</u>

Note Purchase Agreement

In January 2012, the Company entered into a note purchase agreement, referred to as the Note Purchase Agreement, with a group of accredited institutional investors. Pursuant to the Note Purchase Agreement, the Company issued and sold \$240.0 million of senior notes, referred to as the Senior Notes, which consist of the following:

- \$20 million 3.16% Series 2012A Senior Notes, Tranche A, due January 18, 2017;
- \$15 million 3.74% Series 2012A Senior Notes, Tranche B, due January 18, 2019;
- \$105 million 4.31% Series 2012A Senior Notes, Tranche C, due January 18, 2022; and
- \$100 million 4.46% Series 2012A Senior Notes, Tranche D, due January 18, 2024.

Under the terms of the Note Purchase Agreement, the Company may issue and sell additional senior notes up to an aggregate principal amount of \$600 million, subject to certain conditions. Interest on the Senior Notes is payable semi-annually on January 18 and July 18 of each year. The Senior Notes are unsecured obligations of the Company and are fully and unconditionally guaranteed by certain of the Company's direct and indirect subsidiaries. The Senior Notes rank pari passu in right of repayment with the Company's other senior unsecured indebtedness. The Company may prepay some or all of the Senior Notes at any time in an amount not less than 10% of the original aggregate principal amount of the Senior Notes to be prepaid, at a price equal to the sum of (a) 100% of the principal amount thereof, plus accrued and unpaid interest, and (b) the applicable make-whole amount, upon not less than 30 and no more than 60 days written notice to the holders of the Senior 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 Notes at a price equal to 100% of the principal amount thereof, plus accrued and unpaid interest.

The Note Purchase Agreement contains affirmative covenants, including, without limitation, maintenance of corporate existence, compliance with laws, maintenance of insurance and properties, payment of taxes, addition of subsidiary guarantors and furnishing notices and other information. The Note Purchase Agreement also contains certain restrictive covenants that restrict the Company's ability to, among other things, incur liens, transfer or sell assets, engage in certain mergers and consolidations and enter into transactions with affiliates. The Note Purchase Agreement also includes customary representations and warranties and events of default. In the case of an event of default arising from specified events of bankruptcy or insolvency, all outstanding Senior Notes will become due and payable immediately without further action or notice. In the case of payment events of defaults, any holder of Senior Notes affected thereby may declare all Senior Notes held by it due and payable immediately. In the case of any other event of default, a majority of the holders of the Senior Notes may declare all the Senior Notes to be due and payable immediately. Pursuant to the Note Purchase Agreement, so long as any Senior Notes are outstanding the Company will not permit (i) its leverage ratio, as determined pursuant to the Note Purchase Agreement, as of the end of any fiscal quarter to exceed 3.50 to 1.00, (ii) its interest coverage ratio as determined pursuant to the Note Purchase Agreement as of the end of any fiscal quarter for any period of four consecutive fiscal quarters to be less than 2.50 to 1 or (iii) priority debt at any time to exceed 25% of consolidated net worth, as determined pursuant to the Note Purchase Agreement.

As of December 31, 2016, the Company was in compliance with the covenants of the Note Purchase Agreement. The Company's leverage ratio (as defined in the Note Purchase Agreement) was 1.49 and interest coverage ratio (as defined in the Note Purchase Agreement) was 15.5.

Annual maturities of debt outstanding, less deferred financing cost amortization, at December 31, 2016 are as follows (in millions):

2017.....	\$ 20.1
2018.....	0.1
2019.....	15.0
2020.....	171.0
2021.....	—
Thereafter	<u>205.5</u>
Total	<u>\$411.7</u>

Interest expense for the years ended December 31, 2016, 2015 and 2014, was \$13.2 million, \$13.0 million and \$13.3 million, respectively.

In April 2015, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) 2015-03, *Simplifying the Presentation of Debt Issuance Costs*, which amends the existing guidance to require that debt issuance costs be presented in the consolidated balance sheet as a reduction from the carrying amount of the related debt liability instead of as an other asset. The Company adopted ASU 2015-03 on a retrospective basis for the year ended December 31, 2016. As of December 31, 2016 and 2015, there were \$0.8 million and \$0.9 million, respectively, in debt issuance costs recorded as a reduction in the carrying value of the related debt liability under the Note Purchase Agreement. The \$0.8 million in debt issuance costs as of December 31, 2016 will be amortized over the remaining term of the Note Purchase Agreement. The retrospective adoption resulted in \$0.9 million of debt issuance costs being reclassified from other current assets and other non-current assets to a reduction of the carrying value of long-term debt as of December 31, 2015. The Company also adopted ASU No. 2015-15, *Presentation and Subsequent Measurement of Debt Issuance Costs Associated with Line-of-Credit Arrangements*, and elected not to reclassify the debt issuance costs related to line-of-credit arrangements for the 2015 Credit Agreement.

Note 11—Derivative Instruments and Hedging Activities

Interest Rate Risks

The Company's exposure to interest rate risk relates primarily to outstanding variable rate debt and adverse movements in the related short-term market rates. The most significant component of the Company's interest rate risk relates to amounts outstanding under the 2015 Credit Agreement, which totaled \$171.0 million at December 31, 2016. The Company currently has a higher level of fixed rate debt than variable rate debt, which limits the exposure to adverse movements in interest rates.

Foreign Exchange Rate Risk Management

The Company generates a substantial portion of its revenues and expenses in international markets, principally Germany and other countries in the European Union and Switzerland, which subjects its operations to the exposure of exchange rate fluctuations. The impact of currency exchange rate movement can be positive or negative in any period. The Company periodically enters into foreign currency contracts in order to minimize the volatility that fluctuations in currency translation have on its monetary transactions. Under these arrangements, the Company typically agrees to purchase a fixed amount of a foreign currency in exchange for a fixed amount of U.S. Dollars or other currencies on specified dates with maturities of less than twelve months. These transactions do not qualify for hedge accounting and, accordingly, the instrument is recorded at fair value with the corresponding gains and losses recorded in the consolidated statements of income and comprehensive income (loss). The Company had the following notional amounts outstanding under foreign currency contracts at December 31, (in millions):

<u>Buy</u>	<u>Notional Amount in Buy Currency</u>	<u>Sell</u>	<u>Maturity</u>	<u>Notional Amount in U.S. Dollars</u>	<u>Fair Value of Assets</u>	<u>Fair Value of Liabilities</u>
December 31, 2016:						
Euro	21.1	U.S. Dollars	January 2017	\$23.3	\$—	\$1.1
Swiss Francs	7.9	U.S. Dollars	January 2017	8.0	—	0.3
U.S. Dollars	4.0	Israel Shekel	January 2017	4.0	—	—
Israel Shekel	15.3	U.S. Dollars	January 2017	4.0	—	—
Euro	1.4	Polish Zloty	January 2017	1.4	—	—
				<u>\$40.7</u>	<u>\$—</u>	<u>\$1.4</u>
December 31, 2015:						
Euro	21.1	U.S. Dollars	January 2016	\$24.2	\$—	\$1.2
Swiss Francs	5.9	U.S. Dollars	April 2016	6.0	—	0.1
U.S. Dollars	6.0	Israel Shekel	April 2016	6.0	—	—
				<u>\$36.2</u>	<u>\$—</u>	<u>\$1.3</u>

In addition, the Company periodically enters into purchase and sales contracts denominated in currencies other than the functional currency of the parties to the transaction. The Company accounts for these transactions separately valuing the “embedded derivative” component of these contracts. The contracts, denominated in currencies other than the functional currency of the transacting parties, amounted to \$120.7 million for the delivery of products and \$2.3 million for the purchase of products at December 31, 2016 and \$59.0 million for the delivery of products and \$4.1 million for the purchase of products at December 31, 2015. The changes in the fair value of these embedded derivatives are recorded in interest and other income (expense), net in the consolidated statements of income and comprehensive income (loss).

Commodity Price Risk Management

The Company has an arrangement with a customer under which it has a firm commitment to deliver copper based superconductors at a fixed price. In order to minimize the volatility that fluctuations in the price of copper have on the Company's sales of these commodities, the Company enters into commodity hedge contracts. At December 31, 2016 and 2015, the Company has fixed price commodity contracts with notional amounts aggregating \$2.7 million and \$2.0 million, respectively. The changes in the fair value of these commodity contracts are recorded in interest and other income (expense), net in the consolidated statements of income and comprehensive income (loss).

The fair value of the derivative instruments described above are recorded in the consolidated balance sheets for the years ended December 31, 2016 and 2015 as follows (in millions):

	<u>Balance Sheet Location</u>	<u>2016</u>	<u>2015</u>
Derivative assets:			
Embedded derivatives in purchase and delivery contracts	Other current assets	\$2.7	\$0.5
Fixed price commodity contracts	Other current assets	0.2	—
Embedded derivatives in purchase and delivery contracts	Other long-term assets	1.3	—
Derivative liabilities:			
Foreign exchange contracts	Other current liabilities	\$1.4	\$1.3
Embedded derivatives in purchase and delivery contracts	Other current liabilities	0.3	0.5
Fixed price commodity contracts	Other current liabilities	—	0.4

The impact on net income of unrealized gains and losses resulting from changes in the fair value of derivative instruments for the years ending December 31 are as follows (in millions) and are recorded within interest and other income (expense), net in the consolidated statements of income and comprehensive income (loss):

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Foreign exchange contracts	\$(0.1)	\$ 3.8	\$(7.4)
Embedded derivatives in purchase and delivery contracts	3.7	(0.2)	0.4
Fixed price commodity contracts	0.6	(0.2)	(0.3)
Income (expense), net	<u>\$ 4.2</u>	<u>\$ 3.4</u>	<u>\$(7.3)</u>

Note 12—Income Taxes

The domestic and foreign components of income before taxes are as follows for the years ended December 31, (in millions):

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Domestic	\$ 18.4	\$ 31.6	\$(83.2)
Foreign	159.2	96.4	184.5
	<u>\$177.6</u>	<u>\$128.0</u>	<u>\$101.3</u>

The components of the income tax provision are as follows for the years ended December 31, (in millions):

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Current income tax (benefit) expense:			
Federal	\$ (2.4)	\$ 5.7	\$(1.1)
State	0.3	1.3	0.4
Foreign	<u>59.8</u>	<u>50.0</u>	<u>50.8</u>
Total current income tax expense	57.7	57.0	50.1
Deferred income tax (benefit) expense:			
Federal	3.1	(31.1)	0.7
State	(5.3)	(2.4)	(0.1)
Foreign	<u>(32.4)</u>	<u>(0.4)</u>	<u>(9.0)</u>
Total deferred income tax (benefit) expense	<u>(34.6)</u>	<u>(33.9)</u>	<u>(8.4)</u>
Income tax provision	<u>\$ 23.1</u>	<u>\$ 23.1</u>	<u>\$41.7</u>

The income tax provision differs from the tax provision computed at the U.S federal statutory rate due to the following significant components for the years ended December 31:

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Statutory tax rate	35.0%	35.0%	35.0%
Foreign tax rate differential	(11.6)	(3.6)	(12.1)
Permanent differences	8.2	(2.0)	9.6
Tax contingencies	(3.0)	2.3	(0.9)
Change in tax rates	0.2	1.3	(1.6)
Withholding taxes	1.3	8.1	0.6
State income taxes, net of federal benefits	(2.9)	(0.9)	0.2
Purchase accounting	1.6	0.8	0.7
Tax credits	(3.0)	(1.1)	(4.3)
Other	4.3	(2.7)	(1.2)
Change in valuation allowance for unbenefitted losses	<u>(17.1)</u>	<u>(19.2)</u>	<u>15.2</u>
Effective tax rate	<u>13.0%</u>	<u>18.0%</u>	<u>41.2%</u>

The tax effect of temporary items that give rise to significant portions of the deferred tax assets and liabilities as of December 31, 2016 and 2015 are as follows (in millions):

	<u>2016</u>	<u>2015</u>
Deferred tax assets:		
Accounts receivable	\$ 2.9	\$ 2.0
Accrued expenses	4.6	4.7
Compensation	30.6	30.1
Investments	—	1.4
Deferred revenue	2.0	0.2
Net operating loss carryforwards	14.1	16.0
Fixed assets	0.8	0.8
Inventory	3.2	2.9
Foreign tax and other tax credit carryforwards	17.2	32.3
Unrealized currency gain/loss	3.0	6.1
Other	—	7.5
Gross deferred tax assets	<u>78.4</u>	<u>104.0</u>
Less valuation allowance	<u>(0.5)</u>	<u>(37.2)</u>
Total deferred tax assets	<u>77.9</u>	<u>66.8</u>
Deferred tax liabilities:		
Accounts receivable	—	0.6
Foreign statutory reserves	1.1	5.3
Intangibles	7.2	9.4
Accrued expenses	1.2	8.0
Other	<u>2.0</u>	<u>—</u>
Total deferred tax liabilities	<u>11.5</u>	<u>23.3</u>
Net deferred tax assets	<u>\$66.4</u>	<u>\$ 43.5</u>

The Company uses the liability method to account for income taxes. Under this method, deferred income taxes are recognized for the future tax consequences of differences between the tax and financial accounting bases of assets and liabilities at each reporting period. Deferred income taxes are based on enacted tax laws and statutory tax rates applicable to the period in which these differences are expected to affect taxable income. A valuation allowance is established when necessary to reduce deferred tax assets to the expected realizable amounts.

