

MTS SYSTEMS CORP
Form 10-K
April 10, 2017

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

FORM 10-K

(Mark One)

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

For the fiscal year ended October 1, 2016

or

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

For the Transition Period from _____ to _____

Commission File No. 0-02382

MTS SYSTEMS CORPORATION

(Exact name of Registrant as specified in its charter)

Minnesota

41-0908057

(State or other jurisdiction

of incorporation or organization)

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

14000 Technology Drive

55344

Eden Prairie, Minnesota

(Address of principal executive offices) (Zip Code)

Registrant's telephone number, including area code: (952) 937-4000

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

Title of each class

Name of each exchange on which registered

Common Stock, \$0.25 par value

The NASDAQ Stock Market LLC

(NASDAQ Global Select Market)

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

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined by Rule 405 of the Securities Act.

Yes o 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 o 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 o No ☒

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No o

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

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or 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 ☐

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 April 2, 2016 was approximately \$0.9 billion based on the closing price of \$61.74 as of April 1, 2016 as reported on the NASDAQ.

As of April 6, 2017, there were 16,740,351 shares of Common Stock outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

None.

MTS Systems Corporation
Annual Report on Form 10-K
For the Year Ended October 1, 2016

Table of Contents

PART I

<u>Item 1. Business</u>	<u>1</u>
<u>Item 1A. Risk Factors</u>	<u>6</u>
<u>Item 1B. Unresolved Staff Comments</u>	<u>13</u>
<u>Item 2. Properties</u>	<u>14</u>
<u>Item 3. Legal Proceedings</u>	<u>16</u>
<u>Item 4. Mine Safety Disclosures</u>	<u>16</u>

PART II

<u>Item 5. Market for Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities</u>	<u>17</u>
<u>Item 6. Selected Financial Data</u>	<u>20</u>
<u>Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations</u>	<u>22</u>
<u>Item 7A. Quantitative and Qualitative Disclosures About Market Risk</u>	<u>45</u>
<u>Item 8. Financial Statements and Supplementary Data</u>	<u>46</u>
<u>Item 9. Changes in and Disagreements With Accountants on Accounting and Financial Disclosure</u>	<u>46</u>
<u>Item 9A. Controls and Procedures</u>	<u>47</u>
<u>Item 9B. Other Information</u>	<u>52</u>

PART III

<u>Item 10. Directors, Executive Officers and Corporate Governance</u>	<u>52</u>
<u>Item 11. Executive Compensation</u>	<u>55</u>
<u>Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters</u>	<u>78</u>
<u>Item 13. Certain Relationships and Related Transactions, and Director Independence</u>	<u>81</u>
<u>Item 14. Principal Accountant Fees and Services</u>	<u>81</u>

PART IV

<u>Item 15. Exhibits and Financial Statement Schedules</u>	<u>82</u>
<u>Item 16. Form 10-K Summary</u>	<u>87</u>
<u>Signatures</u>	<u>88</u>

EXPLANATORY NOTE

We were not able to file this Annual Report on Form 10-K for our fiscal year ended October 1, 2016 by its due date or the applicable extension period provided under the Securities Exchange Act of 1934, as amended (the Exchange Act). Since November 2016, with the assistance of independent external counsel, we have been conducting a voluntary investigation into apparent violations of the Company's Code of Conduct involving certain employees in our China operations. As of March 2017, substantial investigative work was completed on this matter and we have initiated remedial actions to strengthen our compliance program and monitoring to ensure adherence to our Code of Conduct, including the removal of certain persons formerly employed in, or involved with our business in China. A description of the investigation of our China operations is included in Note 14 to the Consolidated Financial Statements included in Item 8 of Part II of this Annual Report on Form 10-K.

Table of Contents

PART I

ITEM 1. BUSINESS

Business Overview

MTS Systems Corporation (the Company or MTS) is a leading global supplier of high-performance test systems and sensors that was incorporated under Minnesota law in 1966. Our operations are organized and managed in two reportable segments, Test and Sensors, based upon global similarities within their markets, products, operations and distribution. The Test and Sensors segments represented approximately 79% and 21% of our revenue, respectively, for the fiscal year ended October 1, 2016.

Terms

When we use the terms “MTS,” “we,” “us,” the “Company” or “our” in this report, unless the context otherwise requires, we are referring to MTS Systems Corporation and its wholly owned subsidiaries.

Fiscal year 2016 refers to the fiscal year ended October 1, 2016; fiscal year 2015 refers to the fiscal year ended October 3, 2015; and fiscal year 2014 refers to the fiscal year ended September 27, 2014. Fiscal years 2016, 2015 and 2014 include 52, 53 and 52 weeks, respectively. All dollar amounts are in thousands (unless otherwise noted).

Products and Markets by Business Segment

Test Segment

Our Test segment (Test) provides testing solutions including hardware, software and services. The testing solutions are used by customers in the development of products to characterize the product’s mechanical properties. Our solutions simulate forces and motions that customers expect their products to encounter in use. Mechanical simulation testing in a lab setting is an accepted method to accelerate product development compared to reliance on full physical prototypes in real-world settings, proving ground testing and virtual testing because it provides more controlled simulation and accurate measurement. The need for mechanical simulation increases in proportion to the cost of a product, the range and complexity of the physical environment in which the product will be used, expected warranty or recall risk and expense, governmental regulation and potential legal liability. A significant portion of the products in Test are considered by our customers to be capital expenditures. We believe the timing of purchases of our products may be impacted by interest rates, general economic conditions, product development cycles and new product initiatives.

A typical Test system includes a reaction frame to hold the prototype specimen, a hydraulic pump or electro-mechanical power source, piston actuators to create the force or motion and a computer controller with specialized software to coordinate the actuator movement and record and manipulate results. Lower force and less dynamic testing can usually be accomplished with electro-mechanical power sources, which are generally less expensive than hydraulic systems. In addition to these basic components, we sell a variety of accessories and spare parts. We also provide a number of service offerings, including installation, calibration, maintenance, training and consulting.

Test has a diverse set of customers by industry and geography. Regionally, the Americas, Europe and Asia represented approximately 26%, 21% and 53% of revenue for fiscal year 2016, respectively, based upon customer location.

Products, service and customers are grouped into the following three global sectors:

Ground Vehicles (approximately 55% of Test revenue for fiscal year 2016)

This sector consists of automobile, truck, motorcycle, motorsports vehicles, construction equipment, agricultural equipment, rail and off-road vehicle manufacturers and their suppliers. Our products are used to measure and simulate solutions to assess durability, vehicle dynamics and aerodynamics of vehicles, sub-systems and components. Our products include:

Road simulators for durability simulation;

Tire performance and rolling resistance measurement systems;

Moving road-plane systems and balances for aerodynamic measurements in wind tunnels; and

Service to maintain the equipment and maximize the life of the product.

Materials (approximately 30% of Test revenue for fiscal year 2016)

This sector covers diverse industries such as power generation, aerospace, vehicles and bio-medical. Our products and services support customers in the research and development of products through the physical characterization of

Table of Contents

material properties, such as ceramics, composites and steel. Bio-medical applications include systems to test durability and performance of implants, prostheses and other medical and dental materials and devices.

Structures (approximately 15% of Test revenue for fiscal year 2016)

This sector serves the structural testing needs and service in the fields of aerospace, wind energy, oil and gas, and structural engineering, among others. The aerospace structural testing market consists of manufacturers of commercial, military and private aircraft and their suppliers that use our products, systems and software to perform static and fatigue testing of aircraft and space vehicles. The wind energy market consists of wind turbine manufacturers and their component suppliers that use our products to reduce the cost and improve the reliability of blades, bearings and entire wind turbines. Systems for structural engineering include high force static and dynamic testing, as well as seismic simulation tables used around the world to test the design of structures, such as bridges and buildings, and to help governments establish building codes. Structural engineering customers include construction companies, government agencies, universities and the manufacturers of building materials.

Sensors Segment

Our Sensors segment (Sensors) is a global leader in sensing technologies and solutions used by design engineers and predictive maintenance professionals worldwide, serving customers with a focus on total customer satisfaction, offering regional support to provide innovative and reliable sensing solutions. Sensors provides high performance sensors used for acceleration, position, vibration, motion, pressure and force measurement. Our products and solutions are used to enable automation, enhance precision and safety, and lower our customers' production costs by improving performance and reducing downtime in their operations. Revenue is partially fueled by our customers' spending on research and development activities and industrial capacity utilization. These products and solutions serve the automotive, aerospace, industrial, research and development, as well as many other markets. Sensors manufactures products utilizing piezoelectric and magnetostriction technology, both of which provide an accurate and reliable sensor, ideal for use in harsh operating environments.

During fiscal year 2016, we completed the acquisition of 100% of PCB Group, Inc. (PCB), a manufacturer of piezoelectric sensors and components used for vibration, pressure and force measurement, for an estimated purchase price of \$581,407 subject to certain adjustments that were made at closing for cash, indebtedness, transaction costs and the level of net working capital. The acquisition of PCB expanded our market position in Sensors and our ability to service a large variety of applications including acceleration, pressure, noise, force, load and torque that both enhance the performance of our customers' products and enable those products to enter the market more rapidly and reliably. For additional information related to the acquisition of PCB, see Note 13 to the Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K.

Sensors customers are also diverse by industry and geography. Regionally, the Americas, Europe and Asia represented approximately 40%, 41% and 19% of revenue for fiscal year 2016, respectively, based upon customer location.

Products and customers are grouped into the following four global sectors:

Position Sensors (approximately 70% of Sensors revenue for fiscal year 2016)

This sector consists of a wide range of industrial machinery original equipment manufacturers (OEMs) and their end use customers with applications in all areas of manufacturing, including plastics, steel, construction, agriculture, wood, mining and other forms of factory automation. These sensors provide position feedback for motion control systems, improve productivity by enabling high levels of automation and reduce maintenance costs, as well as enhance safe operation of the machines.

Test Sensors (approximately 15% of Sensors revenue for fiscal year 2016)

This sector covers diverse industries, including test and measurement, automotive, rail, aerospace and defense, and a variety of applications, including research and development, structural monitoring, ground testing of aircraft and vehicles, harsh environmental testing, impact sensors for shock and vibration testing, component and system performance, drive and durability handling and noise and vibration and harshness testing. These sensors provide engineers and scientists with precise and accurate measurements that help facilitate technology advancements and reduce development times in bringing new products to market.

Industrial Sensors (approximately 10% of Sensors revenue for fiscal year 2016)

This sector consists of sensors used in the heavy industrial markets and energy and power generation. Sensors used in heavy industrial markets are primarily used to monitor the vibration and pressure in a large variety of applications including motors, pumps, paper machines and steel rollers. These sensors provide valuable feedback on equipment performance, reducing down-time and maximizing safety and productivity. Sensors used in the energy and power

Table of Contents

generation markets are equipped to address hazardous and inaccessible locations and serves gas and wind turbines, oil and gas refineries, nuclear power instrumentation as well as other critical energy infrastructure.

Systems Sensors (approximately 5% of Sensors revenue for fiscal year 2016)

This sector consists of dynamic test, measurement and sensing systems primarily used to test, model and monitor the behavior of structures and processes and ensure safety and compliance from exposure to noise and vibration. This sector also includes selling calibration systems used to calibrate a variety of sensors, and a comprehensive rental offering of both transactional sensor products and consultative systems that serve a broad range of testing and industrial customers.

Financial and geographical information about our segments is included in Item 7 and Note 11 of the Notes to Consolidated Financial Statements under Item 8 of this Annual Report on Form 10-K.

Sales and Service

Test Segment

Test products are sold worldwide through a direct field sales and service organization, independent representatives and distributors and, to a much lesser extent, through other means (e.g. catalogs, internet, etc.) for standard products and accessories. Direct field sales and service personnel are compensated through salary and order incentive programs. Independent representatives and distributors are either compensated through commissions based upon orders or discounts off list prices.

In addition to direct field sales and service personnel throughout the United States and China, we have sales and service subsidiaries in Toronto, Canada; Berlin, Germany; Paris, France; Guildford, United Kingdom; Turin, Italy; Gothenburg and Gislaved, Sweden; Chinchon, Spain; Tokyo and Nagoya, Japan; Seoul, South Korea; Moscow, Russia; Chennai, India and Shanghai and Shenzhen, China.

The timing and volume of large orders (valued at \$5,000 or greater on a United States dollar-equivalent basis) may produce volatility in backlog and quarterly operating results. Most customer orders are based on fixed-price quotations and typically have an average sales cycle of three to nine months due to the technical nature of the test systems and customer capital expenditure approval processes. The sales cycle for larger, more complex test systems may be two years or longer.

Sensors Segment

Sensors products are sold worldwide through a direct sales and service organization as well as through independent distributors. The direct sales and service organization is compensated through salary and commissions based upon revenue. The independent distributors pay us a wholesale price and re-sell the product to their customers.

In addition to direct field sales and service personnel throughout the United States, we have sales subsidiaries in Treviolo, Italy; Hitchin, United Kingdom; Aubervilliers, France; Huckelhoven and Dresden, Germany; Beijing, China and Vandreuil, Canada.

The average sales cycle for Sensors ranges from approximately one week to one month for existing customers purchasing standard products. The average sales cycle for a new account can range from approximately two weeks to two years depending on customer testing and specification requirements.

Manufacturing and Engineering

Test Segment

Test systems are largely built to order and primarily engineered and assembled at our headquarters in Eden Prairie, Minnesota. We also operate manufacturing facilities in Shenzhen and Shanghai, China, which manufacture test systems serving the materials market, and our facility in Lexington, North Carolina manufactures test systems serving

the ground vehicles market. We perform some smaller system assembly at our locations in Berlin, Germany and Seoul, South Korea. Installation of systems, training, service and consulting services are primarily delivered at customer sites. The engineering and assembly cycle for a typical Test system ranges from one to twelve months, depending on the complexity of the system and the availability of components. The engineering and assembly cycle for larger, more complex systems may be up to three years.

Sensors Segment

Sensors are engineered and assembled regionally at facilities located in Depew, New York; Halifax and Cary, North Carolina; Farmington Hills, Michigan; Provo, Utah; Cincinnati, Ohio; Lüdenscheid, Germany; and Machida, Japan. Assembly cycles generally vary from several days to several weeks, depending on the degree of product customization, the size of the order and manufacturing capacity.

Table of Contents

Sources and Availability of Raw Materials and Components

Test Segment

A significant portion of Test systems consist of materials and component parts purchased from independent vendors. We are dependent, in certain situations, on a limited number of vendors to provide raw materials and components, such as mechanical and electronic components. However, we have not experienced any recent issues in procuring materials, parts or components needed in our engineering or production processes.

As Test generally sells products and services based on fixed-price contracts, fluctuations in the cost of materials and components between the date of the order and the delivery date may impact the expected profitability. The material and component cost variability is considered in the estimation and customer negotiation process. We believe fluctuations in the cost of raw materials and components did not have a significant impact on our operating results for fiscal years 2016, 2015 and 2014.

Sensors Segment

A significant portion of Sensors products consists of materials and component parts purchased from independent vendors. We are dependent, in certain situations, on a limited number of vendors to provide raw materials and components, such as mechanical and electronic components. However, we have not experienced any recent issues in procuring materials, parts or components needed in our engineering or production processes.

As Sensors generally sells products and services based on fixed-price contracts and the products are manufactured and delivered days to months from the time of order to shipment, fluctuations in the cost of materials and components between the date of the order and the delivery date are not likely to materially impact the expected profitability. We believe fluctuations in the cost of raw materials and components did not have a significant impact on our operating results for fiscal years 2016, 2015 and 2014.

Patents and Trademarks

We rely on a combination of patents, copyrights, trademarks and proprietary trade secrets to protect our proprietary technology, some of which are material to our segments. We have obtained numerous patents and trademarks worldwide and actively file and renew patents and trademarks on a global basis to establish and protect our proprietary technology. We are also party to exclusive and non-exclusive license and confidentiality agreements relating to our own and third-party technologies. We aggressively protect certain of our processes, products and strategies as proprietary trade secrets. Our efforts to protect intellectual property and avoid disputes over proprietary rights include ongoing review of third-party patents and patent applications.

Seasonality

There is no significant seasonality in Test or Sensors.

Working Capital

Test Segment

The Test segment does not have significant finished product inventory, but maintains inventories of materials and components to facilitate on-time product delivery. Test may have varying levels of work-in-process projects that are classified as inventory or unbilled receivables, depending upon the manufacturing cycle, timing of orders, project revenue recognition and shipments to customers.

In Test, payments are often received from customers upon order or at milestones during the fulfillment of the order, depending upon the size and customization of the system. These are recorded as advance payments from customers in our Consolidated Balance Sheets and reduced as revenue is recognized. Conversely, if revenue is recognized on a project prior to customer billing, an unbilled accounts receivable is recorded in our Consolidated Balance Sheets until the customer has been billed. Upon billing, it is recorded as accounts receivable. Changes in the average size, payment

terms and revenue recognition for orders in Test may have a significant impact on accounts receivable, unbilled accounts receivable, advance payments from customers and inventory. It has not been our practice to provide rights of return for our products. Payment terms vary and are subject to negotiation.

Table of Contents

Sensors Segment

Sensors has finished product inventory, as well as inventories of materials and components to facilitate rapid delivery of product to reduce delivery time and exceed customer expectations. The type and amount of finished goods on hand are targeted based on historical and anticipated customer demands for high-volume products.

In Sensors, payments are often received from customers based on negotiated payment terms. Revenue is primarily recognized when products are shipped.

Customers

We do not have a significant concentration of sales with any individual customer within Test or Sensors. Therefore, the loss of any one customer would not have a material impact on our results.

Backlog

Most of our products are built to order. Our backlog of orders, defined as firm orders from customers that remain unfulfilled, totaled approximately \$370,523, \$353,013 and \$326,473 at October 1, 2016, October 3, 2015 and September 27, 2014, respectively. Test backlog was \$331,044, \$339,967 and \$309,994 at October 1, 2016, October 3, 2015 and September 27, 2014, respectively. Sensors backlog was \$39,479, \$13,046 and \$16,479 at October 1, 2016, October 3, 2015 and September 27, 2014, respectively. Based on anticipated manufacturing schedules, we expect that approximately \$297,000 of the backlog at October 1, 2016 will be converted to revenue during our fiscal year ending September 30, 2017 (fiscal year 2017). Delays may occur in the conversion of backlog into revenue as a result of export licensing compliance, technical difficulties, specification changes, manufacturing capacity, supplier issues or access to the customer site for installation. While the backlog is subject to order cancellations, we have not historically experienced a significant number of order cancellations. Refer to Item 7 of this Annual Report on Form 10-K for further discussion of order cancellations.

Government Contracts

Revenue from U.S. Government contracts varies by year. A portion of our government business is subject to renegotiation of profits or termination of contracts or subcontracts at the election of the U.S. Government. In addition to contract terms, we must comply with procurement laws and regulations relating to the formation, administration and performance of U.S. Government contracts. Failure to comply with these laws and regulations could lead to the termination of contracts at the election of the U.S. Government or the suspension or debarment from U.S. Government contracting or subcontracting. U.S. Government revenue as a percentage of our total revenue was approximately 3%, 3% and 5% for fiscal years 2016, 2015 and 2014, respectively.

Competition

Test Segment

For relatively simple and inexpensive mechanical testing applications, customers may satisfy their needs internally by building their own test systems or using competitors who compete on price, performance, quality and service. For larger and more complex mechanical test systems, we compete directly with several companies throughout the world based upon customer value including application knowledge, engineering capabilities, technical features, price, quality and service.

Sensors Segment

We primarily compete on factors that include technical performance, price and customer service in new applications or in situations in which other sensing technologies have been used. Sensors' competitors are typically larger companies that carry multiple sensor product lines, larger diverse companies with only a small portion of business in the sensors market or smaller, privately held companies throughout the world.

Research and Development

We invest in significant product, system and software application development. Occasionally, we also contract with our customers to advance the state of technology and increase product functionality. Costs associated with research and development (R&D) are expensed as incurred, totaling \$25,336, \$23,705 and \$23,844 for fiscal years 2016, 2015 and 2014, respectively. During fiscal years 2016 and 2015, we allocated certain resources to capitalized software development activities. Total internal software development costs capitalized during fiscal years 2016 and 2015 were \$2,761 and \$1,966, respectively.

Environmental Compliance

We believe our operations are in compliance with all applicable material environmental regulations within the jurisdictions in which we operate. Capital expenditures for environmental compliance were not material in fiscal year 2016, and we do not expect such expenditures will be material in fiscal year 2017.

Table of Contents

Employees

We had approximately 3,500 employees as of October 1, 2016, including approximately 1,350 employees located outside the United States.

Available Information

The Securities and Exchange Commission (SEC) maintains a website that contains reports, proxy and information statements and other information regarding issuers, including the Company, that file electronically with the SEC. The public can obtain any documents that we file with the SEC at <http://www.sec.gov>. We file annual reports, quarterly reports, current reports, proxy statements and other documents with the SEC under the Exchange Act. The public may read and copy any materials that we file with the SEC at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. The public may obtain information on the operation of the Public Reference Room by calling the SEC at 1-800-SEC-0330.

We also make available free of charge on or through the "Investor Relations" pages of our corporate website (www.mts.com) our Annual Report on Form 10-K, Quarterly Reports on Form 10-Q, Current Reports on Form 8-K, and, if applicable, amendments to those reports filed or furnished pursuant to the Exchange Act as soon as reasonably practicable after we electronically file such material with, or furnish it to, the SEC. Our Code of Conduct (the "Code"), any waivers from and amendments to the Code and our Corporate Governance Guidelines, Articles of Incorporation and Bylaws, as well as the Charters for the Audit, Compensation and Leadership Development and Governance and Nominating Committees of our Board of Directors are also available free of charge on the "Investor Relations" pages of our corporate website (www.mts.com).

ITEM 1A. RISK FACTORS

Our business involves risks. The following summarizes what we believe to be the most important risks facing us that could adversely impact our business, financial condition or operating results. The information about these risks should be considered carefully together with the other information contained in this Annual Report on Form 10-K. Additional risks not currently known to us or that we currently deem to be immaterial may also adversely affect our business, financial condition or results of operations in future periods.

Market Risks

Our business is significantly international in scope.

We have manufacturing facilities in North America, Europe and Asia. Sales outside of the United States (U.S.), including export sales from U.S. business locations, accounted for approximately 75% of our revenue in fiscal year 2016. Accordingly, our business is subject to the political, economic and other risks that are inherent in operating in foreign countries. These risks include, but are not limited to:

- exposure to the risk of currency value fluctuations, where payment for products is denominated in a currency other than U.S. dollars;
- variability in the U.S. dollar value of foreign currency-denominated assets, earnings and cash flows;
- difficulty enforcing agreements, including patent and trademarks, and collecting receivables through foreign legal systems;
- trade protection measures and import or export licensing requirements;
- tax rates in certain foreign countries that exceed those in the U.S. and the imposition of withholding requirements on foreign earnings;
- higher danger of terrorist activity, war or civil unrest, compared to domestic operations;
- imposition of tariffs, exchange controls or other restrictions;
- difficulty in staffing and managing global operations;
-

required compliance with a variety of foreign laws and regulations and U.S. laws and regulations, such as the Foreign Corrupt Practices Act applicable to our international operations and significant compliance costs and penalties for failure to comply with any of these laws and regulations; and

- changes in general economic and political conditions in countries where we operate, particularly in emerging markets.

Volatility in the global economy could adversely affect results.

Long-term disruptions in the capital and credit markets would likely adversely affect our customers' operations and financing of both our international and U.S. customers and could therefore result in a decrease in orders and revenue.

In addition, during periods of economic uncertainty, our customers' spending patterns and financing availability could be negatively impacted, reducing demand for our products and services.

Table of Contents

Fluctuations in foreign currency exchange rates could affect our financial results.

Although our financial results are reported in U.S. dollars, a large portion of our sales and operating costs are realized in Euros, the Japanese yen, the Chinese yuan and other foreign currencies. Our profitability is affected by movements of the U.S. dollar against these currencies in which we generate revenues and incur expenses. To the extent that we are unable to match revenues received in foreign currencies with costs paid in the same currency, exchange rate fluctuations in any such currency could have an adverse effect on financial results. During times of a strengthening U.S. dollar, our reported sales and earnings from our international operations will be lower because the applicable local currency will translate into fewer U.S. dollars. Significant long-term fluctuations in relative currency values, in particular, a significant change in the relative values of the U.S. dollar, Euro, Japanese yen or Chinese yuan could have an adverse effect on our results of operations and financial condition given that approximately 75% of our revenue has historically been derived from customers outside of the U.S. Additionally, there has been and may continue to be, volatility in currency exchange rates as a result of the United Kingdom's referendum held on June 23, 2016, in which British voters approved the United Kingdom's withdrawal from the European Union, commonly referred to as "Brexit." As further described in Item 7 to this Annual Report on Form 10-K, revenue for fiscal year 2016 was negatively impacted by currency translation.

Our business is subject to strong competition.

Our products are sold in competitive markets throughout the world. Competition is based on application knowledge, product features and design, brand recognition, reliability, technology, breadth of product offerings, price, delivery, customer relationships and after-market support. If we are not perceived as competitive in overall value as measured by these criteria, our customers would likely choose solutions offered by our competitors or developed internally.

Our business is subject to customer demand cycles.

For many of our products, orders are subject to customers' procurement cycles and their willingness and ability to invest in capital, especially in the cyclical automotive, aircraft and machine tool industries. Any event that adversely impacts those customers' new product development activities may reduce their demand for our products.

We may experience difficulty obtaining materials or components for our products, or the cost of materials or components may increase.

We purchase materials and components from third-party suppliers, some of whom may be competitors. Other materials and components may be provided by a limited number of suppliers or by sole sources and could only be replaced with difficulty or at significant added cost. Additionally, some materials or components may become scarce or difficult to obtain in the market or they may increase in price. This could adversely affect the lead-time within which we receive the materials or components, and in turn affect our commitments to our customers, or could adversely affect the material cost or quality.

Interest rate fluctuations could adversely affect results.

Significant changes in interest rates may affect our business in several ways, depending on our financial position and financing needs. On July 5, 2016, we entered into a new senior secured credit facility that provides for a \$100,000 revolving credit facility and a \$460,000 term loan B facility, both of which require that we pay a variable interest rate on outstanding borrowings. The size of the revolving credit facility was increased from \$100,000 to \$120,000 on July 29, 2016 through an amendment to the Credit Agreement. The debt under the term loan facility amortizes in equal quarterly installments in an aggregate annual amount equal to 1.00% of the original principal amount and matures on July 5, 2023. As of October 1, 2016, we did not have any borrowings under the revolving credit facility; however, we may, at times, use debt under the revolving credit facility to purchase shares of our common stock, finance working capital needs or continue to finance the growth of the business through acquisitions. Fluctuations in interest rates can increase borrowing costs. Subsequent to our fiscal year end, we hedged against a portion of the risk on the term facility by swapping the variable rate for a fixed rate. Increases in interest rates may directly impact the amount of interest we are required to pay and reduce earnings accordingly. Conversely, lower interest rates will adversely impact

the interest we earn on cash and short-term investments.

Our outstanding 8.75% tangible equity units may adversely affect the market price of our common stock.

The market price of our common stock may be influenced by the outstanding 8.75% tangible equity units sold in our June 2016 public offering. For example, additional shares of our common stock will be issuable upon settlement of the purchase contract component of the tangible equity units. The settlement rates for such purchase contracts are subject to certain anti-dilution and make-whole adjustments that could increase, potentially significantly, the number of shares of our common stock issuable upon such settlement. As a result, the market price of our common stock could become more volatile and could be depressed by the following factors:

- investors' anticipation of the sale into the market of a substantial number of additional shares of common stock received upon settlement of the purchase contract component of the tangible equity units;

Table of Contents

possible sales of our common stock by investors who view the tangible equity units as a more attractive means of equity participation in us than owning shares of our common stock; and
hedging or arbitrage trading activity that may develop involving the tangible equity units, the purchase contracts and our common stock.

In addition, our debt obligations under the senior amortizing note component of the tangible equity units may further influence the market price of our common stock, including but not limited to our ability to make timely payments to holders of the notes.

We are not in compliance with the requirements of Nasdaq for continued listing, and if Nasdaq does not concur that we have adequately remedied our non-compliance with Nasdaq Listing Rule 5250(c)(1), our common stock may be delisted from trading on Nasdaq, which could have a material adverse effect on us and our shareholders.

On December 6, 2016, we received a deficiency letter from Nasdaq indicating that we, as a result of not filing our Annual Report on Form 10-K for fiscal year 2016 (the "Late Annual Report") in a timely manner and disclosing that we would not be able to file the Late Annual Report within the 15-day extension period provided in Rule 12b-25(b) under the Exchange Act, were not in compliance with Nasdaq Listing Rule 5250(c)(1) for continued listing. In addition, on February 15, 2017, we received a second deficiency letter from Nasdaq indicating that we, as a result of not filing our Quarterly Report on Form 10-Q for the period ended December 31, 2016 (the "Late Quarterly Report" and together with the Late Annual Report, the "Late Reports") in a timely manner and disclosing that we would not be able to file the Late Quarterly Report within the five-day extension period provided in Rule 12b-25(b) under the Exchange Act, together with our prior and ongoing failure to timely file the Late Annual Report, were not in compliance with Nasdaq Listing Rule 5250(c)(1) for continued listing. As requested by Nasdaq, we were required to submit a plan to regain compliance with Nasdaq's filing requirements for continued listing within 60 calendar days of the date of the initial letter.

On January 27, 2017, we submitted our plan to regain compliance with Nasdaq's filing requirements for continued listing and subsequently provided Nasdaq with updates and additional information on February 23, 2017 and March 23, 2017. On April 7, 2017, Nasdaq granted us an extension to regain compliance with Nasdaq's filing requirements for continued listing so long as the Late Reports are filed by May 30, 2017. While we believe that by filing the Late Reports we meet the condition for the extension and will regain compliance with Listing Rule 5250(c)(1), any failure to comply with Nasdaq's filing requirements in the future could result in our common stock being delisted and there can be no assurance whether or when it would again be listed for trading on Nasdaq or any other securities exchange. In addition, the market price of our shares might decline and become more volatile, and our shareholders might find that their investment in our shares has limited liquidity, which could have a further adverse effect on the price of our stock.

As a result of the delayed filing of our Quarterly Report on Form 10-Q for the period ended December 31, 2016 and this Annual Report on Form 10-K with the SEC, we are not currently eligible to use a registration statement on Form S-3 to register the offer and sale of securities, which may adversely affect our ability to raise future capital or complete acquisitions.

We are not currently eligible to register the offer and sale of our securities using a registration statement on Form S-3 and we will not become eligible until we have timely filed certain periodic reports required under the Exchange Act for twelve consecutive calendar months. There can be no assurance when we will meet this requirement, which depends in part upon our ability to file our periodic reports on a timely basis in the future. Should we wish to register the offer and sale of our securities to the public before we are eligible to do so using Form S-3, our transaction costs and the amount of time required to complete the transaction could increase, making it more difficult to execute any such transaction successfully and potentially having an adverse effect on our financial condition.

Table of Contents

Operational Risks

We have identified material weaknesses in our internal control over financial reporting in both fiscal year 2015 and fiscal year 2016. If our remedial measures do not continue to be sufficient to address the material weaknesses we identified in fiscal year 2015 and subsequently remediated in fiscal year 2016, if our remedial measures are insufficient to address the material weakness we identified in fiscal year 2016, or if significant deficiencies in our internal control over financial reporting are discovered or occur in the future, our consolidated financial statements may contain material misstatements, which could adversely affect our stock price and could negatively impact our results of operations.

For the last two fiscal years, we have identified material weaknesses in our internal control over financial reporting. 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 our annual or interim financial statements will not be prevented or detected on a timely basis. Most recently, as described in Item 9A in Part II of this Annual Report on Form 10-K, as of October 1, 2016, we disclosed a material weakness in internal control over financial reporting due to our failure to have effective processes and controls relative to adherence to our Code of Conduct by employees involved with our business in China. These deficiencies were uncovered through the investigation into violation of our Code of Conduct by our former China Test leader and several other former senior managers associated with our China Test operations. While we are committed to remediating the control deficiencies that gave rise to the material weakness identified in fiscal year 2016, there can be no assurances that our remediation efforts, which are further described in detail later in this Annual Report on Form 10-K, will be successful. In addition, as reported in our Annual Report on Form 10 K for fiscal year 2015, as of October 3, 2015, we concluded that there were material weaknesses in our internal control over financial reporting. The material weaknesses related to our risk assessment, information and communications and monitoring processes with respect to revenue, identification of deliverables contained in multiple element revenue arrangements and timely closure of revenue projects and release of residual accrued costs. In fiscal year 2016, we have remediated the control deficiencies that gave rise to the material weaknesses in fiscal year 2015 by takings steps that included (i) performing a complete review of our revenue recognition controls and procedures by members of our management team with the requisite level of accounting knowledge, experience and training, and with independent outside resources, (ii) developing an internal communications protocol among all individuals in the organization responsible for performing control activities with respect to revenue recognition and (iii) implementing new procedures in our sales and contracting processes to include identification of specific deliverables contained within multiple element revenue arrangements. There can be no assurances that we will be able to prevent future control deficiencies (including material weaknesses) from happening that could cause us to incur unforeseen costs, negatively impact our results of operations, cause our consolidated financial results to contain material misstatements, cause the market price of our common stock to decline, damage our reputation or have other potential material adverse consequences.

The reorganized Test business structure, processes and operating systems may not deliver the results we require for growth of the business.

We continue to invest in our Test operating model and modify our business processes and systems. Given the growth in demand and sophistication of testing needs across the primary markets served, on January 5, 2017, we announced that Test would be divided into two separate business units, “Materials Test Systems” and “Vehicles and Structure Test Systems.” The focus of the “Materials Test Systems” business unit will be on providing solutions to global customers involved in developing and manufacturing advanced materials that are essential to new aircraft and propulsion systems, and are increasingly critical to advance automobiles, such as those with electric or hybrid-electric powertrains, and trucks. The “Vehicles and Structures Test Systems” business unit will focus on providing test solutions to automotive, aerospace, infrastructure and energy markets worldwide. We are restructuring the Test business to make it a more scalable business model in the markets that we currently serve. Successful implementation of these initiatives is critical to the growth of our business. As a result of the reorganization, successful execution as well as the hiring of personnel to lead the each of the separate business units may have limited success or not be successful at all.

We may not realize the growth opportunities and cost synergies that are anticipated from our recent acquisition of PCB.

The benefits that are expected to result from our July 5, 2016 acquisition of PCB, the largest acquisition in our history, will depend, in part, on our ability to realize the anticipated growth opportunities and cost synergies as a result of the acquisition. Our success in realizing these growth opportunities and cost synergies, and the timing of this realization, depends on the successful integration of PCB. There is a significant degree of difficulty and management distraction inherent in the process of integrating an acquisition as sizable as PCB. The process of integrating operations could cause an interruption of, or loss of momentum in, our and PCB's activities. Members of our senior management may be required to devote considerable amounts of time to this integration process, which will decrease the time they will have to manage other aspects of our company, service existing customers, attract new customers and develop new products or strategies. If senior management is not able to effectively manage the integration process, or if any significant business activities are interrupted as a result of the integration

Table of Contents

process, our business could suffer. There can be no assurance that we will successfully or cost-effectively integrate PCB. The failure to do so could have a material adverse effect on our business, financial condition or results of operations.

Even if we are able to integrate PCB successfully, this integration may not result in the realization of the full benefits of the growth opportunities and cost synergies that we currently expect from this integration, and we cannot guarantee that these benefits will be achieved within anticipated timeframes or at all. For example, we may not be able to eliminate duplicative costs. Moreover, we may incur substantial expenses in connection with the integration of PCB, and such expenses may have a material adverse effect on our business, financial condition or results of operations. While it is anticipated that certain expenses will be incurred to achieve cost synergies, such expenses are difficult to estimate accurately, and may exceed current estimates. Accordingly, the benefits from the acquisition may be offset by costs incurred related to, or delays in, integrating the businesses.

PCB may have liabilities that are not known, probable or estimable at this time and we may become subject to additional risks and uncertainties relating to PCB and its business.

Upon completion of the acquisition of PCB, PCB became our wholly owned subsidiary and, as a result, we became subject to all of its liabilities. There could be unasserted claims or assessments that we failed or were unable to discover or identify in the course of performing our due diligence investigation of PCB. In addition, there may be liabilities that are neither probable nor estimable at this time that may become probable or estimable in the future. Any such liabilities, individually or in the aggregate, could have a material adverse effect on our financial results. We may learn additional information about PCB that adversely affects us, such as unknown, unasserted or contingent liabilities and issues relating to compliance with applicable laws.

In addition, we may become subject to additional risks associated with PCB and its business, which could have a material adverse effect on our business, financial condition, results of operations or cash flows. The integration process may be complex, costly and time-consuming, as PCB was not previously operating as a public company. The difficulties of integrating the businesses include, among others:

- failure to implement our business plan for the combined business;
- unanticipated issues in integrating equipment, logistics, information, communications and other systems;
- possible inconsistencies in standards, controls, contracts, procedures and policies;
- impacts of change in control provisions in contracts and agreements;
- failure to retain key customers and suppliers;
- unanticipated changes in applicable laws and regulations;
- failure to recruit and retain key employees to operate the combined business;
- increased competition within the industries in which PCB operates;
- inherent operating risks in the business;
- unanticipated issues, expenses and liabilities;
- additional reporting requirements pursuant to applicable rules and regulations; and
- additional requirements relating to internal control over financial reporting.

The integration of PCB's operations into ours following its acquisition could create additional risks for our internal controls over financial reporting.

We intend to integrate PCB into our control environment and subject it to internal control testing during fiscal year 2017, which means that deficiencies in our internal control over financial reporting as a combined company may not be identified until then. Any such undiscovered deficiencies, if material, could result in misstatements of our results of operations, restatements of our financial statements, declines in the trading price of our common stock or otherwise have a material adverse effect on our business, reputation, results of operations, financial condition or cash flows.

Our business operations may be affected by government contracting risks.

Government business is important to us and is expected to increase in the future. Revenue from U.S. Government contracts varies by year. Such revenue as a percent of our total revenue was approximately 3%, 3% and 5% for fiscal years 2016, 2015 and 2014, respectively.

We must comply with procurement laws and regulations relating to the formation, administration and performance of U.S. Government contracts. Failure to comply with these laws and regulations could lead to suspension or debarment from U.S. Government contracting or subcontracting and result in administrative, civil or criminal penalties. Failure to comply could also have a material adverse effect on our reputation, our ability to secure future U.S. Government contracts and export control licenses and our results of operations or financial condition. These laws and regulations also create compliance risks and affect how we do business with federal agency clients. U.S. Government contracts, as well as contracts with certain foreign governments with which we do business, are also subject to modification or termination by the government, either for the

Table of Contents

convenience of the government or for default as a result of our failure to perform under the applicable contract. Further, any investigation relating to, or suspension or debarment from, U.S. Government contracting could have a material impact on our results of operations as, during the duration of any suspension or debarment, we would be prohibited or otherwise limited in our ability to enter into prime contracts or subcontracts with U.S. Government agencies, certain entities that receive U.S. Government funds or that are otherwise subject to the Federal Acquisition Regulations (FAR), and certain state government or commercial customers who decline to contract with suspended or debarred entities. A federal suspension could also impact our ability to obtain export control licenses, which are materially important to our business.

We are subject to risks because we design and manufacture first-of-a-kind products. We design and build systems that are unique and innovative and, in some cases, the first created to address complex and unresolved issues. The design, manufacture and support of these systems may involve higher than planned costs. If we are unable to meet our customers' expectations, our reputation and ability to further utilize our expertise will likely be damaged.

The backlog, sales, delivery and acceptance cycle for many of our products is irregular and may not develop as anticipated.

Many of our products have long sales, delivery and acceptance cycles. In addition, our backlog is subject to order cancellations and our sales arrangements typically do not include specific cancellation provisions. If an order is canceled, we typically would only be entitled to receive reimbursement from the customer for actual costs incurred under the arrangement plus a reasonable margin. Events may cause recognition of orders, backlog and results of operations to be aberrant over shorter periods of time. These factors include the timing of individual large orders which may be impacted by interest rates, customer capital spending and product development cycles, design and manufacturing problems, capacity constraints, delays in product readiness, damage or delays in transit, problems in achieving technical performance requirements and various customer-initiated delays. Any such delay may cause fluctuations in our reported periodic financial results.

The business could be adversely affected by product liability and commercial litigation.

Our products or services may be claimed to cause or contribute to personal injury or property damage to our customers' facilities. Additionally, we are, at times, involved in commercial disputes with third parties, such as customers, vendors and others. The ensuing claims may arise singularly, in groups of related claims or in class actions involving multiple claimants. Such claims and litigation are frequently expensive and time-consuming to resolve, may result in substantial liability to us, which liability and related costs and expenses may not be recoverable through insurance or other forms of reimbursement.

We may experience difficulties obtaining and retaining the services of skilled employees.

We rely on knowledgeable, experienced and skilled technical personnel, particularly engineers, sales management and service personnel, to design, assemble, sell and service our products. We may be unable to attract, retain and motivate a sufficient number of such people, which could adversely affect our business. The inability to transfer knowledge and transition between roles within these teams could also adversely affect our business.

We may fail to protect our intellectual property effectively or may infringe upon the intellectual property of others. We have developed significant proprietary technology and other rights that are used in our businesses. We rely on trade secret, copyright, trademark and patent laws and contractual provisions to protect our intellectual property. While we take enforcement of these rights seriously, other companies such as competitors or others in markets in which we do not participate, may attempt to copy or use our intellectual property for their own benefit.

In addition, the intellectual property of others also has an impact on our ability to offer some of our products and services for specific uses or at competitive prices. Competitors' patents or other intellectual property may limit our

ability to offer products and services to our customers. Any infringement on the intellectual property rights of others could result in litigation and adversely affect our ability to continue to provide, or could increase the cost of providing, products and services.

Intellectual property litigation is very costly and could result in substantial expense and diversions of our resources, both of which could adversely affect our businesses, financial condition and results. In addition, there may be no effective legal recourse against infringement of our intellectual property by third parties, whether due to limitations on enforcement of rights in foreign jurisdictions or as a result of other factors.

If we are unable to protect our information systems against misappropriation of data or breaches of security, our business operations and financial results could be adversely impacted.

Information security risks have generally increased in recent years because of the proliferation of new technologies and the increased sophistication and activities of cyber attacks. Although we strive to have appropriate security controls in place, prevention of security breaches cannot be assured, particularly as cyber threats continue to evolve. We may be required to

Table of Contents

expend additional resources to continue to enhance our security measures or to investigate and remediate any security vulnerabilities. The consequences of these risks could adversely impact our business operations and financial results.

Government regulation imposes costs and other constraints.

Our manufacturing operations and past and present ownership and operations of real property are subject to extensive and changing federal, state, local and foreign laws and regulations, including laws and regulations pertaining to health and safety matters, as well as the handling or discharge of hazardous materials into the environment. We expect to continue to incur costs to comply with these laws, and may incur penalties for any failure to do so. We may also be identified as a responsible party and be subject to liability relating to any investigation and clean-up of properties used for industrial purposes or the generation or disposal of hazardous substances. Some of our export sales require approval from the U.S. government. Changes in political relations between the U.S. and foreign countries and/or specific potential customers for which export licenses may be required, may cause a license application to be delayed or denied, or a previously issued license withdrawn, rendering us unable to complete a sale, or vulnerable to competitors who do not operate under such restrictions. Capital expenditures for environmental compliance were not material in fiscal year 2016, and we do not expect such expenditures will be material in fiscal year 2017 but the factors described above may cause our estimates to differ from our expectations.

We have been required to conduct a good faith reasonable country of origin analysis on our use of “conflict minerals,” which has imposed and may impose additional costs on us and could raise reputational and other risks.

The SEC has promulgated final rules in connection with the Dodd-Frank Wall Street Reform and Consumer Protection Act regarding disclosure of the use of certain minerals, known as conflict minerals, mined from the Democratic Republic of the Congo and adjoining countries. While there is pending litigation challenging these rules, we have incurred and will continue to incur costs associated with complying with these disclosure requirements, including costs to determine the source of any conflict minerals used in our products. We have adopted a policy relating to conflict minerals, incorporating the standards set forth in the Organisation for Economic Co-Operation and Development Due Diligence Guidance, which affects the sourcing, supply, and pricing of materials used in our products. As we continue our due diligence, we may face reputational challenges if we are unable to verify the origins for all metals used in our products through the procedures we have and may continue to implement. We may also encounter challenges in our efforts to satisfy customers that may require all of the components of products purchased to be certified as conflict free. If we are not able to meet customer requirements, customers may choose to disqualify us as a supplier.

We may not achieve our growth plans for the expansion of the business.

In addition to market penetration, our long-term success depends on our ability to expand our business through (a) new product development and service offerings; (b) mergers and acquisitions; and/or (c) geographic expansion.

New product development and service offerings require that we maintain our ability to improve existing products, continue to bring innovative products and services to market in a timely fashion and adapt products and services to the needs and standards of current and potential customers. Our products and services may become less competitive or eclipsed by technologies to which we do not have access or which render our solutions obsolete.

Mergers and acquisitions will be accompanied by risks that may include:

- suitable candidates may not exist or may not be available at acceptable costs;
- failure to achieve the financial and strategic goals for the acquired and combined businesses;
- difficulty integrating the operations and personnel of the acquired businesses;
- disruption of ongoing business and distraction of management from the ongoing business;
- dilution of existing shareholders and earnings per share;
- unanticipated, undisclosed or inaccurately assessed liabilities, legal risks and costs; and
- difficulties retaining the key vendors, customers or employees of the acquired business.

Acquisitions of businesses having a significant presence outside the U.S. will increase our exposure to the risks of international operations discussed in the operational risk factors.

Geographic expansion may be outside of the U.S., and hence will be disproportionately subject to the risks of international operations discussed in the operational risk factors.

We may be required to recognize impairment charges for long-lived assets.

As of October 1, 2016, the net carrying value of long-lived assets (property and equipment, goodwill and other intangible assets) totaled approximately \$737,278. We periodically assess the value of these assets for impairment in accordance with generally accepted accounting principles. Significant negative industry or economic trends, disruptions to our businesses, significant unexpected or planned changes in use of the assets, divestitures and market capitalization declines may result in

Table of Contents

impairments to goodwill and other long-lived assets. In fiscal year 2016, we accelerated \$91 of property and equipment depreciation related to the closure of our Machida, Japan facility, which is expected to be completed in the third quarter of fiscal year 2017. Future impairment charges could significantly affect results of operations in the periods for which any such impairment charges are recognized.

Our investigation relating to our China operations and our failure to maintain effective processes and controls relative to adherence to our Code of Conduct by employees involved with our business in China may have an adverse effect on our business, financial condition or results of operations.

On November 29, 2016, we announced the initiation of an internal investigation into apparent violations of our Code of Conduct involving certain employees involved with our business in China. This investigation was focused on possible violations of company policy, corresponding internal control issues, including our control environment and adherence with the Company's compliance and monitoring programs, and possible violations of applicable law. Our Code of Conduct and other internal policies prohibit us and our employees from engaging in unethical business practices. However, there can be no assurance that all of our employees or agents will refrain from acting in violation of such policies and procedures or that our processes and controls will be sufficient to detect any such violations. The investigation into potential violations of these policies, or even allegations of such violations, and evaluation of our internal controls, could disrupt our operations, involve significant management distraction and lead to significant costs and expenses, including legal and accounting fees and such expenses may have a material adverse effect on our financial results. Further, if our employees or agents violate such policies and procedures, such actions could result in management override of internal controls over financial reporting. If we, or our employees or agents acting on our behalf, are found to have engaged in practices that violate these policies and/or the law, we could suffer severe fines and penalties, profit disgorgement, injunctions on future conduct, securities litigation, material weaknesses in our financial reporting and other consequences that may have a material adverse effect on our business, financial condition or results of operations, including but not limited to our operations in China. In addition, our reputation, sales activities or stock price could be adversely affected if we become the subject of any negative publicity related to actual or potential violations of applicable laws and regulations.

ITEM 1B. UNRESOLVED STAFF COMMENTS

None.

Table of Contents

ITEM 2. PROPERTIES

Shown below is a breakdown of the approximate square footage of our primary owned and leased facilities as of October 1, 2016. We consider our current facilities adequate to support our operations during fiscal year 2017.

Owned Property

Location	Use of Facility	Approximate Square Footage
Eden Prairie, Minnesota (USA)	Corporate headquarters and primary Test manufacturing and research	420,000
Depew, New York (USA)	Sensors manufacturing	47,000
	Sensors manufacturing, sales and service administration	91,000
	Sensors manufacturing	6,000
Cary, North Carolina (USA)	Sensors manufacturing, research and North American sales and service administration	65,000
Provo, Utah (USA)	Sensors sales and service administration	13,000
	Sensors manufacturing	12,000
Farmington Hills, Michigan (USA)	Sensors manufacturing, sales and service administration	16,000
Lancaster, New York (USA)	Sensors sales and service administration	1,000
Berlin, Germany	Test manufacturing and European sales and service administration	72,000
Shanghai, China	Test manufacturing, sales and service administration	129,000
Shenzhen, China	Test manufacturing, research, sales and service administration	75,000
Total		947,000

Table of Contents

Leased Property

Location	Use of Facility	Lease Expires	Approximate Square Footage
Swartz Creek, Michigan (USA)	Test manufacturing and research	2017	8,000
Latham, New York (USA)	Sensors manufacturing, sales and service administration	2020	5,000
Cary, North Carolina (USA)	Sensors manufacturing	2020	8,000
Halifax, North Carolina (USA)	Sensors manufacturing, sales and service administration	2017	51,000
Lexington, North Carolina (USA)	Test manufacturing	2019	12,000
Cincinnati, Ohio (USA)	Sensors manufacturing, warehouse, sales and service administration	2018	16,000
	Sensors warehouse, sales and service administration	2018	9,000
Beijing, China	Test sales and service administration	2017	6,000
	Sensors sales and service administration	2018	5,000
Shanghai, China	Test sales, service administration and assembly	2018	13,000
	Test sales and service administration	2018	7,000
	Test land under Shanghai facility	2056	161,000
Shenzhen, China	Test manufacturing and warehouse	2017	13,000
	Test manufacturing and warehouse	2017	16,000
	Test land under Shenzhen facility	2047	155,000
Creteil, France	Test sales and service administration	2018	16,000
Huckelhoven, Germany	Sensors sales and service administration	2022	12,000
Ludenscheid, Germany	Sensors manufacturing, research and European sales and service administration	2017	55,000
	Sensors sales and service administration	2017	10,000
	Sensors manufacturing	2017	10,000
Tokyo, Japan	Test sales and service administration	2018	7,000
	Sensors manufacturing and Asia sales and service administration	2025	5,000
Sungnam, South Korea	Test sales, service administration and assembly	2019	17,000
Guildford, UK	Test sales, service and manufacturing	2025	8,000
Berlin, Germany	Test land under Berlin facility	2052	97,000
Other Locations ¹	Test and Sensors other sales and service administration		73,000
Total			795,000

We also lease space in the U.S., Europe and Asia for Test and Sensors sales and service administration, including ¹ locations in China, France, Germany, India, Italy, Japan, Russia, Spain, Sweden and the United Kingdom. Neither the amount of leased space nor the rental obligations in these locations is significant individually or in aggregate.

Additional information relative to lease obligations is included in Management's Discussion and Analysis of Financial Condition and Results of Operations, appearing under Item 7 of this Annual Report on Form 10-K.

Table of Contents

ITEM 3. LEGAL PROCEEDINGS

Discussion of legal matters is incorporated by reference from Note 14, “Commitments and Contingencies,” included in Item 8, “Notes to Consolidated Financial Statements,” under Part II of this Annual Report on Form 10-K, and should be considered an integral part of Part I, Item 3, “Legal Proceedings.”

ITEM 4. MINE SAFETY DISCLOSURES

Not applicable.

Table of Contents

PART II

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

Shares of our common stock are traded on the NASDAQ Global Select MarketSM under the trading symbol MTSC. The table below sets forth the quarterly high and low common stock prices for each quarter in fiscal years 2016 and 2015 as quoted on NASDAQ OnlineSM (www.nasdaq.net).

(per share data)	Market Price	
	High	Low
Fiscal Year 2016		
First Quarter	\$68.28	\$55.59
Second Quarter	\$62.60	\$48.64
Third Quarter	\$61.88	\$41.68
Fourth Quarter	\$50.60	\$42.59
Fiscal Year 2015		
First Quarter	\$76.17	\$62.20
Second Quarter	\$77.39	\$67.86
Third Quarter	\$76.68	\$63.94
Fourth Quarter	\$70.66	\$54.35

The number of record holders of our common stock as of April 6, 2017 was 708. This number does not reflect shareholders who hold their shares in the name of broker-dealers or other nominees.

Nasdaq Non-Compliance

On December 6, 2016, we received a deficiency letter from Nasdaq indicating that we, as a result of not filing our Annual Report on Form 10-K for fiscal year 2016 (the "Late Annual Report") in a timely manner and disclosing that we would not be able to file the Late Annual Report within the 15-day extension period provided in Rule 12b-25(b) under the Exchange Act, were not in compliance with Nasdaq Listing Rule 5250(c)(1) for continued listing. In addition, on February 15, 2017, we received a second deficiency letter from Nasdaq indicating that we, as a result of not filing our Quarterly Report on Form 10-Q for the period ended December 31, 2016 (the "Late Quarterly Report" and together with the Late Annual Report, the "Late Reports") in a timely manner and disclosing that we would not be able to file the Late Quarterly Report within the five-day extension period provided in Rule 12b-25(b) under the Exchange Act, together with our prior and ongoing failure to timely file the Late Annual Report, were not in compliance with Nasdaq Listing Rule 5250(c)(1) for continued listing. As requested by Nasdaq, we were required to submit a plan to regain compliance with Nasdaq's filing requirements for continued listing within 60 calendar days of the date of the initial letter.

On January 27, 2017, we submitted our plan to regain compliance with Nasdaq's filing requirements for continued listing and subsequently provided Nasdaq with updates and additional information on February 23, 2017 and March 23, 2017. On April 7, 2017, Nasdaq granted us an extension to regain compliance with Nasdaq's filing requirements for continued listing so long as the Late Reports are filed by May 30, 2017.

Table of Contents

Issuer Purchases of Equity Securities

(in thousands, except shares)	Total Number of Shares Purchased	Average Price Paid per Share	Total Number of Shares Purchased as Part of Publicly Announced Plans or Programs	Maximum Number of Shares that May Yet be Purchased Under the Plans or Programs
July 3, 2016 - August 6, 2016	—	\$ —	—	437,638
August 7, 2016 - September 3, 2016	—	\$ —	—	437,638
September 4, 2016 - October 1, 2016	—	\$ —	—	437,638

We made no purchases within the fourth quarter of fiscal year 2016. However, we purchase common stock from time-to-time to mitigate dilution related to equity issued as employee compensation such as stock options, restricted stock, restricted stock units and employee stock purchase plan awards, as well as to return to shareholders capital not immediately required to fund ongoing operations.

Our Board of Directors approved, and on February 11, 2011 announced, a 2,000,000 share purchase authorization. Authority over pricing and timing under this authorization has been delegated to management. The share purchase authorization has no expiration date. At October 1, 2016, there were 437,638 shares available for purchase under the existing authorization.

Dividends

Our dividend policy is to maintain a payout ratio that allows dividends to increase with the long-term growth of earnings per share, while sustaining dividends through economic cycles. Our dividend practice is to target, over time, a payout ratio of approximately 25% of net earnings per share. We have historically paid dividends to holders of our common stock on a quarterly basis. The declaration and payment of future dividends will depend on many factors, including, but not limited to, our earnings, financial condition, business development needs and regulatory considerations and are at the discretion of our Board of Directors. During fiscal years 2016 and 2015, we declared quarterly cash dividends of \$0.30 per share to holders of our common stock, which resulted in a payout ratio of approximately 71% and 40% of net earnings per share, respectively. Our cash outlay for dividends paid was higher in fiscal year 2015 compared to fiscal year 2016 due to a fifth dividend payment occurring during the 53rd week of the fiscal year.

Debt Covenants

Our current and prior credit agreements include certain financial covenants, including the ratio of consolidated total indebtedness to consolidated adjusted earnings before income taxes, depreciation and amortization (EBITDA), as well as the ratio of consolidated EBITDA to consolidated interest expense. These financial covenants may restrict our ability to pay dividends and purchase outstanding shares of our common stock. At October 1, 2016 and October 3, 2015, we were in compliance with all financial covenants. Information on our debt agreements is included in Item 7 of this Annual Report on Form 10-K.

Shareholder Performance Graph

The following graph compares the cumulative total shareholder return of our common stock over the last five fiscal years with the cumulative total shareholder return on the Russell 2000 Index and a peer group of companies in the Laboratory Apparatus and Analytical, Optical, Measuring, and Controlling Instruments Standard Industrial Code (SIC

Code 3820) that are traded on the NASDAQ, NYSE and NYSE MKT exchanges. The graph assumes that \$100 (in actual dollars) was invested at market close on October 1, 2011 in our common stock, the Russell 2000 Index and the SIC Code 3820 Peer Group and that all dividends were reinvested. The graph is not necessarily indicative of future investment performance.

Table of Contents

COMPARISON OF 5 YEAR CUMULATIVE TOTAL RETURN*

Among MTS Systems Corporation, the Russell 2000 Index, and SIC Code 3820 Peer Group

* \$100 invested on 10/1/11 in stock or index, including reinvestment of dividends.

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	Fiscal Year					
(in actual dollars)	2011 ¹	2012 ¹	2013 ¹	2014	2015	2016
MTS Systems Corporation	\$100.00	\$178.96	\$217.39	\$238.93	\$204.29	\$166.74
Russell 2000 Index	100.00	131.91	171.62	181.13	182.75	208.44
SIC Code 3820 Peer Group ²	100.00	125.39	169.60	193.30	185.88	233.04

¹ Fiscal year 2013 refers to the fiscal year ended September 28, 2013, fiscal year 2012 refers to the fiscal year ended September 29, 2012 and fiscal year 2011 refers to the fiscal year ended October 1, 2011.

² Modified to remove non-exchange traded companies.

Table of Contents

ITEM 6. SELECTED FINANCIAL DATA

The following selected financial data should be read in conjunction with Item 7 and Item 8 of this Annual Report on Form 10-K.

(in thousands, except per share data)	Fiscal Year ¹					
	2016	2015	2014	2013	2012	
Operating Results						
Revenue	\$650,147	\$563,934	\$564,328	\$569,439	\$542,256	
Gross profit	231,404	219,613	223,643	231,939	236,192	
Gross margin %	35.6	% 38.9	% 39.6	% 40.7	% 43.6	%
Research and development expense	\$25,336	\$23,705	\$23,844	\$22,812	\$21,893	
Research and development expense as a % of revenue	3.9	% 4.2	% 4.2	% 4.0	% 4.0	%
Effective income tax rate	18.0	% 23.2	% 28.1	% 27.1	% 35.4	%
Net income	\$27,494	\$45,462	\$42,009	\$57,806	\$51,556	
Net income as a % of revenue	4.2	% 8.1	% 7.4	% 10.2	% 9.5	%
Earnings per share						
Basic	\$1.72	\$3.03	\$2.76	\$3.69	\$3.24	
Diluted	\$1.70	\$3.00	\$2.73	\$3.64	\$3.21	
Weighted average shares outstanding²						
Basic	16,027	14,984	15,218	15,664	15,913	
Diluted	16,179	15,142	15,397	15,861	16,077	
Depreciation and amortization	24,077	21,106	19,279	16,589	13,782	
Financial Position						
Total assets	\$1,188,020	\$460,831	\$487,408	\$451,277	\$409,438	
Interest-bearing debt ³	484,985	21,183	60,000	35,000	—	
Total shareholders' equity	405,260	258,142	258,127	256,537	226,719	
Interest-bearing debt as a % of shareholders' equity	119.7	% 8.2	% 23.2	% 13.6	% —	%
Return on equity ⁴	10.7	% 17.6	% 16.4	% 25.5	% 24.5	%
Return on invested capital ⁵	8.6	% 15.5	% 15.4	% 22.5	% 25.1	%
Other Statistics						
Backlog of orders at year-end	\$370,523	\$353,013	\$326,473	\$290,151	\$298,363	
Dividends declared per share	1.20	1.20	1.20	1.20	1.05	
Capital Expenditures	20,806	18,445	20,038	29,690	15,625	

¹ Fiscal years 2016, 2015, 2014, 2013 and 2012 include 52, 53, 52, 52 and 52 weeks, respectively.

² Assumes the conversion of potential common shares using the treasury stock method.

³ Fiscal year 2016 consists of short- and long-term borrowings, fiscal years 2015, 2014, 2013 and 2012 consists of short-term borrowings.

⁴ Calculated by dividing net income by beginning shareholders' equity.

⁵ The measure Return on Invested Capital (ROIC) is not a measure of performance presented in accordance with U.S. Generally Accepted Accounting Principles (GAAP). ROIC is calculated by dividing adjusted net income by average invested capital. Adjusted net income is calculated by excluding after-tax interest expense from reported net income. In addition, adjusted net income also excludes acquisition-related expense, net of tax, acquisition integration expenses, net of tax, acquisition inventory step-up, net of tax, restructuring expense, net of tax and the 2012 cost related to the settlement of the U.S. Government investigation. Average invested capital is defined as the aggregate of average interest-bearing debt and average shareholders' equity and is calculated as the sum of current and prior year ending amounts divided by two. Because the ratio is not prescribed or authorized by GAAP, the ROIC percentage is a non-GAAP financial measure. We believe ROIC is useful to investors as a measure of operating

performance and of the effectiveness of the use of capital in our operations. We use ROIC as a measure to monitor and evaluate operating performance relative to our invested capital. This measure should not be construed as an alternative to return on equity or any other measure determined in accordance with GAAP.

Table of Contents

Presented below is the reconciliation of the non-GAAP financial measure to the nearest GAAP measure:

	Fiscal Year				
(in thousands)	2016	2015	2014	2013	2012
Net income	\$27,494	\$45,462	\$42,009	\$57,806	\$51,556
Expense to settle U.S. Government investigation	—	—	—	—	7,750
Acquisition-related expense, net of tax	7,322	—	—	—	—
Acquisition integration expense, net of tax	2,049	—	—	—	—
Acquisition inventory step-up, net of tax	5,692	—	—	—	—
Restructuring expense, net of tax	1,465	—	4,376	—	—
Interest expense, net of tax	6,065	767	637	372	535
Adjusted net income*	\$50,087	\$46,229	\$47,022	\$58,178	\$59,841
Total beginning shareholders' equity	\$258,142	\$258,127	\$256,537	\$226,719	\$210,848
Total ending shareholders' equity	405,260	258,142	258,127	256,537	226,719
Total beginning interest bearing debt	21,183	60,000	35,000	—	40,000
Total ending interest bearing debt	484,985	21,183	60,000	35,000	—
Sum of invested capital	\$1,169,570	\$597,452	\$609,664	\$518,256	\$477,567
Average invested capital*	\$584,785	\$298,726	\$304,832	\$259,128	\$238,784
Return on invested capital*	8.6	% 15.5	% 15.4	% 22.5	% 25.1

*Denotes non-GAAP financial measures.

Presented below is the tax impact on the non-GAAP financial measure of adjusted net income presented in the table above.

	Fiscal Year					
	2016		2015		2014	
(in thousands)	Pre-Tax	Tax	Pre-Tax	Tax	Pre-Tax	Tax
Net income	\$33,512	\$6,018	\$27,494	\$59,172	\$13,710	\$45,462
Acquisition-related expense ^a	10,170	2,848	7,322	—	—	—
Acquisition integration expense ^a	2,846	797	2,049	—	—	—
Acquisition inventory step-up ^a	7,916	2,224	5,692	—	—	—
Restructuring expense ^b	2,165	700	1,465	—	—	6,336
Interest expense ^a	8,424	2,359	6,065	1,204	437	767
Adjusted net income*	\$65,033	\$14,946	\$50,087	\$60,376	\$14,147	\$46,229
	Fiscal Year					
	2013		2012		2011	
(in thousands)	Pre-Tax	Tax	Pre-Tax	Tax	Pre-Tax	Tax
Net income	\$79,254	\$21,448	\$57,806	\$79,780	\$28,224	\$51,556
Expense to settle U.S. Government investigation	—	—	—	7,750	—	7,750
Interest expense ^a	591	219	372	849	314	535
Adjusted net income*	\$79,845	\$21,667	\$58,178	\$88,379	\$28,538	\$59,841

^a In determining the tax impact of acquisition-related, acquisition integration, acquisition inventory step-up expenses and interest expense, we applied a U.S. effective income tax rate before discrete items to these expenses.

^b In determining the tax impact of restructuring expenses, we applied the statutory rate in effect for each jurisdiction where restructuring expenses were incurred.

*Denotes non-GAAP financial measures.

Table of Contents

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

Management's Discussion and Analysis of Financial Condition and Results of Operations (MD&A) is designed to provide a reader of our financial statements with a narrative from the perspective of management on our financial condition, results of operations, liquidity and certain other factors that may affect our future results. Our MD&A is presented in nine sections:

- Overview
- Financial Results
- Cash Flow Comparison
- Liquidity and Capital Resources
- Off-Balance Sheet Arrangements
- Critical Accounting Policies
- Recently Issued Accounting Pronouncements
- Quarterly Financial Information
- Forward Looking Statements

Our MD&A should be read in conjunction with the Consolidated Financial Statements and related Notes included in Item 8 of Part II of this Annual Report on Form 10-K. All dollar amounts are in thousands (unless otherwise noted).

Overview

MTS Systems Corporation is a leading global supplier of high-performance test systems and sensors. Our testing hardware and software solutions help customers accelerate and improve design, development and manufacturing processes and are used for determining the mechanical behavior of materials, products and structures. Our high-performance sensors provide controls for a variety of applications measuring acceleration, position, vibration, motion, pressure, force and sound.

Our goal is to grow profitably, generate strong cash flow and deliver a strong return on invested capital to our shareholders by leveraging our leadership position in the research and development and industrial global end markets for high performance test systems and sensors. Our desire is to be the innovation leader in creating test and measurement solutions and provide total customer satisfaction. We believe we can create value for our customers by helping to enhance the precision, improve the reliability and create superior safety for their products, while reducing the delivery time to market for their products. Our competitive advantages include our mission critical technology and application expertise, our leading global footprint with long-term customer relationships, our large installed base of testing equipment and our expanded presence in the rapidly growing sensors market. We believe these competitive advantages position us well in both the test and sensors markets to deliver profitable growth in the years ahead.

We are working toward our goals of sustained six to eight percent growth in annual revenue, three to four points of expanded earnings before interest, taxes, depreciation and amortization (EBITDA) and mid-teens for return on invested capital (ROIC). We believe the growth in our end markets, combined with three primary opportunities we are currently pursuing will support these goals:

- Realize growth within the rapidly expanding sensors market with strong forecasted growth over the next five years;
- Expand service offerings in our Test segment; and
- Capture growth in ground vehicle and advance materials testing driven by environmental and energy conservation initiatives.

We believe that our business model supports our growth objectives, provided that we continue to move aggressively to build our infrastructure, expand our offerings and execute on opportunities with our key customers around the

world. In order to accelerate our revenue growth over the next five years, investments in infrastructure, sales support and field service capacity and capability are essential.

Fiscal Year

We have a 5-4-4 week, quarterly accounting cycle with the fiscal year ending on the Saturday closest to September 30.

Fiscal years 2016, 2015 and 2014 ended October 1, 2016, October 3, 2015 and September 27, 2014, respectively.

Fiscal years 2016 and 2014 both included 52 weeks, while fiscal year 2015 included 53 weeks.

Table of Contents

Restructuring Initiative

During the third quarter of fiscal year 2016, we initiated restructuring actions to further reduce our cost structure by eliminating certain positions, primarily in our Corporate area and Test segment, through terminations, elimination of certain open positions as a result of employees leaving voluntarily throughout fiscal year 2016 and reductions in contractors. These restructuring activities resulted in severance and related expense of \$1,237 during fiscal year 2016. During the fourth quarter of fiscal year 2016, we initiated plans to close our Machida, Japan facility by the third quarter of fiscal year 2017. We incurred restructuring expense of \$928 in fiscal year 2016 related to the closure of this facility. See Note 12 to the Consolidated Financial Statements included in Item 8 of Part II of this Annual Report on Form 10-K.

Equity Instruments

During the third quarter of fiscal year 2016, we issued 1,897 shares of common stock and 1,150 of our 8.75% tangible equity units (TEUs) to finance the acquisition of PCB Group, Inc. (PCB), repay amounts outstanding under our then existing revolving credit facility and to pay related costs, fees and expenses. The common stock and TEU issuances resulted in total net proceeds of \$74,301 and \$110,926, respectively. Proceeds from the issuance of the TEUs were allocated between equity and debt. The debt plus interest will be repaid in quarterly installments through July 1, 2019, at which time the equity portion of the TEUs will automatically be converted to common shares. These issuances negatively impact our basic and dilutive earnings per share.

In connection with the pricing of the TEUs, we entered into capped call transactions with third parties that are expected to reduce the potential dilution to our common stock upon settlement of the TEUs to the extent the market price per share of our common stock exceeds the strike price of the capped calls of \$50.40 per share. The capped calls resulted in cash outflow of \$7,935 in the third quarter of fiscal year 2016.

See Note 9 to the Consolidated Financial Statements included in Item 8 of Part II of this Annual Report on Form 10-K.

Financing

On July 5, 2016, we entered into a credit agreement that provides for senior secured credit facilities consisting of a \$100,000 revolving credit facility (the Revolving Credit Facility) and a \$460,000 tranche B term loan facility (the Term Facility). On July 29, 2016, we amended the credit agreement to increase the Revolving Credit Facility to \$120,000. The proceeds of the Term Facility were used for financing the acquisition of PCB. The Revolving Credit Facility can be drawn upon to refinance existing indebtedness and for working capital and other general corporate purposes. The maturity date of the Revolving Credit Facility is July 5, 2021 and the maturity date of the Term Facility is July 5, 2023. See Note 5 to the Consolidated Financial Statements included in Item 8 of Part II of this Annual Report on Form 10-K.

Acquisition

On July 5, 2016, we completed the acquisition of PCB. The estimated purchase price we paid in connection with this acquisition was approximately \$581,407 subject to certain adjustments that were made at closing for cash, indebtedness, transaction costs and the level of net working capital. We funded the estimated purchase price with existing cash on hand, borrowings under the Term Facility further described above and below under "Liquidity and Capital Resources" and proceeds from our previously announced registered public offerings of TEUs and common stock completed during the third quarter of fiscal year 2016. See Note 13 to the Consolidated Financial Statements included in Item 8 of Part II of this Annual Report on Form 10-K.

Foreign Currency

Approximately 75% of our revenue has historically been derived from customers outside of the United States. Our financial results are principally exposed to changes in exchange rates between the U.S. dollar and the Euro, the

Japanese yen and the Chinese yuan. A change in foreign exchange rates could positively or negatively affect our reported financial results. The discussion below quantifies the impact of foreign currency translation on our financial results for the periods discussed.

Table of Contents

Financial Results

Fiscal Year 2016 Compared to Fiscal Year 2015

Total Company

Results of Operations

The following table compares results of operations in fiscal years 2016 and 2015, separately identifying the estimated impact of currency translation, the acquisition of PCB in fiscal year 2016 and restructuring expense incurred in fiscal year 2016.