The Company can only recognize a deferred tax asset to the extent this it is “more likely than not” that these assets will be realized. Judgments around realizability depend on the availability and weight of both positive and negative evidence. After considering all available evidence at December 31, 2016, the Company removed valuation allowances against a portion of its deferred tax assets in the U.S. and certain other jurisdictions as it is more likely than not that these assets will be realized. In particular, the Company removed a partial valuation allowance against its U.S. net deferred tax assets, which comprised deductible temporary differences and tax credit carryforwards. Also, the Company removed its valuation allowance against certain foreign net operating losses. In determining the realizability of these assets, the Company considered numerous factors including historical profitability, the character and amount of estimated future taxable income and prudent and feasible tax planning strategies.

Changes in the valuation allowance for deferred tax assets during the years ended December 31, 2016, 2015 and 2014 were as follows:

Balance at December 31, 2013	\$ 42.4
Increases recorded to income tax provision	<u>15.0</u>
Balance at December 31, 2014	\$ 57.4
Decreases recorded as a benefit to income tax provision	<u>(20.2)</u>
Balance at December 31, 2015	\$ 37.2
Decreases recorded as a benefit to income tax provision	<u>(36.7)</u>
Balance at December 31, 2016	<u>\$ 0.5</u>

Increases related primarily to the generation of net operating losses and other deferred tax assets and decreases related primarily to the adjustment to certain deferred tax assets and their related allowance.

As of December 31, 2016, the Company has approximately \$40.2 million net operating loss carryforwards available to reduce state taxable income. The Company also has approximately \$41.0 million of German Trade Tax net operating losses that are carried forward indefinitely. Additionally, the Company has \$23.1 million of other foreign net operating losses that are expected to expire at various times beginning in 2018. The Company also has U.S. federal tax credits of approximately \$15.1 million available to offset future tax liabilities that expire at various dates, which include research and development tax credits of \$12.2 million expiring at various times through 2035, foreign tax credits of \$2.9 million expiring at various times through 2025, and state research and development tax credits of \$7.8 million. Utilization of these credits and state net operating losses may be subject to annual limitations due to the ownership percentage change limitations provided by the Internal Revenue Code Section 382 and similar state provisions. In the event of a deemed change in control under Internal Revenue Code Section 382, an annual limitation on the utilization of net operating losses and credits may result in the expiration of all or a portion of the net operating loss and credit carryforwards.

The Company reflects certain statutory reserves in its tabular reconciliation of unrecognized tax benefits. Effective for the year ended December 31, 2013 and thereafter, these unrecognized tax benefits are presented as a reduction of the associated net deferred tax assets.

The Company asserts that its foreign earnings, with the exception of its foreign earnings that have been previously taxed by the U.S., are indefinitely reinvested. The Company regularly evaluates its assertion that its foreign earnings are indefinitely reinvested. If the cash, cash equivalents and short-term investments held by the Company's foreign subsidiaries are needed to fund operations in the United States or the Company otherwise elects to repatriate the unremitted earnings of its foreign subsidiaries in the form of dividends or otherwise, or if the shares of the subsidiaries were sold or transferred, the Company would likely be subject to additional U.S. income taxes, net of the impact of any available tax credits, which could result in a higher effective tax rate in the future.

The Company has indefinitely reinvested the earnings of its non-U.S. subsidiaries in the cumulative amount of approximately \$1,200 million as of December 31, 2016, and therefore, has not provided for U.S. income taxes that could result from the distribution of such earnings to the U.S. parent. If these earnings were ultimately distributed to the United States in the form of dividends or otherwise, or if the shares of the subsidiaries were sold or transferred, the Company would likely be subject to additional U.S. income taxes, net of the impact of any available foreign tax credits. The Company estimates the amount of unrecognized deferred U.S. income taxes on these undistributed earnings to be approximately \$90 million.

The Company has gross unrecognized tax benefits, excluding interest, of approximately \$6.2 million as of December 31, 2016, of which \$5.3 million, if recognized, would reduce the Company's effective tax rate. In the next twelve months it is reasonably possible that the Company will reduce its unrecognized tax benefits by \$2.1 million due to statutes of limitations expiring and favorably settling with taxing authorities which would reduce the Company's effective tax rate. A tabular reconciliation of the beginning and ending amount of unrecognized tax benefits is as follows (in millions):

Gross unrecognized tax benefits at December 31, 2013	\$ 51.7
Gross decreases—tax positions in prior periods	(6.4)
Gross decreases—current period tax positions	(0.3)
Settlements	(0.6)
Lapse of statutes	(4.4)
Gross unrecognized tax benefits at December 31, 2014	40.0
Gross decreases—tax positions in prior periods	(1.5)
Gross increases—current period tax positions	0.4
Settlements	(2.7)
Lapse of statutes	(3.0)
Gross unrecognized tax benefits at December 31, 2015	33.2
Gross decreases—tax positions in prior periods	(4.8)
Gross increases—current period tax positions	0.9
Settlements	(21.3)
Lapse of statutes	(1.8)
Gross unrecognized tax benefits at December 31, 2016	<u>\$ 6.2</u>

The Company's policy is to include accrued interest and penalties related to unrecognized tax benefits and income tax liabilities, when applicable, in income tax expense. As of December 31, 2016 and 2015, the Company had approximately \$0.5 million and \$4.7 million, respectively, of accrued interest and penalties related to uncertain tax positions included in other long-term liabilities in the consolidated balance sheets. The Company recorded a benefit of \$1.8 million for penalties and interest related to unrecognized tax benefits in the provision for income taxes during the year ended December 31, 2016 and an expense of \$1.4 million during the year ended December 31, 2015.

The Company files tax returns in the United States which include federal, state and local jurisdictions and many foreign jurisdictions with varying statutes of limitations. The Company considers Germany, the United States and Switzerland to be its significant tax jurisdictions. The tax years 2013 to 2015 are open tax years in these significant foreign jurisdictions. In the first quarter of 2014, the Company settled a tax audit in the United States for the tax year 2010. In the third quarter of 2015, the Company settled tax audits in Germany and Italy. In 2016, the Company settled tax audits in Germany and Switzerland. The settlement was immaterial to the consolidated financial statements. Tax years 2011 to 2015 remain open for examination in the United States.

Note 13—Post Retirement Benefit Plans

Defined Contribution Plans

The Company sponsors various defined contribution plans that cover certain domestic and international employees. The Company may make contributions to these plans at its discretion. The Company contributed \$6.0 million, \$6.5 million and \$7.1 million to such plans in the years ended December 31, 2016, 2015 and 2014, respectively.

Defined Benefit Plans

Substantially all of the Company's employees in Switzerland, France and Japan, as well as certain employees in Germany, are covered by Company-sponsored defined benefit pension plans. Retirement benefits are generally earned based on years of service and compensation during active employment. Eligibility is generally determined in accordance with local statutory requirements, however, the level of benefits and terms of vesting varies among plans.

The components of net periodic benefit costs for the years ended December 31, 2016, 2015 and 2014 were as follows (in millions):

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Components of net periodic benefit costs:			
Service cost	\$ 6.8	\$ 7.2	\$ 4.8
Interest cost	2.2	2.5	4.6
Expected return on plan assets	(1.8)	(2.3)	(4.1)
Settlement loss recognized	—	10.2	—
Amortization of net loss	4.1	4.1	0.1
Net periodic benefit costs	<u>\$11.3</u>	<u>\$21.7</u>	<u>\$ 5.4</u>

The net periodic benefit costs for the year ended December 31, 2015 includes a one-time, non-cash settlement loss of \$10.2 million as the Company outsourced its pension plan in Switzerland to an outside insurance provider, transferred certain plan assets and pension obligations for retirees and other certain members of the population, made certain plan design changes and re-measured the liability.

The Company measures its benefit obligation and the fair value of plan assets as of December 31st each year. The changes in benefit obligations and plan assets under the defined benefit

pension plans, projected benefit obligation and funded status of the plans were as follows at December 31, (in millions):

	<u>2016</u>	<u>2015</u>
Change in benefit obligation:		
Benefit obligation at beginning of year	\$ 199.2	\$207.2
Service cost	6.8	7.2
Interest cost	2.2	2.5
Plan participant contributions	4.0	3.9
Plan curtailments	—	(0.3)
Benefits paid	(7.1)	1.3
Actuarial loss (gain)	11.1	7.5
Plan amendments	—	14.7
Plan settlements	—	(39.7)
Premiums paid	(1.4)	(1.4)
Plan combinations	—	0.9
Impact of foreign currency exchange rates	<u>(4.7)</u>	<u>(4.6)</u>
Benefit obligation at end of year	210.1	199.2
Change in plan assets:		
Fair value of plan assets at beginning of year	106.1	139.6
Return on plan assets	1.3	(3.7)
Plan participant and employer contributions	9.2	9.5
Benefits paid	(7.1)	1.3
Plan settlements	—	(39.7)
Premiums paid	(1.4)	(1.4)
Plan combinations	—	0.1
Impact of foreign currency exchange rates	<u>(2.2)</u>	<u>0.4</u>
Fair value of plan assets at end of year	<u>105.9</u>	<u>106.1</u>
Net under funded status	<u><u>\$(104.2)</u></u>	<u><u>\$(93.1)</u></u>

The accumulated benefit obligation for the defined benefit pension plans is \$199.9 million and \$189.7 million at December 31, 2016 and 2015, respectively. All defined benefit pension plans have an accumulated benefit obligation and projected benefit obligation in excess of plan assets at December 31, 2016 and 2015.

The following amounts were recognized in the accompanying consolidated balance sheets for the Company's defined benefit plans at December 31, (in millions):

	<u>2016</u>	<u>2015</u>
Current liabilities	\$ (1.7)	\$ (1.5)
Non-current liabilities	<u>(102.5)</u>	<u>(91.6)</u>
Net benefit obligation	<u><u>\$(104.2)</u></u>	<u><u>\$(93.1)</u></u>

The following pre-tax amounts were recognized in accumulated other comprehensive income (loss) for the Company's defined benefit plans at December 31, (in millions):

	<u>2016</u>	<u>2015</u>
Reconciliation of amounts recognized in the consolidated balance sheets:		
Prior service cost	\$ (10.6)	\$(12.2)
Net actuarial loss	<u>(56.0)</u>	<u>(48.5)</u>
Accumulated other comprehensive loss	(66.6)	(60.7)
Accumulated contributions in excess of net periodic benefit cost	<u>(37.6)</u>	<u>(32.4)</u>
Net amount recognized	<u><u>\$(104.2)</u></u>	<u><u>\$(93.1)</u></u>

The amount in accumulated other comprehensive income (loss) at December 31, 2016 expected to be recognized as amortization of net loss within net periodic benefit cost in 2017 is \$4.6 million.