(in thousands)	2016	Estimated Business Change	Acquisition / Restructuring 1	Currency Translation	2015
Revenue	\$650,147	\$45,456	\$ 44,503	\$ (3,746)	\$563,934
Cost of sales	418,743	44,233	32,518	(2,329)	344,321
Gross profit	231,404	1,223	11,985	(1,417)	219,613
Gross margin	35.6 %				38.9 %
Operating expenses					
Selling and marketing	94,992	3,253	9,432	(667)	82,974
General and administrative	69,313	1,601	16,860	(586)	51,438
Research and development	25,336	(793)	2,515	(91)	23,705
Total operating expenses	189,641	4,061	28,807	(1,344)	158,117
Income from operations	\$41,763	\$(2,838)	\$ (16,822)	\$ (73)	\$61,496

¹ The Acquisition / Restructuring column includes revenues and costs from the acquisition of PCB, costs incurred as part of the acquisition of PCB and restructuring costs ("acquisition and restructuring costs").

Revenue

(in thousands)	2016	2015	Increased / (Decreased)	
Revenue	\$650,147	\$563,934	\$86,213	15.3 %

The increased revenue of 15.3% was driven by higher sales volumes in the Test segment and the PCB acquisition. Excluding the impact of higher sales volume attributable to the PCB acquisition and currency translation, revenue increased 8.1%. Test revenue increased \$49,385 or 10.7% due to strong project execution and conversion of backlog, partially offset by a 0.7% unfavorable currency translation. Sensors revenue increased \$36,828 or 36.4% driven by contributions from the PCB acquisition, partially offset by a decrease in sales volume in our legacy Sensors business and a 0.4% unfavorable impact of currency translation.

The following table compares revenue in fiscal years 2016 and 2015 by geography.

(in thousands)	2016	2015	Increased / (Decreased)	
Americas	\$185,883	\$173,523	\$12,360	7.1 %
Europe	163,944	149,308	14,636	9.8 %
Asia	300,320	241,103	59,217	24.6 %

Total Revenue \$650,147 \$563,934 \$86,213 15.3%

Although selective product price changes were implemented during each of these fiscal years, the overall impact of pricing changes did not have a material effect on revenue.

Table of Contents

Gross Profit

			Increased / (Decreased)	
(in thousands)	2016	2015	\$	%
Gross profit	\$231,404	\$219,613	\$11,791	5.4%
Gross margin	35.6	% 38.9	% (3.3	) ppts

Gross profit increased 5.4% due to increased sales volumes and backlog conversion in Test and increased sales volume as a result of three months of profit from the PCB acquisition, partially offset by lower sales volumes in our legacy Sensors business and the unfavorable impact of currency translation. Our gross margin rate decreased by 3.3 percentage points primarily as a result of higher compensation expense from the investment in resources in Test and Sensors, the acquisition of PCB, which included a \$7,916 fair value adjustment related to the acquired inventory, and inefficiencies in executing complex projects in Test resulting in higher than expected costs. The decrease was further expanded by unfavorable leverage from lower sales volumes in Sensors due to industrial market weakness across the globe in fiscal year 2016. The decrease was partially offset by an increase in Test revenues. Excluding the impact of currency translation, three months of profit from the acquisition of PCB, and acquisition and restructuring costs, the gross margin rate decreased 2.7 percentage points.

Selling and Marketing Expense

			Increased / (Decreased)	
(in thousands)	2016	2015	\$	%
Selling and marketing	\$94,992	\$82,974	\$12,018	14.5%
% of Revenue	14.6	% 14.7	%	

Selling and marketing expenses increased 14.5% primarily due to three months of expenses from the PCB acquisition, restructuring costs and higher compensation expense in Test, offset by lower compensation expense and cost containment measures in Sensors. Excluding the impact of currency translation, acquisition and restructuring costs, selling and marketing expense increased 3.9%.

General and Administrative Expense

			Increased / (Decreased)	
(in thousands)	2016	2015	\$	%
General and administrative	\$69,313	\$51,438	\$17,875	34.8%
% of Revenue	10.7	% 9.1	%	

General and administrative expense increased 34.8% driven by \$11,867 of PCB acquisition-related expenses, three months of expenses from the PCB acquisition, restructuring costs and higher professional fees. Excluding the impact of currency translation, PCB acquisition-related expenses, acquisition and restructuring costs, general and administrative expenses increased 3.1%.

Research and Development Expense

			Increased / (Decreased)	
(in thousands)	2016	2015	\$	%
Research and development	\$25,336	\$23,705	\$1,631	6.9%
% of Revenue	3.9	% 4.2	%	

Research and development (R&D) expense increased 6.9% primarily due to higher compensation expense from Test employee headcount additions, three months of expenses from the PCB acquisition and restructuring costs, partially offset by employee headcount reductions and R&D project spending cost containment measures in our legacy Sensors business. Excluding the impact of currency, acquisition and restructuring costs, R&D expenses decreased 3.3%.

Table of Contents

Income from Operations

			Increased / (Decreased)	
(in thousands)	2016	2015	\$	%
Income from operations	\$41,763	\$61,496	\$(19,733)	(32.1)%
% of Revenue	6.4	% 10.9	%	

Income from operations declined 32.1% due to higher gross profit being more than offset by higher operating expenses which included PCB acquisition-related expenses, three months of expenses related to the acquisition of PCB and restructuring costs of \$28,807. Excluding the impact of currency translation, acquisition and restructuring costs, income from operations decreased 4.6%.

Interest Income (Expense), net

			Increased / (Decreased)	
(in thousands)	2016	2015	\$	%
Interest income (expense), net	\$(8,489)	\$(795)	\$(7,694)	(967.8)%

Interest expense, net increased primarily due to interest incurred related to our new tranche B term loan facility and TEUs. Interest expense included \$5,750 related to the tranche B term loan, \$1,389 from amortization of capitalized debt issuance costs, \$562 related to the TEUs, \$502 from writing-off capitalized debt issuance costs related to the previous credit facility and \$323 of interest expense from borrowings under the previous credit facility.

Other Income (Expense), net

			Increased / (Decreased)	
(in thousands)	2016	2015	\$	%
Other income (expense), net	\$238	\$(1,529)	\$1,767	115.6%

The increase in other income (expense), net was primarily driven by sales and use tax refunds and a decrease in the losses on foreign currency transactions.

Provision for Income Taxes

			Increased / (Decreased)	
(in thousands)	2016	2015	\$	%
Provision for income taxes	\$6,018	\$13,710	\$(7,692)	(56.1)%
Effective Rate	18.0	% 23.2	% (5.2)	) ppts

The provision for income taxes declined during fiscal year 2016 primarily due to a decrease in income before taxes.

The effective tax rate was lower during fiscal year 2016 primarily due to tax benefits from the enactment of legislation on December 18, 2015 that made the U.S. R&D tax credit permanent as of January 1, 2015. Fiscal year 2016 includes a discrete tax benefit of \$2,283 related to the reinstatement of the R&D tax credit. The rate was also lower due to a favorable geographic mix of earnings, with foreign income generally taxed at lower rates than domestic income. These benefits were partially offset by nondeductible PCB acquisition-related costs. Fiscal year 2015 included a tax benefit of \$1,836 due to the resolution of audit matters in connection with the IRS examination of tax years ending October 1, 2011 and September 29, 2012. We also recognized a tax benefit of \$2,098 during fiscal year 2015 due to the enactment of tax legislation on December 19, 2014 that retroactively extended the R&D tax credit.

Table of Contents

Net Income

			Increased / (Decreased)	
(in thousands, except per share data)	2016	2015	\$	%
Net income	\$27,494	\$45,462	\$(17,968)	(39.5)%
Diluted earnings per share	\$1.70	\$3.00	\$(1.30)	(43.3)%

Net income declined due to higher operating expenses, partially offset by higher gross profit and a lower income tax provision. The year-to-date diluted EPS decline was driven by acquisition and restructuring costs, the issuance of common stock and TEUs, higher compensation expense from the investment in resources in Test and Sensors and inefficiencies in executing complex projects in Test.

Backlog

Backlog of undelivered orders at October 1, 2016 was \$370,523, an increase of \$17,510 or 5.0%, compared to backlog of \$353,013 at October 3, 2015. Test backlog was \$331,044 and \$339,967 at October 1, 2016 and October 3, 2015, respectively. Sensors backlog was \$39,479 and \$13,046 at October 1, 2016 and October 3, 2015, respectively. Based on anticipated manufacturing schedules, we expect that approximately \$297,000 of the backlog at October 1, 2016 will be converted into revenue during fiscal year 2017 (80% conversion). The conversion rate is up from the prior year rate of 76% due to a shift from larger custom orders to shorter cycle, quicker turning orders in fiscal year 2016 and the completion of certain custom orders.

We believe backlog is not an absolute indicator of future revenue because a portion of the orders in backlog could be canceled at the customer's discretion. While the backlog is subject to order cancellations, we have not historically experienced a significant number of order cancellations. During fiscal year 2016, one custom order in Test totaling approximately \$8,567 was canceled. During fiscal year 2015, two custom orders in Test totaling approximately \$8,484 were canceled. These canceled orders were booked in a fiscal year prior to the year in which they were canceled.

Test Segment

Results of Operations

The following table compares results of operations in fiscal years 2016 and 2015 for Test, separately identifying the estimated impact of currency translation and restructuring expense incurred in fiscal year 2016.

(in thousands)	2016	Estimated Business Change	Acquisition / Restructuring ²	Currency Translation	2015
Revenue	\$512,265	\$52,677	\$ —	\$(3,292)	\$462,880
Cost of sales	342,240	46,007	299	(2,077)	298,011
Gross profit	170,025	6,670	(299)	(1,215)	164,869
Gross margin	33.2	%			35.6

Operating expenses

Selling and marketing	69,650	5,766	129	(691)	64,446
General and administrative	42,210	1,795	414	(560)	40,561
Research and development	17,505	(70)	5	(7)	17,577
Total operating expenses	129,365	7,491	548	(1,258)	122,584
Income from operations	\$40,660	\$(821)	\$(847)	\$43	\$42,285

² The acquisition of PCB did not have an impact on the results of operations of Test during fiscal year 2016.

Table of Contents

Revenue

			Increased / (Decreased)	
(in thousands)	2016	2015	\$	%
Revenue	\$512,265	\$462,880	\$49,385	10.7%

Revenue increased 10.7% primarily due to a focus on project execution, backlog conversion and higher service revenue, partially offset by the unfavorable impact of currency translation. Excluding the impact of currency translation, revenue increased 11.4% as the revenue decline in the Americas region was more than offset by improvements in the Asia and Europe regions.

The following table compares revenue in fiscal years 2016 and 2015 for Test by geography.

			Increased / (Decreased)	
(in thousands)	2016	2015	\$	%
Americas	\$131,273	\$142,464	\$(11,191)	(7.9)%
Europe	106,941	100,501	6,440	6.4%
Asia	274,051	219,915	54,136	24.6%
Total Revenue	\$512,265	\$462,880	\$49,385	10.7%

Gross Profit

			Increased / (Decreased)	
(in thousands)	2016	2015	\$	%
Gross profit	\$170,025	\$164,869	\$5,156	3.1%
Gross margin	33.2%	35.6%	(2.4)	ppts

Gross profit increased 3.1% primarily due to increased sales volume. The gross margin rate decreased 2.4 percentage points driven by inefficiencies in executing several large complex projects, resulting in higher than expected costs, increased indirect labor headcount and a higher concentration of custom projects which typically have lower margins and restructuring costs. The decrease was partially offset by an increase in revenue.

Selling and Marketing Expense

			Increased / (Decreased)	
(in thousands)	2016	2015	\$	%
Selling and marketing	\$69,650	\$64,446	\$5,204	8.1%
% of Revenue	13.6%	13.9%		

Selling and marketing expense increased 8.1% primarily driven by higher compensation expense, higher commission expense from increased revenue, higher incentive compensation and restructuring costs of \$129, partially offset by cost containment measures. Excluding the impact of currency translation and restructuring costs, selling and marketing expense increased 8.9%.

General and Administrative Expense

			Increased / (Decreased)	
(in thousands)	2016	2015	\$	%
General and administrative	\$42,210	\$40,561	\$1,649	4.1%
% of Revenue	8.2%	8.8%		

General and administrative expense increased 4.1% primarily due to higher professional fees, increased compensation expense and restructuring costs of \$414, partially offset by a reduction in legal costs. Excluding the impact of currency translation and restructuring costs, general and administrative expense increased 4.4%.

Table of Contents

Research and Development Expense

			Increased / (Decreased)
(in thousands)	2016	2015	\$ %
Research and development	\$17,505	\$17,577	\$(72) (0.4)%
% of Revenue	3.4	% 3.8	%

R&D expense decreased 0.4% primarily due a reduction in R&D project spending driven by redeployment of resources to certain capitalized engineering projects, partially offset by higher compensation expense.

Income from Operations

			Increased / (Decreased)
(in thousands)	2016	2015	\$ %
Income from operations	\$40,660	\$42,285	\$(1,625) (3.8)%
% of Revenue	7.9	% 9.1	%

Income from operations decreased 3.8% due to higher compensation expense, inefficiencies in executing complex projects, higher concentration of custom projects and restructuring expenses of \$847, partially offset by an increase in revenue.

Backlog

Backlog of undelivered orders at October 1, 2016 was \$331,044, a decrease of 2.6% from backlog of \$339,967 at October 3, 2015. Based on anticipated manufacturing schedules, we expect that approximately \$258,000 of the backlog at October 1, 2016 will be converted into revenue during fiscal year 2017 (78% conversion). The conversion rate is up from the prior year rate of 75% due to a shift from larger custom orders to shorter cycle, quicker turning orders in fiscal year 2016 and a push to complete custom orders. As previously mentioned, backlog at the end of fiscal years 2016 and 2015 was negatively impacted by cancellations of custom orders in Test totaling approximately \$8,567 and \$8,484, respectively.

Sensors Segment

Results of Operations

The following table compares results of operations in fiscal years 2016 and 2015 for Sensors, separately identifying the estimated impact of currency translation, the acquisition of PCB in fiscal year 2016 and restructuring expense incurred in fiscal year 2016.

		Estimated			
(in thousands)	2016	Business Change	Acquisition / Restructuring 1	Currency Translation	2015
Revenue	\$137,882	\$(7,221)	\$ 44,503	\$ (454)	\$101,054
Cost of sales	76,503	(1,774)	32,219	(252)	46,310
Gross profit	61,379	(5,447)	12,284	(202)	54,744
Gross margin	44.5	%			54.2 %
Operating expenses					
Selling and marketing	25,342	(2,513)	9,303	24	18,528
General and administrative	27,103	(194)	16,446	(26)	10,877
Research and development	7,831	(723)	2,510	(84)	6,128

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Total operating expenses	60,276	(3,430)	28,259	(86)	35,533
Income from operations	\$1,103	\$(2,017)	\$ (15,975)	\$ (116)	\$19,211

¹ The Acquisition / Restructuring column includes revenues and costs from the acquisition of PCB, costs incurred as part of the acquisition of PCB and restructuring costs ("acquisition and restructuring costs").

Table of Contents

Revenue

			Increased / (Decreased)	
(in thousands)	2016	2015	\$	%
Revenue	\$137,882	\$101,054	\$36,828	36.4%

Revenue increased 36.4% primarily due to increased revenue from sales volume as a result of the acquisition of PCB, partially offset by lower sales volumes in our legacy Sensors business. Excluding the impact of currency translation and the impact of the PCB acquisition, revenue decreased 7.1%. Sensors sales continue to be negatively impacted by industrial market weakness around the globe, specifically in the heavy industrial machine steel, fluid power and oil and gas markets.

The following table compares revenue in fiscal years 2016 and 2015 for Sensors by geography.

			Increased / (Decreased)	
(in thousands)	2016	2015	\$	%
Americas	\$54,610	\$31,059	\$23,551	75.8%
Europe	57,003	48,807	8,196	16.8%
Asia	26,269	21,188	5,081	24.0%
Total Revenue	\$137,882	\$101,054	\$36,828	36.4%

Gross Profit

			Increased / (Decreased)	
(in thousands)	2016	2015	\$	%
Gross profit	\$61,379	\$54,744	\$6,635	12.1%
Gross margin	44.5	% 54.2	% (9.7)	) ppts

Gross profit increased 12.1% primarily due to increased sales volumes as a result of the PCB acquisition, partially offset by lower sales volumes in our legacy Sensors business and restructuring costs of \$762. The gross margin rate decreased 9.7 percentage points due to the acquisition of PCB, which included a \$7,916 fair value adjustment related to the acquired inventory, unfavorable leverage from lower sales volumes and higher indirect labor expense in our legacy Sensors business and restructuring costs. Excluding the impact of currency translation, acquisition and restructuring costs, the gross margin rate declined 1.7 percentage points.

Selling and Marketing Expense

			Increased / (Decreased)	
(in thousands)	2016	2015	\$	%
Selling and marketing	\$25,342	\$18,528	\$6,814	36.8%
% of Revenue	18.4	% 18.3	%	

Selling and marketing expense increased 36.8% primarily driven by three months of expenses from the PCB acquisition and restructuring costs, partially offset by lower compensation expense, reduced travel expense as part of cost containment measures and lower commission expense. Excluding the impact of currency translation, acquisition and restructuring costs, selling and marketing expense decreased 13.6%.

General and Administrative Expense

(in thousands)	2016	2015	Increased / (Decreased)	
			\$	%
General and administrative	\$27,103	\$10,877	\$16,226	149.2%
% of Revenue	19.7	% 10.8		%

General and administrative expense increased 149.2% primarily due to PCB acquisition-related expenses of \$11,867, three months of expenses from the acquisition of PCB and restructuring costs. Excluding the impact of currency translation and acquisition and restructuring costs, general and administrative expenses decreased 1.8%.

Table of Contents

Research and Development Expense

			Increased / (Decreased)	
(in thousands)	2016	2015	\$	%
Research and development	\$7,831	\$6,128	\$1,703	27.8%
% of Revenue	5.7	% 6.1	%	

R&D expense increased 27.8% primarily driven by three months of expenses from the acquisition of PCB, partially offset by lower compensation from headcount reductions and a decline in R&D project spending as part of cost containment measures. Excluding the impact of currency translation, acquisition and restructuring costs, R&D expense decreased 11.8%.

Income from Operations

			Increased / (Decreased)	
(in thousands)	2016	2015	\$	%
Income from operations	\$1,103	\$19,211	\$(18,108)	(94.3)%
% of Revenue	0.8	% 19.0	%	

Income from operations declined 94.3% primarily due to PCB acquisition-related expenses of \$12,514, loss on operations from PCB and restructuring costs. Excluding the impact of currency translation and acquisition and restructuring costs, income from operations would have decreased 10.5%.

Backlog

Backlog of undelivered orders at October 1, 2016 was \$39,479, an increase of 202.6% compared to backlog of \$13,046 at October 3, 2015. The increase in backlog was primarily due to the acquisition of PCB.

Fiscal Year 2015 Compared to Fiscal Year 2014

Total Company

Results of Operations

The following table compares results of operations in fiscal years 2015 and 2014, separately identifying the estimated impact of currency translation and the acquisition of Roehrig Engineering, Inc. (REI) in fiscal year 2014.

		Estimated			
(in thousands)	2015	Business Change	REI Acquisition	Currency Translation	2014
Revenue	\$563,934	\$27,292	\$ 5,432	\$(33,118)	) \$564,328
Cost of sales	344,321	22,295	3,740	(22,399)	) 340,685
Gross profit	219,613	4,997	1,692	(10,719)	) 223,643
Gross margin	38.9	%			39.6 %

Operating expenses

Selling and marketing	82,974	(227	) 117	(5,052	) 88,136
General and administrative	51,438	1,284	921	(2,174	) 51,407
Research and development	23,705	384	—	(523	) 23,844
Total operating expenses	158,117	1,441	1,038	(7,749	) 163,387
Income from operations	\$61,496	\$3,556	\$ 654	\$(2,970)	) \$60,256

Severance and Related Costs

We initiated workforce reductions and other cost reduction actions during fiscal year 2014. As a result of these actions, we incurred severance and related costs of \$6,336 in fiscal year 2014, of which \$3,507, \$1,805, and \$1,024 were reported in cost of sales, selling and marketing, and general and administrative expense, respectively. No severance and related costs were recognized in fiscal year 2015.

Table of Contents

Revenue

			Increased / (Decreased)	
(in thousands)	2015	2014	\$	%
Revenue	\$563,934	\$564,328	\$(394)	(0.1)%

Revenue was essentially flat. Increases in revenue from higher sales volumes, the impact of the 53rd week in fiscal year 2015 and \$5,432 from the acquisition of REI, which was completed in fiscal year 2014, were more than offset by the negative impact of currency translation. Excluding the impact of currency translation, revenue increased 5.8%. Test revenue increased \$4,727 due to higher sales volumes, the impact of the 53rd week in fiscal year 2015 and the acquisition of REI which was completed in fiscal year 2014, partially offset by a 4.6% unfavorable currency translation. Sensors revenue declined \$5,121 driven by an 11.3% unfavorable impact of currency translation.

The following table compares revenue in fiscal years 2015 and 2014 by geography.

			Increased / (Decreased)	
(in thousands)	2015	2014	\$	%
Americas	\$173,523	\$176,133	\$(2,610)	(1.5)%
Europe	149,308	179,043	(29,735)	(16.6)%
Asia	241,103	209,152	31,951	15.3%
Total Revenue	\$563,934	\$564,328	\$(394)	(0.1)%

Although selective product price changes were implemented during each of these fiscal years, the overall impact of pricing changes did not have a material effect on revenue.

Gross Profit

			Increased / (Decreased)	
(in thousands)	2015	2014	\$	%
Gross profit	\$219,613	\$223,643	\$(4,030)	(1.8)%
Gross margin	38.9%	39.6%	(0.7)	ppts

Gross profit declined due to the negative impact of currency translation, unfavorable product mix and an investment in labor and systems to improve utilization in the upcoming fiscal year. Due to a higher concentration of manufacturing performed in the U.S., currency had a 0.3 percentage point positive impact on the gross margin rate. Excluding the impact of currency translation, the gross margin rate decreased by 1.0 percentage point primarily driven by unfavorable product mix resulting from a higher number of custom projects which generally have lower margins and an investment in labor and systems to improve utilization in fiscal year 2016. The decrease was partially offset by severance and related costs of \$3,507 recognized in fiscal year 2014 and nine months of profit totaling \$1,692 from the acquisition of REI in fiscal year 2014.

Selling and Marketing Expense

			Increased / (Decreased)	
(in thousands)	2015	2014	\$	%
Selling and marketing	\$82,974	\$88,136	\$(5,162)	(5.9)%
% of Revenue	14.7%	15.6%		

Selling and marketing expenses decreased due to a favorable impact of currency translation, severance and related costs of \$1,805 during fiscal year 2014 and lower external commissions as a result of revenue timing, partially offset

by merit increases and the timing of selling activities to drive future revenue growth.

Table of Contents

General and Administrative Expense

			Increased / (Decreased)	
(in thousands)	2015	2014	\$	%
General and administrative	\$51,438	\$51,407	\$ 31	0.1 %
% of Revenue	9.1	% 9.1	%	

The general and administrative expense increase was driven by an estimated favorable impact of currency translation and \$1,024 of severance and related costs incurred in fiscal year 2014 that did not recur in fiscal year 2015, offset by increased professional fees and nine months of expenses totaling \$921 related to the acquisition of REI completed in fiscal year 2014.

Research and Development Expense

			Increased / (Decreased)	
(in thousands)	2015	2014	\$	%
Research and development	\$23,705	\$23,844	\$(139)	(0.6)%
% of Revenue	4.2	% 4.2	%	

Research and development expense declined primarily due to an increase in the capitalization of internally developed software labor of \$1,472 as headcount was reallocated to internally developed software activities and a favorable impact of currency translation, partially offset by higher compensation and benefits related to increased headcount.

Income from Operations

			Increased / (Decreased)	
(in thousands)	2015	2014	\$	%
Income from operations	\$61,496	\$60,256	\$1,240	2.1 %
% of Revenue	10.9	% 10.7	%	

Income from operations increased primarily due to lower operating expenses.

Interest Income (Expense), net

			Increased / (Decreased)	
(in thousands)	2015	2014	\$	%
Interest income (expense), net	\$(795)	\$(692)	\$(103)	(14.9)%

Interest expense, net was higher due to higher average borrowings on our credit facility.

Other Income (Expense), net

			Increased / (Decreased)	
(in thousands)	2015	2014	\$	%
Other income (expense), net	\$(1,529)	\$(1,121)	\$(408)	(36.4)%

The decrease in other income (expense), net was primarily driven by increased net losses on foreign currency transactions.

Table of Contents

Provision for Income Taxes

			Increased / (Decreased)	
(in thousands)	2015	2014	\$	%
Provision for income taxes	\$13,710	\$16,434	\$(2,724)	(16.6)%
Effective Rate	23.2	% 28.1	% (4.9	) ppts

The decreased provision for income taxes during fiscal year 2015 was primarily due to a decrease in the effective tax rate. The decrease in the effective tax rate was primarily driven by the enactment of tax legislation during the three months ended December 27, 2014 that retroactively extended the U.S. research and development tax credit and resulted in a tax benefit of \$2,098 in the first quarter of fiscal year 2015. In addition, we recognized a tax benefit of \$1,836 associated with the favorable resolution in fiscal year 2015 of audit matters in connection with the Internal Revenue Service examination of tax years ending October 1, 2011 and September 29, 2012. The fiscal year 2015 rate was also favorably impacted by our geographic mix of earnings, with foreign income generally taxed at lower rates than domestic income. The fiscal year 2014 effective tax rate includes a one-time benefit due to the recognition of additional federal and state research and development credit benefits of \$2,563 which related to prior years.

Net Income

			Increased / (Decreased)	
(in thousands, except per share data)	2015	2014	\$	%
Net income	\$45,462	\$42,009	\$3,453	8.2%
Diluted earnings per share	\$3.00	\$2.73	\$0.27	9.9%

A \$4,376 charge for severance and related costs negatively impacted fiscal year 2014 earnings per diluted share by \$0.28. Excluding the severance and related costs, diluted earnings per share in fiscal year 2014 would have been essentially flat year-over-year.

Backlog

Backlog of undelivered orders at October 3, 2015 was \$353,013, an increase of \$26,540 or 8.1%, compared to backlog of \$326,473 at September 27, 2014. The majority of this backlog was related to Test. Based on anticipated manufacturing schedules, we estimated that approximately \$267,000 of the backlog at October 3, 2015 would be converted into revenue during fiscal year 2016 (76% conversion). The conversion rate was slightly down from the prior year rate of 77% due to a shift from shorter cycle, quicker turning orders to larger custom orders in fiscal year 2015.

We believe backlog is not an absolute indicator of future revenue because a portion of the orders in backlog could be canceled at the customer's discretion. While the backlog is subject to order cancellations, we have not historically experienced a significant number of order cancellations. During fiscal year 2015, two custom orders in Test totaling approximately \$8,484 were canceled. During fiscal year 2014, one custom order in Test totaling approximately \$11,109 was canceled. These canceled orders were booked in a fiscal year prior to the year in which they were canceled.

Table of Contents

Test Segment

Results of Operations

The following table compares results of operations in fiscal years 2015 and 2014 for Test, separately identifying the estimated impact of currency translation and the acquisition of REI in fiscal year 2014.

(in thousands)	2015	Estimated			2014
		Business Change	REI Acquisition	Currency Translation	
Revenue	\$462,880	\$20,435	\$ 5,432	\$(21,140)	\$458,153
Cost of sales	298,011	18,311	3,740	(16,738)	292,698
Gross profit	164,869	2,124	1,692	(4,402)	165,455
Gross margin	35.6 %				36.1 %
Operating expenses					
Selling and marketing	64,446	(1,231)	117	(2,905)	68,465
General and administrative	40,561	595	921	(924)	39,969
Research and development	17,577	410	—	(6)	17,173
Total operating expenses	122,584	(226)	1,038	(3,835)	125,607
Income from operations	\$42,285	\$2,350	\$ 654	\$(567)	\$39,848

Revenue

(in thousands)	2015	2014	Increased / (Decreased)	
			\$	%
Revenue	\$462,880	\$458,153	\$4,727	1.0%

The increase in revenue was primarily a result of strong engineer-to-order revenue converted from a higher beginning of the year backlog, productivity improvements and the favorable impact of a 53rd week in fiscal year 2015, partially offset by the unfavorable impact of currency translation. Excluding the impact of currency translation, revenue increased 5.6%.

The following table compares revenue in fiscal years 2015 and 2014 for Test by geography.

(in thousands)	2015	2014	Increased / (Decreased)	
			\$	%
Americas	\$142,464	\$144,633	\$(2,169)	(1.5)%
Europe	100,501	126,886	(26,385)	(20.8)%
Asia	219,915	186,634	33,281	17.8 %
Total Revenue	\$462,880	\$458,153	\$4,727	1.0 %

Gross Profit

(in thousands)	2015	2014	Increased / (Decreased)	
			\$	%
Gross profit	\$164,869	\$165,455	\$(586)	(0.4)%
Gross margin	35.6 %	36.1 %	(0.5)	ppts

Gross profit declined primarily due to the negative impact of currency translation, partially offset by \$3,507 of severance and related costs recognized in fiscal year 2014 and nine months of profit related to the fiscal year 2014

acquisition of REI in the amount of \$1,692. Excluding the aforementioned, the gross margin rate decreased 1.8 percentage points driven by unfavorable product mix as fiscal year 2015 gross profit included a higher number of large custom projects which generally have lower margins.

Table of Contents

Selling and Marketing Expense

			Increased / (Decreased)	
(in thousands)	2015	2014	\$	%
Selling and marketing	\$64,446	\$68,465	\$ (4,019)	(5.9)%
% of Revenue	13.9	% 14.9		%

Selling and marketing expense declined primarily due to the favorable impact of currency translation, lower external commissions due to timing of revenue and severance and related costs of \$1,799 recognized in fiscal year 2014, partially offset by merit increases and timing of selling activities to drive future revenue growth.

General and Administrative Expense

			Increased / (Decreased)	
(in thousands)	2015	2014	\$	%
General and administrative	\$40,561	\$39,969	\$ 592	1.5 %
% of Revenue	8.8	% 8.7		%

The general and administrative expense increase was driven by increased spending related to professional fees and nine months of expenses totaling \$921 related to the acquisition of REI completed in fiscal year 2014, partially offset by the favorable impact of currency translation.

Research and Development Expense

			Increased / (Decreased)	
(in thousands)	2015	2014	\$	%
Research and development	\$17,577	\$17,173	\$404	2.4 %
% of Revenue	3.8	% 3.7		%

Research and development expense increased primarily due to an increase in headcount resulting in higher compensation expense.

Income from Operations

			Increased / (Decreased)	
(in thousands)	2015	2014	\$	%
Income from operations	\$42,285	\$39,848	\$2,437	6.1 %
% of Revenue	9.1	% 8.7		%

Income from operations increased due to lower operating expenses.

Backlog

Backlog of undelivered orders at October 3, 2015 was \$339,967, an increase of 9.7% from backlog of \$309,994 at September 27, 2014. As previously mentioned, backlog at the end of fiscal years 2015 and 2014 was negatively impacted by the cancellation of two custom orders in Test totaling approximately \$8,484 and cancellation of one custom order totaling approximately \$11,109, respectively.

Table of Contents

Sensors Segment

Results of Operations

The following table compares results of operations in fiscal years 2015 and 2014 for Sensors, separately identifying the estimated impact of currency translation.

(in thousands)	2015	Estimated		2014
		Business	Currency	
		Change	Translation	
Revenue	\$101,054	\$6,857	\$(11,978)	\$106,175
Cost of sales	46,310	3,984	(5,661)	47,987
Gross profit	54,744	2,873	(6,317)	58,188
Gross margin	54.2 %			54.8 %
Operating expenses				
Selling and marketing	18,528	1,004	(2,147)	19,671
General and administrative	10,877	689	(1,250)	11,438
Research and development	6,128	(26)	(517)	6,671
Total operating expenses	35,533	1,667	(3,914)	37,780
Income from operations	\$19,211	\$1,206	\$(2,403)	\$20,408

Revenue

(in thousands)	2015	2014	Increased / (Decreased)	
			\$	%
Revenue	\$101,054	\$106,175	\$(5,121)	(4.8)%

The decrease in revenue was primarily driven by the negative impact of currency translation. Excluding the impact of currency translation, Sensors revenue was up 6.5% driven by a higher beginning of the period backlog for fiscal year 2015 and additional sales in machine markets due to the favorable Euro exchange rates prompting customers to buy.

The following table compares revenue in fiscal years 2015 and 2014 for Sensors by geography.

(in thousands)	2015	2014	Increased / (Decreased)	
			\$	%
Americas	\$31,059	\$31,500	\$(441)	(1.4)%
Europe	48,807	52,157	(3,350)	(6.4)%
Asia	21,188	22,518	(1,330)	(5.9)%
Total Revenue	\$101,054	\$106,175	\$(5,121)	(4.8)%

Gross Profit

(in thousands)	2015	2014	Increased / (Decreased)	
			\$	%
Gross profit	\$54,744	\$58,188	\$(3,444)	(5.9)%
Gross margin	54.2 %	54.8 %	(0.6)	ppts

Gross profit declined primarily due to the unfavorable impact of currency translation. Excluding the impact of currency translation, the gross margin rate declined 0.8 percentage points due to an unfavorable product mix resulting from sales increases in certain lower margin industrial markets.

Table of Contents

Selling and Marketing Expense

			Increased / (Decreased)	
(in thousands)	2015	2014	\$	%
Selling and marketing	\$18,528	\$19,671	\$(1,143)	(5.8)%
% of Revenue	18.3	% 18.5	%	

The decrease in selling and marketing expense was primarily driven by the favorable impact of currency translation, partially offset by higher compensation and benefits resulting from increased headcount to support future revenue growth.

General and Administrative Expense

			Increased / (Decreased)	
(in thousands)	2015	2014	\$	%
General and administrative	\$10,877	\$11,438	\$(561)	(4.9)%
% of Revenue	10.8	% 10.8	%	

The decrease in general and administrative expense was primarily driven by the favorable impact of currency translation and cost containment measures, partially offset by increased compensation.

Research and Development Expense

			Increased / (Decreased)	
(in thousands)	2015	2014	\$	%
Research and development	\$6,128	\$6,671	\$(543)	(8.1)%
% of Revenue	6.1	% 6.3	%	

The decrease in research and development expense was primarily driven by the favorable impact of currency translation and cost containment measures, partially offset by increased compensation and benefits expense resulting from increased headcount.

Income from Operations

			Increased / (Decreased)	
(in thousands)	2015	2014	\$	%
Income from operations	\$19,211	\$20,408	\$(1,197)	(5.9)%
% of Revenue	19.0	% 19.2	%	

Income from operations decreased primarily as a result of decreased gross profit, partially offset by lower operating expenses.

Backlog

Backlog of undelivered orders at October 3, 2015 was \$13,046, a decrease of 20.8% compared to backlog of \$16,479 at September 27, 2014.

Cash Flow Comparison - Fiscal Years 2016, 2015 and 2014

Total cash and cash equivalents increased \$33,012 for fiscal year 2016. The increase was primarily due to \$440,163 in net proceeds from the issuance of long-term debt, \$110,926 in net cash received from the issuance of TEUs, \$74,301

in net proceeds from the issuance of common stock, \$27,494 of net income and \$24,077 in depreciation and amortization. The cash receipts were partially offset by a payment of \$580,920, net of cash received, for the purchase of PCB, \$21,343 of net repayments under short-term borrowings, investment in property and equipment of \$20,806, \$18,414 in purchases of shares of common stock under our share purchase program and for stock-based compensation arrangements and dividend payments of \$13,932.