For the defined benefit pension plans, the Company uses a corridor approach to amortize actuarial gains and losses. Under this approach, net actuarial gains or losses in excess of ten percent of the larger of the projected benefit obligation or the fair value of plan assets are amortized over the average remaining service of active participants who are expected to receive benefits under the plans.

The range of assumptions used for defined benefit pension plans reflects the different economic environments within the various countries. The range of assumptions used to determine the projected benefit obligations for the years ended December 31, are as follows:

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Discount rates	0.2%-2.1%	0.3%-2.5%	0.7%-2.4%
Expected return on plan assets	0.0%-3.0%	0.0%-3.0%	2.9%
Expected rate of compensation increase	1.0%-3.0%	1.0%-3.0%	1.0%-3.0%

To determine the expected long-term rate of return on pension plan assets, the Company considers current asset allocations, as well as historical and expected returns on various asset categories of plan assets. For the defined benefit pension plans, the Company applies the expected rate of return to a market-related value of assets, which stabilizes variability in assets to which the expected return is applied.

Asset Allocations by Asset Category

The fair value of the Company's pension plan assets at December 31, 2016 and 2015, by asset category and by level in the fair value hierarchy, is as follows (in millions):

<u>December 31, 2016</u>	<u>Total</u>	<u>Quoted Prices in Active Markets Available (Level 1)</u>	<u>Significant Other Observable Inputs (Level 2)</u>	<u>Significant Unobservable Inputs (Level 3)</u>
Plan Assets:				
Group BPCE Life (a)	\$ 1.3	\$—	\$ 1.3	\$—
Swiss Life Collective BVG				
Foundation (b)	<u>104.6</u>	<u>—</u>	<u>104.6</u>	<u>—</u>
Total plan assets	<u><u>\$105.9</u></u>	<u><u>\$—</u></u>	<u><u>\$105.9</u></u>	<u><u>\$—</u></u>

December 31, 2015	Total	Quoted Prices in Active Markets Available (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
Plan Assets:				
Group BPCE Life (a)	\$ 1.4	\$—	\$ 1.4	\$—
Swiss Life Collective BVG Foundation (b)	104.7	—	104.7	—
Total plan assets	<u>\$106.1</u>	<u>\$—</u>	<u>\$106.1</u>	<u>\$—</u>

- (a) The Company's pension plan in France is invested in a larger fund that invests in a variety of instruments. The assets are not directly dedicated to the French pension plan. The Group BPCE Life fund invests in debt securities of foreign corporations and governments, equity securities of foreign government funds and private real estate funds.
- (b) The Company's pension plan in Switzerland is outsourced to Swiss Life AG, an outside insurance provider. Under the insurance contract, the plan assets are invested in Swiss Life Collective BVG Foundation (the Foundation), which is an umbrella fund for which the retirement savings and interest rates are guaranteed a minimum of 1.75% on the mandatory withdrawal portion, as defined by Swiss law, and 1.25% on the non-mandatory portion. The Foundation utilizes plan administrators and investment managers to oversee the investment allocation process, set long-term strategic targets and monitor asset allocations. The target allocations are 75% bonds, including cash, 5% equity investments and 20% real estate and mortgages. Should the Foundation yield a return greater than the guaranteed amounts, the Company, according to Swiss law, shall receive 90% of the additional return with Swiss Life AG retaining 10%. The withdrawal benefits and interest allocations are secured at all times by Swiss Life AG.

Contributions and Estimated Future Benefit Payments

During 2017, the Company expects contributions to be consistent with 2016. The estimated future benefit payments are based on the same assumptions used to measure the Company's benefit obligation at December 31, 2016. The following benefit payments reflect future employee service as appropriate (in millions):

2017	\$ 2.1
2018	2.2
2019	3.0
2020	3.2
2021	3.5
2022-2026	24.9

Note 14—Commitments and Contingencies

In accordance with ASC Topic 450, Contingencies, the Company accrues anticipated costs of settlement, damages, or other costs to the extent specific losses are probable and estimable.

Litigation and Related Contingencies

Lawsuits, claims and proceedings of a nature considered normal to its businesses may be pending from time to time against the Company. Third parties might allege that the Company or its collaborators are infringing their patent rights or that the Company is otherwise violating their intellectual property rights. Loss contingency provisions are recorded if the potential loss from any claim, asserted or unasserted, or legal proceeding is considered probable and the amount can be

reasonably estimated or a range of loss can be determined. These accruals represent management's best estimate of probable loss. Disclosure also is provided when it is reasonably possible that a loss will be incurred or when it is reasonably possible that the amount of a loss will exceed the recorded provision. The Company believes the outcome of pending proceedings, individually and in the aggregate, will not have a material impact on the Company's financial statements. As of December 31, 2016 and 2015, no material accruals have been recorded for potential contingencies.

Governmental Investigations

The Company is subject to regulation by national, state and local government agencies in the United States and other countries in which it operates. From time to time, the Company is the subject of governmental investigations often involving regulatory, marketing and other business practices. These governmental investigations may result in the commencement of civil and criminal proceedings, fines, penalties and administrative remedies and may have a material adverse effect on our financial position, results of operations and/or liquidity.

The Korea Fair Trade Commission ("KFTC") has conducted an investigation into improper bidding by Bruker Korea Co., Ltd. and several other companies in connection with bids for sales of X-ray systems in 2010 and 2012. Three of the bids under investigation involved Bruker Korea. The Company cooperated fully with the KFTC regarding this matter. In September 2016, the KFTC fined Bruker Korea approximately \$15,000 and referred the matter to the Korean Public Prosecutor's Office for criminal prosecution. Additional monetary penalties may also result from the ongoing criminal proceeding. Since December 2016, various Korean governmental entities have imposed suspensions on Bruker Korea, with suspension periods ranging from three to six months. During the periods of these suspensions, which are overlapping, Bruker Korea is prohibited from bidding for or conducting sales to Korean governmental agencies. Sales to these customers were less than 1% of the Company's revenue for the year ended December 31, 2016. In the course of normal business, the Company conducts business in Korea with other non-governmental customers that are not affected by these suspensions. Accordingly, the Company does not expect these contingencies to have a material adverse effect on our financial statements.

Operating Leases

Certain buildings, office equipment and vehicles are leased under agreements that are accounted for as operating leases. Total rental expense under operating leases was \$22.0 million, \$23.0 million and \$22.8 million during the years ended December 31, 2016, 2015 and 2014, respectively. Future minimum lease payments under non-cancelable operating leases at December 31, 2016, for each of the next five years and thereafter are as follows (in millions):

2017	\$20.9
2018	14.6
2019	10.9
2020	8.9
2021	6.6
Thereafter	14.0
Total	<u>\$75.9</u>

Capital Leases

The Company leased a building under an agreement that was classified as a capital lease. As of December 31, 2016 the lease was completed and the building was subsequently purchased by the Company. The cost of the building under the capital lease was included in the consolidated balance

sheets as property, plant and equipment and was \$2.7 million at December 31, 2015. Accumulated amortization of the leased buildings at December 31, 2015 was \$0.7 million. Amortization expense related to assets under capital leases was included in depreciation expense. The obligations related to capital leases was recorded as a component of long-term debt or the current portion of long-term debt in the consolidated balance sheets, depending on when the lease payments are due.

Unconditional Purchase Commitments

The Company has entered into unconditional purchase commitments, in the ordinary course of business, that include agreements to purchase goods, services or fixed assets and to pay royalties that are enforceable and legally binding and that specify all significant terms including: fixed or minimum quantities to be purchased; fixed, minimum or variable price provisions; and the approximate timing of the transaction. Purchase commitments exclude agreements that are cancelable at any time without penalty. The aggregate amount of the Company's unconditional purchase commitments totaled \$149.3 million at December 31, 2016 and the majority of these commitments are expected to be settled during 2017.

License Agreements

The Company has entered into cross-licensing agreements for various technologies that allow other companies to utilize certain of its patents and related technologies over various periods or into perpetuity. Income from these agreements for the years ended December 31, 2016, 2015 and 2014 was \$1.9 million, \$2.5 million and \$2.6 million, respectively, and is classified in other revenue in the consolidated statements of income and comprehensive income (loss). The unearned portions of proceeds from the cross-licensing agreements are classified as short-term or long-term deferred revenue depending on when the revenue will be earned.

The Company has also entered into license agreements allowing it to utilize certain patents. If these patents are used in connection with a commercial product sale, the Company pays royalties on the related product revenues. Licensing fees for the years ended December 31, 2016, 2015 and 2014, were \$3.0 million, \$3.2 million and \$3.3 million, respectively, and are recorded in cost of product revenue in the consolidated statements of income and comprehensive income (loss).

Letters of Credit and Guarantees

At December 31, 2016 and 2015, the Company had bank guarantees of \$131.5 million and \$137.7 million, respectively, related primarily to customer advances. These arrangements guarantee the refund of advance payments received from customers in the event that the merchandise is not delivered or warranty obligations are not fulfilled in compliance with the terms of the contract. These guarantees affect the availability of the Company's lines of credit.

Indemnifications

The Company enters into standard indemnification arrangements in the Company's ordinary course of business. Pursuant to these arrangements, the Company indemnifies, holds harmless, and agrees to reimburse the indemnified parties for losses suffered or incurred by the indemnified party, generally the Company's business partners or customers, in connection with any patent, or any copyright or other intellectual property infringement claim by any third party with respect to its products. The term of these indemnification agreements is generally perpetual any time after the execution of the agreement. The maximum potential amount of future payments the Company could be required to make under these agreements is unlimited. The Company believes the estimated fair value of these agreements is minimal based on historical experiences.

The Company has entered into indemnification agreements with its directors and officers that may require the Company to: indemnify its directors and officers against liabilities that may arise by reason of their status or service as directors or officers, other than liabilities arising from willful misconduct of a culpable nature; advance their expenses incurred as a result of any proceeding against them as to which they could be indemnified; and obtain directors' and officers' insurance if available on reasonable terms, which the Company currently has in place.

Note 15—Shareholders' Equity

Share Repurchase Program

In May 2015, the Company's Board of Directors approved a share repurchase program (the "Anti-Dilutive Repurchase Program") under which the Company may repurchase the Company's common stock in amounts intended to approximately offset, on an annual basis, the dilutive effect of shares that have been, or may be, issued pursuant to option or restricted stock awards under the Company's incentive compensation plans. In 2015, a total of 1,245,000 shares were repurchased at an aggregate cost of \$24.9 million under the Anti-Dilutive Repurchase Program.

In November 2015, the Company's Board of Directors suspended the Anti-Dilutive Repurchase Program until January 1, 2017 and approved an additional share repurchase program (the "Repurchase Program") which authorized repurchases of common stock up to \$225 million from time to time, in amounts, at prices, and at such times as the Company deemed appropriate, subject to market conditions, legal requirements and other considerations. A total of 6,475,480 shares were repurchased at an aggregate cost of \$160.0 million during the year ended December 31, 2016. A total of 9,312,522 shares were repurchased at an aggregate cost of \$225.0 million as of December 31, 2016 under the completed Repurchase Program.

The repurchased shares are reflected within Treasury stock in the accompanying consolidated balance sheet at December 31, 2016.

Cash Dividends on Common Stock

On February 22, 2016, the Company announced the establishment of a dividend policy and the declaration by its Board of Directors of an initial quarterly cash dividend in the amount of \$0.04 per share of the Company's issued and outstanding common stock. Under the dividend policy, the Company will target a cash dividend to the Company's shareholders in the amount of \$0.16 per share per annum, payable in equal quarterly installments. Dividends were paid on March 24, 2016 to shareholders of record as of March 4, 2016 for an aggregate cost of \$6.5 million, on June 24, 2016 to shareholders of record as of June 6, 2016 for an aggregate cost of \$6.5 million, on September 23, 2016 to shareholders of record as of September 6, 2016 for an aggregate cost of \$6.4 million and on December 23, 2016 to shareholders of record as of December 5, 2016 for an aggregate cost of \$6.4 million. Subsequent dividend declarations and the establishment of record and payment dates for such future dividend payments, if any, are subject to the Board of Directors' continuing determination that the dividend policy is in the best interests of the Company's shareholders. The dividend policy may be suspended or cancelled at the discretion of the Board of Directors at any time.