Total cash and cash equivalents decreased \$8,629 for fiscal year 2015. The decrease was primarily due to \$50,026 in repayments of short-term borrowings and debt issuance costs, purchases of our common stock of \$29,115, dividend payments of \$22,445 and investment in property and equipment of \$18,445. The decrease was partially offset by net income of \$45,462, \$21,106 in depreciation and amortization, \$19,040 for decreased working capital requirements, \$11,183 received through short-

Table of Contents

term borrowings, \$7,351 in stock-based compensation and \$4,847 of proceeds received from the exercise of stock options and share purchases under our employee stock purchase plan.

Total cash and cash equivalents increased \$12,064 during fiscal year 2014. This increase was driven by net income of \$42,009, \$24,102 in net proceeds received from borrowings on the credit facility, \$19,279 in depreciation and amortization and \$7,590 of proceeds from the exercise of stock options and stock purchases under our employee stock purchase plan. These increases were partially offset by purchases of our common stock of \$31,013, investment in property and equipment of \$20,038, dividend payments of \$18,330 and \$14,192 in cash payments associated with the acquisition of REI.

Cash flow from operating activities provided cash totaling \$67,881 during fiscal year 2016 compared to \$100,436 during fiscal year 2015 and \$64,669 in fiscal year 2014. Fiscal year 2016 was lower than fiscal year 2015 primarily due to lower net income and higher accounts and unbilled contracts receivable.

Fiscal year 2016 cash flow from operating activities was primarily generated from \$27,494 in net income, \$24,077 of depreciation and amortization, a \$9,057 increase in accrued payroll and related costs, a \$7,916 fair value adjustment related to acquired inventory in connection with the PCB acquisition, \$7,224 of stock-based compensation, a \$5,701 increase in advanced payments from customers due to a focus on early collection efforts, a \$5,647 increase in accounts payable resulting from general timing of purchases and payments and a \$3,365 decrease in inventories. The cash received was partially offset by a \$22,059 increase in accounts and unbilled contracts receivable resulting from general timing and collections and \$5,274 in deferred income taxes.

Fiscal year 2015 cash flow from operating activities was primarily driven by \$45,462 in net income, \$21,106 of depreciation and amortization, a \$13,065 increase in advance payments received from customers driven by the mix of orders, a \$6,772 increase in accounts payable resulting from general timing of purchases and payments, a \$3,308 decrease in accounts and unbilled receivables resulting from general timing of billing and collections, partially offset by a \$4,105 increase in inventories to support future revenue.

Fiscal year 2014 cash flow from operating activities was primarily driven by net income of \$42,009 and \$19,279 in depreciation and amortization.

Cash flow from investing activities required \$600,212, \$19,112 and \$34,230 use of cash during fiscal years 2016, 2015 and 2014, respectively. Fiscal year 2016 cash usage was due to payments of \$580,920, net of cash received, for the acquisition of PCB and \$20,806 in investments in property and equipment to support business growth, partially offset by proceeds received from the sale of property and equipment of \$1,514. Fiscal year 2015 cash usage was due to \$18,445 in investments in property and equipment and payments of \$667 associated with the acquisition of Instrument and Calibration Sweden AB (ICS). The cash usage for fiscal year 2014 was due to \$20,038 in investments in property and equipment and \$14,192 in payments associated with the acquisition of REI. See Note 13 to the Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K for additional information regarding the acquisitions.

Cash flow from financing activities provided cash of \$564,479 in fiscal year 2016, compared to cash used of \$84,785 and \$15,928 during fiscal years 2015 and 2014, respectively.

Cash provided in fiscal year 2016 was primarily driven by \$440,163 in net proceeds from the issuance of long-term debt, \$110,926 in net cash received from the issuance of TEUs, \$74,301 in net cash received from the issuance of common stock and \$20,000 from receipts under short-term borrowings. These increases were partially offset by \$41,343 in repayments of short-term borrowings, \$19,837 in payments of debt issuance costs, the purchase of shares of common stock under our share purchase program and stock-based compensation arrangements in an aggregate

amount of \$18,414, dividend payments of \$13,932 and \$7,935 related to payments for the capped call transactions made in connection with the issuance of the TEUs.

Cash was used in fiscal year 2015 to repay \$50,026 of short-term borrowings, purchase shares under our share purchase program and stock-based compensation arrangements in an aggregate amount of \$29,115 and to pay dividends of \$22,445. The usage of cash was partially offset by \$11,183 received through short-term borrowings and \$4,847 of proceeds received in connection with stock option exercises and share purchases under our employee stock purchase plan.

Cash used in fiscal year 2014 was primarily due to the purchase of shares of our common stock in an amount of \$31,013, which includes purchases of shares related to stock-based compensation arrangements in the amount of \$374, and to pay \$18,330 in cash dividends. The usage of cash was partially offset by \$24,102 in net proceeds from short-term borrowings and \$7,590 received from stock option exercises and stock purchases under our employee stock purchase plan.

Table of Contents

Liquidity and Capital Resources

We had cash and cash equivalents of \$84,780 as of October 1, 2016. Of this amount, approximately \$32,406 was located in North America, \$23,610 in Europe and \$28,764 in Asia. Of the \$52,374 of cash located outside of the U.S., approximately \$30,613 is not available for use in the U.S. without U.S. federal and state income tax consequences.

The North American balance was primarily invested in bank deposits. In Europe and Asia, the balances were primarily invested in money market funds and bank deposits. In accordance with our investment policy, we place cash equivalent investments with issuers who have high-quality investment credit ratings. In addition, we limit the amount of investment exposure we have with any particular issuer. Our investment objectives are to preserve principal, maintain liquidity and achieve the best available return consistent with our primary objectives of safety and liquidity. At October 1, 2016, we held no short-term investments.

At October 1, 2016, our capital structure was comprised of \$13,141 in short-term debt, \$471,844 in long-term debt and \$405,260 in shareholders' equity. The Consolidated Balance Sheet also includes \$20,134 of unamortized debt issuance costs. Total interest-bearing debt at October 1, 2016 was \$484,985. On July 5, 2016, we entered into a credit agreement with a consortium of financial institutions (the Credit Agreement). The Credit Agreement provides for senior secured credit facilities consisting of a Revolving Credit Facility and a Term Facility. In connection with the Credit Agreement, we terminated our existing credit agreement dated September 27, 2014. The maturity date of the Revolving Credit Facility is July 5, 2021 and the maturity date of the loans under the Term Facility is July 5, 2023, unless a term loan lender agrees to extend the maturity date pursuant to a loan modification agreement made in accordance with the terms of the Credit Agreement.

Under the Credit Agreement, we are subject to customary affirmative and negative covenants, including restrictions on our ability to incur debt, create liens, dispose of assets, make investments, loans, advances, guarantees and acquisitions, enter into transactions with affiliates and enter into any restrictive agreements and customary events of default (including payment defaults, covenant defaults, change of control defaults and bankruptcy defaults). The Credit Agreement also contains financial covenants, including the ratio of consolidated total indebtedness to consolidated earnings before interest, taxes, depreciation and amortization (EBITDA), as well as the ratio of consolidated EBITDA to consolidated interest expense. Under certain circumstances, these covenants restrict our ability to pay dividends and purchase outstanding shares of common stock. At October 1, 2016, we were in compliance with these financial covenants and on October 3, 2015, were in compliance with similar financial covenants in the credit agreement existing at that date.

Shareholders' equity increased by \$147,118 during fiscal year 2016, primarily due to \$84,511 in issuance of TEUs, \$74,301 in issuance of common stock, net income of \$27,494, stock based compensation of \$7,156, employee exercise of stock options of \$2,799 and employee stock purchases of \$1,048. The increase was partially offset by \$18,874 in dividends declared, \$18,414 in purchases of our common stock, payments related to our capped call transactions of \$7,935 and an other comprehensive loss of \$4,796.

We believe that our liquidity, represented by funds available from cash, cash equivalents, our credit facility and anticipated cash from operations are adequate to fund ongoing operations for the short-term and long-term internal growth opportunities, capital expenditures, dividends and share purchases, as well as to fund strategic acquisitions.

Table of Contents

Contractual Obligations

As of October 1, 2016, our contractual obligations were as follows:

(in thousands)	Total	Less than 1 year	1 - 3 years	3 - 5 years	More than 5 years
Long-term debt ¹	\$484,985	\$13,141	\$25,643	\$9,200	\$437,001
Interest payable on long-term debt ²	152,762	24,406	46,246	44,160	37,950
Operating lease obligations ³	13,219	5,542	4,780	1,061	1,836
Other long-term obligations ⁴	15,856	1,808	4,276	2,348	7,424
Total contractual obligations ⁵	\$666,822	\$44,897	\$80,945	\$56,769	\$484,211

Long-term debt includes Term Facility debt and the debt component of the TEUs. Refer to Note 5 to the

¹ Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K for additional Term Facility information and Note 9 for additional information regarding the TEUs.

² Interest payable on long-term debt includes interest on both the Term Facility and the TEUs.

³ Operating leases are primarily for office space and automobiles. Refer to Note 14 to the Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K for additional lease information.

⁴ Other long-term obligations include liabilities under pension and other retirement plans and warehouse fee obligations.

Long-term income tax liabilities for uncertain tax positions have been excluded from the contractual obligations table as we are not able to make a reasonably reliable estimate of the amount and period of related future payments.

⁵ At October 1, 2016, our long-term liability for uncertain tax positions was \$6,232. Refer to Note 8 to the Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K for additional income tax information.

At October 1, 2016, we had letters of credit and guarantees outstanding totaling \$46,765 and \$26,536, respectively, primarily to bond advance payments and performance guarantees related to customer contracts in Test.

Off-Balance Sheet Arrangements

As of the end of fiscal year 2016, we did not have any off-balance sheet arrangements that have, or are reasonably likely to have, a current or future material effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources that are material to investors.

Critical Accounting Policies

The Consolidated Financial Statements have been prepared in accordance with U.S. generally accepted accounting principles (GAAP), which require us to make estimates and assumptions in certain circumstances that affect amounts reported. The preparation of these financial statements requires us to make estimates and assumptions, giving due consideration to materiality, that affect the reported amounts of assets and liabilities, revenues and expenses and related disclosures of any contingent assets and liabilities at the date of the financial statements. We regularly review our estimates and assumptions, which are based on historical experience and on various other factors that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates under different assumptions or conditions.

We believe that of our significant accounting policies, the following are particularly important to the portrayal of our results of operations and financial position and are subject to an inherent degree of uncertainty as they may require the application of a higher level of judgment by us. For further information see “Summary of Significant Accounting Policies” under Note 1 to the Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K.

Revenue Recognition

We are required to comply with a variety of technical accounting requirements in order to achieve consistent and accurate revenue recognition. The most significant area of judgment and estimation is percentage-of-completion contract accounting. We develop cost estimates that include materials, component parts, labor and overhead costs. Detailed costs plans are developed for all aspects of the contracts during the bidding phase. Cost estimates are largely based on actual historical performance of similar projects combined with current knowledge of the projects in progress. Significant factors that impact the cost estimates include technical risk, inflationary cost of materials and labor, changes in scope and schedule and internal and subcontractor

Table of Contents

performance. Actual costs incurred during the project phase are monitored and compared to the estimates on a monthly basis. Cost estimates are revised based on changes in circumstances. Anticipated losses on long-term contracts are recognized when such losses become evident.

Inventories

We maintain a material amount of inventory to support our engineering and manufacturing operations. This inventory is stated at the lower of cost or market. On a regular basis, we review our inventory and identify which is excess, slow moving or obsolete by considering factors such as inventory levels, expected product life and forecasted sales demand. Any identified excess, slow moving or obsolete inventory is written down to its market value through a charge to income from operations. It is possible that additional inventory write-down charges may be required in the future if there is a significant decline in demand for our products and we do not adjust our manufacturing production accordingly.

Impairment of Long-Lived Assets

We review the carrying value of long-lived assets or asset groups, such as property and equipment and intangible assets subject to amortization, when events or changes in circumstances such as asset utilization, physical change, legal factors or other matters indicate that the carrying value may not be recoverable. We review the carrying value of indefinite lived intangible assets annually or when events or changes in circumstances occur that would indicate that the carrying value may not be recoverable. When this review indicates the carrying value of an asset or asset group exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the asset or asset group, we recognize an asset impairment charge against income from operations. The amount of the impairment loss recorded is the amount by which the carrying value of the impaired asset or asset group exceeds its fair value.

Goodwill

Goodwill represents the excess of cost over the fair value of the identifiable net assets of businesses acquired and allocated to our reporting units at the time of acquisition. Goodwill is tested for impairment annually and when an event occurs or circumstances change that indicate the carrying value of the reporting unit may not be recoverable.

Evaluating goodwill for impairment involves the determination of the fair value of each reporting unit in which goodwill is recorded using a two-step process. A reporting unit is an operating segment or a component of an operating segment for which discrete financial information is available and reviewed by management on a regular basis.

Prior to completing the two-step process described below, we have the option to perform a qualitative assessment of goodwill for impairment to determine whether it is more likely than not (i.e., a likelihood of more than 50%) that the fair value of a reporting unit is less than its carrying amount, including goodwill and other intangible assets. If we conclude the fair value is more likely than not less than the carrying value, we would perform the two-step process. Otherwise, no further testing would be needed.

If the two-step process is required, the first step of the impairment test is to compare the calculated fair value of each reporting unit to its carrying value, including goodwill. We estimate the fair value of a reporting unit using a discounted cash flow model that requires input of certain estimates and assumptions requiring judgment, including projections of economic conditions and customer demand, revenue and margins, changes in competition, operating costs and new product introductions. If the fair value exceeds the carrying value, no further work is required and no impairment loss is recognized. If the carrying value exceeds the fair value, the goodwill of the reporting unit is potentially impaired and step 2 would need to be performed to measure the impairment loss. In step 2, we would calculate the implied fair value of goodwill by deducting the fair value of all tangible and intangible net assets, including unrecognized intangible assets, of the reporting unit from the fair value of the reporting unit. If the implied

fair value of goodwill is less than the carrying value of goodwill, an impairment loss equal to the difference would be recognized in the period identified. The loss recognized cannot exceed the carrying amount of goodwill.

While we believe the estimates and assumptions used in determining the fair value of our reporting units are reasonable, significant changes in estimates of future cash flows, such as those caused by unforeseen events or changes in market conditions, could materially impact the fair value of a reporting unit which could result in the recognition of a goodwill impairment charge.

Software Development Costs

We incur costs associated with the development of software to be sold, leased or otherwise marketed. Software development costs are expensed as incurred until technological feasibility has been established, at which time future costs incurred are capitalized until the product is available for general release to the public. A certain amount of judgment and estimation is required to assess when technological feasibility is established, as well as the ongoing assessment of the recoverability of capitalized costs. In evaluating the recoverability of capitalized software costs, we compare expected product performance,

Table of Contents

utilizing forecasted revenue amounts, to the total costs incurred to date and estimates of additional costs to be incurred. If revised forecasted product revenue is less than, and/or revised forecasted costs are greater than, the previously forecasted amounts, the net realizable value may be lower than previously estimated, which could result in the recognition of an impairment charge in the period in which such a determination is made.

Warranty Obligations

We are subject to warranty obligations on sales of our products. We record general warranty provisions based on an estimated warranty expense percentage applied to current period revenue. The percentage applied reflects our historical warranty claims experience over the preceding twelve-month period. Both the experience percentage and the warranty liability are evaluated on an ongoing basis for adequacy. In addition, warranty provisions are also recognized for certain nonrecurring product claims that are individually significant. A certain amount of judgment is required in determining appropriate reserve levels for anticipated warranty claims. While these reserve levels are based on our historical warranty claims experience, they may not reflect the actual claims that will occur over the upcoming warranty period and additional warranty reserves may be required.

Income Taxes

We record a tax provision for the anticipated tax consequences of the reported results of operations. Deferred tax assets and liabilities are measured using the currently enacted tax rates that apply to taxable income in effect for the years in which those deferred tax assets and liabilities are expected to be realized or settled. We record a valuation allowance to reduce deferred tax assets to the amount that is believed more likely than not to be realized. We believe it is more likely than not that forecasted income, including income that may be generated as a result of certain tax planning strategies, together with the tax effects of the deferred tax liabilities, will be sufficient to fully recover the remaining net realizable value of its deferred tax assets. In the event that all or part of the net deferred tax assets are determined not to be realizable in the future, an adjustment to the valuation allowance would be charged to earnings in the period such determination is made. In addition, the calculation of tax liabilities involves significant judgment in estimating the impact of uncertainties in the application of complex tax laws. Resolution of these uncertainties in a manner inconsistent with our expectations could have a material impact on our financial condition and operating results. See Note 8 to the Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K for additional information on income taxes.

Business Acquisitions

We account for acquired businesses using the acquisition method of accounting which requires that the assets acquired and liabilities assumed be recorded at the date of acquisition at their respective fair values. The judgments made in determining the estimated fair value assigned to each class of assets acquired and liabilities assumed, as well as asset lives, can materially impact net income. Accordingly, for significant items, we typically obtain assistance from a third-party valuation firm.

There are several methods that can be used to determine the fair value of assets acquired and liabilities assumed in a business combination. For intangible assets, we normally utilize the “income method.” This method starts with a forecast of all of the expected future net cash flows attributable to the subject intangible asset. These cash flows are then adjusted to present value by applying an appropriate discount rate that reflects the risk factors associated with the cash flow streams. Some of the more significant estimates and assumptions inherent in the income method (or other methods) include the projected future cash flows (including timing) and the discount rate reflecting the risks inherent in the future cash flows.

Estimating the useful life of an intangible asset also requires judgment. For example, different types of intangible assets will have different useful lives, influenced by the nature of the asset, competitive environment and rate of change in the industry. Certain assets may even be considered to have indefinite useful lives. All of these judgments and estimates can significantly impact the determination of the amortization period of the intangible asset, and thus

net income.

In connection with the acquisition of PCB consummated in fiscal year 2016, the final valuation of assets acquired and liabilities assumed is expected to be completed as soon as possible, but no later than one year from the acquisition date. Given the size and complexity of the acquisition, the valuation of certain assets and liabilities, is still being completed, and is subject to final review. Specifically, certain tax accounts are provisional pending the completion and review of such assets and liabilities. To the extent that our estimates require adjustment, we will modify the values accordingly.

Recently Issued Accounting Pronouncements

Information regarding new accounting pronouncements is included in “Recently Issued Accounting Pronouncements” under Note 1 to the Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K.

Quarterly Financial Information

Revenue and operating results reported on a quarterly basis do not necessarily reflect trends in demand for our products or our operating efficiency. Revenue and operating results in any quarter may be significantly affected by customer shipments,

Table of Contents

installation timing or the timing of the completion of one or more contracts where revenue is recognized upon shipment or customer acceptance rather than on the percentage-of-completion method of revenue recognition. Our use of the percentage-of-completion revenue recognition method for large, long-term projects generally has the effect of minimizing significant fluctuations quarter-over-quarter. See Note 1 to the Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K for additional information on our revenue recognition policy. Quarterly earnings also vary as a result of the use of estimates including, but not limited to, the rates used in recording federal, state and foreign income tax expense. See Notes 1 and 8 to the Consolidated Financial Statements included in Item 8 of this Annual Report on Form 10-K for additional information on our use of estimates and income tax related matters, respectively.

Selected quarterly financial information for the fiscal years ended October 1, 2016 and October 3, 2015 was as follows:

(in thousands, except per share data)	First Quarter (unaudited)	Second Quarter (unaudited)	Third Quarter (unaudited)	Fourth Quarter ¹ (unaudited)	Full Year ²
Fiscal Year 2016					
Revenue	\$ 140,501	\$ 137,098	\$ 157,700	\$ 214,848	\$ 650,147
Gross profit	52,511	45,144	58,113	75,636	231,404
Income before income taxes	13,090	4,221	9,982	6,219	33,512
Net income	\$ 11,774	\$ 2,998	\$ 7,150	\$ 5,572	\$ 27,494
Earnings per share					
Basic	\$ 0.79	\$ 0.20	\$ 0.46	\$ 0.29	\$ 1.72
Diluted	\$ 0.78	\$ 0.20	\$ 0.46	\$ 0.29	\$ 1.70
Fiscal Year 2015					
Revenue	\$ 142,584	\$ 143,955	\$ 133,912	\$ 143,483	\$ 563,934
Gross profit	56,831	56,542	53,209	53,031	219,613
Income before income taxes	14,885	16,875	15,146	12,266	59,172
Net income	\$ 13,786	\$ 11,706	\$ 10,783	\$ 9,187	\$ 45,462
Earnings per share					
Basic	\$ 0.91	\$ 0.78	\$ 0.72	\$ 0.62	\$ 3.03
Diluted	\$ 0.90	\$ 0.77	\$ 0.72	\$ 0.61	\$ 3.00

¹ In the fourth quarter of fiscal year 2016, we recorded out-of-period adjustments that increased net income in the fourth quarter by \$968. The adjustments relate to prior quarters in fiscal years 2016 and 2015. We have evaluated the out-of-period adjustments and have determined that they are not material to our financial position or results of operations for any quarterly period in fiscal year 2016 or 2015.

² The earnings per share amounts for each quarter may not sum to the fiscal year amounts due to rounding and the effect of weighting.

Table of Contents

Forward-Looking Statements

Statements contained in this Annual Report on Form 10-K including, but not limited to, the discussion under Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, that are not statements of historical fact are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 (the Act). In addition, certain statements in our future filings with the SEC, in press releases, and in oral and written statements made by us or with our approval that are not statements of historical fact constitute forward-looking statements within the meaning of the Act. Examples of forward-looking statements include, but are not limited to: (i) projections of revenue, ROIC, EBITDA, income or loss, earnings or loss per share, the payment or nonpayment of dividends, capital structure, the adequacy of our liquidity and reserves, the continued listing of our shares of common stock on NASDAQ, the anticipated level of expenditures required and other statements concerning future financial performance; (ii) statements of our plans and objectives by our management or Board of Directors, including those relating to products or services, merger or acquisition activity and the potential impact of newly acquired businesses; (iii) statements of assumptions underlying such statements; (iv) statements regarding business relationships with vendors, customers or collaborators or statements relating to our order cancellation history, our ability to convert our backlog of undelivered orders into revenue, the timing of purchases, competitive advantages and growth in end markets; (v) statements relating to the potential business and financial impact that our internal investigation in China may have on our financial condition, results of operations and internal controls; (vi) statements regarding our ability to report additional operating segments in the future; and (vii) statements regarding products, their characteristics, fluctuations in the costs of raw materials for products, our geographic footprint, performance, sales potential or effect in the hands of customers. Words such as "believes," "anticipates," "expects," "intends," "targeted," "should," "potential," "go," "strategy," and similar expressions are intended to identify forward-looking statements, but are not the exclusive means of identifying such statements.

Forward-looking statements involve risks and uncertainties that may cause actual results to differ materially from those in such statements. Factors that could cause actual results to differ from those discussed in the forward-looking statements include, but are not limited to, those described in Item 1A, Risk Factors. The performance of our business and our securities may be adversely affected by these factors and by other factors common to other businesses and investments, or to the general economy. Forward-looking statements are qualified by some or all of these risk factors. Therefore, you should consider these forward looking statements with caution and form your own critical and independent conclusions about the likely effect of these risk factors on our future performance. Forward-looking statements speak only as of the date on which statements are made, and we undertake no obligation to update any forward-looking statement to reflect events or circumstances after the date on which such statement is made to reflect the occurrence of unanticipated events or circumstances. Readers should carefully review the disclosures and the risk factors described in this and other documents we file from time to time with the SEC, including our reports on Forms 10-Q and 8-K.

ITEM 7A. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Foreign Currency Exchange Risk

Approximately 75% of our revenue has historically been derived from customers outside of the U.S. Our international subsidiaries have functional currencies other than our U.S. dollar reporting currency and, occasionally, transact business in currencies other than their functional currencies. These non-functional currency transactions expose us to market risk on assets, liabilities and cash flows recognized on these transactions.

The strengthening of the U.S. dollar relative to foreign currencies decreases the value of foreign currency-denominated revenue and earnings when translated into U.S. dollars. Conversely, a weakening of the U.S. dollar increases the value of foreign currency-denominated revenue and earnings. The following table illustrates financial results utilizing currency exchange rates from the prior year to estimate the impact of currency on the following financial items.

Foreign Currency Exchange Rates

(in thousands)	2016	2015	2014
(Decrease) increase from currency translation on			
Revenue	\$(3,746)	\$(33,118)	\$(85)
Net Income	\$(78)	\$(2,193)	\$(736)

The estimated net effect of currency translation on revenue was unfavorable in fiscal year 2016, primarily driven by the unfavorable translation impact associated with the relative strengthening in the value of the U.S. dollar against the Euro, the Japanese yen and the Chinese yuan throughout fiscal year 2016.

Table of Contents

A hypothetical 10% appreciation or depreciation in foreign currencies against the U.S. dollar, assuming all other variables are held constant, would result in an increase or decrease in fiscal year 2016 revenue of approximately \$22,988.

We have operational procedures to mitigate these non-functional currency exposures. We also utilize foreign currency exchange contracts to exchange currencies at set exchange rates on future dates to offset expected gains or losses on specifically identified exposures.

Mark-to-market gains and losses on derivatives designated as cash flow hedges in our currency hedging program are recorded within accumulated other comprehensive income in the Consolidated Balance Sheets. We recognize gains and losses associated with the fair value of cash flow hedges at the time a gain or loss is recognized on the hedged exposure in the Consolidated Statements of Income or at the time the cash flow hedge is determined to be ineffective. The associated mark-to-market gains and losses are reclassified from accumulated other comprehensive income to the same line item in the Consolidated Statements of Income upon which the underlying hedged transaction is reported. Net gains and losses on foreign currency transactions, included in the accompanying Consolidated Statements of Income, were a net loss of \$1,567 in fiscal year 2016, a net loss of \$2,510 in fiscal year 2015 and a net loss of \$1,412 in fiscal year 2014. See Note 4 to the Consolidated Financial Statements included in Item 8 of Part II of this Annual Report on Form 10-K.

Interest Rates

We are also directly exposed to changes in market interest rates on cash, cash equivalents, short-term investments and debt and are indirectly exposed to the impact of market interest rates on overall business activity.

On floating-rate investments, increases and decreases in market interest rates will increase or decrease future interest income, respectively. On floating-rate debt, increases or decreases in market interest rates will increase or decrease future interest expense, respectively. On fixed-rate investments, increases or decreases in market interest rates do not impact future interest income but may decrease or increase the fair market value of the investments, respectively. On fixed-rate debt, increases or decreases in market interest rates do not impact future interest expense but may decrease or increase the fair market value of the debt, respectively.

At October 1, 2016, we had cash and cash equivalents of \$84,780, most of which was invested in interest-bearing bank deposits or money market funds, with interest rates that are reset every 1-89 days. A hypothetical change of 1% in market interest rates, assuming all other variables were held constant, would change interest income by approximately \$100 on an annualized basis.

Secured floating rate credit facilities are used to fund acquisitions and a portion of operations, which require interest payments calculated at a floating rate and, therefore, are impacted by the effect of increases or decreases in market interest rates. We believe that near-term changes in interest rates could have a material effect on our financial statements. A hypothetical increase of one percentage point in floating interest rates, assuming all other variables were held constant, would increase future interest expense by approximately \$4,600 on an annualized basis. Subsequent to the fiscal year end, we mitigated a portion of this risk by swapping the variable rate for a fixed rate on our term debt. See Note 15 to the Consolidated Financial Statements included in Item 8 of Part II of this Annual Report on Form 10-K.

At October 1, 2016, a discount rate of 1.3% and an expected rate increase in future compensation levels of 3.0% was used in the calculation of the pension liability related to the non-contributory, defined benefit pension plan of one of our international subsidiaries.

ITEM 8.

FINANCIAL STATEMENTS AND
SUPPLEMENTARY DATA

Our audited financial statements and notes thereto described in Item 15 of this Annual Report on Form 10-K, and appearing on pages F-1 through F-46 of this report, are incorporated by reference herein. See also “Quarterly Financial Data” in Management’s Discussion and Analysis under Item 7 of this Annual Report on Form 10-K, which is incorporated herein by reference.

ITEM 9. CHANGES IN AND DISAGREEMENTS WITH ACCOUNTANTS ON ACCOUNTING AND
FINANCIAL DISCLOSURE

None.

46

Table of Contents

ITEM 9A. CONTROLS AND PROCEDURES

(a) Evaluation of Disclosure Controls and Procedures

Our management, including our Chief Executive Officer and Chief Financial Officer, have conducted an evaluation of the effectiveness of the design and operation of our disclosure controls and procedures (as defined in Rule 13a-15(e) under the Securities Exchange Act of 1934, as amended (the Exchange Act) as of October 1, 2016. Our Chief Executive Officer and Chief Financial Officer have concluded that, as a result of our failure to timely file this Annual Report on Form 10-K and our Quarterly Report on Form 10-Q for the first quarter of fiscal year 2017 due to our internal investigation of our China operations and the material weakness described below, our disclosure controls and procedures were not effective as of October 1, 2016

Through the investigation of our China operations, we identified that the former China Test leader and several other former senior managers associated with our China Test operations had violated the Company's Code of Conduct, which could have resulted in management override of internal control over financial reporting. A description of the investigation and outcomes of that investigation are included in Note 14, "Commitments and Contingencies," included in Item 8, "Notes to Consolidated Financial Statements," under Part II of this Annual Report on Form 10-K.

For purposes of Rule 13a-15(e) under the Exchange Act, the term disclosure controls and procedures means controls and other procedures of an issuer that are designed to ensure that information required to be disclosed by the issuer in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by an issuer in the reports that it files or submits under the Exchange Act is accumulated and communicated to the issuer's management, including its Chief Executive Officer and Chief Financial Officer, or persons performing similar functions, as appropriate to allow timely decisions regarding required disclosure.

(b) Management's Annual Report on Internal Control over Financial Reporting

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

The 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 also 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;
Provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial
- (ii) 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.

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.

Under the supervision of the Audit Committee of the Board of Directors 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 using the criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on our assessment and those criteria, management identified the following material weakness:

Table of Contents

The Company did not have effective processes and controls relative to adherence to its Code of Conduct by employees involved with its business in China, which could have led to management override of internal controls over financial reporting. Further, the Company did not have effective monitoring activities to ensure adherence with its Code of Conduct.

These control deficiencies resulted in no identified misstatements of the consolidated financial statements. However, the control deficiencies described above create a reasonable possibility that a material misstatement to the consolidated financial statements would not be prevented or detected on a timely basis and represent a material weakness in internal control over financial reporting. Accordingly, management concluded that our internal control over financial reporting as of October 1, 2016 was not effective.

The Company acquired PCB on July 5, 2016, and management excluded PCB from its assessment of internal control over financial reporting as of October 1, 2016. PCB represented \$700 million of our consolidated total assets at October 1, 2016 and \$44.5 million of our consolidated revenue for the year ended October 1, 2016.

KPMG LLP, an independent registered public accounting firm, has audited the effectiveness of the Company's internal control over financial reporting as of October 1, 2016, and has issued an adverse report which is included in Item 8, under Part II of this Annual Report on Form 10-K.

(c) Remediation of Material Weaknesses in Internal Control over Financial Reporting

Remediation of Material Weaknesses Disclosed in Fiscal Year 2015 Form 10-K

As previously disclosed in Part II of Item 9A of our Annual Report on Form 10-K for fiscal year 2015, we determined that our internal control over financial reporting was not effective as of October 3, 2015 due to material weaknesses over control activities with respect to revenue arrangements with multiple deliverables and accrued project costs in addition to material weaknesses over risk assessment, information and communication and monitoring activities with respect to revenue arrangements.

To remediate the material weaknesses in our internal control over financial reporting described in Item 9A of our Annual Report on Form 10-K for the fiscal year ended October 3, 2015, we performed a complete review of our revenue recognition controls and procedures and engaged an external third party to evaluate the sufficiency of those controls and procedures. We also conducted financial reporting risk assessments and reviewed processes to ensure the related significant accounting policies are implemented and applied properly under generally accepted accounting principles on a consistent basis throughout the Company.

We developed an internal communications protocol among all individuals in the organization responsible for performing control activities with respect to revenue recognition and enhanced our own internal monitoring of the effectiveness of our revenue recognition control activities. Further, we implemented new procedures in our sales and contracting processes to include identification of specific deliverables contained within multiple element revenue arrangements, and to defer the revenue associated with the undelivered elements determined to be separable from the delivered elements in the arrangement. These measures included the hiring of new personnel, as well as providing additional training for existing personnel.

Management has determined that the remediation actions discussed above were effectively designed and demonstrated effective operation for a sufficient period of time to enable us to conclude that the material weaknesses regarding internal control activities with respect to revenue arrangements with multiple deliverables and accrued project costs and over risk assessment, information and communication and monitoring activities with respect to revenue arrangements have been remediated as of October 1, 2016.

Remediation Plan for Fiscal Year 2016 Material Weakness in Internal Controls over Financial Reporting

We are committed to remediating the control deficiencies that gave rise to the material weakness described above under the heading “Management’s Annual Report on Internal Control over Financial Reporting” by implementing changes to our compliance program that in turn impact our internal controls over financial reporting. Management is responsible for implementing changes and improvements in our internal control over financial reporting and for remediating the control deficiencies that gave rise to the material weakness.

To remediate the material weakness in our internal control over financial reporting described above under the heading “Management’s Annual Report on Internal Control over Financial Reporting,” we will conduct more robust monitoring of

Table of Contents

compliance to ensure adherence to the Code of Conduct. Additionally, through our investigation as further discussed in Note 14, “Commitments and Contingencies,” included in Item 8, “Notes to Consolidated Financial Statements,” under Part II of this Annual Report on Form 10-K, we have identified opportunities to enhance our processes and controls to further address the challenges presented by the China operating environment. To address these challenges, the Company is prepared to assess the mix of products, markets in which it competes and manner by which it selects and utilizes resellers, agents, consultants and vendors as well as enhance ongoing compliance monitoring to support these commitments to reduce the potential for override of internal controls over financial reporting.

(d) Changes in Internal Control over Financial Reporting

Other than the actions described under “Remediation of Material Weakness in Internal Control over Financial Reporting,” and the material weakness identified and assessed in the fourth quarter of 2016 but that occurred in earlier periods, there were no other changes in the Company’s internal control over financial reporting during the fourth quarter of fiscal year 2016 that have materially affected, or are reasonably likely to materially affect, the Company’s internal control over financial reporting.

Table of Contents

Report of Independent Registered Public Accounting Firm

The Board of Directors and Shareholders
MTS Systems Corporation:

We have audited MTS Systems Corporation's internal control over financial reporting as of October 1, 2016, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). MTS Systems Corporation's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Annual Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our 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 effective internal control over financial reporting was maintained in all material respects. Our audit 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 opinion.

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 (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) 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 (3) 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.

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 company's annual or interim financial statements will not be prevented or detected on a timely basis.

A material weakness related to ineffective processes and controls over adherence to the established Code of Conduct by employees involved with the business in China, which could have led to management override of internal control over financial reporting, and ineffective monitoring activities to ensure adherence with the Code of Conduct has been identified and included in management's assessment.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of MTS Systems Corporation and subsidiaries as of October 1, 2016 and October 3, 2015, and the related consolidated statements of income, comprehensive income, shareholders' equity, and cash flows, and the related financial statement Schedule II, for each of the fiscal years in the three-year period ended October 1, 2016, and our report dated April 10, 2017 expressed an unqualified opinion on those consolidated financial statements.

In our opinion, because of the effect of the aforementioned material weakness on the achievement of the objectives of the control criteria, MTS Systems Corporation did not maintain effective internal control over financial reporting as of

October 1, 2016, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

Table of Contents

MTS Systems Corporation acquired PCB Group, Inc. during 2016, and management excluded from its assessment of the effectiveness of MTS Systems Corporation's internal control over financial reporting as of October 1, 2016, PCB Group, Inc.'s internal control over financial reporting associated with total assets of \$700 million and total revenues of \$44.5 million included in the consolidated financial statements of MTS Systems Corporation and subsidiaries as of and for the year ended October 1, 2016. Our audit of internal control over financial reporting excluded an evaluation of the internal control over financial reporting of PCB Group, Inc.

/s/ KPMG LLP

Minneapolis, Minnesota

April 10, 2017

51

Table of Contents

ITEM 9B. OTHER INFORMATION

None.

PART III

ITEM 10. DIRECTORS, EXECUTIVE OFFICERS AND CORPORATE GOVERNANCE

The following provides information about our directors and executive officers as of April 10, 2017. The term for each director will expire at the next annual meeting of shareholders to be held on June 6, 2017.

Name	Age	Position
David J. Anderson ⁽¹⁾	69	Chairman of the Board of Directors
Jeffrey A. Graves	55	Director, President and Chief Executive Officer
David D. Johnson ^(1,2)	61	Director
Randy J. Martinez ^(1,2)	62	Director
Barb J. Samardzich ⁽²⁾	58	Director
Michael V. Schrock ^(2,3)	64	Director
Gail P. Steinel ^(1,3)	60	Director
Maximiliane C. Straub ⁽⁴⁾	52	Director
Chun Hung (Kenneth) Yu ⁽³⁾	67	Director
William C. Becker ⁽⁵⁾	63	President, Materials Test Systems
Steven B. Harrison ⁽⁶⁾	51	President, Vehicles and Structure Test Systems
David T. Hore ⁽⁷⁾	51	President, MTS Sensors
Jeffrey P. Oldenkamp	44	Senior Vice President and Chief Financial Officer
Catherine L. Powell ⁽⁸⁾	55	Senior Vice President, General Counsel and Corporate Secretary

(1) Member, Audit Committee

(2) Member, Compensation and Leadership Development Committee

(3) Member, Governance and Nominating Committee

(4) Maximiliane Straub joined the Board on February 6, 2017

(5) William Becker joined the Company on October 3, 2016

(6) Steven Harrison joined the Company on February 6, 2017

(7) David Hore joined the Company on July 5, 2016

(8) Catherine Powell provided notice of Good Reason to terminate her employment under the Company's Executive Severance Plan (Severance Plan) on April 5, 2017. We are evaluating the claim under the Severance Plan.

Directors

David J. Anderson, a director since 2009, is our Chairman of the Board, a position he has held since 2011. He is also a Director of Modine Manufacturing Company (since 2010) and a member of its Corporate Governance and Nominating Committee, Audit Committee and Technology Committee; Director of Schnitzer Steel Industries, Inc. (since 2009) and a member of its Audit Committee and Compensation Committee; Co-Vice Chairman of Sauer-Danfoss, Inc. (developer and manufacturer of fluid power and electronic components and systems for mobile equipment applications) from 2008 until June 2009; President, Chief Executive Officer and Director of Sauer-Danfoss Inc. from 2002 until he retired in 2009; various senior management positions with Sauer-Danfoss Inc. from 1984 to 2008; and prior to 1984, various positions in sales, marketing and applications engineering within several manufacturing and distribution businesses.

Mr. Anderson's qualifications to serve on our Board and to serve as the Chair of the Board include his more than 40 years of international, industrial business experience and his chief executive officer and operations experience. He also has technology and engineering experience, the ability to formulate and execute strategy and financial expertise.

Jeffrey A. Graves, a director since 2012, is President and CEO of the Company, a role he has had since May 2012. Prior to joining the Company, he was President, CEO and a director of C&D Technologies, Inc. (a manufacturer, marketer and

Table of Contents

distributor of electrical power storage systems for the standby power storage market) from July 2005 until May 2012. Prior to that time, he held various executive positions at Kemet Electronics Corporation from 2001 to 2005, including CEO; various leadership positions with General Electric Company's Power Systems Division and Corporate Research & Development Center from 1995 to 2001; prior to 1995, various positions of increasing responsibility at Rockwell International Corporation and Howmet Corporation. Dr. Graves has served as a director of Teleflex Incorporated and Hexcel Corporation since 2007.

As the only member of management serving on our Board, Dr. Graves contributes an in-depth understanding of the opportunities and challenges facing our Company. His experience in both executive and board positions at various technology companies gives him insight into strategic, financial and personnel matters, as well as the considerations particular to public companies.

David D. Johnson, a director since 2013, is retired. He was formerly the Executive Vice President, Treasurer and Chief Financial Officer of Molex LLC (manufacturer of electronic connectors) from 2005 to 2016; Vice President, Treasurer and Chief Financial Officer of Sypris Solutions, Inc., from 1996 to 2005; served as Regional Controller for Molex's Far East Region; Financial Director for New Ventures and Acquisitions; and Financial Director for the Far East South Region from 1984 to 1996. From 1978 to 1984, Mr. Johnson worked for the public accounting firm KPMG LLP. Mr. Johnson has served on the Board of Directors and as Audit Committee Chair of Nuvectra Corporation since 2016.

Mr. Johnson's qualifications to serve on our Board include his chief financial officer experience for a global industrial company. Mr. Johnson has had executive-level responsibility for financial and accounting matters in a number of settings, including international contexts.

Randy J. Martinez, a director since 2014, is the Corporate Vice President of Strategy and Business Development for AAR CORP. (a provider of aviation services to the worldwide commercial aerospace and governmental/defense industries), a role he has had since August 2015. Prior to his current role, Mr. Martinez held other leadership roles within AAR, including Group Vice President, Aviation Services and President and Chief Executive Officer, AAR Airlift Group (March 2012 to August 2015) and Group Vice President, Government and Defense Services and Senior Vice President, Government and Defense Programs (2009 to 2012). Before joining AAR in 2009, Mr. Martinez was the Chief Executive Officer at World Air Holdings, Inc. (NASDAQ). As a graduate of the United States Air Force Academy, Mr. Martinez served with distinction in the U.S. Air Force for over 21 years, holding a wide variety of leadership roles, including both line command and senior staff positions. Mr. Martinez currently serves on the Board of the National Defense Transportation Association (NDTA), serving as Chair for the Aviation Sector.

Mr. Martinez's qualifications to serve on our Board include his experience as a chief executive officer at a public company and his particular knowledge of the aviation and defense industries. His diverse industry experience assists in helping to understand our customers who are also diverse by industry and geography.

Barb J. Samardzich, a director since 2001, is retired. She was formerly Chief Operating Officer of Ford of Europe for Ford Motor Company (car and truck manufacturer) from November 2013 to October 2016; Vice President, Product Development of Ford Motor Company from September 2011 to November 2013; Vice President of Global Product Programs of Ford Motor Company from January 2011 to September 2011; Vice President of Powertrain Engineering of Ford Motor Company from 2005 to 2010; various positions with Ford Motor Company from 1990 to 2005; and various positions in the Commercial Nuclear Fuel Division of Westinghouse Electric Corporation from 1981 to 1990.

Ms. Samardzich's qualifications to serve on our Board include her extensive management and operations experience at a worldwide automotive manufacturing company. She has significant engineering experience, value creation and profit and loss responsibilities.

Michael V. Schrock, a director since 2014, is an advisor for Oak Hill Capital Partners (a private equity investment firm), a role he has had since March 2014. Prior to that time, he was President and Chief Operating Officer of Pentair LLC (a global water, fluid, thermal management and equipment protection company) from 2006 through 2013. Prior to that role, Mr. Schrock held several leadership positions at Pentair over his 16-year career, including President of Water Technologies Americas, President of the Pump and Pool Group and President/COO of Pentair Technical Products. Before joining Pentair, Mr. Schrock held numerous senior leadership roles in both the US and Europe at Honeywell International Inc. Mr. Schrock has served on the Board of Directors of Plexus Corporation since 2006.

Mr. Schrock's experience includes more than 35 years in senior roles at major industrial companies. His deep management and operating experience both domestically and internationally and strong track record leading and integrating strategic acquisitions give our Board valuable insight into global business and acquisition matters.

Table of Contents

Gail P. Steinel, a director since 2009, is owner of Executive Advisors (provider of leadership development services and strategic/profit improvement consulting), a position she has had since 2007. Prior to that time, she was Executive Vice President, Consumer, Industrial & Technology business unit at BearingPoint (a global technology and management consulting company) from 2002 to 2007; and progressive management positions at Arthur Andersen (provider of audit, tax and consulting services), where her final position was Global Managing Partner of the Business Consulting Division, from 1979 to 2002. Ms. Steinel serves on several boards, including the Board of Trustees of Federal Realty Investment Trust and is Chairperson of its Audit Committee.

Ms. Steinel's qualifications to serve on our Board include her global managing partner experience running a large global business, more than 35 years of business management consulting providing global strategy, policy development, complex problem solving and operations consulting services, as well as her financial expertise and experience as a certified public accountant.

Maximiliane C. Straub, a director since 2017, is the Chief Financial Officer of Bosch LLC (the U.S. subsidiary of Bosch Group, a global engineering and electronics manufacturer) and Executive VP Finance, Controlling and Administration of Bosch North America from 2010 to present; President Full Brake Systems North America of Robert Bosch LLC from 2006 to 2010; and other roles of increasing responsibility with various Bosch affiliates from 1993 to 2006.

Ms. Straub's qualifications to serve on our Board include her chief financial officer experience for a global industrial company. She has developed significant responsibility for finance and accounting matters, as well as profit and loss responsibility, strategic planning experience and mergers and acquisitions experience, all in an international context.

Chun Hung (Kenneth) Yu, a director since 2013, is retired. He was formerly Vice President, Global Channel Services, International Operations for 3M Company (diversified manufacturer of consumer, industrial and health products) from May 2013 to December 2013; President, China Region and 3M China from 2000 to May 2013; President, 3M Taiwan from 1999 to 2000; and served in several Director and leadership roles within the 3M organization from 1969 to 1999, located in St. Paul, Minnesota and the Asian-Pacific region.

Mr. Yu's qualifications to serve on our Board include his extensive operations experience in the Asian-Pacific region, a market we have identified as a growth opportunity for our Company's products and services. Mr. Yu also contributes significant leadership, planning and management skills developed during his long tenure with a successful and growing global manufacturing company.

Executive Officers

Jeffrey A. Graves's biography is set forth under the heading "Directors" above.

William C. Becker is President, Materials Test Systems, a role he has had since October 2016. Prior to re-joining the Company, Mr. Becker was Managing Director at Zwick, USA, a subsidiary of Zwick/Roell AG, a manufacturer of material testing products, from 2010 to August 2016. Mr. Becker had roles of increasing responsibility with the Company from 1978 to 2009.

Steven B. Harrison is President, MTS Vehicles and Structure Test Systems, a role he has had since February 2017. Prior to joining the Company, Mr. Harrison served as President from August 2015 to December 2016 and Chief Commercial Officer from August 2012 to August 2015 of AAR Airlift Group, Inc., a wholly owned subsidiary of AAR CORP. (a provider of aviation services to the worldwide commercial aerospace and governmental/defense industries). Prior to AAR, Mr. Harrison served as the President and CEO of National Airlines (an international

provider of on demand cargo and passenger services) from September 2010 through July 2012.

David T. Hore is President, MTS Sensors, a role he has had since July 2016 when he joined the Company through the acquisition of PCB Group, Inc., where he served as its President since 2004.

Jeffrey P. Oldenkamp is Senior Vice President and Chief Financial Officer, a role he has had since January 2015. Prior to this role, Mr. Oldenkamp was Vice President of Test Finance from January 2014 to January 2015. Prior to joining the Company, Mr. Oldenkamp was Americas Operations Chief Financial Officer and Vice President of Nilfisk-Advance, Inc. (a global manufacturer of professional cleaning equipment) from January 2012 to January 2014 and Vice President of Finance for the Americas from April 2008 to January 2012.

Table of Contents

Catherine L. Powell is Senior Vice President, General Counsel and Corporate Secretary, a role she has had since November 2015. Prior to this role, Ms. Powell was Assistant Corporate Secretary from August 2012 to November 2015 and Assistant General Counsel from February 2012 to November 2015. On April 5, 2017, Ms. Powell provided notice of Good Reason to terminate her employment under the Severance Plan. We are evaluating the claim under the Severance Plan.

None of the above-identified directors is related to each other or to any of the executive officers. Executive officers serve at the discretion of and are elected by our Board. There are no family relationships amongst any of the executive officers named, nor is there any undisclosed arrangement or understanding pursuant to which any person was selected as an officer.

Audit Committee. The Audit Committee of the Board, composed of Mr. Johnson (Chair), Ms. Steinel and Messrs. Anderson and Martinez, held sixteen meetings during fiscal year 2016. All members of the Audit Committee during fiscal year 2016 satisfied the NASDAQ Stock Market listing standards for Audit Committee membership. The Board determined that Ms. Steinel and Messrs. Anderson, Johnson and Martinez are each an “audit committee financial expert” under the Sarbanes-Oxley Act of 2002. Among other duties, the Audit Committee:

- selects our independent registered public accounting firm;

- reviews and evaluates significant matters relating to our audit and internal controls;

- reviews the scope and results of the audits by, and the recommendations of, our independent registered public accounting firm;

- is responsible for monitoring risks related to financial assets, accounting, legal and corporate compliance, discusses legal and compliance matters and assesses the adequacy of Company risk-related internal controls;

- pre-approves, in accordance with its pre-approval policy, all audit and permissible non-audit services and fees provided by our independent registered public accounting firm;

- reviews our audited consolidated financial statements and meets prior to public release of quarterly and annual financial information; and

- meets with our management prior to filing our quarterly and annual reports containing financial statements with the SEC.

The Audit Committee operates under a written charter adopted by the Board. Such charter is available to our shareholders on our website at www.mts.com (select "Investor Relations" and click on "Corporate Governance").

Code of Conduct. We adhere to a code of ethics, known as the “MTS Code of Conduct.” It applies to our directors, officers, employees and contractors. The MTS Code of Conduct sets forth guidelines for ensuring that all personnel act in accordance with the highest standards of integrity. The MTS Code of Conduct, as well as any waivers from and amendments to it, are posted on our website at www.mts.com (select “Investor Relations” and click on “Corporate Governance”).

Section 16(a) Beneficial Ownership Reporting Compliance. The rules of the SEC require us to disclose the identity of directors, executive officers and beneficial owners of more than 10% of our common stock who did not file on a timely basis reports required by Section 16(a) of the Securities Exchange Act of 1934, as amended. Based solely on a review of copies of such reports and written representations from reporting persons, we believe that all directors and

executive officers complied with all filing requirements applicable to them during fiscal year 2016.

ITEM 11. EXECUTIVE COMPENSATION

All dollar and share amounts are in actual dollars and shares, respectively (unless otherwise noted).

Compensation Discussion and Analysis

This Compensation Discussion and Analysis (“CD&A”) describes our executive compensation program for the Chief Executive Officer (“CEO”), Chief Financial Officer and other named executive officers of the Company. The Compensation and Leadership Development Committee (the “Committee”) administers and makes decisions regarding our executive compensation and benefit programs. The following discussion should be read in conjunction with the Summary Compensation Table and related tables and footnote disclosure setting forth the compensation of our fiscal year 2016 named executive

Table of Contents

officers:

• Jeffrey A. Graves, President and CEO;

• Jeffrey P. Oldenkamp, Senior Vice President and Chief Financial Officer;

• William E. Bachrach, former President, Test;

• David T. Hore, President, Sensors;

• John V. Emholz, former Senior Vice President, Sensors; and

• Catherine L. Powell, Senior Vice President, General Counsel and Corporate Secretary.

Mr. Bachrach retired from the Company on January 13, 2017.

Mr. Emholz is one of our named executive officers for whom disclosure would have been provided because he was one of our three other most highly paid executive officers, but for the fact that he was not serving as an executive officer at the end of fiscal year 2016. Mr. Emholz transitioned from the role of Senior Vice President, Sensors, effective as of July 6, 2016. In connection with such transition, we entered into a transition bonus agreement with Mr. Emholz and he remained employed by the Company as Senior Vice President, Sensors, including the corresponding compensation and benefits, until September 6, 2016, at which time Mr. Emholz's employment with the Company was terminated. He continues to be eligible to receive compensation pursuant to the Company's Executive Severance Plan.

Ms. Powell provided notice of Good Reason to terminate her employment under the Company's Executive Severance Plan on April 5, 2017. In connection with a termination for Good Reason, she would become eligible to receive compensation in accordance with the terms of the Company's Executive Severance Plan, which is described further below. We are evaluating the claim under the Severance Plan.

Executive Summary

The objectives of the Committee are to provide a market competitive compensation program that:

- Aligns the financial interests of the executives with those of our shareholders, in both the short and long term;
- Provides a balanced mix of base salary and incentive compensation that is linked to the achievement of our short-term and long-term goals;
- Attracts, motivates and retains highly competent executives; and
- Differentiates between executives based upon individual strategic leadership, contributions to overall corporate and/or segment performance and level of responsibility within the organization.

A discussion of recent Company performance and the corresponding executive pay outcomes, demonstrates that our compensation program is functioning according to our established goals in most respects.

Table of Contents

Performance Highlights

Fiscal Year 2016 Results Related to Target Levels for Incentive Plans

Total Adjusted Revenue, a non-GAAP financial measure, was \$605.6 million⁽¹⁾, up from the previous year's GAAP revenue of \$563.9 million.

Adjusted ROIC, a non-GAAP financial measure, of 16.3%⁽²⁾, compared to 15.5%⁽³⁾ in fiscal year 2015.

Adjusted diluted earnings per share (EPS), a non-GAAP financial measure, of \$3.01⁽²⁾, compared to the previous year's GAAP diluted EPS of \$3.00.

Adjusted Working Capital Rate to Revenue ("WCRR"), a non-GAAP financial measure, was 24.0%⁽⁴⁾, compared to WCRR of 30.4%⁽⁵⁾ in fiscal year 2015.

For purposes of our incentive compensation plans, we use adjusted revenue, which is not a measure of performance presented in accordance with GAAP. Adjusted revenue is calculated by excluding PCB revenue for the three months ended October 1, 2016 of approximately \$44,503,000 from our total fiscal year 2016 revenue of approximately \$650,147,000. We use adjusted revenue as an incentive compensation measure as defined in the plan documents. This measure should not be construed as an alternative to revenue determined in accordance with GAAP.

For purposes of our incentive compensation plans, we have calculated adjusted ROIC and adjusted diluted EPS for fiscal year 2016, which are not financial measures of performance presented in accordance with GAAP. Adjusted ROIC is calculated by dividing adjusted net income by average adjusted invested capital. Adjusted diluted EPS is calculated by dividing adjusted net income by adjusted diluted weighted average common shares outstanding. Adjusted net income is calculated by excluding the following from reported net income: PCB net income, acquisition-related expense, net of tax; acquisition integration expenses, net of tax; acquisition inventory step-up, net of tax; restructuring expense, net of tax; acquisition interest expense, net of tax; and after-tax interest expense.

(2) Adjusted diluted weighted average common shares outstanding is calculated by excluding the impact of our common stock offering and the issuance of TEUs. Average invested capital is defined as the aggregate of average adjusted interest-bearing debt and average adjusted shareholders' equity and is calculated as the sum of current and prior year ending amounts divided by two. Because the calculations are not prescribed or authorized by GAAP, the adjusted ROIC percentage and adjusted diluted EPS amount are non-GAAP financial measures. We use adjusted ROIC and adjusted diluted EPS as incentive compensation measures as defined in the plan documents. These measures should not be construed as an alternative to return on equity, diluted EPS or any other measure determined in accordance with GAAP.

Compensation Outcomes

Annual Incentives

Based on achieving 92% of the adjusted EPS goal, 100% of the adjusted revenue goal and 121% of the adjusted WCRR goal, the fiscal year 2016 annual incentive payout for our CEO was 100% of target.

The payout was capped at target, as our incentive compensation plan restricts over-ranging in the event that the adjusted EPS goal is not achieved. Without the cap, payouts for the CEO would have been 123% of target during fiscal year 2016.

Long-Term Incentives

Three of the four outstanding stock option grants for our CEO were underwater as of October 1, 2016.

The performance-based restricted stock units granted in fiscal years 2016 and 2015 were tracking below target payout levels.

Adjusted ROIC performance was below target levels in both fiscal years 2016 and 2015.

Share prices were below the grant levels. The overall result is compensation below the targeted opportunity.

Table of Contents

Presented below is the reconciliation of the non-GAAP financial measure to the nearest GAAP measure for fiscal year 2016:

(in thousands)	2016
Net income	\$27,494
PCB net income, net of tax	(4,383)
Acquisition-related expense, net of tax	7,322
Acquisition integration expense, net of tax	2,049
Acquisition inventory step-up, net of tax	5,692
Restructuring expense, net of tax	1,465
Acquisition interest expense, net of tax	5,221
Adjusted net income*	\$44,860
Diluted weighted average common shares outstanding	16,179
Impact of common stock and TEU issuances	1,287
Adjusted diluted weighted average common shares outstanding*	14,892
Adjusted diluted EPS*	\$3.01
Shareholders' equity	
Total beginning shareholders' equity	\$258,142
Total ending shareholders' equity	405,260
Issuance of common stock, net	(74,301)
Issuance of TEUs, net	(84,511)
Purchase of capped call transaction	7,935
Net income adjustments	17,366
Adjusted ending shareholders' equity*	\$271,749
Interest bearing debt	
Total beginning interest bearing debt	\$21,183
Total ending interest bearing debt	484,985
Acquisition-related debt	(484,985)
Adjusted ending interest bearing debt*	\$—
Sum of adjusted invested capital*	\$551,074
Average adjusted invested capital*	\$275,537
Adjusted return on invested capital*	16.3 %

* Denotes non-GAAP financial measures.

Table of Contents

Presented below is the tax impact on the non-GAAP financial measure of adjusted net income presented in the table above.

	2016		
(in thousands)	Pre-Tax	Tax	Net
Net income	\$33,512	\$6,018	\$27,494
PCB net income [¶]	(5,700)	(1,317)	(4,383)
Acquisition-related expense ^a	10,170	2,848	7,322
Acquisition integration expense ^a	2,846	797	2,049
Acquisition inventory step-up ^a	7,916	2,224	5,692
Restructuring expense [¬]	2,165	700	1,465
Acquisition interest expense ^a	7,252	2,031	5,221
Adjusted net income [*]	\$58,161	\$13,301	\$44,860

[¶]In determining the tax impact of PCB, we applied a worldwide effective income tax rate to PCB pre-tax income.

In determining the tax impact of acquisition-related, acquisition integration, acquisition inventory step-up expenses, ^a acquisition interest expense and interest expense, we applied a U.S. effective income tax rate before discrete items to these expenses.

[¬] In determining the tax impact of restructuring expenses, we applied the statutory rate in effect for each jurisdiction where restructuring expenses were incurred.

^{*}Denotes non-GAAP financial measures.

- (3) For the calculation of fiscal year 2015 ROIC, see Item 6, "Selected Financial Data," under Part II of this Annual Report on Form 10-K.

For purposes of our incentive compensation plans, we use adjusted WCRR for fiscal year 2016, which is not a measure of performance presented in accordance with GAAP. Adjusted WCRR is calculated by dividing the adjusted 12 month average net working capital by adjusted revenue. The adjusted 12 month average net working capital is calculated by excluding PCB accounts receivable, net, unbilled accounts receivable, inventories, net, ⁽⁴⁾ accounts payable and advance payments from customers and averaging the quarterly adjusted net working capital for fiscal year 2016. Adjusted revenue is calculated by excluding PCB revenue for the three months ended October 1, 2016 of approximately \$44,503,000 from fiscal year 2016 revenue of approximately \$650,147,000. Because the ratio is not prescribed or authorized by GAAP, the adjusted WCRR is a non-GAAP financial measure. We use adjusted WCRR as an incentive compensation measure as defined in the plan documents.

Presented below is the reconciliation of the non-GAAP financial measure to the nearest GAAP measure for fiscal year 2016:

(in thousands)	Total				PCB	Adjusted	
	January 2, 2016	April 2, 2016	July 2, 2016	October 1, 2016	October 1, 2016	October 1, 2016	2016 Average
Accounts receivable, net	\$106,163	\$96,193	\$83,736	\$133,500	\$24,132	\$109,368	\$98,865
Unbilled accounts receivable	66,580	73,924	90,785	76,626	—	76,626	76,979
Inventories, net	90,604	95,988	93,034	132,566	47,226	85,340	91,242
Accounts payable	(32,967)	(37,311)	(37,746)	(46,383)	(6,085)	(40,298)	(37,081)
Advance payments from customers	(78,957)	(98,393)	(89,163)	(72,728)	(1,059)	(71,669)	(84,546)
Adjusted net working capital [*]	\$151,423	\$130,401	\$140,646	\$223,581	\$64,214	\$159,367	\$145,459
Adjusted revenue [*]				\$650,147	\$44,503	\$605,644	\$605,644

Adjusted WCRR^{*} 24.0 %

^{*}Denotes non-GAAP financial measures.

Table of Contents

WCRR is calculated by dividing the 12 month average net working capital by full fiscal year revenue. The 12 (5) month average net working capital is calculated by averaging the quarterly adjusted net working capital for fiscal year 2015. Because the ratio is not prescribed or authorized by GAAP, the WCRR is a non-GAAP financial measure.

Presented below is the reconciliation of the non-GAAP financial measure to the nearest GAAP measure for fiscal year 2015:

(in thousands)	December 27, 2014	March 28, 2015	June 27, 2015	October 3, 2015	Average
Accounts receivable, net	\$109,051	\$111,474	\$93,547	\$89,829	\$100,975
Unbilled accounts receivable	77,439	68,423	68,778	77,519	73,040
Inventories, net	89,643	88,798	91,972	86,303	89,179
Accounts payable	(29,563)	(36,448)	(28,182)	(32,994)	(31,797)
Advance payments from customers	(61,222)	(54,159)	(59,638)	(65,734)	(60,188)
Net working capital*	\$185,348	\$178,088	\$166,477	\$154,923	\$171,209
Revenue	\$563,934				
WCRR*	30.4 %				

*Denotes non-GAAP financial measures.

While we believe our executive compensation program is meeting our stated objectives, we do accept shareholder feedback on the design and performance-orientation of our programs. Specifically, we received approximately 98% support of our executive compensation programs at our last annual meeting of shareholders held in fiscal year 2016 related to the compensation of our named executive officers. We continue to solicit shareholder feedback regarding our compensation programs, and take this input into consideration as we design future incentive compensation.

Fiscal Year 2016 Executive Compensation Highlights

Detailed below are some of the key actions and decisions with respect to our executive compensation programs for fiscal year 2016 as approved by the Committee, with counsel from its independent compensation consultant, Willis Towers Watson:

Acquisition of PCB. The following executive compensation actions were reviewed by the Committee in connection with the acquisition of PCB.

David T. Hore, former President of PCB, was appointed to serve as our President, Sensors in July 2016. While we typically do not enter into employment agreements with our executive officers, Mr. Hore had an existing employment agreement with PCB dated as of April 1, 2016 (the "Hore Employment Agreement") and, as part of the merger agreement with PCB, we agreed to assume the Hore Employment Agreement. Pursuant to the Hore Employment Agreement, Mr. Hore will receive compensation in the amount of \$500,000 per year to be evaluated by us from time to time and annual cash bonus payments are discretionary on our part. The Hore Employment Agreement has a two-year term and provides for potential payments in the event of a termination of Mr. Hore's employment. Therefore, during the term of the Hore Employment Agreement, Mr. Hore will not participate in our Executive Severance Plan or the Executive Change in Control Severance Plan. In addition, as one of our new executive officers, Mr. Hore received a restricted stock unit award on August 15, 2016 with a fair market value of \$270,000 in accordance with our typical policy for newly hired executive officers. We believe that executive hire equity grants are important to align our officers' interests with our shareholders' interests.

We entered into a Transition Bonus Agreement (the "Emholz Transition Agreement") with John V. Emholz, our former Senior Vice President, effective as of July 6, 2016. Pursuant to the Emholz Transition Agreement, Mr. Emholz remained employed by the Company in his current position, including the corresponding compensation and benefits, for a period of 60 days following the closing of the acquisition on July 6, 2016, at which time Mr. Emholz's employment with the Company was terminated and he began to receive compensation pursuant to the Company's Executive Severance Plan further described below.

Table of Contents

Compensation Overview for Fiscal Year 2016. The Committee granted performance restricted stock units (“PRSUs”) using adjusted ROIC as a performance measure. The Committee believes that measuring adjusted ROIC over a three-year period is an appropriate measure for the PRSUs given its emphasis on profitability with a longer-term view. In fiscal year 2016, the Committee continued with its practice of granting an even mix of stock options and PRSUs. The performance measure of adjusted ROIC is expressed as annual targets for the applicable three-year period and the annual performance is averaged over the performance period. The performance range has threshold, target and maximum performance expectations each cycle, with a 75% guaranteed threshold of target and up to a 125% maximum opportunity of target.

Strong Performance-Based Compensation Awards and Payouts. Our executive compensation is tightly linked with performance.

As with past years, we adopted an Executive Variable Compensation (“EVC”) Plan through which the named executive officers were eligible to earn cash incentive compensation based upon achievement of specific financial objectives for fiscal year 2016, recommended by the Committee and approved by the Board, that are designed to challenge the named executive officers to high performance.

The Committee actively considers the impact of unusual or one-time events on our financial performance in setting the performance goals under the EVC Plan.

As named executive officers assume greater responsibility, a larger portion of their total cash compensation is risk based and dependent on Company and business segment performance.

The Committee targets annual base salaries around the median base salaries of survey data, with the EVC Plan designed to allow the named executive officer to earn above-target compensation only when the named executive officer delivers and, as a Company, we deliver performance that is also above target.

Appropriate Comparisons. As part of our salary structure analysis, Willis Towers Watson reviews market data, adjusted for revenue size, to current base salaries. A proxy review based on compensation peer companies is also conducted to compare market data to the compensation peer companies. Recommendations are then provided to the Committee for setting base salary and long-term incentive ranges for our named executive officers.

Stock Ownership Expectations. Our compensation programs encourage employees to build and maintain an ownership interest in the Company. We have established specific stock ownership guidelines for executive officers, which are reviewed annually by the Committee.

Emphasis on Quality Compensation Practices. We continue our commitment to compensation practices that we believe contribute to good governance.

Our EVC Plan and 2011 Stock Incentive Plan each contain a recoupment, or “clawback,” provision. These clawback provisions require executive officers to forfeit and allow us to recoup any payments or benefits received by them under the EVC Plan or the 2011 Stock Incentive Plan under certain circumstances, such as certain restatements of our financial statements, termination of employment for cause and breach of an agreement between us and the executive officer.

The compensation consultant is retained directly by and reports to the Committee. The compensation consultant does not provide any services to management personally and had no prior relationship with any of our named executive officers.

Information Used in the Compensation Process

Independent Compensation Consultant

Under the Committee’s charter, the Committee has the authority to select, retain and compensate executive compensation consultants and other advisors as it deems necessary to carry out its responsibilities. For assistance with fiscal year 2016 compensation decisions, the Committee engaged Willis Towers Watson to provide it with information regarding compensation of executive officers, non-executive officers and directors. Specifically, Willis Towers Watson was asked by the Committee to:

- provide information on executive compensation for each cash component of compensation (base salary and short-term incentive compensation);
- provide information regarding competitive values and structures of long-term incentive compensation;

Table of Contents

provide information regarding performance measures used in long-term incentive compensation programs; and review and provide information on the compensation peer group used to confirm survey data related to some of our named executive officer positions.

Determining Competitive Compensation

The Committee annually assesses “competitive market” compensation for each component of compensation using a number of sources.

The Committee engaged Willis Towers Watson as its independent compensation consultant to review compensation levels for executive positions. For fiscal year 2016, as in past years, a base salary benchmark tool was updated for the Committee based upon executive salary survey data that was adjusted for comparability by business, revenue, executive position and age of data. In setting salaries for fiscal year 2016, executive salary survey data for executives was obtained from the 2015 Towers Watson Compensation DataBank Survey and the 2015 Towers Watson Compensation Survey Report for companies with less than \$1 billion in revenue. The results of the benchmark tool were then referenced against proxy compensation data from our compensation peer group described below, which is used as a supplemental data source.

For each position, the base salary benchmark tool produces a median and a competitive salary range, with the minimum and maximum end of the range at approximately 80% and 120% of the median, respectively. The Committee used the benchmark tool to assess the median and range of competitive salaries for fiscal year 2016 and compared these to the base salaries for the named executive officers to determine the need for adjustments.

Our direct competitors are either privately owned companies or business units within much larger public companies and, as a result, a broad and reliable base of compensation data from these companies is not readily available.

Accordingly, the compensation peer group we use to confirm the base salary data from our benchmark tool consists of durable goods manufacturing companies, most of which do not compete with us directly but several of which compete with us for management talent. Our compensation peer group is reviewed on an annual basis by the Committee with the assistance of its independent compensation consultant. Our compensation peer group used when determining fiscal year 2016 compensation consisted of the following companies:

Badger Meter Inc.	GSI Group Inc.
Checkpoint Systems Inc.	John Bean Technologies Corporation
Cognex Corporation	Kimball Electronics, Inc.
Coherent Inc.	Methode Electronics, Inc.
CTS Corporation	National Instruments Corporation
Daktronics Inc.	Newport Corp.
ESCO Technologies Inc.	OSI Systems, Inc.
Fabrinet	RBC Bearings Inc.
FARO Technologies Inc.	Rofin-Sinar Technologies Inc.
FEI Company	Standex International Corporation

In May 2016, the Committee evaluated its peer group in light of the acquisition of PCB and determined that its peer group should be revised to add the following companies: HEICO Corporation and MKS Instruments, Inc.

For short-term cash incentive compensation, which was delivered to the named executive officers through the EVC Plan, the Committee also reviewed market data and executive salary survey information that had been compiled and adjusted by Willis Towers Watson. For each of the named executive officers, the Committee compared the target amounts under the EVC Plan for fiscal year 2016 to the survey information relating to the median amount of non-salary cash compensation paid to executive officers as a percentage of base salary.

Additionally, Willis Towers Watson prepares for the Committee an annual analysis of long-term equity incentive compensation. The analysis includes a market review of our equity grant structure, comparing the value of our long-term incentive award guidelines to market data. Comparative information was obtained from the Willis Towers Watson’s Executive Compensation Database for long-term incentive tables for companies with revenues of less than \$1 billion. The Committee used this data to establish competitive guideline ranges and median values for equity

awards made in December 2015 to the named executive officers.

62

Table of Contents

Role of Management

In determining compensation for executive officers, other than the CEO, the Committee solicits input from the CEO regarding the duties and responsibilities of the other executive officers and the results of performance evaluations. The CEO also recommends to the Committee the base salary for all executive officers (other than his own) and, in developing his recommendations, may request input from the Chief Human Resources Officer from time to time relating to the compensation of those executive officers. The CEO, Chief Financial Officer and the Chief Human Resources Officer develop recommendations for the Committee regarding the financial performance goals under the EVC Plan and the minimum, target and maximum levels of achievement of the performance goals. The CEO, Chief Human Resources Officer and General Counsel are invited to attend meetings of the Committee from time to time. No executive officer attends any independent director executive session of the Committee or is present during deliberations or determination of his or her compensation.

The Committee establishes the compensation for the executive officers, other than the CEO. With respect to the CEO, the Committee makes recommendations to the independent directors of the Board of Directors.

Compensation of our Named Executive Officers

During fiscal year 2016, the components of our executive compensation program consisted of base salary, short-term cash incentive, long-term equity incentive awards, broad-based benefits and other perquisites. The named executive officers were eligible to participate in the same benefit programs as were available to our other salaried employees working in the same countries. The chart below reflects the relative weighting associated with each of these components paid or granted to the CEO for fiscal year 2016.

For the named executive officers, other than the CEO, the average relative weighting associated with these components paid or granted for fiscal year 2016 was base salary 38%; long-term equity incentive 38%; short-term cash incentive 20%; benefits 3% and perquisites 1%. Mr. Hore and Mr. Emholz were not included in the calculating the pay mix for the named executive officers due to Mr. Hore's Employment Agreement and Mr. Emholz's transition bonus.