Accumulated Other Comprehensive Income (Loss)

The following is a summary of the components of accumulated other comprehensive income (loss), net of tax, at December 31, (in millions):

	<u>Foreign Currency Translation</u>	<u>Pension Liability Adjustment</u>	<u>Accumulated Other Comprehensive Income (Loss)</u>
Balance at December 31, 2013	\$ 197.6	\$(15.2)	\$ 182.4
Other comprehensive income (loss)	(131.6)	(22.7)	(154.3)
Realized loss on reclassification	—	0.1	0.1
Balance at December 31, 2014	66.0	(37.8)	28.2
Other comprehensive income (loss)	(62.8)	(23.6)	(86.4)
Realized loss on reclassification	—	14.0	14.0
Balance at December 31, 2015	3.2	(47.4)	(44.2)
Other comprehensive income (loss)	(27.3)	(8.4)	(35.7)
Realized loss on reclassification	—	4.0	4.0
Balance at December 31, 2016	<u>\$ (24.1)</u>	<u>\$(51.8)</u>	<u>\$ (75.9)</u>

Note 16—Stock-Based Compensation

In February 2010, the Bruker BioSciences Corporation Amended and Restated 2000 Stock Option Plan (the “2000 Plan”), expired at the end of its scheduled ten-year term. On March 9, 2010, the Company’s Board of Directors unanimously approved and adopted the Bruker Corporation 2010 Incentive Compensation Plan (the “2010 Plan”), and on May 14, 2010, the 2010 Plan was approved by the Company’s stockholders. The 2010 Plan provided for the issuance of up to 8,000,000 shares of the Company’s common stock. The 2010 Plan allowed a committee of the Board of Directors (the “Compensation Committee”) to grant incentive stock options, non-qualified stock options and restricted stock awards. The Compensation Committee had the authority to determine which employees would receive the awards, the amount of the awards and other terms and conditions of any awards. Awards granted under the 2010 Plan typically were made subject to a vesting period of three to five years.

In May 2016, the Bruker Corporation 2016 Incentive Compensation Plan (the “2016 Plan”) was approved by the Company’s stockholders. With the approval of the 2016 Plan, no further grants will be made under the 2010 Plan. The 2016 Plan provides for the issuance of up to 9,500,000 shares of the Company’s common stock and permits the grant of awards of non-qualified stock options, incentive stock options, stock appreciation rights, restricted stock, unrestricted stock, restricted stock units, performance shares and performance units, as well as cash-based awards. The 2016 Plan is administered by the Compensation Committee. The Compensation Committee has the authority to determine which employees will receive awards, the amount of any awards, and other terms and conditions of such awards. Awards granted under the 2016 Plan typically vest over a period of three to four years.

Stock option activity for the year ended December 31, 2016 was as follows:

	Shares Subject to Options	Weighted Average Option Price	Weighted Average Remaining Contractual Term (Yrs)	Aggregate Intrinsic Value (in millions) (b)
Outstanding at December 31, 2015	4,637,279	\$16.72		
Granted	1,070,266	23.08		
Exercised	(895,078)	13.43		
Forfeited/Expired	(186,789)	19.15		
Outstanding at December 31, 2016	<u>4,625,678</u>	<u>\$18.73</u>	<u>6.7</u>	<u>\$13.6</u>
Exercisable at December 31, 2016	<u>2,287,488</u>	<u>\$16.02</u>	<u>5.1</u>	<u>\$11.9</u>
Exercisable and expected to vest at December 31, 2016 (a)	<u>4,479,307</u>	<u>\$18.64</u>	<u>6.6</u>	<u>\$13.5</u>

- (a) In addition to the options that are vested at December 31, 2016, the Company expects a portion of the unvested options to vest in the future. Options expected to vest in the future are determined by applying an estimated forfeiture rate to the options that are unvested as of December 31, 2016.
- (b) The aggregate intrinsic value is based on the positive difference between the fair value of the Company's common stock price of \$21.18 on December 31, 2016, or the date of exercises, as appropriate, and the exercise price of the underlying stock options.

The weighted average fair value of options granted was \$7.72, \$7.82 and \$10.81 per share for the years ended December 31, 2016, 2015 and 2014, respectively.

The total intrinsic value of options exercised was \$11.2 million, \$8.2 million and \$10.0 million for the years ended December 31, 2016, 2015 and 2014, respectively.

Unrecognized pre-tax stock-based compensation expense of \$15.0 million related to stock options awarded under the 2010 and 2016 Plans is expected to be recognized over the weighted average remaining service period of 2.62 years for stock options outstanding at December 31, 2016.

Restricted shares of the Company's common stock are periodically awarded to executive officers, directors and certain key employees of the Company, subject to service restrictions, which vest ratably over periods of one to five years. The restricted shares of common stock may not be sold or transferred during the restriction period. Stock-based compensation for restricted stock is recorded based on the stock price on the grant date and charged to expense ratably throughout the restriction period.

The following table summarizes information about restricted stock award activity during the year ended December 31, 2016:

	Shares Subject to Restriction	Weighted Average Grant Date Fair Value
Outstanding at December 31, 2015	243,150	\$18.58
Granted	13,105	24.80
Vested	(82,374)	17.95
Forfeited	(1,375)	16.57
Outstanding at December 31, 2016	<u>172,506</u>	<u>\$19.37</u>

The total fair value of restricted stock vested was \$1.5 million, \$1.0 million and \$3.0 million for the years ended December 31, 2016, 2015 and 2014, respectively.

Unrecognized pre-tax stock-based compensation expense of \$2.5 million related to restricted stock awarded under the 2010 Plan is expected to be recognized over the weighted average remaining service period of 2.15 years for awards outstanding at December 31, 2016.

The following table summarizes information about restricted stock unit activity for year ended December 31, 2016:

	<u>Shares Subject to Restriction</u>	<u>Weighted Average Grant Date Fair Value</u>
Outstanding at December 31, 2015	—	\$ —
Granted	262,475	22.33
Vested	—	—
Forfeited	<u>(158)</u>	26.29
Outstanding at December 31, 2016	<u>262,317</u>	<u>\$22.32</u>

No restricted stock units vested in the year ended December 31, 2016. Unrecognized pre-tax stock-based compensation expense of \$5.1 million related to restricted stock units awarded under the 2016 Plan is expected to be recognized over the weighted average remaining service period of 3.75 years for units outstanding at December 31, 2016.

Note 17—Other Charges, Net

The components of other charges, net for the years ended December 31, 2016, 2015 and 2014, were as follows (in millions):

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Acquisition-related expenses (income), net	\$ 9.0	\$(7.2)	\$ 2.9
Professional fees incurred in connection with internal investigation	—	0.4	3.2
Pension settlement charge	—	10.2	—
Information technology transformation costs	6.2	8.9	4.0
Restructuring charges	9.8	8.1	11.1
Long-lived asset impairments	<u>0.8</u>	<u>4.6</u>	<u>11.5</u>
Other charges, net	<u>\$25.8</u>	<u>\$25.0</u>	<u>\$32.7</u>

Restructuring Initiatives

2016

The Company commenced a restructuring initiative in 2016 to address lower demand in the Bruker CALID and Bruker Nano Groups as a result of delays in European academic funding and ongoing weakness in several of the industrial end market segments that affect the Bruker Nano Group. This initiative is intended to improve the Bruker CALID and Bruker Nano Group operating results in response to these market conditions. Restructuring actions will result in a reduction of approximately 125 employees within the Bruker CALID and Bruker Nano Groups.

The following is a summary of the restructuring expenses related to this initiative which are recorded in the accompanying consolidated statements of income and comprehensive income for the year ended December 31, 2016:

	2016		
	Severance and Exit Costs	Inventory Writedown and Asset Impairment	Total
Cost of revenues	\$4.4	\$2.4	\$ 6.8
Other charges, net	3.4	0.2	3.6
	<u>\$7.8</u>	<u>\$2.6</u>	<u>\$10.4</u>

Total restructuring and other one-time charges related to this initiative in 2016 and 2017 are expected to be between \$11.0 and \$13.0 million, of which \$8.4 to \$10.0 million relate to employee separation and facility exit costs and \$2.6 to \$3.0 million relate to estimated inventory write-downs and asset impairments.

2015

The Company commenced a restructuring initiative in the second quarter of 2015 within the Bruker BioSpin Group, which was developed as a result of a revenue decline that occurred during the second half of 2014 and continued during the first half of 2015. This initiative was intended to improve Bruker BioSpin Group’s operating results. Restructuring actions resulted in a reduction of employee headcount within the Bruker BioSpin Group of approximately 9% and the closure and consolidation of a Bruker BioSpin Group manufacturing facility.

The following is a summary of the restructuring expenses related to this initiative which are recorded in the accompanying consolidated statements of income and comprehensive income for years ended December 31, 2016 and 2015:

	2016			2015		
	Severance and Exit Costs	Inventory Writedown and Asset Impairment	Total	Severance and Exit Costs	Inventory Writedown and Asset Impairment	Total
Cost of revenues	\$2.2	\$—	\$2.2	\$10.2	\$2.1	\$12.3
Other charges, net	1.1	—	1.1	1.8	2.1	3.9
	<u>\$3.3</u>	<u>\$—</u>	<u>\$3.3</u>	<u>\$12.0</u>	<u>\$4.2</u>	<u>\$16.2</u>

As of December 31, 2016, expenses incurred under this restructuring initiative were substantially complete.

2014

In 2014, the Company commenced and executed various productivity improvement initiatives within the BSI Segment in an effort to optimize its operations. These restructuring initiatives included the divestiture of certain non-core businesses, outsourcing of various manufacturing activities, transferring or ceasing operations at certain facilities and an overall right-sizing within the Company based on the then current business environments.

Restructuring charges for the years ended December 31, 2016, 2015 and 2014 included charges for various other programs which were recorded in the accompanying consolidated statements of income and comprehensive income as follows:

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Cost of revenues	\$2.0	\$ 8.9	\$25.0
Other charges, net	5.1	4.2	11.1
	<u>\$7.1</u>	<u>\$13.1</u>	<u>\$36.1</u>

The following table sets forth the changes in the restructuring reserves for the years ended December 31, 2016, 2015 and 2014 (in millions):

	<u>Total</u>	<u>Severance</u>	<u>Exit Costs</u>	<u>Provisions for Excess Inventory</u>
Balance at December 31, 2013	\$ 11.5	\$ 8.4	\$ 1.1	\$ 2.0
Restructuring charges	36.1	15.5	8.8	11.8
Cash payments	(22.9)	(14.6)	(8.2)	(0.1)
Non-cash adjustments	(7.5)	(1.4)	(0.3)	(5.8)
Foreign currency impact	(1.1)	(0.8)	(0.1)	(0.2)
Balance at December 31, 2014	\$ 16.1	\$ 7.1	\$ 1.3	\$ 7.7
Restructuring charges	29.3	15.9	6.4	7.0
Cash payments	(18.0)	(11.9)	(5.1)	(1.0)
Non-cash adjustments	(2.9)	(0.2)	(0.2)	(2.5)
Foreign currency impact	(1.4)	(0.6)	—	(0.8)
Balance at December 31, 2015	\$ 23.1	\$ 10.3	\$ 2.4	\$10.4
Restructuring charges	20.8	10.6	7.2	3.0
Cash payments	(22.1)	(15.6)	(5.6)	(0.9)
Non-cash adjustments	(5.4)	(0.4)	(0.3)	(4.7)
Foreign currency impact	(0.2)	—	—	(0.2)
Balance at December 31, 2016	<u>\$ 16.2</u>	<u>\$ 4.9</u>	<u>\$ 3.7</u>	<u>\$ 7.6</u>

For the years ended December 31, 2016 and 2014, all restructuring charges related to the BSI Segment. For the year ended December 31, 2015, restructuring charges of \$28.4 million related to the BSI Segment and \$0.9 million related to the BEST Segment.