Determining Mix of Compensation

The Committee does not have a set policy or formula for weighting the elements of compensation for each named executive officer. Instead, the Committee considers market factors relevant to that executive and his or her tenure, role within the Company and contributions to the Company's performance. In general, as named executive officers assume greater responsibility, a larger portion of their total cash compensation is payable as short-term cash incentive, which is variable based on performance, as opposed to base salary and a larger portion of their total direct compensation (that is, compensation other than benefits and perquisites) comes in the form of long-term equity incentive.

Table of Contents

Fiscal Year 2016 Base Salaries

The Committee determines base salaries for named executive officers, other than the CEO, and makes recommendations to the independent directors of the Board regarding the base salary of the CEO. These recommendations are based upon a number of factors, including competitive salaries and individual performance. Annual recommendations for executive officers are made in November of each year and any resulting adjustments to base salaries take effect that same month.

The Committee reviewed base salary datasets developed by Willis Towers Watson as the Committee considered adjustments to base salaries for fiscal year 2016. These datasets provided the Committee with information regarding a median level of base salary for each named executive officer position and a range of competitive base salaries. Additionally, we have a systematic approach for evaluating the performance of our executive officers, with base salary adjustments affected primarily by the performance evaluation for the prior fiscal year. The process begins by establishing specific, individualized performance goals at the beginning of the fiscal year for each executive officer, as well as identifying or reaffirming the core competencies of the position and evaluating performance against the values that guide how we conduct ourselves and our business. The CEO proposes individual performance goals for himself that are reviewed by the Committee and approved by the independent members of the Board. The CEO works with each of the other named executive officers to establish appropriate performance goals for that individual. These individual performance goals relate to our customers and our market, organizational improvements and financial measures.

The CEO regularly provides reports and updates throughout the year regarding his progress toward achievement of these individual performance goals. The performance of the executive officer is assessed by the independent directors of the Board, in the case of the CEO, or by the CEO, in the case of the other executive officers. As part of this performance review, the independent directors of the Board or the CEO, as the case may be, consider the executive officer's demonstration of competencies of that executive's role, the behaviors that reinforce our values and achievement of the individual performance goals established for that fiscal year.

The following table shows the annualized base salaries for the named executive officers for fiscal year 2016 (other than Mr. Hore who received the same base salary as provided in the employment agreement that he had in place with PCB prior to the acquisition), as well as the proximity of the fiscal year 2016 base salary to the median of the market data for the same or similar position.

Named Executive Officer	Fiscal Year 2016		
	Fiscal Year 2016	Annualized Base Salary	Annualized as a Percent of Median of Base Salary Comparable
Jeffrey Graves	\$ 650,000	99.2	%
Jeffrey Oldenkamp	\$ 345,000	95.8	%
William Bachrach	\$ 360,000	100.0	%
John Emholz	\$ 320,000	103.2	%
Catherine Powell	\$ 300,000	96.8	%

Mr. Hore receives compensation under the terms of the Hore Employment Agreement, which provides for an annualized base salary of \$500,000.

Design of EVC Plan and Review of Fiscal Year 2016 Performance

Under the EVC Plan, all of the named executive officers employed by the Company at the end of fiscal year 2016, other than Mr. Hore, were eligible for cash bonuses as determined based upon our financial performance as compared to set performance goals. Mr. Hore does not participate under the EVC Plan because the Hore Employment Agreement provides that payment of any bonus is at the sole discretion of the Board.

Table of Contents

The table below shows the target bonus amounts as a percentage of their respective base salaries that would be earned by the named executive officers, other than Mr. Hore, under the EVC Plan upon our achievement of target performance goals.

Named Executive Officer % of Fiscal Year 2016 Base Salary at Target Achievement

Jeffrey Graves	100%
Jeffrey Oldenkamp	55%
William Bachrach	55%
John Emholz	45%
Catherine Powell	45%

The differences among the named executive officers of the cash incentive opportunity at the target level is primarily a function of their position within our Company and the corresponding grade level assigned to that position. Named executive officers with the same grade level were assigned the same cash incentive opportunity at the target level. The Committee usually sets the cash incentive opportunity at the target level at the same percentage for the same positions. However, the Committee reviews, primarily for trend information, data from our compensation survey analysis and our group of compensation peer companies relating to short-term compensation earned by executive officers in comparable positions. After this review, the Committee makes adjustments to the percentage of base salary that will be earned by our executive officers at target achievement as appropriate.

The Committee determined the performance goals under the EVC Plan as part of our annual planning process, selecting performance goals deemed critical to our success in fiscal year 2016. The Committee believes the combination of performance goals are appropriately balanced between earnings-related and growth goals, while also focusing on shareholder value. The following is a summary of the performance goals and their relative weighting for the named executive officers, other than Mr. Hore.

For Dr. Graves, Mr. Oldenkamp and Ms. Powell, all performance goals were based on total Company performance. For Messrs. Bachrach and Emholz, the adjusted diluted EPS performance goal was a total Company measure, but the remaining measures were determined based upon achievement of targets by the Test or Sensors segment, as applicable. The Committee established performance goals based on segment (rather than total Company) performance for these executives to reflect their accountability for the performance of that segment. The Committee believes that the leader of the segment has a meaningful opportunity to directly impact the achievement of the performance goals through his individual performance as the leader of that segment.

The Committee established minimum, target and maximum levels of achievement for each of the performance metrics, as shown in the following table:

Corporate Goal ⁽¹⁾	Weight	Threshold ⁽²⁾	Target	Maximum	Result	Percent of Target Performance Achieved
Adjusted Diluted EPS ⁽³⁾	35%	\$2.61	\$3.27	\$3.92	\$3.01	92 %
Adjusted Revenue (in 000s) ⁽⁴⁾	35%	\$484,320	\$605,400	\$726,480	\$605,644	100 %
Adjusted WCRR ⁽⁵⁾	30%	31.9	% 29.0	% 26.1	% 24.0	% 121 %
Payout as % of Target Bonus		50	% 100	% 200	%	

Specific performance goals for the Test and Sensors segments and their corresponding minimum, target and (1) maximum amounts are not disclosed due to the competitive harm of such disclosure. For fiscal year 2016, the Committee followed

Table of Contents

the same pattern in setting segment-specific performance levels as for setting the corporate performance levels: for adjusted diluted EPS and adjusted revenue, minimum is equal to 80% of the expected results under the applicable segment's annual plan, target is equal to expected results and maximum is equal to 120% of expected results; and for adjusted WCRR, minimum is equal to a 10% decrease in the expected results under the applicable segment's annual plan, target is equal to expected results and maximum is equal to a 10% increase in expected results.

(2) Represents the hurdle performance required at which 50% payout begins.

(3) Adjusted diluted EPS is a non-GAAP financial measure. For more information on how adjusted diluted EPS is calculated, see Part III, Item 11 of this Annual Report on Form 10-K.

(4) Adjusted revenue is a non-GAAP financial measure. For more information on how adjusted revenue is calculated, see Part III, Item 11 of this Annual Report on Form 10-K.

(5) Adjusted WCRR is a non-GAAP financial measure. For more information on how WCRR is calculated, see Part III, Item 11 of this Annual Report on Form 10-K.

In addition, since the Committee believes the adjusted diluted EPS performance goal provides a strong link between the incentive program and shareholder value, if the target level of adjusted diluted EPS achievement is not met, EVC Plan participants are limited to target payout under the plan regardless of the results of other performance goals. Within this provision of the EVC Plan, if the adjusted diluted EPS target is not met an executive may receive a payout in excess of 100% for an individual performance goal so long as the executive's payout under the EVC Plan is not in excess of 100% of target, in the aggregate.

Based on the results for fiscal year 2016, the payouts to each named executive officer, other than Messrs. Emholz and Hore, under the EVC Plan by performance goal were calculated as follows based upon their respective fiscal year 2016 base salaries:

Performance Goal	Percent of Target Payout Achieved		Jeffrey Graves	Jeffrey Oldenkamp	William Bachrach ⁽¹⁾	Catherine Powell
Adjusted diluted EPS	80	%	\$ 181,980	\$ 52,290	\$ 55,351	\$ 35,569
Adjusted revenue	100	%	\$ 227,078	\$ 65,249	\$ 80,952	\$ 44,496
Adjusted WCRR	200	%	\$ 388,500	\$ 111,632	\$ 118,167	\$ 76,125
Total without cap			\$ 797,558	\$ 229,171	\$ 254,470	\$ 156,190
Total with cap ⁽²⁾			\$ 647,500	\$ 186,053	\$ 196,945	\$ 126,876
Total as % of Target			100	% 100	% 100	% 100

Achievement of the performance goals relating to adjusted revenue and adjusted WCRR for corporate performance (1) for fiscal year 2016 does not apply to Mr. Bachrach. Amounts attributable to each of these measures represent amounts attributable to actual achievement in fiscal year 2016 by the Test segment of the performance goal noted.

The bonus amount for all named executive officers was capped at target as the EVC Plan restricts over-ranging in (2) the event that the target payment for any goal is not achieved and the adjusted diluted EPS goal was not achieved during fiscal year 2016.

Mr. Emholz did not qualify for a payout under the EVC Plan since he was no longer an employee of the Company as of the last day of fiscal 2016. Mr. Hore does not participate in the EVC Plan, so he also did not qualify for a payout. Pursuant to the terms of the Hore Employment Agreement, the Committee decided not to provide a discretionary bonus to Mr. Hore based on the short period of time that he was employed by the Company during fiscal year 2016.

Long-Term Incentive Awards

The awards for fiscal year 2016 were weighted 50% of the value in stock options and 50% of the value in PRSUs restricted over a three year period. In determining the number of stock options to grant, the Committee reviewed the stock options based on an average of the Black Scholes values over the last 90 days prior to the end of the fiscal year. This methodology was to better represent the value of our equity over the most current period prior to the date of the award. A more stable option grant size (in terms of the number of options) also sends a signal that pay realized from stock option grants will be more sensitive to future stock price appreciation and less sensitive to past stock price volatility. This approach, however, causes the accounting

Table of Contents

value of the stock options that are shown in the Summary Compensation and Grants of Plan-Based Awards tables to differ from the value of PRSUs, which would otherwise be unexpected with an equal-weighted mix of options and PRSUs. In determining the number of PRSUs to grant, half of the aggregate value of the grant is divided by the closing price of the Company's common stock on the date of grant.

The options are all non-qualified stock options that vest in incremental installments of one-third per year commencing on the first anniversary of the date of grant and expire seven years after the date of grant.

In fiscal year 2016, the Committee continued to grant PRSUs using adjusted ROIC as a performance measure. The Committee believes that measuring adjusted ROIC over a three-year period is an appropriate measure for such PRSUs given its emphasis on profitability with a longer-term view. Adjusted diluted EPS is a non-GAAP financial measure. For more information on how adjusted diluted EPS is calculated, see Part III, Item 11 of this Annual Report on Form 10-K. The performance measure of adjusted ROIC is expressed as annual targets for the applicable three-year period and the annual performance is averaged over the performance period. The performance range has a threshold, target and maximum performance expectations each cycle, with a 75% guaranteed threshold of target and up to a 125% maximum opportunity of target.

The following table shows for each of the named executive officers (other than Mr. Hore who did not receive an award because he was not an officer of the Company at the time) the number of shares underlying the equity awards and the aggregate value of the awards granted in December 2015 for fiscal year 2016.

Named Executive Officer	Number of Shares Underlying Stock Options	Number of Performance Restricted Stock Units	Aggregate Value of Awards
Jeffrey Graves	61,455	10,123	\$ 1,250,000
Jeffrey Oldenkamp	17,207	2,834	\$ 350,000
William Bachrach	14,749	2,430	\$ 300,000
John Emholz	9,833	1,620	\$ 200,000
Catherine Powell	8,850	1,458	\$ 180,000

The table below sets forth for fiscal year 2016 the threshold, target and maximum level for the adjusted ROIC performance goal as well as the actual achievement of that performance goal for fiscal year 2016 and the percentage of the target level of that achievement.

Performance Goal	Threshold	Target	Maximum	Result	Percent of Target Performance Achieved	Percent of Target Payout Achieved
Adjusted ROIC	10.6%	17.6%	22.6%	15.9%	90.3%	93.9%

Based on the results for fiscal year 2016, the payouts to each named executive officer (other than Mr. Emholz and Ms. Powell who were not officers of the Company at the time of the date of grant) for the PRSUs with a date of grant of December 3, 2014, were calculated as follows based upon the respective PRSUs attributable to fiscal year 2015 and 2016 performance.

Named Executive Officer ⁽¹⁾	Target PRSUs		Actual PSRUs	
	Shares	Value ⁽²⁾	Shares	Value ⁽³⁾
Jeffrey Graves	2,670	\$178,837	2,508	\$134,805
Jeffrey Oldenkamp	672	\$45,011	631	\$33,916
William Bachrach	684	\$45,814	642	\$34,508
John Emholz	—	—	—	—
Catherine Powell	—	—	—	—

(1) Vesting and payout date was December 3, 2016.

(2)

Target PSRU value represents number of shares granted multiplied by the share price of \$66.98 on the date of the grant (December 3, 2014).

(3) Actual PSRU value represents the number of actual shares delivered based on the payout achieved multiplied by the share price of \$53.75 on the date of vest (December 3, 2016).

Table of Contents

Compensation Policies

Equity Incentive Grant Policy. The Committee recognizes the importance of adhering to specific practices and procedures in the granting of equity incentives. Accordingly, the Committee has developed a formal policy relating to the grant of equity incentives. Our policy is that grants of equity incentives, other than new hire or promotional grants, will be made by the Committee once per year as described above. Equity incentive awards to our CEO are approved by the independent directors of the Board following a recommendation by the Committee. Our policy is that the annual grant date for awards made by the Committee for the annual grant is on the later of (i) market close as of the first Wednesday in December in the first fiscal quarter, or (ii) market close as of the fifth business day after the fourth quarter earnings release is issued. Our policy also states that the grant date for awards made by the Committee to new hires will be the 15th day of the month following the month of hire or, if the market is closed that day, the first business day prior thereto in which the market is open.

Under our 2011 Stock Incentive Plan, the Committee may delegate authority to make awards to a subcommittee consisting only of independent directors or to one or more executive officers. The Committee has delegated authority to the CEO to make awards of stock options, restricted stock units or a combination of stock options and restricted stock units, other than to our executive officers. This delegation is subject to a maximum number of shares and other restrictions.

Executive Compensation Clawback Policy. We added a recoupment or “clawback” provision to our EVC Plan that was approved by shareholders at the fiscal year 2009 annual meeting of shareholders. Our 2011 Stock Incentive Plan contains a similar provision. These clawback provisions require an executive officer to forfeit and allow us to recoup from the executive officer any payments or benefits received by the executive officer under the EVC Plan under certain circumstances, such as certain restatements of our financial statements, termination of employment for cause, violation of the MTS Code of Conduct and breach of an agreement between us and the executive officer.

Stock Ownership Guidelines. To align our executive officers’ interests with our shareholders’ interests, the Committee expects our executive officers to acquire significant equity ownership in the Company. Accordingly, we have adopted stock ownership guidelines requiring each executive officer to achieve an equity ownership level equal to a specified multiple of his or her base salary within five years of being appointed as an executive officer or within five years of change in executive officer status resulting in an increased required level of ownership. The Committee revised the stock ownership guidelines in September 2014 and the current minimum equity ownership levels as a multiple of base pay are as follows: five times for the CEO; four times for the Chief Financial Officer; and a multiple equal to their executive salary grade level for any other Senior Vice President (ranging from two times to four times) and one time for a Vice President. As part of the revisions in September 2014, the policy now provides that failure by a participant to meet the required ownership level within the time period established will result in a requirement that participants must retain 100% of the net shares acquired (net of taxes) through the Company’s equity compensation programs until the ownership levels are met. It also requires that our executive officers hold equity acquired through our equity compensation plans in a minimum amount of 75% of the net proceeds (net of taxes) until ownership levels are met. Our independent directors have also imposed upon themselves a guideline for achieving significant equity ownership. Our independent directors are expected to achieve an ownership of our Common Stock equal to a minimum of five times their annual cash retainer.

The Committee reviews the progress of our executive officers toward the ownership guidelines on a regular basis and determined that all of the executive officers are on track for meeting the ownership guidelines within the established timeframes.

Tax Deductibility of Compensation. Section 162(m) of the Internal Revenue Code limits our ability to deduct compensation in excess of \$1 million paid to the CEO or any of the three other most highly compensated executive officers (other than the Chief Financial Officer), unless the compensation qualifies as “performance-based compensation.” Among other things, in order to be deemed performance-based compensation, the compensation must be based on the achievement of pre-established, objective performance criteria and must be pursuant to a plan that has been approved by our shareholders. The Committee intends to continue its practice of paying competitive

compensation in order to attract and retain the senior executives necessary to manage our business in the best interests of the Company and our shareholders. Under some circumstances, this practice may require us to pay compensation that is not deductible under Section 162(m). Although we intend to maximize the deductibility of compensation paid to executive officers, we also intend to maintain the flexibility to take actions considered to be in our best interests including, where appropriate, entering into compensation arrangements under which payments are not deductible.

Table of Contents

Compensation and Leadership Development Committee Report

The Compensation and Leadership Development Committee has discussed and reviewed the Compensation Discussion and Analysis set forth above with management. Based upon this review and discussion, the Compensation and Leadership Development Committee recommended to the Board that the Compensation Discussion and Analysis be included in this Annual Report on Form 10-K for the fiscal year ended October 1, 2016.

SUBMITTED BY THE COMPENSATION AND LEADERSHIP DEVELOPMENT COMMITTEE
OF THE COMPANY'S BOARD OF DIRECTORS

Michael V. Schrock (Chair)

Barb J. Samardzich

David D. Johnson

Randy J. Martinez

Compensation Committee Interlocks and Insider Participation

No member of our Compensation and Leadership Development Committee has been an officer or employee of our Company or any of our subsidiaries and affiliates or has had any relationship with our Company requiring disclosure in this Annual Report on Form 10-K for the fiscal year ended October 1, 2016 other than service as a director. None of our executive officers has served on the board of directors or on the compensation committee of any other entity, any officer of which served either on our Board or on our Compensation and Leadership Development Committee.

Summary Compensation Table

The following table sets forth the cash and non-cash compensation with respect to each named executive officer during the prior three fiscal years.

Name and Principal Position	Fiscal Year	Salary (\$)	Bonus ⁽¹⁾ (\$)	Stock Awards ⁽²⁾ (\$)	Option Awards ⁽²⁾ (\$)	Non-Equity Incentive Plan Compensation ⁽³⁾ (\$)	All Other Compensation ⁽⁴⁾ (\$)	Total (\$)
Jeffrey Graves President and Chief Executive Officer	2016	647,500-		624,994	722,274	647,500	20,667	2,662,935
	2015	637,000-		536,510	398,355	133,163	16,326	1,721,354
	2014	631,887-		678,984	953,320	185,396	17,161	2,466,748
Jeffrey Oldenkamp Senior Vice President, Chief Financial Officer	2016	338,278-		174,971	202,229	186,053	20,972	922,503
	2015	291,253-		135,032	100,237	37,516	14,907	578,945
William Bachrach Former President, Test	2016	358,082-		150,028	173,341	196,945	97,801	976,197
	2015	329,663-		167,520	102,093	49,647	78,614	727,537
	2014	306,580-		122,531	171,997	117,972	16,176	735,256
John Emholz Former Senior Vice President, Sensors	2016	307,007	150,000	150,028	173,341	-	66,534	846,910
	2015	220,579	50,000	107,495	65,132	21,667	77,034	541,907
David Hore President, Sensors	2016	125,000-		269,994	-	-	14,955	409,949
Catherine Powell Senior Vice President, General Counsel and Corporate Secretary	2016	289,245-		165,040	104,013	126,876	19,997	705,171

(1)

Amount for Mr. Emholz represents an inducement cash bonus in fiscal year 2015 of \$50,000 when he accepted his job and a stay bonus in fiscal year 2016 of \$150,000 to continue his employment after the completion of the acquisition of PCB through the termination date of his employment on September 6, 2016.

Amounts represent the aggregate grant date fair value of restricted stock units and stock options that were granted in each fiscal year as computed in accordance with Financial Accounting Standards Board (“FASB”) Accounting (2) Standards Codification (“ASC”) Topic 718 utilizing the assumptions discussed in Note 6 to our Notes to Consolidated Financial Statements for the fiscal year ended October 1, 2016 included in Item 8 of Part II of this Annual Report on Form 10-K.

Table of Contents

(3) Represents amounts awarded for fiscal year 2016 performance under the EVC Plan and paid out in the first quarter of fiscal year 2017.

(4) The table below describes the amounts in the “All Other Compensation” column above.

Supplemental Table to the “All Other Compensation” Column

Name	Retirement Plan				Life Insurance Premiums, Executive Physical and Health Saving Account Contributions (\$)	Relocation/Living Expenses ⁽²⁾ (\$)	Tax Payment ⁽³⁾ (\$)	Severance Related Payments ⁽⁴⁾ (\$)	Total (\$)
	Match (\$)	Fiscal Year Contribution ⁽¹⁾ (\$)	Car (\$)	Club Membership (\$)					
Jeffrey Graves	11,925	—	8,040	—	702	—	—	—	20,667
Jeffrey Oldenkamp	11,925	—	8,040	—	1,007	—	—	—	20,972
William Bachrach	11,925	—	8,040	—	1,002	39,834	37,000	—	97,801
John Emholz	11,925	—	8,040	—	1,419	18,022	—	27,128	66,534
David Hore	—	5,300	5,975	1,337	2,343	—	—	—	14,955
Catherine Powell	11,925	—	7,370	—	702	—	—	—	19,997

(1) For Mr. Graves, Mr. Oldenkamp, Mr. Bachrach, Mr. Emholz and Ms. Powell, no discretionary "Fiscal Year Contribution" was made in fiscal year 2016 given overall Company performance, but the column is included for comparative purposes to prior fiscal years. Mr. Hore received an Employer Nonelective Contribution according to the terms of the PCB Group, Inc. Profit Sharing 401(k) Retirement Plan.

(2) The amounts reported in the table above under “Relocation and Living Expenses” were provided to Mr. Bachrach to cover housing, meals and transportation expenses because his home is not in Minnesota where his office is located. Amount for Mr. Emholz represents a relocation assistance reimbursement.

(3) The amount reported represents a supplemental bonus provided to Mr. Bachrach to cover tax expense related to fiscal years 2015 and 2016 for relocation and living expenses.

(4) Amount for Mr. Emholz represents an installment of his severance payment in the amount of \$12,308, and the cash out of unused personal time off in the amount of \$14,820 made in fiscal year 2016.

Grants of Plan-Based Awards in Fiscal Year 2016

As reflected in the table below, the named executive officers received three types of plan-based awards for their service in fiscal 2016: a cash award under our EVC Plan, payable in the first quarter of fiscal year 2017; stock options granted on December 2, 2015 under the 2011 Stock Incentive Plan; and PRSUs granted on December 2, 2015 under the same plan. Mr. Hore received an inducement equity award as a new hire.

EVC Awards

Under our EVC Plan, the named executive officers may receive cash payouts after the completion of each fiscal year if specified performance goals established at the beginning of the fiscal year are attained. For each named executive officer, a cash incentive amount, expressed as a percentage of his or her base salary, is established for performance at each of the target and maximum levels. The EVC Plan awards for fiscal year 2016 were structured so that the cash incentive paid to each named executive officer would be 0% to 200% of the payout level established for performance at the target level for each goal. Mr. Hore did not participate in the EVC Plan during fiscal year 2016 and, as a result, did not receive any cash payouts under the EVC Plan. The Compensation and Leadership Development Committee also decided that, based on his limited tenure with the Company since the completion of the acquisition of PCB on July 5, 2016, no discretionary bonus would be paid to Mr. Hore during fiscal year 2016.

Information about the potential payout levels established for each named executive officer, other than Mr. Hore, and the nature and weighting of the goals selected for fiscal year 2016 can be found under “Compensation Discussion and Analysis.” The

Table of Contents

actual amounts paid pursuant to our EVC Plan for fiscal year 2016 performance are listed in the “Non-Equity Incentive Plan Compensation” column to the Summary Compensation Table.

Stock Options

Unless an option holder is terminated for cause, vested stock options are exercisable for 90 days after the termination of the option holder’s employment, or 180 days upon death, disability or retirement. If an option holder’s employment is terminated for “cause,” as such term is defined in our 2011 Stock Incentive Plan, all unexercised options will immediately terminate. The Compensation and Leadership Development Committee may, at any time after the award is granted, accelerate the vesting of some or all of the unvested options as it deems appropriate.

These stock options would become fully exercisable upon the occurrence of a “change in control,” as such term is defined in our 2011 Stock Incentive Plan, unless the acquiring entity assumed or provided a substitute for the award. The Compensation and Leadership Development Committee may require options be exercised prior to the change in control and may pay cash or other securities to cancel awards in connection with the change in control.

Restricted Stock Units

If a unit holder’s employment is terminated, the unvested units will be forfeited. The Compensation and Leadership Development Committee may, at any time after the award is granted, accelerate the vesting of some or all of the unvested units as it deems appropriate.

These restricted stock units would become fully exercisable upon the occurrence of a “change in control,” as such term is defined in our 2011 Stock Incentive Plan, unless the acquiring entity assumed or provided a substitute for the award. The Compensation and Leadership Development Committee may pay cash or other securities to cancel awards in connection with the change in control.

Grants to named executive officers of plan-based awards in fiscal year 2016 are set forth in the table below.

Name	Grant Date	Approval Date	Award Type ⁽¹⁾	Estimated Future Payouts Under Non-Equity Incentive Plan Awards ⁽²⁾			Estimated Future Payouts Under Equity Incentive Plan Awards			All Other Stock Awards: Number of Shares or Units (#)	All Other Securities Awards: Number of Underlying Options (#)	Exercise or Base Price of Options Awards ⁽⁵⁾ (\$/Sh)	Gross Dividend Vested (\$)
				Thresh- old ⁽³⁾ (\$)	Target (\$)	Maxi- mum (\$)	Thresh- old ⁽⁴⁾ (#)	Target (#)	Maxi- mum (#)				
Jeffrey Graves			Cash	95,550	637,000	1,274,000	—	—	—	—	—	—	—
	12/9/2015	11/17/2015	Options	—	—	—	—	—	—	—	61,455	61.74	72
	12/9/2015	11/17/2015	PRSU	—	—	—	7,592	10,123	12,654	—	—	—	62
Jeffrey Oldenkamp			Cash	25,575	170,500	341,000	—	—	—	—	—	—	—
	12/9/2015	11/16/2015	Options	—	—	—	—	—	—	—	17,207	61.74	20
	12/9/2015	11/16/2015	PRSU	—	—	—	2,126	2,834	3,543	-	—	—	17
William Bachrach			Cash	28,875	192,500	385,000	—	—	—	—	—	—	—
	12/9/2015	11/16/2015	Options	—	—	—	—	—	—	—	14,749	61.74	17

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	12/9/2015	11/16/2015	PRSUs	—	—	—	1,823	2,430	3,038	—	—	—	15
			Cash	20,925	139,500	279,000	—	—	—	—	—	—	—
John	12/9/2015	11/16/2015	Options	—	—	—	—	—	—	—	9,833	61.74	1
Emholz	12/9/2015	11/16/2015	PRSUs	—	—	—	1,215	1,620	2,025	—	—	—	10
David Hore	8/15/2016	4/4/2016	RSUs	-	-	-	—	—	—	5,583	—	—	20
			Cash	17,314	115,426	230,852	—	—	—	—	—	—	—
Catherine	12/9/2015	11/16/2015	Options	—	—	—	—	—	—	—	8,850	61.74	10
Powell	12/9/2015	11/16/2015	PRSUs	—	—	—	1,094	1,458	1,823	—	—	—	90
	11/15/2015	10/1/2015	RSUs	—	—	—	—	—	—	1,205	—	—	75

Except for Mr. Hore, the cash awards were made pursuant to the EVC Plan. Pursuant to the terms of the Hore (1) Employment Agreement, Mr. Hore's cash award was discretionary. The grants of stock options and PRSUs were made pursuant to the 2011 Stock Incentive Plan.

Table of Contents

- (2) The EVC Plan performance goals for fiscal year 2016 are described under “Compensation Discussion and Analysis - Design of EVC Plan and Review of Fiscal year 2016 Performance.”

Threshold amounts can be calculated for each individual performance measure, and in each case are equal to 50% of the target amount payable with respect to that measure. The amounts reported as threshold amounts in the table (3) represent the payout that would have been made if threshold performance were achieved for the performance measure assigned the lowest weight for the respective named executive officer, assuming that threshold performance was not achieved for any other performance measure.

- (4) Threshold amounts represent guaranteed minimum number of PRSUs provided for equity grants under the 2011 Stock Incentive Plan.

- (5) Equal to the closing market value of shares on NASDAQ on the grant date.

The grant date fair value of options is calculated using a multiple option form of the Black-Scholes option valuation model with assumptions for interest rate, expected life, share price volatility and dividend yield. The grant date fair value of RSUs is calculated with reference to the fair market value of the underlying shares (the closing market value of shares on NASDAQ on the grant date). See Note 6 to our Notes to Consolidated Financial Statements for the fiscal year ended October 1, 2016 included in Item 8 of Part II of this Annual Report on Form 10-K.

Table of Contents

Outstanding Equity Awards at 2016 Fiscal Year-End

Name	Option Awards Number of Securities Underlying Unexercised Options ⁽¹⁾		Option Exercise Price (\$)	Option Expiration Date	Stock Awards		Equity Incentive Plan Awards: Number of Unearned Shares, Units or Other Rights That Have Not Vested ⁽³⁾	Equity Incentive Plan Awards: Market or Payout Value of Unearned Shares, Units or Other Rights That Have Not Vested (\$) ⁽²⁾
	Exercisable (#)	Un-Exercisable (#)			Number of Shares or Units of Stock That Have Not Vested (#)	Market Value of Shares or Units of Stock That Have Not Vested (\$) ⁽²⁾		
Jeffrey Graves	28,790	—	39.38	7/2/2017				
	45,494	22,747	64.90	12/4/2020				
	10,952	21,902	66.98	12/3/2021				
	—	61,455	61.74	12/9/2022	3,487	160,507	15,463	711,762
Jeffrey Oldenkamp	2,814	1,407	72.64	2/15/2021				
	2,756	5,511	66.98	12/3/2021				
	—	17,207	61.74	12/9/2022	192	8,838	4,178	192,313
William Bachrach	6,750	—	54.77	4/15/2018				
	8,208	4,104	64.90	12/4/2020				
	2,807	5,613	66.98	12/3/2021				
	—	14,749	61.74	12/9/2022	929	42,762	3,798	174,822
John Emholz	1,684	—	72.29	2/15/2022	—	—	—	—
David Hore	—	—	—	—	5,583	256,985	—	—
Catherine Powell	833	—	51.88	3/15/2017				
	1,500	—	39.38	7/2/2017				
	1,103	1,101	64.90	12/4/2020				

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511	1,020	66.98	12/3/2021				
—	8,850	61.74	12/9/2022				
				1,622	74,661	1,458	67,112

Stock options granted are exercisable in three equal installments each year beginning on the first anniversary of the (1) grant date. Stock options with expiration dates of 2016 to 2018 have a five-year term and those with expiration dates of 2020 to 2021 have a seven-year term.

The market value of unvested restricted stock units equals the closing price of our common stock on the NASDAQ (2) Stock Market at the end of fiscal year 2016 (\$46.03) multiplied by the number of shares or units. The restricted stock units vest in three equal annual installments beginning on the first anniversary of the grant date.

(3) The number of performance restricted stock units reported in this column is based on achieving target payouts for future equity performance.

Table of Contents

Option Exercises and Stock Vested in Fiscal Year 2016

Name	Option Awards		Stock Awards	
	Number of Shares Acquired on Exercise (#)	Value Realized on Exercise (\$)	Number of Shares Acquired on Vesting ⁽¹⁾ (#)	Value Realized on Vesting ⁽²⁾ (\$)
Jeffrey Graves	-	-	4,011	240,112
Jeffrey Oldenkamp	-	-	543	31,303
William Bachrach	-	-	1,469	85,397
John Emholz	-	-	305	15,982
David Hore	-	-	-	-
Catherine Powell	-	-	195	11,673

(1) The number of shares acquired equals the difference between the number of restricted stock units vested and the number of shares of stock withheld by the Company to cover tax obligations. The number of restricted stock units that vested before the withholding was for Dr. Graves 6,042, Mr. Oldenkamp 836, Mr. Bachrach 2,185, Mr. Emholz 497 and Ms. Powell 294. Mr. Hore did not have any restricted stock units vest during fiscal year 2016.

(2) The value realized on the vesting of the restricted stock units is the fair market value of our common stock at the time of vesting.

Non-Qualified Deferred Compensation

Our Executive Deferred Compensation Plan is a non-qualified plan that provides a select group of employees, including all of the named executive officers, with the option to defer up to 90% of base salary or short-term cash incentive. Independent directors are also eligible to participate in the Executive Deferred Compensation Plan and may elect to defer up to 100% of the director's fees we pay.

Participants' deferred compensation accounts earn a monthly rate of return based on an established interest rate. The interest rate is approved by the Compensation and Leadership Development Committee in November of each year for the following calendar year. Historically, the ten-year government treasury note rate as of the first business day of the calendar year has been used. As such, the interest rate for calendar 2016 was 2.24%.

At the time of the deferral election, participants must also select a distribution date and form of distribution. Participants may elect to receive distribution in a single payment, installments or combination thereof. Distribution elections cannot change unless the election is to postpone payment until the fifth anniversary of separation from service or, if later, age 60 and the election must be made at least 12 months before separation from service. In no case can an earlier distribution election be allowed.

Name	Executive Contributions in Last FY (\$) ⁽¹⁾	Registrant Contributions in Last FY (\$)	Aggregate Earnings in Last FY (\$) ⁽²⁾	Aggregate Withdrawals/Balance Distributions at Last FYE (\$)	Aggregate Balance at Last FYE (\$)
William Bachrach	25,351	—	1,528	—	26,879

(1) Contributions were included in the amount reported in the "Salary" column of the Summary Compensation Table.

(2) Earnings are determined on a calendar-year basis; earnings were 2.24% for calendar 2016. This amount was not reported in the Summary Compensation Table because it does not represent above-market or preferential earnings.

Potential Payments Upon Termination or Change in Control

Payments and benefits receivable by the named executive officers upon termination of employment or a change in control of our Company are governed by the arrangements described below.

Table of Contents

Executive Change in Control Severance Plan

We adopted the Executive Change in Control Severance Plan (the “Change in Control Severance Plan”) on September 30, 2013, which became effective January 1, 2014, so that the treatment of all eligible named executive officers would be consistent if such individual’s employment with the Company or an affiliate were terminated without Cause or for Good Reason following a Change in Control, each such capitalized term as defined in the Change in Control Severance Plan. Under the Change in Control Severance Plan, the Company will pay and provide to the eligible participants benefits in a sum equal to 200% of the following: annualized basic cash remuneration in effect during the then current year; average annual Executive Variable Compensation paid for the preceding three years (or the actual number of years of receipt of such bonus if less than three years); and any other form of compensation paid to the participant and included in such individual’s gross income during the 12-month period immediately prior to the date of termination. The cash severance benefit will be paid in a lump sum following termination. The executive will also receive certain life, disability, accident and health insurance coverage for a period of up to 18 months following termination and officers’ liability insurance for not less than six years from the date of a Change in Control. As a condition to the receipt of such benefits, the executive may not render services to any entity offering any competing product for a period of two years following the date of termination unless the change in control was not approved by the Board of Directors. Pursuant to an amendment to the Change in Control Severance Plan, Mr. Hore is not eligible to participate in the plan. The change in control severance benefits available to Mr. Hore under the Hore Employment Agreement, assuming that a termination of employment and/or a change in control occurred on October 1, 2016, are as set forth under the heading “Estimated Payments for Named Executive Officers” below.

Executive Severance Plan

We adopted the Executive Severance Plan on September 30, 2013 (the “Severance Plan”), so that the treatment of all eligible named executive officers would be consistent if such individual’s employment with the Company or an affiliate were terminated without Cause or for Good Reason, each as defined in the Severance Plan. In the event of such termination, the Severance Plan provides that the eligible participant would receive as benefits a sum equal to 100% of his or her annualized basic cash remuneration in effect during the then current year and certain life, accident and health insurance coverage. The cash severance benefit would be paid in equal installments on each payroll pay date during the 12 month period beginning no later than 60 days following the date of termination. As a condition of the receipt of these benefits, the executive may not render services to any entity offering any competing product for a period of one year following the date of termination. In addition, payments to be paid under the Severance Plan can be forfeited, and certain payments already made can be recaptured, if the executive engaged or engages in conduct detrimental to the Company while employed by the Company or violates the Severance Plan’s non-compete provisions. Pursuant to an amendment to the Severance Plan, Mr. Hore is not eligible to participate in the plan. The severance benefits available to Mr. Hore under the Hore Employment Agreement, assuming that a termination of employment and/or a change in control occurred on October 1, 2016, are as set forth under the heading “Estimated Payments for Named Executive Officers” below. Under the Emholz Transition Agreement, on September 6, 2016, 60 days after the completion of the Company’s acquisition of PCB, Mr. Emholz became eligible for severance of \$320,000, payable in 25 biweekly installments of \$12,307.69 and a final installment of \$12,307.75.

Equity Incentives

Our 2011 Stock Incentive Plan provides for acceleration of stock incentives upon a change in control if the awards have not been assumed or substituted by an acquiring entity. Upon a change in control, any stock incentive will immediately vest and be exercisable and any restrictions will lapse. Notwithstanding the foregoing, unless the Compensation and Leadership Development Committee determines otherwise at or prior to the change in control, no stock incentive that is subject to any performance criteria for which the performance period has not expired shall accelerate at the time of a change in control.

Short-Term Cash Incentives

Under the terms of the awards made pursuant to the EVC Plan, if a named executive officer's employment with the Company is terminated for any reason other than death before the end of the fiscal year on which the performance goals are based, the officer will not receive any payout under the EVC Plan. If a named executive officer dies during the fiscal year on which the performance goals are based, a prorated payout based on actual achievement of the performance goals at the end of the fiscal year will be made to the officer's estate. Such a payout will be proportionately reduced based upon the time the officer was employed during the fiscal year.

Table of Contents

Estimated Payments for Named Executive Officers

Assuming that a termination of employment and/or change in control occurred on October 1, 2016, the total compensation payable to the following named executive officers in accordance with the Executive Change in Control Severance and Executive Severance Plans that were in place at that time is as set forth in the table below.

Name	Termination of Employment in Conjunction with a Change in Control				Change in Control (without Termination of Employment)	Termination (without Change in Control)		
	Cash Payment (\$) ⁽¹⁾	Accelerated Vesting (\$) ⁽²⁾	Benefits (\$) ⁽³⁾	Total Value (\$)	Accelerated Vesting (\$) ⁽²⁾	Cash Payment (\$) ⁽⁴⁾	Benefits (\$) ⁽⁵⁾	Total Value (\$)
Jeffrey Graves	1,960,119	872,269	25,965	2,858,353	872,269	650,000	16,596	666,596
Jeffrey Oldenkamp	929,649	201,151	16,397	1,147,197	201,151	345,000	10,217	355,217
William Bachrach	1,132,791	217,584	21,337	1,371,712	217,584	360,000	13,510	373,510
David Hore	1,014,622	256,985	26,440	1,298,047	256,985	500,000	17,187	517,187
Catherine Powell	868,492	141,772	25,965	1,036,229	141,772	300,000	16,596	316,596

Pursuant to the Change in Control Severance Plan, represents two times each named executive officer's respective annual compensation (other than Mr. Hore), consisting of annual base salary; the average of the cash incentive payment made pursuant to the EVC Plan for each of the prior three fiscal years, excluding any payments made with respect to a partial fiscal year; and other non-plan based payments during the previous 12-month period prior to the date of termination. For Mr. Hore, the Hore Employment Agreement provides for severance payments equal to the (1) sum of the following: Mr. Hore's annual base salary for the 24-month period following a change in control; any accrued but unpaid salary for the period through and including the date of termination; the amount of any bonus compensation payable to Mr. Hore accrued as of the date of termination, provided that Mr. Hore has achieved any required performance goals in connection therewith; all accrued and unpaid vacation pay; and any reimbursable expenses (as provided in the Hore Employment Agreement) for the period through and including the date of termination.

Represents the aggregate value of stock options and restricted stock units held by each named executive officer that were not vested as of October 1, 2016 but whose vesting and exercisability would have been accelerated under the terms of the 2011 Stock Incentive Plan (assuming that the awards were not assumed or substituted by an acquiring (2) entity). The value of accelerating each unvested stock option is equal to the difference between the Stock Price and the exercise price of such option. The value of accelerating each unvested restricted stock unit is equal in each case to the Stock Price.

Pursuant to the Change in Control Severance Plan, represents payments made to each named executive officer (other than Mr. Hore) for life, disability, and accident and health insurance benefits for 18 months following (3) termination. For Mr. Hore, the Hore Employment Agreement provides for the payment of such benefits, if any, to which Mr. Hore is entitled under any employee benefit plan of the Company for the period through and including the date of termination.

(4) Pursuant to the Severance Plan, represents each named executive officer's annual base salary.

(5) Pursuant to the Severance Plan, represents payments made for each named executive officer's life, accident and health insurance benefits for 12 months following termination (other than Mr. Hore).

Non-Employee Director Compensation

During fiscal year 2016, the Board reviewed the market competitive pay of our compensation peer companies, as prepared by Willis Towers Watson. Based on the information presented, the Board determined that cash and equity compensation for fiscal year 2017 will be adjusted to align the fees and restricted stock units that our non-employee directors receive with market as compared to our peer companies.

Table of Contents

The table below reflects the cash compensation for annual service during fiscal year 2016 to our non-employee directors.

Role	Fiscal Year 2016 Annual Cash Retainer
Chairman of the Board	\$110,000
All other non-employee directors	\$45,000
Audit Committee	
Chair	\$19,000
All other committee members	\$9,000
Compensation and Leadership Development Committee	
Chair	\$12,500
All other committee members	\$5,000
Governance and Nominating Committee	
Chair	\$11,000
All other committee members	\$5,000

Upon election or re-election to the Board at each of our annual meetings of shareholders, the directors receive an annual grant of restricted stock units under our 2011 Stock Incentive Plan with the number of shares equal to the amounts set forth in the table below.

Name	Fiscal Year 2016 Award Amount	Calculation
David Anderson (Chairman of the Board)	\$134,000	
David Johnson		
Randy Martinez		
Barb Samardzich		FMV ÷ Grant Date Stock Price rounded down to the next whole number
Michael Schrock	\$95,000	
Gail Steinel		
Kenneth Yu		

If a non-employee director is appointed to the Board prior to the annual meeting of shareholders, the non-employee director may receive a pro-rated restricted stock unit award depending upon, among other factors, the length of time until the next annual meeting of shareholders. If a non-employee director resigns, retires or otherwise terminates his or her service as a director, a pro-rata portion of any restricted stock units held by such director shall vest prior to the date that the restrictions would otherwise vest.

Non-employee directors are also reimbursed for travel expenses to Board meetings.

Non-employee directors are also eligible to participate in the Executive Deferred Compensation Plan and may elect to defer up to 100% of the director's fees we pay in cash and to defer the settlement of up to 100% of the restricted stock unit awards that they are eligible to receive. At the time of the deferral election, participants must select a distribution date and form of distribution. The plan provides for the crediting of dividend equivalents on such deferred settlement restricted stock units and for the crediting of interest on cash amounts (deferred director fees and dividend equivalents amounts) that are credited to a participant's deferred account. The interest rate utilized is approved by the Compensation and Leadership Development Committee in November of each year for the following calendar year. Historically, the ten-year government treasury note rate as of the first business day of the calendar year has been used.

The interest rate for calendar 2016 was 2.24%. For fiscal year 2016, Mr. Johnson elected to defer 100% of his director's fees and settlement of 100% of his restricted stock unit grant and associated dividend equivalents paid on that grant and Mr. Anderson and Ms. Steinel elected to defer settlement of 100% of her restricted stock unit grant and associated dividend equivalents paid on that grant. Earnings on the deferred compensation accounts (dividend equivalents and interest credits) do not represent above-market or preferential earnings.

Table of Contents

The table below shows cash compensation earned by non-employee directors for fiscal year 2016 and either paid in cash or deferred at the election of the director as described above. The table also shows the dollar amounts recognized by us for financial statement reporting purposes during fiscal year 2016 for restricted stock unit awards granted for service during fiscal year 2016.

Director Compensation for Fiscal Year 2016

Name	Fees Earned or Paid in Cash (\$) ⁽¹⁾	Stock Awards (\$) ⁽²⁾⁽³⁾	All Other Compensation (\$) ⁽⁴⁾	Total (\$)
David Anderson	119,000	134,006	4,634	257,640
David Johnson	69,833	95,004	4,874	169,711
Emily Liggett ⁽⁵⁾	12,500	—	403	12,903
Randy Martinez	59,417	95,004	2,078	156,499
Barb Samardzich	50,000	95,004	2,078	147,082
Michael Schrock	63,125	95,004	2,078	160,207
Gail Steinel	65,917	95,004	4,080	165,001
Kenneth Yu	50,000	95,004	2,078	147,082

(1) Includes annual retainer and committee meeting fees paid in cash.

Amounts represent aggregate grant date fair value during fiscal year 2016 under FASB ASC Topic 718, based on the valuation and utilizing the assumptions discussed in Note 6 to our Notes to Consolidated Financial Statements for the fiscal year ended October 1, 2016 included in Item 8 of Part II of this Annual Report on Form 10-K. On the date of our annual meeting of shareholders held in February 2016, Mr. Anderson was awarded 2,625 restricted stock units and each of Mr. Johnson, Mr. Martinez, Ms. Samardzich, Mr. Schrock, Ms. Steinel and Mr. Yu were awarded 1,861 restricted stock units with a grant date fair value of \$51.05 per share.

As of October 1, 2016, the directors held the following number of restricted stock units: Mr. Anderson - 2,625; Mr. Johnson - 1,861; Mr. Martinez - 1,861; Ms. Samardzich - 1,861; Mr. Schrock - 1,861; Ms. Steinel - 1,861; and Mr. Yu - 1,861.

(4) Reflects cash dividends paid on unvested restricted stock units and awards in fiscal year 2016.

(5) Ms. Liggett served during a portion of fiscal year 2016 and did not stand for re-election at last year's annual meeting of shareholders.

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

All dollar and share amounts are in actual dollars and shares, respectively (unless otherwise noted).

Equity Compensation Plans

The following table sets forth information regarding our equity compensation plans as of October 1, 2016.

(shares in thousands)	Securities Authorized for Issuance Under Equity Compensation Plans	Number of shares outstanding of options, warrants and Stock Rights ⁽²⁾	Weighted-average exercise price of shares of Common Stock remaining
Plan category			

	to be issued upon exercise of outstanding options, warrants and rights ⁽¹⁾		available for future issuance under equity compensation plans ⁽³⁾
Equity compensation plans approved by shareholders	785	\$ 60.35	2,073
Equity compensation plans not approved by shareholders:	—	—	—
Total	785	\$ 60.35	2,073

78

Table of Contents

- (1) Reflects securities to be issued upon the exercise of vested stock options and the vesting of restricted stock units under our 2011 Stock Incentive Plan.

The weighted-average exercise price set forth in this column is calculated excluding outstanding restricted stock (2) and restricted stock unit awards, since recipients are not required to pay an exercise price to receive the shares subject to these awards.

- (3) Includes securities available for future issuance under the 2011 Stock Incentive Plan other than those listed in the first column and approximately 650 shares available for issuance under the 2012 Employee Stock Purchase Plan.

Under our 2012 Employee Stock Purchase Plan, there is a two-year mandatory holding period for stock acquired upon exercise of options granted thereunder. In contrast, there is no mandatory holding period for stock acquired upon exercise of options granted under our 2011 Stock Incentive Plan. However, the federal income tax consequences to an employee for immediate disposition of stock acquired upon exercise of incentive stock options may make it more advantageous to the employee to hold such shares for at least one year from the date of exercise and two years from the date of grant. In addition, our executive officers and directors are subject to stock ownership guidelines that may encourage our executive officers and directors to hold shares acquired upon exercise of options. See "Compensation Discussion and Analysis - Compensation Policies - Stock Ownership Guidelines" included in Part III, Item 11 of this Annual Report on Form 10-K for more information.

Security Ownership of Principal Shareholders and Management

The following table sets forth, as of the close of business on April 6, 2017, the number and percentage of outstanding shares of our Common Stock beneficially owned by each person who is known to us to beneficially own more than five percent of our Common Stock.

Name and Address of Beneficial Owner	Number of Shares	Note	Percent
BlackRock, Inc. 55 East 52 nd St. New York, NY 10055	2,045,739	(1)	12.2%
Ariel Investments, LLC 200 E. Randolph Drive, Suite 2900 Chicago, IL 60601	1,791,564	(2)	10.7%
The Vanguard Group, Inc. 100 Vanguard Blvd. Malvern, PA 19355	1,442,477	(3)	8.6%
Fuller & Thaler Asset Management, Inc. 411 Borel Avenue, Suite 300 San Mateo, CA 94402	1,318,690	(4)	7.9%
Barrow, Hanley, Mewhinney & Strauss, LLC 2200 Ross Avenue, 31 st Floor Dallas, TX 75201	1,242,619	(5)	7.4%
Clearbridge Investments, LLC 620 8 th Avenue New York, NY 10018	1,087,385	(6)	6.5%

According to the Schedule 13G/A filed on January 12, 2017 with the SEC. Includes 2,010,715 shares over which (1) BlackRock, Inc. has sole voting power and 2,045,739 shares over which BlackRock, Inc. has sole dispositive power.

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According to the Schedule 13G/A filed on February 14, 2017 with the SEC. Includes 1,624,231 shares over which
(2) Ariel Investments, LLC has sole voting power and 1,791,564 shares over which Ariel Investments, LLC has sole
dispositive power.

According to the Schedule 13G/A filed on February 10, 2017 with the SEC. Includes 31,711 shares over which
(3) The Vanguard Group, Inc. has sole voting power, 2,526 shares over which The Vanguard Group, Inc. has shared
voting power, 1,409,014 shares over which The Vanguard Group, Inc. has sole dispositive power and 33,463
shares over which The Vanguard Group, Inc. has shared dispositive power.

Table of Contents

According to the Schedule 13G/A filed on February 23, 2017 with the SEC. Includes 1,293,070 shares over which (4) Fuller & Thaler Asset Management, Inc. has sole voting power and 1,318,690 shares over which Fuller & Thaler Asset Management, Inc. has sole dispositive power.

According to the Schedule 13G filed on February 10, 2017 with the SEC. Includes 720,119 shares over which (5) Barrow, Hanley, Mewhinney & Strauss, LLC has sole voting power, 522,500 shares over which Barrow, Hanley, Mewhinney & Strauss, LLC has shared voting power, and 1,242,619 shares over which Barrow, Hanley, Mewhinney & Strauss, LLC has sole dispositive power.

According to the Schedule 13G filed on February 14, 2017 with the SEC. Includes 880,617 shares over which (6) Clearbridge Investments, LLC has sole voting power and 1,087,385 shares over which Clearbridge Investments, LLC has sole dispositive power.

The following table sets forth information regarding the beneficial ownership of shares of the Company's common stock as of April 6, 2017 by:

Each director, director-nominee and "named executive officer"; and

all directors and executive officers of the Company as a group.

Name	Number of Shares of Common Stock	Options Exercisable within 60 days of April 6, 2017	RSUs vesting within 60 days of April 6, 2017	Total	Percent of Class
David J. Anderson	15,242	—	2,625 ⁽¹⁾	17,867	*
David D. Johnson	13,484	—	1,861 ⁽¹⁾	15,345	*
Randy J. Martinez	2,628	—	1,861 ⁽¹⁾	4,489	*
Barb J. Samardzich	27,444	—	1,861 ⁽¹⁾	29,305	*
Michael V. Schrock	2,628	—	1,861 ⁽¹⁾	4,489	*
Gail P. Steinel	10,732	—	1,861 ⁽¹⁾	12,593	*
Maximiliane C. Straub	—	—	—	—	*
Chun Hung (Kenneth) Yu	9,484	—	1,861 ⁽¹⁾	11,345	*
Jeffrey A. Graves	23,150	139,419	—	162,569	*
Jeffrey P. Oldenkamp ⁽²⁾	1,195	15,469	—	16,664	*
William E. Bachrach ⁽³⁾	4,458	22,843	—	27,301	*
David T. Hore	—	—	—	—	*
William C. Becker	—	—	—	—	*
Steven B. Harrison	—	—	—	—	*
Catherine S. Powell ⁽²⁾	888	7,675	—	8,563	*
John V. Emholz ⁽⁴⁾	305	—	—	305	*
All Directors and Executive Officers as a group (14 persons)	111,638	185,406	13,791	310,835	1.9 %

* Represents less than one percent.

(1) The RSUs vest on the date of the 2017 Annual Meeting of Shareholders.

(2) On the fifth business day after the filing of this Annual Report on Form 10-K, the Company will issue RSUs to certain officers of the Company who are employed by the Company at the time of issuance, 50% of which will vest on the date of grant and the remainder will vest on the first anniversary of the date of grant. The number of RSUs granted will be determined by dividing the Fair Market Value on the date of grant by the Grant Date Stock Price.

The Fair Market Value of the grants are as follows: for Mr. Oldenkamp, the Fair Market Value is \$90,000; and for Ms. Powell, the Fair Market Value is \$45,000.

(3) Dr. Bachrach retired from the Company on January 13, 2017.

Table of Contents

- (4) Effective as of September 6, 2016, Mr. Emholz is no longer an officer of the Company. As a result, the number of shares beneficially owned by Mr. Emholz is current as of his Form 4 filing on February 17, 2016.

ITEM 13. CERTAIN RELATIONSHIPS AND RELATED TRANSACTIONS AND DIRECTOR INDEPENDENCE

All dollar amounts are in actual dollars (unless otherwise noted).

Related Party Transactions

The Audit Committee is responsible for the review and approval of all related party transactions between the Company and any of our executive officers, directors or director nominees, or any immediate family member of any such person. Pursuant to a related party transactions approval procedure adopted by the Audit Committee, all related party transactions that involve amounts in excess of \$120,000 and in which a related party has or will have a direct or indirect material interest, must be approved in advance by the Audit Committee. If the proposed transaction involves a member of the Audit Committee, such member will not participate in the deliberations or vote on the proposed transaction. Related party transactions may be approved if the Audit Committee in good faith determines them to be (i) fair and reasonable to us, (ii) on terms no less favorable than could be obtained by us if the transaction did not involve a related party and (iii) in our best interests.

There were no related party transactions during fiscal year 2016.

Director Independence

Independence determinations concerning the Board are made by the Governance and Nominating Committee and, with regard to related party transactions, by the Audit Committee. The Governance and Nominating Committee of the Board has determined that Messrs. Anderson, Johnson, Martinez, Schrock and Yu and Ms. Stein and Samardzich are independent, as defined by the applicable rules for companies listed on the NASDAQ Stock Market. The Governance and Nominating Committee of the Board has determined that Ms. Straub is not independent as defined by the applicable rules for companies listed on the NASDAQ Stock Market because her sibling is a partner of KPMG Germany, an affiliate of our independent registered public accounting firm. Dr. Graves is not independent due to his service as Chief Executive Officer of the Company. In making the independence determination with respect to related party transactions during fiscal year 2016, the Audit Committee considered with regard to: Ms. Samardzich that the Company sold approximately \$22.7 million in vehicle testing goods and services to Ford Motor Company; Mr. Anderson that the Company sold less than \$200,000 in goods and services to Modine Manufacturing Company; and Mr. Johnson that the Company sold less than \$10,000 in goods and services to Molex Incorporated. The Audit Committee determined that the aggregate dollar amount of the transactions are below the threshold for the NASDAQ Stock Market independence rules and/or that the transactions do not present a real, potential or perceived conflict between the Company's interests and the direct or indirect interests of Ms. Samardzich, Mr. Anderson and Mr. Johnson as applicable.

ITEM 14. PRINCIPAL ACCOUNTANT FEES AND SERVICES

KPMG LLP ("KPMG"), an independent registered public accounting firm, has been our independent registered public accounting firm since May 31, 2002.

Fees and Services

The following table presents aggregate fees for professional services rendered by KPMG in fiscal years 2016 and 2015 for the audit of our annual financial statements and for other services.

	Fiscal Year	
(in thousands)	2016	2015
Audit Fees ⁽¹⁾	\$4,253	\$1,779
Audit-Related Fees ⁽²⁾	1,830	16
Tax Fees ⁽³⁾	177	97
All Other Fees ⁽⁴⁾	—	—
Total fees	\$6,260	\$1,892

81

Table of Contents

- Includes annual audit of consolidated financial statements, certain statutory audits, Sarbanes-Oxley Section 404
- (1) attestation services, comfort letter fees in connection with the June 2016 public offering and other filings with the SEC.
 - (2) Audit-related fees consist of fees for audits of our employee benefit plans and fees for due diligence and a re-audit related to the acquisition of PCB.
 - (3) Tax fees consist of fees for tax compliance and tax consultation services.
 - (4) There were no other fees in fiscal year 2016 or 2015.

The amounts in the table include out-of-pocket expenses incurred by KPMG. The Audit Committee pre-approved all non-audit services described in the table. The Audit Committee has determined that the provision of the services identified in the table is compatible with maintaining the independence of KPMG.

Pre-Approval Policy

The Audit Committee's current practice on pre-approval of services performed by the independent registered public accounting firm is to require pre-approval of all audit services and permissible non-audit services. The Audit Committee reviews each non-audit service to be provided and assesses the impact of the service on the firm's independence. In addition, the Audit Committee has delegated authority to grant certain pre-approvals to the Audit Committee Chair. Pre-approvals granted by the Audit Committee Chair are reported to the full Audit Committee at its next regularly scheduled meeting.

PART IV

ITEM 15. EXHIBITS AND FINANCIAL STATEMENT SCHEDULES

- (a) The following documents are filed as part of this report:
- (1) Consolidated Financial Statements
 - Report of Independent Registered Public Accounting Firm
 - Consolidated Balance Sheets – October 1, 2016 and October 3, 2015
 - Consolidated Statements of Income for the Fiscal Years Ended October 1, 2016, October 3, 2015 and September 27, 2014
 - Consolidated Statements of Comprehensive Income for the Fiscal Years Ended October 1, 2016, October 3, 2015 and September 27, 2014
 - Consolidated Statements of Shareholders' Equity for the Fiscal Years Ended October 1, 2016, October 3, 2015 and September 27, 2014
 - Consolidated Statements of Cash Flows for the Fiscal Years Ended October 1, 2016, October 3, 2015 and September 27, 2014
 - Notes to Consolidated Financial Statements
 - (2) Financial Statement Schedules
 - See accompanying Index to Financial Statements on page F-1
 - All other schedules

Table of Contents

(3)Exhibits

Exhibit

NumberDescription

- Agreement and Plan of Merger, dated April 5, 2016, by and among the Company, Nickel Merger Sub Inc., PCB Group, Inc., and David T. Hore, John A. Lally and David M. Lally as the Shareholder Representative Group
- 2.1 thereto (excluding schedules and exhibits, which the registrant agrees to furnish supplementally to the Securities and Exchange Commission upon request), incorporated by reference to Exhibit 2.1 of the Company's Current Report on Form 8-K filed April 6, 2016.
- 3.1 Restated and Amended Articles of Incorporation, incorporated by reference to Exhibit 3.a of the Company's Form 10-K for the fiscal year ended September 29, 2012.
- 3.2 Amended and Restated Bylaws, incorporated by reference to Exhibit 3.b of the Company's Current Report on Form 8-K filed November 28, 2011.
- 4.1 Indenture, dated as of June 15, 2016, by and between the Company and U.S. Bank National Association, as trustee, incorporated by reference to Exhibit 4.1 to the Company's Current Report on Form 8-K filed June 15, 2016.
- 4.2 First Supplemental Indenture, dated as of June 15, 2016, by and between the Company and U.S. Bank National Association, as trustee, incorporated by reference to Exhibit 4.2 to the Company's Current Report on Form 8-K filed June 15, 2016.
- 4.3 Purchase Contract Agreement, dated as of June 15, 2016, by and among the Company, U.S. Bank National Association, as purchase contract agent and as attorney-in-fact for the holders of the purchase contracts from time to time, and U.S. Bank National Association, as trustee under the Indenture, incorporated by reference to Exhibit 4.3 to the Company's Current Report on Form 8-K filed June 15, 2016.
- 4.4 Form of Tangible Equity Unit (included in Exhibit 4.3 above).
- 4.5 Form of Purchase Contract (included in Exhibit 4.3 above).
- 4.6 Form of Amortizing Note (included in Exhibit 4.2 above).
- 4.7 Form of Common Stock Certificate, incorporated by reference to Exhibit 4.1 to the Company's Registration Statement on Form S-3 filed June 7, 2016.
- 4.8 Form of Senior Indenture, incorporated by reference to Exhibit 4.2 to the Company's Registration Statement on Form S-3 filed June 7, 2016.
- 4.9 Form of Subordinated Indenture, incorporated by reference to Exhibit 4.3 to the Company's Registration Statement on Form S-3 filed June 7, 2016.
- 10.1 Executive Variable Compensation Plan, incorporated by reference to Appendix A of the Company's Proxy Statement filed December 30, 2014.*
- 10.2 Amended and Restated 2012 Employee Stock Purchase Plan (filed herewith).*

10.3 Restated Executive Deferred Compensation Plan (2005), incorporated by reference to Exhibit 10.3 of the Company's Current Report on Form 8-K filed October 28, 2008.*

83

Table of Contents

- MTS Systems Corporation 2011 Stock Incentive Plan, conformed copy including all amendments through February 9, 2016, incorporated by reference to Annex B of the Company's Definitive Proxy Statement on Schedule 14A filed December 30, 2015.*
- 10.4
- Form of Notice of Grant and Terms and Conditions of Employee Options under 2011 Stock Incentive Plan, incorporated by reference to Exhibit 99.1 of the Company's Registration Statement on Form S-8 filed February 9, 2011.*
- 10.5
- Form of Notice of Grant and Terms and Conditions of Employee Restricted Stock Units under 2011 Stock Incentive Plan, incorporated by reference to Exhibit 99.2 of the Company's Registration Statement on Form S-8 filed February 9, 2011.*
- 10.6
- Form of Notice of Grant and Terms and Conditions of Employee Restricted Stock under 2011 Stock Incentive Plan, incorporated by reference to Exhibit 99.3 of the Company's Registration Statement on Form S-8 filed February 9, 2011.*
- 10.7
- Form of Notice of Grant and Terms and Conditions of Restricted Stock for Directors under 2011 Stock Incentive Plan, incorporated by reference to Exhibit 99.4 of the Company's Registration Statement on Form S-8 filed February 9, 2011.*
- 10.8
- Form of Notice of Grant of Restricted Stock and Restricted Stock Agreement – Director under the 2011 Stock Incentive Plan, incorporated by reference to Exhibit 10.1 of the Company's Form 10-Q for the fiscal quarter ended December 28, 2013.*
- 10.9
- Form of Notice of Grant of Restricted Stock Units and Restricted Stock Agreement – Non-Employee Director under the 2011 Stock Incentive Plan, incorporated by reference to Exhibit 10.2 of the Company's Form 10-Q for the fiscal quarter ended December 28, 2013.*
- 10.10
- Uniform Terms and Conditions Applicable to Non-Employee Director Restricted Stock Unit Grants under the 2011 Stock Incentive Plan, incorporated by reference to Exhibit 10.3 of the Company's Form 10-Q for the fiscal quarter ended December 28, 2013.*
- 10.11
- Form of Notice of Grant of Restricted Stock Units and Restricted Stock Unit Agreement – Employee under the 2011 Stock Incentive Plan, incorporated by reference to Exhibit 10.4 of the Company's Form 10-Q for the fiscal quarter ended December 28, 2013.*
- 10.12
- Uniform Terms and Conditions Applicable to Employee Restricted Stock Unit Grants under the 2011 Stock Incentive Plan, incorporated by reference to Exhibit 10.5 of the Company's Form 10-Q for the fiscal quarter ended December 28, 2013.*
- 10.13
- Form of Notice of Grant of Non-Qualified Stock Options and Option Agreement – Employee under the 2011 Stock Incentive Plan, incorporated by reference to Exhibit 10.6 of the Company's Form 10-Q for the fiscal quarter ended December 28, 2013.*
- 10.14
- Uniform Terms and Conditions Applicable to Employee Option Grants under the 2011 Stock Incentive Plan, incorporated by reference to Exhibit 10.7 of the Company's Form 10-Q for the fiscal quarter ended December 28, 2013.*
- 10.15
- 10.16

Uniform Terms and Conditions Applicable to Employee Performance Restricted Stock Unit Agreements under the 2011 Stock Incentive Plan, incorporated by reference to Exhibit 10.16 of the Company's Form 10-K for the fiscal year ended October 3, 2015.*

Form of Notice of Grant Performance Restricted Stock Units and Performance Restricted Stock Unit
10.17 Agreement - Employee under the 2011 Stock Incentive Plan, incorporated by reference to Exhibit 10.17 of the Company's Form 10-K for the fiscal year ended October 3, 2015.*

Table of Contents

- 10.18 Letter Agreement, dated as of March 31, 2012, by and between the Company and Jeffrey A. Graves, incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K filed April 9, 2012.*
- 10.19 Consulting Agreement, dated as of January 13, 2017, by and between the Company and William E. Bachrach, incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K filed January 13, 2017.*
- 10.20 Transition Bonus Agreement, dated as of July 6, 2016, by and between the Company and John V. Emholz, incorporated by reference to Exhibit 10.3 to the Company's Current Report on Form 8-K filed July 7, 2016.*
- 10.21 Employment Agreement, dated as of April 1, 2016, by and between PCB Group, Inc. and David T. Hore, incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed July 7, 2016.*
- 10.22 First Amendment to Employment Agreement, dated as of November 8, 2016, by and between PCB Group, Inc. and David T. Hore (filed herewith).*
- 10.23 Letter Agreement, dated August 24, 2016, by and between the Company and William C. Becker, incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K filed January 5, 2017.*
- 10.24 Letter Agreement, dated December 30, 2016, by and between the Company and Steven B. Harrison, incorporated by reference to Exhibit 10.2 of the Company's Current Report on Form 8-K filed January 5, 2017.*
- 10.25 Form of Indemnification Agreement between the Company and each of its directors and executive officers, incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K filed September 1, 2006.*
- 10.26 Amended and Restated Executive Severance Plan (filed herewith).*
- 10.27 Amended and Restated Executive Change in Control Severance Plan (filed herewith).*
- 10.28 Credit Agreement, dated as of July 5, 2016, among the Company; the foreign subsidiaries of the Company party thereto, the lenders party thereto and JPMorgan Chase Bank N.A., as administrative agent, incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K filed July 7, 2016.
- 10.29 Amendment No. 1 to Credit Agreement, dated as of July 29, 2016, by and among the Company, JPMorgan Chase Bank, N.A., as Administrative Agent and Swingline Lender, JPMorgan Chase Bank, N.A. and U.S. Bank National Association, as Issuing Banks, the Revolving Lenders party thereto and Bank of America, N.A., as an Additional Lender, incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed August 1, 2016.
- 10.30 Form of Consent Memorandum, effective as of January 24, 2017, executed by the lenders party thereto and JPMorgan Chase Bank, N.A. as administrative agent, and acknowledged and agreed to by the Company, incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K filed January 24, 2017.
- 10.31 Commitment Letter, dated April 5, 2016, by and between the Company and JPMorgan Chase Bank, N.A., incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K filed April 11, 2016.

Table of Contents

10.32	Amended and Restated Commitment Letter, dated May 10, 2016, by and among the Company, JPMorgan Chase Bank, N.A., Wells Fargo Bank, N.A., WF Investment Holdings, LLC, Wells Fargo Securities, LLC, U.S. Bank National Association, HSBC Bank USA, N.A. and HSBC Securities (USA) Inc., incorporated by reference to Exhibit 10.1 of the Company's Current Report on Form 8-K filed May 11, 2016.
10.33	Capped Call Transaction Confirmation, dated as of June 9, 2016, by and between the Company and JPMorgan Chase Bank, National Association, incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed June 15, 2016.
10.34	Capped Call Transaction Confirmation, dated as of June 9, 2016, by and between the Company and Wells Fargo Bank, National Association, incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed June 15, 2016.
10.35	Additional Capped Call Transaction Confirmation, dated as of June 16, 2016, by and between the Company and JPMorgan Chase Bank, National Association, incorporated by reference to Exhibit 10.1 to the Company's Current Report on Form 8-K filed June 21, 2016.
10.36	Additional Capped Call Transaction Confirmation, dated as of June 16, 2016, by and between the Company and Wells Fargo Bank, National Association, incorporated by reference to Exhibit 10.2 to the Company's Current Report on Form 8-K filed June 21, 2016.
12.1	Computation of ratio of earnings to fixed charges (filed herewith).
21.1	Subsidiaries of the Registrant (filed herewith).
23.1	Consent of Independent Registered Public Accounting Firm (filed herewith).
31.1	Certification of the Chief Executive Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith).
31.2	Certification of the Chief Financial Officer Pursuant to Section 302 of the Sarbanes-Oxley Act of 2002 (filed herewith).
32.1	Certification of the Chief Executive Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (filed herewith).
32.2	Certification of the Chief Financial Officer Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 (filed herewith).
101.INS**	XBRL Instance Document (filed herewith).
101.SCH**	XBRL Taxonomy Extension Schema Document (filed herewith).
101.CAL**	XBRL Taxonomy Extension Calculation Linkbase Document (filed herewith).
101.DEF**	XBRL Taxonomy Extension Definition Linkbase Document (filed herewith).
101.LAB**	XBRL Taxonomy Extension Label Linkbase Document (filed herewith).

101.PRE** XBRL Taxonomy Extension Presentation Linkbase Document (filed herewith).

86

Table of Contents

- * Denotes our contract or executive compensation plan or arrangement required to be filed as an exhibit pursuant to Item 15 of Form 10-K.

- ** XBRL (Extensible Business Reporting Language) information is furnished and not filed or a part of a registration statement or prospectus for purposes of Sections 11 or 12 of the Securities Act of 1933, as amended, is deemed not filed for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, and otherwise is not subject to liability under these sections.

ITEM 16. FORM 10-K SUMMARY

Not applicable.

Table of Contents

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.

MTS SYSTEMS
CORPORATION

Date: April 10, 2017 /s/ JEFFREY A.
GRAVES
Jeffrey A. Graves
President and
Chief Executive
Officer
(Principal
Executive
Officer)

Date: April 10, 2017 /s/ JEFFREY P.
OLDENKAMP
Jeffrey P.
Oldenkamp
Senior Vice
President and
Chief Financial
Officer
(Principal
Financial Officer
and Principal
Accounting
Officer)

Table of Contents

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.