Note 18—Interest and Other Income (Expense), Net

The components of interest and other income (expense), net for the years ended December 31, 2016, 2015 and 2014, were as follows (in millions):

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Interest income	\$ 0.3	\$ 1.2	\$ 0.8
Interest expense	(13.2)	(13.0)	(13.3)
Exchange gains (losses) on foreign currency transactions . .	4.1	(5.5)	(2.0)
Gain on bargain purchase	9.2	—	—
(Loss) gain on disposal of product line	—	(0.2)	8.3
Other	—	(0.2)	2.1
Interest and other income (expense), net	<u>\$ 0.4</u>	<u>\$(17.7)</u>	<u>\$ (4.1)</u>

Note 19—Business Segment Information

The Company has two reportable segments, BSI and BEST, as discussed in Note 1 to the consolidated financial statements.

Selected business segment information is presented below for the years ended December 31, (in millions):

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Revenue:			
BSI	\$1,492.6	\$1,499.2	\$1,674.6
BEST	130.2	133.7	152.9
Eliminations (a)	<u>(11.5)</u>	<u>(9.1)</u>	<u>(18.6)</u>
Total revenue	<u>\$1,611.3</u>	<u>\$1,623.8</u>	<u>\$1,808.9</u>
Operating Income (Loss):			
BSI	\$ 168.9	\$ 133.2	\$ 99.8
BEST	6.6	11.5	3.4
Corporate, eliminations and other (b)	<u>1.7</u>	<u>1.0</u>	<u>2.2</u>
Total operating income	<u>\$ 177.2</u>	<u>\$ 145.7</u>	<u>\$ 105.4</u>

(a) Represents product and service revenue between reportable segments.

(b) Represents corporate costs and eliminations not allocated to the reportable segments.

The Company recorded an impairment charge of \$0.8 million and \$4.6 million for the years ended December 31, 2016 and 2015, respectively, within the BSI Segment. The Company recorded an impairment charge of \$11.5 million for the year ended December 31, 2014, of which \$6.4 million was within the BSI Segment and \$5.1 million within the BEST Segment. Please see Note 7—Property, Plant and Equipment, net and Note 8—Goodwill and Other Intangible Assets, for description of impairment charges recorded in 2016, 2015 and 2014. These impairment charges are included within other charges, net in the accompanying consolidated statements of income and comprehensive income (loss).

Total assets by segment as of and for the years ended December 31, are as follows (in millions):

	<u>2016</u>	<u>2015</u>
Assets:		
BSI	\$1,779.8	\$1,714.4
BEST	36.0	79.1
Eliminations and other (a)	<u>(7.4)</u>	<u>(63.5)</u>
Total assets	<u>\$1,808.4</u>	<u>\$1,730.0</u>

(a) Assets not allocated to the reportable segments and eliminations of intercompany transactions.

Total capital expenditures and depreciation and amortization by segment are presented below for the years ended December 31, (in millions):

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Capital Expenditures:			
BSI	\$34.6	\$30.1	\$31.5
BEST	2.5	4.1	2.3
Total capital expenditures	<u>\$37.1</u>	<u>\$34.2</u>	<u>\$33.8</u>
Depreciation and Amortization:			
BSI	\$51.3	\$50.5	\$55.1
BEST	3.0	2.8	4.6
Total depreciation and amortization	<u>\$54.3</u>	<u>\$53.3</u>	<u>\$59.7</u>

Revenue and property, plant and equipment, net by geographical area as of and for the year ended December 31, are as follows (in millions):

	<u>2016</u>	<u>2015</u>	<u>2014</u>
Revenue:			
United States	\$ 428.2	\$ 380.4	\$ 387.6
Germany	189.5	198.9	215.1
Rest of Europe	393.4	479.6	522.9
Asia Pacific	458.1	414.9	495.5
Other	142.1	150.0	187.8
Total revenue	<u>\$1,611.3</u>	<u>\$1,623.8</u>	<u>\$1,808.9</u>

	<u>2016</u>	<u>2015</u>
Property, plant and equipment, net:		
United States	\$ 46.4	\$ 43.2
Germany	122.5	125.9
Rest of Europe	63.3	54.7
Asia Pacific	4.4	4.2
Other	2.5	3.1
Total property, plant and equipment, net	<u>\$239.1</u>	<u>\$231.1</u>

Note 20—Related Parties

The Company leases certain office space from certain of its principal shareholders, including a director and executive officer and another member of the Company’s Board of Directors, and members of their immediate families, which have expiration dates ranging from 2017 to 2020. Total rent expense under these leases was \$3.9 million, \$1.8 million and \$2.0 million for each of the years ended December 31, 2016, 2015 and 2014, respectively.

During the year ended December 31, 2014, the Company incurred expenses of \$2.4 million to a law firm in which one of the former members of its Board of Directors is a partner.

During the year ended December 31, 2014, the Company incurred expenses of \$0.1 million to a financial services firm in which one of the former members of its Board of Directors is a partner.

During the year ended December 31, 2014, the Company recorded revenue of \$0.9 million from commercial transactions with a life science supply company in which a member of the Company’s

Board of Directors is Chairman, President and Chief Executive Officer and another member of the Company's Board of Directors was formerly a director.

During the years ended December 31, 2016, 2015 and 2014, the Company recorded revenue of \$1.1 million, \$0.7 million and \$1.9 million, respectively, and incurred expenses of \$0.1 million for the year ended December 31, 2014, arising from commercial transactions with a life sciences company in which a member of the Company's Board of Directors, who joined the Board of Directors in 2014, is Chairman and Chief Executive Officer.

During the year ended December 31, 2016 and 2015, the Company recorded revenue of \$0.2 million and \$0.5 million, respectively, from commercial transactions with a thermal analysis company in which one of the former members of its Board of Directors serves as a consultant.

Note 21—Recent Accounting Pronouncements

In January 2017, the Financial Accounting Standards Boards ("FASB") issued Accounting Standards Update ("ASU") 2017-04, *Intangibles—Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment*. The new standard simplifies the subsequent measurement of goodwill by eliminating the second step of the goodwill impairment test. This ASU will be applied prospectively and is effective for annual or interim goodwill impairment tests in fiscal years beginning after December 15, 2019. The adoption of this standard is not expected to have a material impact on the Company's consolidated financial statements upon adoption.

In January 2017, the FASB issued ASU No. 2017-01, *Business Combinations (Topic 805): Clarifying the Definition of a Business*. This new standard clarifies the definition of a business and provides a screen to determine when an integrated set of assets and activities is not a business. The screen requires that when substantially all of the fair value of the gross assets acquired (or disposed of) is concentrated in a single identifiable asset or a group of similar identifiable assets, the set is not a business. This new standard will be effective as of January 1, 2018. The Company is evaluating the provisions of this standard, including which period to adopt, and has not determined what impact the adoption of ASU No. 2017-01 will have on the Company's consolidated financial statements.

In October 2016, the FASB issued ASU No. 2016-16, *Income Taxes (Topic 740)—Intra-Entity Transfer of Assets Other than Inventory*. The new standard requires recognition of current and deferred income taxes resulting from an intra-entity transfer of any asset (excluding inventory) when the transfer occurs. This is a change from existing U.S. GAAP which prohibits recognition of current and deferred income taxes until the asset is sold to a third party. The new standard is effective as of January 1, 2018 and early adoption is permitted. The Company is evaluating the provisions of this standard, including which period to adopt, and has not determined what impact the adoption of ASU No. 2016-16 will have on the Company's consolidated financial statements.

In August 2016, the FASB issued ASU 2016-15, *Statement of Cash Flows (Topic 230)*. The objective of this update is to provide additional guidance and reduce diversity in practice when classifying certain transactions within the statement of cash flows. In November 2016, the FASB issued ASU 2016-18, *Statement of Cash Flows (Topic 230): Restricted Cash*. The new standard requires that the statement of cash flows explain the change during the period in the total of cash, cash equivalents, and amounts generally described as restricted cash or restricted cash equivalents. These standards are effective for financial statements issued for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. The Company is currently evaluating this guidance to determine the impact it may have on its consolidated financial statements.

In March 2016, the FASB issued ASU No. 2016-09, *Stock Compensation—Improvements to Employee Share-Based Payment Accounting*. The new standard simplifies accounting for share-based payment transactions, including income tax consequences and the classification of the tax impact on the

statement of cash flows. The new standard is effective as of January 1, 2017, and early adoption is permitted. This new standard will be effective for the Company on January 1, 2017. The adoption of this standard is not expected to have a material impact on the Company's financial position, results of operations or statements of cash flows upon adoption.

In February 2016, the FASB issued ASU No. 2016-02, *Leases*. The new standard provides guidance on the recognition, measurement, presentation, and disclosure of leases. The new standard supersedes present U.S. GAAP guidance on leases and requires substantially all leases to be reported on the balance sheet as right-of-use assets and lease liabilities, as well as additional disclosures. The new standard is effective as of January 1, 2019, and early adoption is permitted. The Company is evaluating the provisions of this standard and has not determined what impact the adoption of ASU No. 2016-02 will have on the Company's consolidated financial statements.

In July 2015, the FASB issued ASU No. 2015-11, *Simplifying the Measurement of Inventory*. The new guidance eliminates the measurement of inventory at market value, and inventory will now be measured at the lower of cost and net realizable value. The ASU defines net realizable value as the estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal, and transportation. No other changes were made to the current guidance on inventory measurement. ASU No. 2015-11 is effective for interim and annual periods beginning after December 15, 2016. Early application is permitted and should be applied prospectively. The Company is evaluating the provisions of this standard and has not determined what impact the adoption of ASU No. 2015-11 will have on the Company's consolidated financial statements.

In May 2014, the FASB issued ASU No. 2014-09, *Revenue from Contracts with Customers*, which supersedes the revenue recognition requirements under Accounting Standards Codification (ASC) Topic 605. The new guidance was the result of a joint project between the FASB and the International Accounting Standards Board to clarify the principles for recognizing revenue and to develop common revenue standards for U.S. GAAP and International Financial Reporting Standards. The core principle of the new guidance is that revenue should be recognized to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. ASU No. 2014-09 was originally effective prospectively for annual periods beginning after December 15, 2016, and interim periods within those years. Early application was not permitted. In August 2015, the FASB elected to defer the effective date of ASU No. 2014-09 by one year to annual periods beginning after December 15, 2017, with early application permitted as of the original effective date. The new guidance may be applied on a retrospective basis for all prior periods presented, or on a modified retrospective basis with the cumulative effect of the new guidance as of the date of initial application. The new guidance will be effective for the Company as of January 1, 2018 and the Company currently expects to use the modified retrospective transition method.

During 2016, the Company substantially completed the impact assessment phase of its evaluation of ASU 2014-09. As a result of its impact assessment, the Company will be implementing additional processes and controls, including additional disclosures, to comply with the new standard. The largest financial impact will be the timing of revenue recognition for certain project-based orders for which the Company currently applies the percentage-of-completion or completed contract model. Under the new guidance, there are specific criteria to determine if a performance obligation should be recognized over time or at a point in time. The Company expects that in some cases the revenue recognition timing under the new guidance will change from current practice based on applying the specific criteria under the new guidance. The Company has not yet quantified the impact the adoption of ASU No. 2014-09 will have on the consolidated financial statements.

Note 22—Quarterly Financial Data (Unaudited)

A summary of operating results for the quarterly periods in the years ended December 31, 2016 and 2015, is set forth below (in millions, except per share data):

	Quarter Ended			
	March 31	June 30 (1) (2)	September 30 (2)	December 31 (1) (2) (3)
Year ended December 31, 2016				
Net revenue	\$375.4	\$371.7	\$393.9	\$470.3
Gross profit	166.8	170.1	185.2	220.4
Operating income	34.0	20.4	45.9	76.9
Net income attributable to Bruker Corporation	23.6	14.5	46.5	69.0
Net income per common share attributable to Bruker Corporation shareholders:				
Basic	\$ 0.14	\$ 0.09	\$ 0.29	\$ 0.43
Diluted	\$ 0.14	\$ 0.09	\$ 0.29	\$ 0.43
Year ended December 31, 2015				
Net revenue	\$353.5	\$396.0	\$396.1	\$478.2
Gross profit	160.2	169.4	167.5	211.5
Operating income	15.2	31.6	28.2	70.7
Net income attributable to Bruker Corporation	6.5	21.9	11.8	61.4
Net income per common share attributable to Bruker Corporation shareholders:				
Basic	\$ 0.04	\$ 0.13	\$ 0.07	\$ 0.37
Diluted	\$ 0.04	\$ 0.13	\$ 0.07	\$ 0.36

- (1) The second and fourth quarter of 2016 includes impairment of assets of \$0.7 million and \$0.1 million, respectively, comprised of other long-lived assets.
- (2) The second, third and fourth quarter of 2015 includes impairment of assets of \$1.8 million, \$2.5 million and \$0.3 million, respectively, comprised of goodwill, definite-lived intangible assets and other long-lived assets.
- (3) The fourth quarter of 2016 includes bargain purchase gain of \$9.2 million related to the Oxford Instruments Superconducting Wire LLC., acquisition

Note 23—Subsequent Event

On January 24, 2017, the Company acquired the shares of Hysitron, Incorporated for a purchase price of \$28.5 million, with the potential for additional consideration based on the 2017 and 2018 revenue levels of the acquired business. The acquisition adds Hysitron’s innovative nanomechanical testing instruments to the Company’s existing portfolio of atomic force microscopes, surface profilometers, and tribology and mechanical testing systems, significantly enhancing the Company’s leadership position in nanomaterials research markets. Hysitron is located in Eden Prairie, Minnesota and will be integrated into the Bruker Nano Group within the BSI reportable segment. The purchase accounting for this acquisition will be finalized within the measurement period.

ITEM 9 *CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON AUDITING AND FINANCIAL DISCLOSURE*

At a meeting held on June 1, 2016, the audit committee of the Company's Board of Directors approved the dismissal of Ernst & Young LLP ("Ernst & Young") as the Company's independent registered public accounting firm, effective June 1, 2016, and the appointment of PricewaterhouseCoopers LLP as the Company's independent registered public accounting firm, effective June 1, 2016, to perform independent audit services for the fiscal year ending December 31, 2016.

The reports of Ernst & Young on the consolidated financial statements of the Company for each of the fiscal years ended December 31, 2015 and 2014 did not contain an adverse opinion or disclaimer of opinion and were not qualified or modified as to uncertainty, audit scope, or accounting principles.

In connection with the audits of our financial statements for each of the fiscal years ended December 31, 2015 and 2014, and in the subsequent interim period through June 1, 2016, there were no "disagreements" (as that term is defined in Item 304(a)(1)(iv) of Regulation S-K and the related instructions) with Ernst & Young on any matter of accounting principles or practices, financial statement disclosure, or auditing scope and procedures, which, if not resolved to the satisfaction of Ernst & Young, would have caused Ernst & Young to make reference to the matter in their reports for such years. There were no "reportable events" as that term is described in Item 304(a)(1)(v) of Regulation S-K, except for a material weakness in the Company's internal control over financial reporting as of December 31, 2015 concerning the accounting for income taxes, as further described under Item 9A below, which material weakness was identified subsequent to the filing of our Annual Report on Form 10-K for the year ended December 31, 2015.

As a result of such material weakness, our management concluded in November 2016 that the Company's internal control over financial reporting was not effective at December 31, 2015. On November 15, 2016, the Company filed Amendment No. 1 to its Annual Report on Form 10-K for the fiscal year ended December 31, 2015, as well as amendments to each of its Quarterly Reports on Form 10-Q for the periods ended March 31, 2016, and June 30, 2016, to reflect the conclusion by management that there was a material weakness in internal control over financial reporting as of the end of the periods covered by those reports. The Company's Amendment No. 1 to its Annual Report on Form 10-K for the fiscal year ended December 31, 2015 also included revised auditor's reports from Ernst & Young stating that the Company's internal control over financial reporting at December 31, 2015 was not effective.

ITEM 9A *CONTROLS AND PROCEDURES*

Disclosure Controls and Procedures

We have established disclosure controls and procedures (as such term is defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended (the "Exchange Act")) that are designed to ensure that information required to be disclosed in the reports that we file or submit under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the rules and forms of the SEC and to ensure that information required to be disclosed is accumulated and communicated to management, including our Chief Executive Officer (principal executive officer) and Chief Financial Officer (principal financial officer), to allow timely decisions regarding disclosure. 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 disclosure controls and procedures as of December 31, 2016. Based on this evaluation, our Chief Executive Officer and Chief Financial Officer have concluded that our disclosure controls and procedures were not effective at a reasonable assurance level as of December 31, 2016 due to a material weakness in internal control over financial reporting, as further described below.

Management's Report on Internal Control over Financial Reporting

Our management is responsible for establishing and maintaining adequate internal control over financial reporting. 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 as of December 31, 2016, based on the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) in *Internal Control—Integrated Framework* (2013). Based on this evaluation, management concluded that the material weakness in internal control over financial reporting described below existed as of December 31, 2016.

A material weakness is a deficiency, or combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of the Company's annual or interim financial statements will not be prevented or detected on a timely basis.

We did not design and maintain effective internal controls over the accounting for income taxes, including the income tax provision and related tax assets and liabilities. Specifically, management did not design and maintain controls with a level of precision that would identify a material misstatement. This control deficiency resulted in immaterial errors to deferred tax assets and liabilities, income taxes payable and income tax expense accounts in the Company's consolidated financial statements for the year ended December 31, 2015. These errors did not, individually or in the aggregate, result in a material misstatement of the Company's consolidated financial statements and disclosures for any periods through and including the year ended December 31, 2015. This control deficiency did not result in a misstatement of the Company's consolidated financial statements for the year ended December 31, 2016. However, this control deficiency could result in a misstatement of the aforementioned account balances or disclosures that would result in a material misstatement to our annual or interim consolidated financial statements that would not be prevented or detected. Accordingly, our management determined that this control deficiency constitutes a material weakness.

We have concluded that the material weakness described above existed as of December 31, 2016. As a result, management has concluded that we did not maintain effective internal control over financial reporting as of December 31, 2016, based on the COSO criteria described above.

PricewaterhouseCoopers LLP, our independent registered public accounting firm for the fiscal year ended December 31, 2016, has issued an audit report expressing an adverse opinion on the effectiveness of our internal control over financial reporting as of December 31, 2016, which is included herein.

Remediation Plans

During the year ended December 31, 2016 and through the date of this filing, as part of our routine efforts to maintain adequate and effective internal control over financial reporting, we initiated and implemented measures designed to improve our financial statement closing process and enhance certain internal controls processes and procedures. As indicated below, a number of these initiatives relate directly to strengthening our control over accounting for income taxes and address specific control deficiencies which contributed to the material weakness. As a result of these efforts, as of the date of this filing the Company believes it has made progress toward remediating the underlying causes of the material weakness. Specifically, the Company has undertaken the following steps in 2016 to remediate the deficiencies underlying this material weakness:

- We augmented our tax accounting resources by adding personnel with specific international tax expertise to strengthen tax accounting review procedures in significant jurisdictions;
- We implemented procedures designed to improve the process and timeliness of tax return preparation in significant jurisdictions;

- We developed and implemented enhanced policies, procedures and controls relating to income tax account reconciliations and analysis, including enhancing our documentation to reflect the control attributes that are performed;
- We implemented accelerated and additional annual close procedures and controls during the fourth quarter of 2016 to allow for more timely issue identification and increase the frequency of review procedures and controls performed by our management around the calculation and reporting of certain tax balances;
- We identified and implemented technology improvements designed to enhance the functionality of our tax provision software to automate tasks and control workflow; and
- During the fourth quarter of 2016, we reassessed and revised the design of our tax review controls to add greater precision to help detect and prevent material misstatements.

We are committed to maintaining a strong internal control environment, and believe that these remediation efforts represent significant improvements in our control environment. The identified material weakness in internal control will not be considered fully remediated until the internal controls over these areas have been in operation for a sufficient period of time for our management to conclude that the material weakness has been fully remediated. The Company will continue its efforts to test the new controls in order to make this final determination.

Changes in Internal Control over Financial Reporting

As discussed in the remediation plans above, there were changes in our internal control over financial reporting that occurred during the quarter ended December 31, 2016 that materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

ITEM 9B OTHER INFORMATION

None.

PART III**ITEM 10 DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE**

The full text of the Company's code of ethics, which applies to its Principal Executive Officer, Principal Financial Officer, Principal Accounting Officer and Board of Directors is published on the Company's Investor Relations web site at www.bruker.com. We intend to disclose future amendments to certain provisions of our Code, or waivers of such provisions granted to executive officers and directors, on the web site within four business days following the date of such amendment or waiver.

Information regarding our executive officers may be found under the caption "*Executive Officers*" in our definitive proxy statement for our 2017 Annual Meeting of Stockholders. Information regarding our directors, including committees of our Board of Directors and our Audit Committee Financial Experts, may be found under the captions "*Election of Directors*," "*Board Meetings, Committees and Compensation*," and "*Audit Committee Report*" in our definitive proxy statement for our 2017 Annual Meeting of Stockholders. Information regarding compliance with Section 16(a) of the Exchange Act may be found in our definitive proxy statement for our 2017 Annual Meeting of Stockholders under the caption "*Section 16(a) Beneficial Ownership Reporting Compliance*." Information regarding the procedures by which security holders may recommend nominees to our Board of Directors may be found in our definitive proxy statement for our 2017 Annual Meeting of Stockholders under the caption "*Director Nominations*." Such information is incorporated herein by reference.

ITEM 11 EXECUTIVE COMPENSATION

Information regarding executive compensation may be found under the captions "*Compensation of Directors*," "*Compensation Discussion and Analysis*," "*Summary of Executive Compensation*," "*Compensation Committee Interlocks and Insider Participation*," and "*Compensation Committee Report*" in our definitive proxy statement for our 2017 Annual Meeting of Stockholders. Such information is incorporated herein by reference.

ITEM 12 SECURITY OWNERSHIP OF CERTAIN BENEFICIAL OWNERS AND MANAGEMENT AND RELATED STOCKHOLDER MATTERS

The following table summarizes information about our equity compensation plans as of December 31, 2016:

Period	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	5,060,501	\$18.94	11,379,083
Equity compensation plans not approved by security holders	N/A	N/A	N/A
	5,060,501	\$18.94	11,379,083

The Bruker Corporation 2016 Incentive Compensation Plan, or the 2016 Plan, was approved by our stockholders in May 2016. The 2016 Plan has a term of ten years and provides for the issuance of

up to 9,500,000 shares of the Company's common stock. With the approval of the 2016 Plan, no additional grants can be made from the 2010 Incentive Compensation Plan. Outstanding awards under the 2010 Incentive Compensation Plan will continue in accordance with their terms.

The information contained in our definitive proxy statement for our 2017 Annual Meeting of Stockholders under the caption "*Security Ownership of Certain Beneficial Owners and Management*" is incorporated herein by reference.

ITEM 13 CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS, AND DIRECTOR INDEPENDENCE

The information contained in our definitive proxy statement for our 2017 Annual Meeting of Stockholders under the captions "*Related Persons Transactions*" and "*Board Meetings, Committees and Compensation*" is incorporated herein by reference.

ITEM 14 PRINCIPAL ACCOUNTING FEES AND SERVICES

The information contained in our definitive proxy statement for our 2017 Annual Meeting of Stockholders under the captions "*Independent Registered Public Accounting Firm*" and "*Ratification of Independent Registered Public Accounting Firm*" is incorporated herein by reference.

PART IV

ITEM 15 EXHIBITS, FINANCIAL STATEMENTS AND SCHEDULES

(a) Financial Statements and Schedules

(1) Financial Statements

The following consolidated financial statements of Bruker Corporation are filed as part of this report under Item 8—Financial Statements and Supplementary Data:

Report of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm
 Report of Ernst & Young LLP, Independent Registered Public Accounting Firm
 Consolidated Balance Sheets as of December 31, 2016 and 2015
 Consolidated Statements of Income and Comprehensive Income (Loss) for the years ended
 December 31, 2016, 2015 and 2014
 Consolidated Statements of Shareholders' Equity for the years ended December 31, 2016, 2015 and
 2014
 Consolidated Statements of Cash Flows for the years ended December 31, 2016, 2015 and 2014
 Notes to Consolidated Financial Statements

(2) Financial Statement Schedules

All schedules have been omitted because they are not required or because the required information is provided in the Consolidated Financial Statements or Notes thereto set forth under Item 8 above.

(3) Exhibits

(b) List of Exhibits

Exhibit No.	Description	Filed Herewith	Incorporated by Reference (1)	
			Form	Date
3.1	Amended Certificate of Incorporation of the Registrant		10-K	December 31, 2007
3.2	Bylaws of the Registrant		S-1	August 3, 2000
4.1	Specimen stock certificate representing shares of common stock of the Registrant	X		
10.1†	Bruker Corporation 2010 Incentive Compensation Plan		S-8	June 4, 2010
10.2†	Bruker Corporation 2010 Incentive Compensation Plan Form of Incentive Stock Option Agreement		10-Q	June 30, 2010
10.3†	Bruker Corporation 2010 Incentive Compensation Plan Form of Non-Qualified Stock Option Agreement		10-Q	June 30, 2010
10.4†	Bruker Corporation 2010 Incentive Compensation Plan Form of Restricted Stock Agreement		10-Q	June 30, 2010

Exhibit No.	Description	Filed Herewith	Incorporated by Reference (1)	
			Form	Date
10.30	Amended and Restated Credit Agreement dated as of May 24, 2011 among the Company, Bruker AXS GmbH, Bruker Daltonik GmbH, Bruker Optik GmbH, Bruker Physik GmbH, Bruker BioSpin Invest AG, Bruker BioSpin AG and Bruker BioSpin International AG, the other foreign subsidiary borrowers from time to time party thereto, the lenders from time to time party thereto, Deutsche Bank Securities Inc., Commerzbank Ag, New York, Grand Cayman And Stuttgart Branches and RBS Citizens, National Association, as Co-Documentation Agents, Bank of America, N.A. as Syndication Agent and JPMorgan Chase Bank, N.A., as Administrative Agent		8-K	May 25, 2011
10.31*	Note Purchase Agreement dated as of January 18, 2012.		8-K	January 18, 2012
10.34†	Bruker Energy & Supercon Technologies, Inc. 2009 Stock Option Plan		10-K	December 31, 2009
10.35†	Form of Bruker Energy & Supercon Technologies, Inc. Incentive Stock Option Agreement		10-K	December 31, 2009
10.36†	Form of Bruker Energy & Supercon Technologies, Inc. Non-Qualified Stock Option Agreement		10-K	December 31, 2009
10.41†	Employment offer letter agreement dated June 25, 2012 between Bruker Corporation and Juergen Srega		10-Q	March 31, 2013
10.43*	Credit Agreement, dated October 27, 2015, by and among the Company and certain of its foreign subsidiaries as borrowers, Citizens Bank, N.A., Deutsche Bank Securities Inc. and TD Bank, N.A., as Co-Documentation Agents, Bank of America, N.A. and Wells Fargo Bank, National Association, as Co-Syndication Agents, JPMorgan Chase Bank, N.A., as Administrative Agent for itself and the other lenders party thereto, and the several banks or other financial institutions or entities from time to time party thereto as lenders (incorporated by reference to Exhibit 10.1 to the Company's Current Report on the Form 8-K filed on October 27, 2015, File No. 000-30833)		8-K	October 27, 2015
10.44†	Employment agreement with an effective date of November 1, 2015 between Bruker Corporation and Dr. René Lenggenhager		10-Q	November 6, 2015

Exhibit No.	Description	Filed Herewith	Incorporated by Reference (1)	
			Form	Date
10.45†	Bruker Corporation 2016 Incentive Compensation Plan Form of Incentive Stock Option Award Agreement		10-Q	August 5, 2016
10.46†	Bruker Corporation 2016 Incentive Compensation Plan Form of Non-Qualified Stock Option Award Agreement		10-Q	August 5, 2016
10.47†	Bruker Corporation 2016 Incentive Compensation Plan Form of Restricted Stock Unit Award Agreement		10-Q	August 5, 2016
10.48†	Bruker Corporation 2016 Incentive Compensation Plan Form of Director Restricted Stock Unit Award Agreement	X		
21.1	Subsidiaries of the Registrant	X		
23.1	Consent of PricewaterhouseCoopers LLP, Independent Registered Public Accounting Firm	X		
23.2	Consent of Ernst & Young LLP, Independent Registered Public Accounting Firm			
24.1	Power of attorney (included on signature page hereto)	X		
31.1	Certification by Principal Executive Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	X		
31.2	Certification by Principal Financial Officer pursuant to Section 302 of the Sarbanes-Oxley Act of 2002	X		
32.1	Certification by Chief Executive Officer and Chief Financial Officer pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002	X		
101	The following materials from the Bruker Corporation Annual Report on Form 10-K for the fiscal year ended December 31, 2016 formatted in Extensible Business Reporting Language (XBRL): (i) the Consolidated Balance Sheets, (ii) Consolidated Statements of Income and Comprehensive Income (Loss), (iii) Consolidated Statements of Shareholders' Equity and Comprehensive Income (Loss), (iv) Consolidated Statements of Cash Flows and (iv) Notes to the Consolidated Financial Statements	X		

* Certain portions have been omitted pursuant to an order granting confidential treatment and have been filed separately with the Securities and Exchange Commission.

† Designates management contract or compensatory plan or arrangement.

- (1) In accordance with Rule 12b-32 under the Exchange Act reference is made to the documents previously filed with the Securities and Exchange Commission, which documents are hereby incorporated by reference. The dates listed for Forms 8-K are dates the respective forms were filed on, the dates listed for Forms 10-Q, Forms 10-K and Forms 10-K/A are for the quarterly or annual period ended dates and the dates listed for Forms S-1, Forms S-3 and Forms S-4 are dates on which the Securities and Exchange Commission declared them effective.

ITEM 16 *FORM 10-K SUMMARY*

Not Applicable.

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.

BRUKER CORPORATION

Date: March 1, 2017

By: /s/ FRANK H. LAUKIEN, PH.D.

Name: Frank H. Laukien, Ph.D.

Title: *President, Chief Executive Officer and
Chairman*

We, the undersigned officers and directors of Bruker Corporation, hereby severally constitute and appoint Frank H. Laukien, Ph.D. to sign for us and in our names in the capacities indicated below, the report on Form 10-K filed herewith and any and all amendments to such report, and to file the same, with all exhibits thereto and other documents in connection therewith, in each case, with the Securities and Exchange Commission, and generally to do all such things in our names and on our behalf in our capacities consistent with the provisions of the Securities Exchange Act of 1934, as amended, and all requirements of the Securities and Exchange Commission.

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

<u>Name</u>	<u>Title</u>	<u>Date</u>
<u>/s/ FRANK H. LAUKIEN, PH.D.</u> Frank H. Laukien, Ph.D.	President, Chief Executive Officer and Chairman (Principal Executive Officer)	March 1, 2017
<u>/s/ ANTHONY L. MATTACCHIONE</u> Anthony L. Mattacchione	Chief Financial Officer and Senior Vice President (Principal Financial Officer)	March 1, 2017
<u>/s/ MICHAEL G. KNELL</u> Michael G. Knell	Vice President of Finance and Chief Accounting Officer (Principal Accounting Officer)	March 1, 2017
<u>/s/ STEPHEN W. FESIK, PH.D.</u> Stephen W. Fesik, Ph.D.	Director	March 1, 2017
<u>/s/ CYNTHIA M. FRIEND, PH.D.</u> Cynthia Friend, Ph.D.	Director	March 1, 2017
<u>/s/ MARC A. KASTNER, PH.D.</u> Marc A. Kastner, Ph.D.	Director	March 1, 2017

<u>Name</u>	<u>Title</u>	<u>Date</u>
<u>/s/ RICHARD D. KNISS</u> Richard D. Kniss	Director	March 1, 2017
<u>/s/ JOERG C. LAUKIEN</u> Joerg C. Laukien	Director	March 1, 2017
<u>/s/ WILLIAM A. LINTON</u> William A. Linton	Director	March 1, 2017
<u>/s/ GILLES G. MARTIN, PH.D.</u> Gilles G. Martin	Director	March 1, 2017
<u>/s/ JOHN ORNELL</u> John Ornell	Director	March 1, 2017
<u>/s/ RICHARD A. PACKER</u> Richard A. Packer	Director	March 1, 2017
<u>/s/ HERMANN REQUARDT, PH.D.</u> Hermann Requardt, PH.D.	Director	March 1, 2017
<u>/s/ ROBERT ROSENTHAL, PH.D.</u> Robert Rosenthal, PH.D	Director	March 1, 2017
<u>/s/ CHRIS VAN INGEN</u> Chris van Ingen	Director	March 1, 2017

SUBSIDIARIES OF BRUKER CORPORATION

<u>Name of Subsidiary</u>	<u>Jurisdiction of Incorporation</u>
Bruker Energy & Supercon Technologies, Inc.	Delaware, U.S.A.
Bruker HTS GmbH (1)	Germany
Bruker Advanced Supercon GmbH (2)	Germany
Bruker EAS GmbH (2)	Germany
Hydrostatic Extrusions Ltd. (1)	United Kingdom
RI Research Instruments GmbH (3)	Germany
Bruker AXS Inc.	Delaware, U.S.A.
Bruker AXS GmbH (4)	Germany
Bruker Austria GmbH (5)	Austria
Bruker AXS Analytical Instruments Pvt. Ltd. (5)	India
Bruker AXS Nordic AB (5)	Sweden
Bruker Baltic OU (5)	Estonia
Bruker do Brasil Ltda. (5)	Brazil
Bruker Nano GmbH (6)	Germany
Bruker Mexicana S.A. de C.V. (5)	Mexico
Bruker Polska Sp. Z o.o. (5)	Poland
Bruker South Africa (Pty) Ltd. (5)	South Africa
InCoaTec GmbH (7)	Germany
Bruker AXS Handheld Inc. (8)	Delaware, U.S.A.
Bruker AXS K.K. (8)	Japan
Bruker Nano, Inc. (8)	Arizona, U.S.A.
Vutara LLC (9)	Delaware, U.S.A.
Bruker BioSciences Securities Corporation	Massachusetts, U.S.A.
Bruker BioSpin Corporation	Massachusetts, U.S.A.
Bruker Invest AG (10)	Switzerland
Bruker BioSpin AG (11)	Switzerland
Bruker Espanola S.A. (11)	Spain
Bruker BioSpin International AG (11)	Switzerland
Bruker (Malaysia) SDN BHD (11)	Malaysia
Bruker Singapore Pte. Ltd. (11)	Singapore
Bruker (Beijing) Scientific Technology Co., Ltd. (12)	China
Bruker Ltd. (11)	Russia
Bruker India Scientific PVT, Ltd. (11)	India
Bruker India Suppliers PVT, Ltd. (13)	India
Bruker BioSpin K.K. (11)	Japan
Bruker Korea Co. Ltd. (11)	Korea
Bruker BioSpin MRI GmbH (11)	Germany
Bruker BioSpin MRI Inc. (11)	Massachusetts, U.S.A.
Bruker BioSpin Scandinavia AB (11)	Sweden
Bruker Nederland B.V. (11)	Netherlands
Bruker Ltd. (11)	Canada
Bruker UK Ltd. (11)	United Kingdom
Bruker AXS Ltd. (14)	United Kingdom
Oxford Research Systems Ltd. (15)	United Kingdom
Bruker PTY Ltd. (11)	Australia
Bruker France S.A.S. (11)	France
Bruker Belgium S.A./N.V. (11)	Belgium
Bruker Italia S.r.l. (11)	Italy
Bruker Portugal Unipessoal LDA (11)	Portugal

<u>Name of Subsidiary</u>	<u>Jurisdiction of Incorporation</u>
Bruker Scientific Instruments Hong Kong Co., Ltd. (11)	Hong Kong
Bruker MicroCT N.V. (11)	Belgium
Bruker Turkey Teknolojik Sistemler Ticaret Ltd. Sirketi (11)	Turkey
Bruker Scientific Israel Ltd. (11)	Israel
Bruker JV Israel Ltd. (16)	Israel
Bruker JV UK Ltd. (17)	United Kingdom
Bruker Physik GmbH (18)	Germany
Bruker BioSpin GmbH (19)	Germany
Bruker Daltonics Inc.	Delaware, U.S.A.
Bruker Daltonik GmbH (20)	Germany
Bruker s.r.o. (21)	Czech Republic
Bruker Daltonics India Pvt. Ltd. (21)	India
Bruker Taiwan Co. Ltd. (22)	Taiwan
Bruker Daltonics K.K. (22)	Japan
Bruker Daltonics Pty. Ltd. (22)	South Africa
Bruker Daltonics Scandinavia AB (22)	Sweden
Bruker Chemical Analysis B.V. (22)	Netherlands
Bruker Daltonics GmbH (22)	Switzerland
Bruker Daltonics Ltd. (22)	United Kingdom
Bruker Daltonics S.r.l. (22)	Italy
Bruker Detection Corporation (22)	Massachusetts, U.S.A.
Bruker Optics Inc.	Delaware, U.S.A.
Bruker Optics K.K. (23)	Japan
Bruker Optics GmbH (23)	Switzerland
Bruker Optik GmbH (23)	Germany
Bruker Optics Scandinavia AB (24)	Sweden
Bruker Optics Ukraine (24)	Ukraine
Bruker Finance B.V.	Netherlands
Bruker OST LLC (1)	United States

- (1) These entities are wholly-owned subsidiaries of Bruker Energy & Supercon Technologies, Inc.
- (2) These entities are wholly-owned subsidiaries of Bruker HTS GmbH.
- (3) RI Research Instruments GmbH is an indirect subsidiary of Bruker Energy & Supercon Technologies, Inc. RI Research Instruments GmbH is 51% owned by Bruker Energy & Supercon Technologies, Inc.
- (4) Bruker AXS GmbH is 90% owned by Bruker AXS Inc. and 10% owned by Bruker Corporation.
- (5) These entities are wholly-owned subsidiaries of Bruker AXS GmbH.
- (6) Bruker Nano GmbH is a wholly-owned subsidiary of Bruker Elemental GmbH.
- (7) InCoaTec GmbH is an indirect subsidiary of Bruker AXS GmbH. InCoaTec GmbH is owned 66% by Bruker AXS GmbH.
- (8) These entities are wholly-owned subsidiaries of Bruker AXS Inc.
- (9) Vutara LLC is a wholly-owned subsidiary of Bruker Nano, Inc.
- (10) Bruker Invest AG is 90% owned by Bruker BioSpin Corporation and 10% owned by Bruker Corporation.
- (11) These entities are wholly-owned subsidiaries of Bruker Invest AG.
- (12) Bruker (Beijing) Scientific Technology Co., Ltd. is a wholly-owned subsidiary of Bruker Singapore Pte. Ltd.

- (13) Bruker India Suppliers PVT, Ltd. is a wholly-owned subsidiary of Bruker India Scientific PVT, Ltd.
- (14) Bruker AXS Ltd. is a wholly-owned subsidiary of Bruker UK Ltd.
- (15) Oxford Research Systems, Ltd. is 50% owned by Bruker Invest AG and 50% owned by Bruker UK Ltd.
- (16) Bruker JV Israel Ltd. is a wholly-owned subsidiary of Bruker Scientific Israel Ltd.
- (17) Bruker JV UK Ltd. is a wholly-owned subsidiary of Bruker JV Israel Ltd.
- (18) Bruker Physik GmbH is 50.5% owned by Bruker BioSpin Corporation, 24.75% owned by Bruker Daltonik GmbH and 24.75% owned by Bruker Optik GmbH.
- (19) Bruker BioSpin GmbH is a wholly-owned subsidiary of Bruker Physik GmbH.
- (20) Bruker Daltonik GmbH is 90% owned by Bruker Daltonics Inc. and 10% owned by Bruker Corporation.
- (21) These entities are wholly-owned subsidiaries of Bruker Daltonik GmbH.
- (22) These entities are wholly-owned subsidiaries of Bruker Daltonics Inc.
- (23) These entities are wholly-owned subsidiaries of Bruker Optics Inc.
- (24) These entities are wholly-owned subsidiaries of Bruker Optik GmbH.

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We hereby consent to the incorporation by reference in the Registration Statement on Form S-3 (No. 333-159982) and Registration Statements on Forms S-8 (Nos. 333-211686, 333-167333, 333-150430, 333-137090, 333-107294, and 333-47836) of Bruker Corporation of our report dated March 1, 2017 relating to the financial statements and the effectiveness of internal control over financial reporting, which appears in this Form 10-K.

/s/ PricewaterhouseCoopers LLP

Boston, Massachusetts

March 1, 2017

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the incorporation by reference in the following Registration Statements:

- (1) Registration Statement (Form S-8, No. 333-211686) pertaining to the Bruker Corporation 2016 Incentive Compensation Plan,
- (2) Registration Statement (Form S-8, No. 333-167333) pertaining to the Bruker Corporation 2010 Incentive Compensation Plan,
- (3) Registration Statement (Form S-3, No. 333-159982) and related Prospectus of Bruker Corporation for the registration of 70,000,000 shares of its common stock, and
- (4) Registration Statements (Form S-8, Nos. 333-150430, 333-137090, 333-107294, and 333-47836) pertaining to the Bruker BioSciences Corporation Amended and Restated 2000 Stock Option Plan;

of our reports dated February 26, 2016, with respect to the consolidated financial statements of Bruker Corporation included in this Annual Report (Form 10-K) for the year ended December 31, 2016.

/s/ Ernst & Young LLP

Boston, Massachusetts
March 1, 2017

CERTIFICATION

I, Frank H. Laukien, certify that:

1. I have reviewed this annual report on Form 10-K of Bruker Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
 - a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 1, 2017

By: /s/ FRANK H. LAUKIEN, PH.D.

Frank H. Laukien, Ph.D.
*President, Chief Executive Officer and Chairman
(Principal Executive Officer)*

CERTIFICATION

I, Anthony L. Mattacchione, certify that:

1. I have reviewed this annual report on Form 10-K of Bruker Corporation;
2. Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;
3. Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;
4. The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) for the registrant and have:
 - a. designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;
 - b. designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
 - c. evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and
 - d. disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and
5. The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of registrant's board of directors (or persons performing the equivalent functions):
 - a. all significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and
 - b. any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

Date: March 1, 2017

By: /s/ ANTHONY L. MATTACCHIONE

Anthony L. Mattacchione
Chief Financial Officer and Senior Vice President
(Principal Financial Officer)

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

In connection with the Annual Report of Bruker Corporation (the "Company") on Form 10-K for the year ended December 31, 2016, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), each of the undersigned, Frank H. Laukien, President, Chief Executive Officer and Chairman of the Board of Directors of the Company, and Anthony L. Mattacchione, Chief Financial Officer and Senior Vice President of the Company, certifies, pursuant to 18 U.S.C. section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, that to the best of his knowledge:

- (1) The Report fully complies with the requirements of section 13(a) of the Securities Exchange Act of 1934; and
- (2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

Date: March 1, 2017

By: /s/ FRANK H. LAUKIEN, PH.D.

Frank H. Laukien, Ph.D.
*President, Chief Executive Officer and Chairman
(Principal Executive Officer)*

Date: March 1, 2017

By: /s/ ANTHONY L. MATTACCHIONE

Anthony L. Mattacchione
*Chief Financial Officer and Senior Vice President
(Principal Financial Officer)*

Bruker Corporation

RECONCILIATION OF GAAP TO NON-GAAP FINANCIAL MEASURES

(unaudited)

(in millions, except per share amounts)

Reconciliation of Non-GAAP Operating Income, Non-GAAP Profit Before Tax, Non-GAAP Net Income, and Non-GAAP EPS	Twelve Months Ended December 31,	
	2016	2015
GAAP Operating Income	\$177.2	\$145.7
<i>Non-GAAP Adjustments:</i>		
Restructuring Costs	20.8	29.3
Acquisition-Related Costs	11.1	(4.7)
Purchased Intangible Amortization	21.7	20.8
Other Costs	7.1	24.1
<i>Total Non-GAAP Adjustments:</i>	\$60.7	\$69.5
Non-GAAP Operating Income	\$237.9	\$215.2
<i>Non-GAAP Operating Margin</i>	14.8%	13.3%
Non-GAAP Interest & Other Income (Expense), net	(8.8)	(17.5)
Non-GAAP Profit Before Tax	229.1	197.7
Non-GAAP Income Tax Provision	(35.9)	(43.4)
<i>Non-GAAP Tax Rate</i>	15.7%	22.0%
Minority Interest	(0.9)	(3.3)
Non-GAAP Net Income Attributable to Bruker	192.3	151.0
Weighted Average Shares Outstanding (Diluted)	162.2	169.1
Non-GAAP Earnings Per Share	\$1.19	\$0.89

<i>Reconciliation of GAAP Revenue and Non-GAAP Revenue</i>		
GAAP Revenue as of Prior Comparable Period	\$1,623.8	\$1,808.9
<i>Non-GAAP Adjustments:</i>		
Acquisitions and divestitures	32.4	(37.1)
Currency	(8.3)	(184.4)
Organic	(36.6)	36.4
<i>Total Non-GAAP Adjustments:</i>	(12.5)	(185.1)
Non-GAAP Revenue	\$1,611.3	\$1,623.8
<i>Organic Revenue Growth</i>	-2.3%	2.1%

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Executive Management

Frank H. Laukien, Ph.D.
President & Chief Executive Officer

Anthony L. Mattacchione
Senior VP, Chief Financial Officer

Mark R. Munch, Ph.D.
President, Bruker NANO Group

Juergen Srega
President, Bruker CALID Group

Board of Directors

Frank H. Laukien, Ph.D.
Chairman

Stephen W. Fesik, Ph.D.
Professor, Department of
Biochemistry, Vanderbilt University
School of Medicine

Cynthia M. Friend, Ph.D.
Director of the Rowland Institute,
Director of the Energy Frontier
Research Center for
Sustainable Catalysis,
Harvard University

Chris van Ingen
Former President of Life Sciences
Group, Agilent Technologies, Inc.

Gilles G. Martin, Ph.D.
Chairman & Chief Executive Officer,
Eurofins Scientific Group

Marc A. Kastner, Ph.D.
President,
Science Philanthropy Alliance

Richard D. Kniss
Former Senior Vice President,
Agilent Technologies, Inc.

Joerg C. Laukien
Executive Chairman,
Bruker BioSpin Group

William A. Linton, Ph.D.
Chairman & Chief Executive Officer,
Promega Corporation

John Ornell
Former Chief Financial Officer,
Waters Corporation

Richard A. Packer
Primary Executive Officer &
Co-Leader of Healthcare Business Unit,
Asahi Kasei Corporation

Hermann Requardt, Ph.D.
Former Chief Executive Officer,
Siemens Healthcare

Robert J. Rosenthal, Ph.D.
Chief Executive Officer,
Taconic Biosciences, Inc.

Corporate & Investor Information

Corporate Headquarters:
Bruker Corporation
40 Manning Road
Billerica, Massachusetts 01821

Common Stock Listing:
Common stock of Bruker Corporation
is traded on the NASDAQ Global
Select Market under the symbol
"BRKR"

Head of Investor Relations:
Miroslava Minkova
miroslava.minkova@bruker.com

Secretary:
Richard M. Stein

Legal Counsel:
Nixon Peabody LLP
100 Summer Street
Boston, Massachusetts 02110

**Independent Registered Public
Accounting Firm:**
PricewaterhouseCoopers LLP
101 Seaport Boulevard
Boston, MA 02210

Transfer Agent:
American Stock Transfer
& Trust Company
59 Maiden Lane
New York, New York 10038