/s/ JEFFREY A. GRAVES Jeffrey A. Graves	President and Chief Executive Officer and Director (Principal Executive Officer)	April 10, 2017
/s/ JEFFREY P. OLDENKAMP Jeffrey P. Oldenkamp	Senior Vice President and Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	April 10, 2017
/s/ DAVID J. ANDERSON David J. Anderson	Non-Executive Chair of the Board	April 10, 2017
/s/ DAVID D. JOHNSON David D. Johnson	Director	April 10, 2017
/s/ RANDY J. MARTINEZ Randy J. Martinez	Director	April 10, 2017
/s/ BARB J. SAMARDZICH Barb J. Samardzich	Director	April 10, 2017
/s/ MICHAEL V. SCHROCK Michael V. Schrock	Director	April 10, 2017
/s/ GAIL P. STEINEL Gail P. Steinel	Director	April 10, 2017
/s/ MAXIMILIANE C. STRAUB Maximiliane C. Straub	Director	April 10, 2017
/s/ CHUN HUNG (KENNETH) YU Chun Hung (Kenneth) Yu	Director	April 10, 2017

Table of Contents

MTS Systems Corporation and Subsidiaries

Index to Consolidated Financial Statements

	Page
<u>Report of Independent Registered Public Accounting Firm</u>	F-2
<u>Consolidated Balance Sheets – October 1, 2016 and October 3, 2015</u>	F-3
<u>Consolidated Statements of Income for the Fiscal Years Ended October 1, 2016, October 3, 2015 and September 27, 2014</u>	F-4
<u>Consolidated Statements of Comprehensive Income for the Fiscal Years Ended October 1, 2016, October 3, 2015 and September 27, 2014</u>	F-5
<u>Consolidated Statements of Shareholders' Equity for the Fiscal Years Ended October 1, 2016, October 3, 2015 and September 27, 2014</u>	F-6
<u>Consolidated Statements of Cash Flows for the Fiscal Years Ended October 1, 2016, October 3, 2015 and September 27, 2014</u>	F-7
<u>Notes to Consolidated Financial Statements</u>	F-8 through F-45
Financial Statement Schedule	
ScheduleDescription	
II <u>Summary of Consolidated Allowances for Doubtful Accounts</u>	F-46

F-1

Table of Contents

Report of Independent Registered Public Accounting Firm

The Board of Directors and Shareholders

MTS Systems Corporation:

We have audited the accompanying consolidated balance sheets of MTS Systems Corporation and subsidiaries as of October 1, 2016 and October 3, 2015, and the related consolidated statements of income, comprehensive income, shareholders' equity, and cash flows for each of the fiscal years in the three year period ended October 1, 2016. In connection with our audits of the consolidated financial statements, we have also audited financial statement Schedule II. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated 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 consolidated financial statements referred to above present fairly, in all material respects, the financial position of MTS Systems Corporation and subsidiaries as of October 1, 2016 and October 3, 2015, and the results of their operations and their cash flows for each of the fiscal years in the three year period ended October 1, 2016, in conformity with U.S. generally accepted accounting principles.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), MTS Systems Corporation's internal control over financial reporting as of October 1, 2016, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO), and our report dated April 10, 2017 expressed an adverse opinion on the effectiveness of the Company's internal control over financial reporting.

Our report dated April 10, 2017, on internal control over financial reporting as of October 1, 2016, contains an explanatory paragraph that states management excluded from its assessment of the effectiveness of internal control over financial reporting as of October 1, 2016, PCB Group, Inc.'s internal control over financial reporting associated with total assets of \$700 million and total revenues of \$44.5 million, included in the consolidated financial statements of MTS Systems Corporation and subsidiaries as of and for the year ended October 1, 2016. Our audit of internal control over financial reporting of MTS Systems Corporation also excluded an evaluation of the internal control over financial reporting of PCB Group, Inc.

/s/ KPMG LLP

Minneapolis, Minnesota

April 10, 2017

F-2

Table of Contents

Consolidated Balance Sheets

(in thousands, except per share data)

	October 1, 2016	October 3, 2015
Assets		
Current assets		
Cash and cash equivalents	\$84,780	\$51,768
Accounts receivable, net of allowance for doubtful accounts of \$3,923 and \$3,411, respectively	133,500	89,829
Unbilled accounts receivable	76,626	77,519
Inventories, net	132,566	86,303
Prepaid expenses and other current assets	12,793	8,104
Deferred income taxes	—	14,190
Total current assets	440,265	327,713
Property and equipment, net	100,789	80,454
Goodwill	369,700	27,677
Intangible assets, net	266,789	19,706
Other long-term assets	5,061	2,010
Deferred income taxes	5,416	3,271
Total assets	\$1,188,020	\$460,831
Liabilities and Shareholders' Equity		
Current liabilities		
Short-term borrowings	\$—	\$21,183
Current maturities of long-term debt, net	9,850	—
Accounts payable	46,383	32,994
Accrued payroll and related costs	45,505	27,938
Advance payments from customers	72,728	65,734
Accrued warranty costs	5,718	4,695
Accrued income taxes	3,445	3,273
Deferred income taxes	—	990
Accrued dividends	4,942	—
Other accrued liabilities	27,550	19,845
Total current liabilities	216,121	176,652
Long-term debt, less current maturities, net	455,001	—
Non-current deferred income taxes	86,020	8,154
Non-current accrued income taxes	6,232	5,649
Defined benefit pension plan obligation	13,744	7,784
Other long-term liabilities	5,642	4,450
Total liabilities	782,760	202,689
Shareholders' Equity		
Common stock, \$0.25 par value; 64,000 shares authorized: 16,660 and 14,932 shares issued and outstanding as of October 1, 2016 and October 3, 2015, respectively	4,165	3,733
Additional paid-in capital	154,879	4,275
Retained earnings	256,589	255,711
Accumulated other comprehensive income (loss)	(10,373)	(5,577)
Total shareholders' equity	405,260	258,142
Total liabilities and shareholders' equity	\$1,188,020	\$460,831

The accompanying Notes to Consolidated Financial Statements are an integral part of these consolidated financial statements.

F-3

Table of ContentsConsolidated Statements of Income
(in thousands, except per share data)

For the Fiscal Year Ended	October 1, 2016	October 3, 2015	September 27, 2014
Revenue			
Product	\$562,340	\$484,835	\$ 487,011
Service	87,807	79,099	77,317
Total Revenue	650,147	563,934	564,328
Cost of Sales			
Product	365,401	296,962	296,449
Service	53,342	47,359	44,236
Total Cost of Sales	418,743	344,321	340,685
Gross Profit	231,404	219,613	223,643
Operating Expenses			
Selling and marketing	94,992	82,974	88,136
General and administrative	69,313	51,438	51,407
Research and development	25,336	23,705	23,844
Total Operating Expenses	189,641	158,117	163,387
Income From Operations	41,763	61,496	60,256
Interest income (expense), net	(8,489)	(795)	(692)
Other income (expense), net	238	(1,529)	(1,121)
Income Before Income Taxes	33,512	59,172	58,443
Provision for income taxes	6,018	13,710	16,434
Net Income	\$27,494	\$45,462	\$ 42,009
Earnings Per Share			
Basic			
Earnings per share	\$1.72	\$3.03	\$ 2.76
Weighted average common shares outstanding	16,027	14,984	15,218
Diluted			
Earnings per share	\$1.70	\$3.00	\$ 2.73
Weighted average common shares outstanding	16,179	15,142	15,397
Dividends declared per share	\$1.20	\$1.20	\$ 1.20

The accompanying Notes to Consolidated Financial Statements are an integral part of these consolidated financial statements.

Table of Contents

Consolidated Statements of Comprehensive Income

(in thousands, except per share data)

For the Fiscal Year Ended	October 1, 2016	October 3, 2015	September 27, 2014
Net income	\$ 27,494	\$ 45,462	\$ 42,009
Other comprehensive income (loss), net of tax			
Foreign currency translation gain (loss) adjustments	(332	) (11,215	) (5,099
Derivative instruments			
Unrealized net gain (loss)	(855	) 2,226	1,112
Net (gain) loss reclassified to earnings	214	(2,738	) (691
Defined benefit pension plan			
Unrealized net gain (loss)	(4,213	) (874	) (2,553
Net (gain) loss reclassified to earnings	408	350	324
Currency exchange rate gain (loss)	(18	) 850	394
Other comprehensive income (loss)	(4,796	) (11,401	) (6,513
Comprehensive income	\$ 22,698	\$ 34,061	\$ 35,496

The accompanying Notes to Consolidated Financial Statements are an integral part of these consolidated financial statements.

F-5

Table of Contents

Consolidated Statements of Shareholders' Equity

(in thousands, except per share data)

	Common Stock		Additional		Accumulated	Total
	Shares	Amount	Paid-In	Retained	Other Comprehensive	Shareholders'
	Issued		Capital	Earnings	Income (Loss)	Equity
Balance, September 28, 2013	15,408	\$3,852	\$—	\$240,348	\$ 12,337	\$ 256,537
Total comprehensive income	—	—	—	42,009	(6,513)	35,496
Exercise of stock options	182	46	6,680	—	—	6,726
Stock-based compensation	31	7	6,045	—	—	6,052
Tax benefit from equity compensation	—	—	1,727	—	—	1,727
Issuance for employee stock purchase plan	16	4	860	—	—	864
Common stock purchased and retired	(457)	(114)	(9,200)	(21,699)	—	(31,013)
Dividends, \$1.20 per share	—	—	—	(18,262)	—	(18,262)
Balance, September 27, 2014	15,180	\$3,795	\$6,112	\$242,396	\$ 5,824	\$ 258,127
Total comprehensive income	—	—	—	45,462	(11,401)	34,061
Exercise of stock options	92	23	3,904	—	—	3,927
Stock-based compensation	57	14	7,443	—	—	7,457
Tax benefit from equity compensation	—	—	734	—	—	734
Issuance for employee stock purchase plan	16	4	916	—	—	920
Common stock purchased and retired	(413)	(103)	(14,834)	(14,178)	—	(29,115)
Dividends, \$1.20 per share	—	—	—	(17,969)	—	(17,969)
Balance, October 3, 2015	14,932	\$3,733	\$4,275	\$255,711	\$ (5,577)	\$ 258,142
Total comprehensive income	—	—	—	27,494	(4,796)	22,698
Issuance of common stock, net of issuance costs	1,897	474	73,827	—	—	74,301
Issuance of tangible equity units, net of issuance costs	—	—	84,511	—	—	84,511
Purchase of capped call transaction	—	—	(7,935)	—	—	(7,935)
Exercise of stock options	68	17	2,782	—	—	2,799
Stock-based compensation	47	12	7,144	—	—	7,156
Tax shortfall from equity compensation	—	—	(172)	—	—	(172)
Issuance for employee stock purchase plan	24	6	1,042	—	—	1,048
Common stock purchased and retired	(308)	(77)	(10,595)	(7,742)	—	(18,414)
Dividends, \$1.20 per share	—	—	—	(18,874)	—	(18,874)
Balance, October 1, 2016	16,660	\$4,165	\$154,879	\$256,589	\$ (10,373)	\$ 405,260

The accompanying Notes to Consolidated Financial Statements are an integral part of these consolidated financial statements.

Table of ContentsConsolidated Statements of Cash Flows
(in thousands)

For the Fiscal Year Ended	October 1, 2016	October 3, 2015	September 27, 2014
Cash Flows from Operating Activities			
Net income	\$ 27,494	\$ 45,462	\$ 42,009
Adjustments to reconcile net income to net cash provided by (used in) operating activities			
Stock-based compensation	7,224	7,351	5,761
Excess tax benefits from stock-based compensation	(187)	(771)	(1,723)
Fair value adjustment to acquired inventory and deferred revenue	7,916	—	564
Net periodic pension benefit cost	1,136	986	1,098
Depreciation and amortization	24,077	21,106	19,279
Amortization of debt issuance costs	1,556	162	118
Deferred income taxes	(5,274)	459	(5,912)
Bad debt provision (recovery), net	957	1,210	810
Changes in operating assets and liabilities			
Accounts and unbilled contracts receivable	(22,059)	3,308	(6,245)
Inventories	3,365	(4,105)	(4,623)
Prepaid expenses	(1,086)	(1,673)	780
Accounts payable	5,647	6,772	(2,777)
Accrued payroll and related costs	9,057	(835)	67
Advance payments from customers	5,701	13,065	6,171
Accrued warranty costs	414	445	(406)
Contributions to pension benefit plan	(633)	(605)	(638)
Other assets and liabilities	2,576	8,099	10,336
Net Cash Provided by (Used in) Operating Activities	67,881	100,436	64,669
Cash Flows from Investing Activities			
Purchases of property and equipment	(20,806)	(18,445)	(20,038)
Proceeds from sale of property and equipment	1,514	—	—
Purchases of business, net of acquired cash	(580,920)	(667)	(14,192)
Net Cash Provided by (Used in) Investing Activities	(600,212)	(19,112)	(34,230)
Cash Flows from Financing Activities			
Proceeds from issuance of long-term debt	460,000	—	—
Proceeds from issuance of common stock, net of issuance costs	74,301	—	—
Proceeds from issuance of equity component of tangible equity units, net of issuance costs	84,511	—	—
Payment for capped call transaction	(7,935)	—	—
Proceeds from issuance of debt component of tangible equity units	27,386	—	—
Payment of debt component of tangible equity units	(2,401)	—	—
Payment of debt issuance costs for long-term debt	(19,837)	—	—
Payment of debt issuance costs for debt component of tangible equity units	(971)	—	—
Payment of debt issuance costs for revolving credit facility	(920)	(26)	(450)
Receipts under short-term borrowings	20,000	11,183	30,000
Payments under short-term borrowings	(41,343)	(50,000)	(5,448)
Excess tax benefits from stock-based compensation	187	771	1,723
Cash dividends	(13,932)	(22,445)	(18,330)
Proceeds from exercise of stock options and employee stock purchase plan	3,847	4,847	7,590
Payments to purchase and retire common stock	(18,414)	(29,115)	(31,013)

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Net Cash Provided by (Used in) Financing Activities	564,479	(84,785)	(15,928)
Effect of Exchange Rate Changes on Cash and Cash Equivalents	864	(5,168)	(2,447)
Cash and Cash Equivalents			
Increase (decrease) during the year	33,012	(8,629)	12,064
Balance, beginning of period	51,768	60,397	48,333
Balance, end of period	\$ 84,780	\$ 51,768	\$ 60,397
Supplemental Disclosures of Cash Flows			
Cash paid during the year for			
Interest	\$ 1,225	\$ 816	\$ 594
Income taxes	\$ 10,826	\$ 10,199	\$ 15,628
Non-cash investing activities			
Deferred endowment consideration not yet paid	\$ 1,000	\$ —	\$ —
Net working capital adjustment not yet received	\$ 513	\$ —	\$ —
Non-cash financing activities			
Accrued contingent consideration	\$ —	\$ —	\$ 650
Dividends declared not yet paid	\$ 4,942	\$ —	\$ 4,476
Debt issuance costs not yet paid recorded in accounts payable and other accrued liabilities	\$ 235	\$ —	\$ —

The accompanying Notes to Consolidated Financial Statements are an integral part of these consolidated financial statements.

F-7

Table of Contents

Notes to Consolidated Financial Statements

(Dollars and shares in thousands, unless otherwise noted)

NOTE 1 SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Nature of Operations

MTS Systems Corporation is a leading global supplier of high-performance test systems and sensors. Our testing hardware and software solutions help customers accelerate and improve design, development and manufacturing processes and are used for determining the mechanical behavior of materials, products and structures. Our high performance sensors are used for measuring acceleration, position, vibration, motion, pressure, force and sound.

Fiscal Year

We have a 5-4-4 week, quarterly accounting cycle with our fiscal year ending on the Saturday closest to September 30. Fiscal years 2016, 2015 and 2014 ended October 1, 2016, October 3, 2015 and September 27, 2014, respectively. Fiscal years 2016 and 2014 both included 52 weeks, while fiscal year 2015 included 53 weeks.

Consolidation

The Consolidated Financial Statements include the accounts of MTS Systems Corporation and its wholly owned subsidiaries. Significant intercompany account balances and transactions have been eliminated.

Revenue Recognition

We recognize revenue on a sales arrangement when it is realized or realizable and earned, which occurs when all of the following criteria have been met: (1) Persuasive evidence of an arrangement exists; (2) Delivery and title transfer has occurred or services have been rendered; (3) The sales price is fixed and determinable; (4) Collectability is reasonably assured; and (5) All significant obligations to the customer have been fulfilled.

Orders that are manufactured and delivered in less than six months with routine installations and no special acceptance protocols may contain multiple elements for revenue recognition purposes. We consider each deliverable that provides value to the customer on a standalone basis a separable element. Separable elements in these arrangements may include the design and manufacture of hardware and essential software, installation services, training and/or post contract maintenance and support. We initially allocate consideration to each separable element using the relative selling price method. Selling prices are determined based on either vendor-specific objective evidence (VSOE) (the actual selling prices of similar products and services sold on a standalone basis) or, in the absence of VSOE, our best estimate of the selling price. Factors considered in determining estimated selling prices for applicable elements generally include overall economic conditions, customer demand, costs incurred to provide the deliverable, as well as our historical pricing practices. Under these arrangements, revenue associated with each delivered element is recognized in an amount equal to the lesser of the consideration initially allocated to the delivered element or the amount for which payment is not deemed contingent upon future delivery of other elements in the arrangement. Under arrangements where special acceptance protocols exist, installation services and training are not considered separable. Accordingly, revenue for the entire arrangement is recognized upon the completion of installation, training and fulfillment of any other significant obligations specific to the terms of the arrangement. Arrangements that do not contain any separable elements are typically recognized when the products are shipped and title has transferred to the customer.

Certain contractual arrangements require longer production periods, generally longer than six months (long-term contracts), and may contain non-routine installations and special acceptance protocols. These arrangements often include hardware and essential software, installation services, training and support. Long-term contractual arrangements involving essential software typically include significant production, modification and customization. For long-term arrangements with essential software and all other long-term arrangements with complex installations

and/or unusual acceptance protocols, revenue is recognized using the percentage-of-completion method, based on the cost incurred to-date relative to estimated total cost of the contract. Elements of an arrangement that do not separately fall within the scope of the percentage-of-completion method (e.g. training and post contract software maintenance and support) are recognized as the service is provided in amounts determined based on VSOE, or in the absence of VSOE, our best estimate of the selling price.

Under the terms of our long-term contracts, revenue recognized using the percentage-of-completion method may not, in certain circumstances, be invoiced until completion of contractual milestones, upon shipment of the equipment or upon installation and acceptance by the customer. Unbilled amounts for these contracts appear in the Consolidated Balance Sheets as unbilled accounts receivable.

F-8

Table of Contents

Revenue from the rental of equipment is recognized in the period that the rental is provided. Revenue from the profit on the sale of used rental equipment is recognized when the products are shipped and title has transferred. Rental revenue is included in product revenue in the Consolidated Statements of Income.

Revenue from arrangements for services such as maintenance, repair, consulting and technical support are recognized either as the service is performed or ratably over the defined contractual period for service maintenance contracts. Revenue from post contract software maintenance and support services is recognized ratably over the defined contractual period of the maintenance agreement.

Our sales arrangements typically do not include specific performance-, cancellation-, termination-, or refund-type provisions. In the event a customer cancels a contractual arrangement, we would typically be entitled to receive reimbursement from the customer for actual costs incurred under the arrangement plus a reasonable margin.

Revenue is recorded net of taxes collected from customers that are remitted to governmental authorities with the collected taxes recorded as current liabilities until remitted to the relevant government authority.

Shipping and Handling

Freight revenue billed to customers is reported within revenue on the Consolidated Statements of Income. Expenses incurred for shipping products to customers are reported within cost of sales on the Consolidated Statements of Income.

Research and Development

Research and development (R&D) costs associated with new products are charged to operations as incurred. We have also allocated certain resources to capitalized software development activities. Total internal software development costs capitalized during fiscal years 2016 and 2015 were \$2,761 and \$1,966, respectively.

Foreign Currency

The financial position and results of operations of our foreign subsidiaries are measured using local currency as the functional currency. Assets and liabilities are translated using fiscal period-end exchange rates and monthly statements of income are translated using average exchange rates applicable to each month, with the resulting translation adjustments recorded as a separate component of shareholders' equity. Net gains and losses from foreign currency transactions are recognized in the Consolidated Statements of Income. We recorded net foreign currency transaction losses of \$1,567, \$2,510 and \$1,412 during fiscal years 2016, 2015 and 2014, respectively.

Cash and Cash Equivalents

Cash and cash equivalents represent cash, demand deposits and highly liquid investments with original maturities of three months or less. Cash equivalents are recorded at cost, which approximates fair value. Cash equivalents, both inside and outside the United States, are invested in bank deposits or money market funds and are held in local currency denominations.

Accounts Receivable and Long-Term Contracts

We grant credit to customers, but it generally does not require collateral or other security from domestic customers. When deemed appropriate, receivables from customers located outside the United States are supported by letters of credit from financial institutions. The allowance for doubtful accounts is based on our assessment of the collectability of specific customer accounts and includes consideration of the credit worthiness and financial condition of those specific customers. We record an allowance to reduce receivables to the amount that is reasonably believed to be collectible and consider factors such as the financial condition of the customer and the aging of the receivables. If there is a deterioration of a customer's financial condition, if we become aware of additional information related to the credit worthiness of a customer or if future actual default rates on trade receivables differ from those currently

anticipated, we may have to adjust the allowance for doubtful accounts, which would affect earnings in the period the adjustments were made.

We enter into long-term contracts for customized equipment sold to our customers. Under the terms of such contracts, revenue recognized using the percentage-of-completion method may be invoiced upon completion of contractual milestones, shipment to the customer or installation and customer acceptance. Unbilled amounts relating to these contracts are reflected as unbilled accounts receivable in the accompanying Consolidated Balance Sheets. Amounts unbilled at October 1, 2016 are expected to be invoiced during fiscal year 2017.

F-9

Table of Contents**Inventories**

Inventories consist of material, labor and overhead costs and are stated at the lower of cost or market value, determined under the first-in, first-out accounting method. Certain inventories are measured using the weighted average cost method. Inventories at October 1, 2016 and October 3, 2015 were as follows:

(in thousands)	2016	2015
Components, assemblies and parts	\$87,119	\$61,732
Customer projects in various stages of completion	32,575	24,571
Finished goods	12,872	—
Total inventories	\$132,566	\$86,303

Software Development Costs

We capitalize certain software development costs related to software to be sold, leased or otherwise marketed. Capitalized software development costs include purchased materials and services, salary and benefits of our development and technical support staff and other costs associated with the development of new products and services. Software development costs are expensed as incurred until technological feasibility has been established, at which time future costs incurred are capitalized until the product is available for general release to the public. Based on our product development process, technological feasibility is generally established once product and detailed program designs have been completed, uncertainties related to high-risk development issues have been resolved through coding and testing and we have established that the necessary skills, hardware and software technology are available for production of the product. Once a software product is available for general release to the public, capitalized development costs associated with that product will begin to be amortized to cost of sales over the product's estimated economic life, using the greater of straight-line or a method that results in cost recognition in future periods that is consistent with the anticipated timing of product revenue recognition.

Our capitalized software development costs are subject to an ongoing assessment of recoverability, which is impacted by estimates and assumptions of future revenues and expenses for these software products, as well as other factors such as changes in product technologies. Any portion of unamortized capitalized software development costs that are determined to be in excess of net realizable value will be expensed in the period such a determination is made. We capitalized \$3,637, \$2,834 and \$853 of software development costs during fiscal years 2016, 2015 and 2014, respectively. Amortization expense for software development costs was \$892, \$2,403 and \$2,759 for fiscal years 2016, 2015 and 2014, respectively. See Note 2 for additional information on capitalized software development costs.

Impairment of Long-lived Assets

We review the carrying value of long-lived assets or asset groups, such as property and equipment and intangibles subject to amortization, when events or changes in circumstances such as asset utilization, physical change, legal factors or other matters indicate that the carrying value may not be recoverable. When this review indicates the carrying value of an asset or asset group exceeds the sum of the undiscounted cash flows expected to result from the use and eventual disposition of the asset or asset group, we recognize an asset impairment charge against income from operations. The amount of the impairment loss recorded is the amount by which the carrying value of the impaired asset or asset group exceeds its fair value.

During the fourth quarter of fiscal year 2016, we initiated plans to close our Machida, Japan facility in Sensors. As part of the plant closure, we accelerated \$91 of machinery and equipment depreciation as we do not plan to resell or use the machinery and equipment in other facilities. The additional depreciation expense is recorded within cost of sales on the Consolidated Statements of Income.

Property and Equipment

Property and equipment, including additions, replacements and improvements, are capitalized at cost, while repairs and maintenance are charged to operations as incurred. Depreciation is recorded over the following estimated useful

lives of the asset:

Asset Type	Useful Life
Buildings and improvements	10 to 40 years
Machinery and equipment	3 to 10 years

Building and equipment additions are generally depreciated on a straight-line basis for financial reporting purposes and on an accelerated basis for income tax purposes. See Note 2 for additional information on property and equipment.

F-10

Table of Contents

Goodwill and Intangible Assets

Goodwill represents the excess of cost over the fair value of the identifiable net assets of businesses acquired and allocated to our reporting units at the time of acquisition. Goodwill is tested for impairment annually and when an event occurs or circumstances change that indicate the carrying value of the reporting unit may not be recoverable.

Evaluating goodwill for impairment involves the determination of the fair value of each reporting unit in which goodwill is recorded using a two-step process. A reporting unit is an operating segment or a component of an operating segment for which discrete financial information is available and reviewed by management on a regular basis. For fiscal year 2016, we identified three reporting units, Test, Temposonics (our legacy Sensors business) and PCB.

Prior to completing the two-step process described below, we have the option to perform a qualitative assessment of goodwill for impairment to determine whether it is more likely than not (i.e., a likelihood of more than 50%) that the fair value of a reporting unit is less than its carrying amount, including goodwill and other intangible assets. If we conclude the fair value is more likely than not less than the carrying value, we would perform the two-step process. Otherwise, no further testing would be needed.

If the two-step process is required, the first step of the impairment test is to compare the calculated fair value of each reporting unit to its carrying value, including goodwill. We estimate the fair value of a reporting unit using a discounted cash flow model that requires input of certain estimates and assumptions requiring judgment, including projections of economic conditions and customer demand, revenue and margins, changes in competition, operating costs and new product introductions. If the fair value exceeds the carrying value, no further work is required and no impairment loss is recognized. If the carrying value exceeds the fair value, the goodwill of the reporting unit is potentially impaired and step 2 would need to be performed to measure the impairment loss. In step 2, we would calculate the implied fair value of goodwill by deducting the fair value of all tangible and intangible net assets, including unrecognized intangible assets, of the reporting unit from the fair value of the reporting unit. If the implied fair value of goodwill is less than the carrying value of goodwill, an impairment loss equal to the difference would be recognized in the period identified. The loss recognized cannot exceed the carrying amount of goodwill.

In fiscal year 2016, we performed a qualitative assessment of goodwill for our three reporting units as described above. Based on the assessment, we determined it was not necessary to perform the two-step goodwill impairment test for any of our reporting units. At October 1, 2016, our Test, Temposonics and PCB reporting units had goodwill balances of \$25,022, \$1,436 and \$343,242 respectively.

In fiscal year 2015, we performed a qualitative assessment of goodwill for our Test and Sensors reporting units as described above. Based on the assessment, we determined it was not necessary to perform the two-step goodwill impairment test for any of our reporting units.

While we believe the estimates and assumptions used in determining the fair value of our reporting units are reasonable, significant changes in estimates of future cash flows, such as those caused by unforeseen events or changes in market conditions, could materially impact the fair value of a reporting unit which could result in the recognition of a goodwill impairment charge.

Intangible assets with finite lives are amortized on a straight-line basis over the expected period to be benefited by future cash flows and reviewed for impairment as changes in circumstances occur indicating that the carrying value may not be recoverable. Intangible assets with indefinite lives are not amortized. Rather, they are tested annually, or more frequently when an event occurs or circumstances change, for impairment. Fair values of goodwill and intangible assets are primarily determined using discounted cash flow analysis.

At both October 1, 2016 and October 3, 2015, we determined there was no impairment of our goodwill or intangible assets. See Note 2 for additional information on goodwill and intangible assets.

Other Long-Term Assets

Other assets at October 1, 2016 and October 3, 2015 primarily consisted of cash value of life insurance policies, security deposits paid on leased property and debt issuance costs.

Warranty Obligations

Sales of our products and systems are subject to limited warranty obligations that are included in customer contracts. For sales that include installation services, warranty obligations typically extend for a period of twelve to twenty-four months from the date of either shipment or acceptance based on the contract terms. Product obligations typically extend for a period of twelve to twenty-four months from the date of purchase. Certain products offered in our Sensors segment include a lifetime warranty.

F-11

Table of Contents

Under the terms of these warranties, we are obligated to repair or replace any components or assemblies deemed defective due to workmanship or materials. We reserve the right to reject warranty claims where it is determined that failure is due to normal wear, customer modifications, improper maintenance or misuse. We record general warranty provisions based on an estimated warranty expense percentage applied to current period revenue. The percentage applied reflects our historical warranty claims experience over the preceding twelve-month period. Both the experience percentage and the warranty liability are evaluated on an ongoing basis for adequacy. Warranty provisions are also recognized for certain unanticipated product claims that are individually significant.

Warranty provisions and claims for fiscal years 2016 and 2015 were as follows:

(in thousands)	2016	2015
Beginning balance	\$4,695	\$4,286
Warranty claims	(5,592)	(6,253)
Warranty provisions	5,273	6,124
Adjustments to preexisting warranties	731	575
Acquired warranty obligations	608	—
Currency translation	3	(37)
Ending balance	\$5,718	\$4,695

Derivative Financial Instruments

Our results of operations could be materially impacted by changes in foreign currency exchange rates, as well as interest rates on our floating rate indebtedness. In an effort to manage exposure to these risks, we periodically enter into forward and option currency exchange contracts, interest rate swaps and forward interest rate swaps. Since the market value of these hedging contracts is derived from current market rates, they are classified as derivative financial instruments. We do not use derivatives for speculative or trading purposes. The derivative contracts contain credit risk to the extent that our bank counterparties may be unable to meet the terms of the agreements. The amount of such credit risk is generally limited to the unrealized gains, if any, in such contracts. Such risk is minimized by limiting those counterparties to major financial institutions of high credit quality. For derivative instruments executed under master netting arrangements, we have the contractual right to offset fair value amounts recognized for the right to reclaim cash collateral with obligations to return cash collateral. We do not offset fair value amounts recognized on these derivative instruments. At both October 1, 2016 and October 3, 2015, we did not have any foreign exchange contracts with credit-risk related contingent features. See Note 4 for additional information on derivatives and hedging activities.

Income Taxes

We record a tax provision for the anticipated tax consequences of the reported results of operations. Deferred tax assets and liabilities are measured using the currently enacted tax rates that apply to taxable income in effect for the years in which those deferred tax assets and liabilities are expected to be realized or settled. We record a valuation allowance to reduce deferred tax assets to the amount that is believed more likely than not to be realized. We believe it is more likely than not that forecasted income, including income that may be generated as a result of certain tax planning strategies, together with the tax effects of the deferred tax liabilities, will be sufficient to fully recover the remaining net realizable value of our deferred tax assets. In the event that all or part of the net deferred tax assets are determined not to be realizable in the future, an adjustment to the valuation allowance would be charged to earnings in the period such determination is made. In addition, the calculation of tax liabilities involves significant judgment in estimating the impact of uncertainties in the application of complex tax laws. Resolution of these uncertainties in a manner inconsistent with our expectations could have a material impact on our financial condition and operating results. See Note 8 for additional information on income taxes.

Earnings Per Common Share

Basic earnings per share is computed by dividing net income by the daily weighted average number of common shares outstanding during the applicable period. Our TEUs are assumed to be settled at the minimum settlement amount of 1.9841 shares per TEU when calculating weighted-average common shares outstanding for purposes of basic earnings per share.

Using the treasury stock method, diluted earnings per share includes the potentially dilutive effect of common shares issued in connection with outstanding stock-based compensation options and grants. The potentially dilutive effect of common shares issued in connection with outstanding stock options is determined based on the average market price for the period. For diluted earnings per share, our TEUs are assumed to be settled at a conversion factor based on our daily volume-weighted average price per share of our common stock for the 20 consecutive trading days preceding the end of the current fiscal year quarter not to exceed 2.3810 shares of common stock per TEU.

F-12

Table of Contents

Under the treasury stock method, shares associated with certain stock options have been excluded from the diluted weighted average shares outstanding calculation because the exercise of those options would lead to a net reduction in common shares outstanding or anti-dilution. As a result, stock options to acquire 673, 179 and 276 weighted common shares have been excluded from the diluted weighted shares outstanding calculation for fiscal years 2016, 2015 and 2014, respectively.

In connection with the pricing of our TEUs, we entered into capped call transactions. The capped call transactions will not be reflected in the calculation of diluted earnings per share until settled as they are anti-dilutive. See Note 9 for additional information on our equity instruments.

Basic and diluted earnings per share were calculated as follows:

(in thousands, except per share data)	2016	2015	2014
Net income	\$27,494	\$45,462	\$42,009
Weighted average common shares outstanding	16,027	14,984	15,218
Effect of dilutive securities			
Stock-based compensation	105	158	179
Tangible equity units	47	—	—
Weighted average dilutive common shares outstanding	16,179	15,142	15,397
Earnings per share			
Basic	\$1.72	\$3.03	\$2.76
Diluted	\$1.70	\$3.00	\$2.73

Stock-Based Compensation

We measure the cost of employee services received in exchange for the award of equity instruments based on the fair value of the award at the date of grant. We recognize the cost over the period during which an employee is required to provide services in exchange for the award.

For purposes of determining estimated fair value of stock-based payment awards, we utilize the Black-Scholes option pricing model, which requires the input of certain assumptions requiring management judgment. Because our employee stock option awards have characteristics significantly different from those of traded options and because changes in the input assumptions can materially affect fair value estimates, existing models may not provide a reliable single measure of the fair value of employee stock options. We will continue to assess the assumptions and methodologies used to calculate estimated fair value of stock-based compensation. Circumstances may change and additional data may become available over time that could result in changes to these assumptions and methodologies and thereby materially impact the fair value determination of future grants of stock-based payment awards. If factors change and we employ different assumptions in future periods, the compensation expense recorded may differ significantly from the stock-based compensation expense recorded in the current period. See Note 6 for additional information on stock-based compensation.

Loss Contingencies

We establish an accrual for loss contingencies when it is both probable that an asset has been impaired or a liability has been incurred and the amount of the loss can be reasonably estimated. When loss contingencies are not probable and cannot be reasonably estimated, we do not establish an accrual. However, when there is at least a reasonable possibility that a loss has been incurred, but it is not probable or reasonably estimated, we disclose the nature of the loss contingency and an estimate of the possible loss or range of loss, as applicable. Any adjustment made to a loss contingency accrual during an accounting period affects the earnings of the period.

Use of Estimates

The preparation of financial statements in accordance with U.S. generally accepted accounting principles (GAAP) requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities, disclosure of contingent assets and liabilities as of the date of the financial statements and reported amounts of revenue and expense during the reporting period. Additionally, we frequently undertake significant technological innovation on certain of our long-term contracts, involving performance risk that may result in delayed delivery of product and/or revenue and gross profit variation due to changes in the ultimate costs of these contracts versus estimates. On an ongoing basis, we evaluate our estimates including those related to receivables, inventory, property and equipment, intangible assets, warranties, accrued expenses, share-based compensation, income taxes and capitalized software, among others. Actual results could differ from those estimates.

F-13

Table of Contents

Recently Issued Accounting Pronouncements

Revenue Recognition

In May 2014, the Financial Accounting Standards Board (FASB) issued Accounting Standards Update (ASU) No. 2014-09, Revenue from Contracts with Customers (Topic 606), and in August 2015, issued ASU No. 2015-14, Revenue from Contracts with Customers (Topic 606): Deferral of Effective Date, which amended ASU No. 2014-09 as to the effective date of the standard. The guidance, as amended, clarifies the principles for revenue recognition in transactions involving contracts with customers. The new revenue recognition guidance provides a five-step analysis to determine when and how revenue is recognized. The new guidance will require revenue recognition to depict the transfer of promised goods or services to a customer in an amount that reflects the consideration a company expects to receive in exchange for those goods or services. The guidance, as amended, defers the mandatory effective date of the new revenue recognition standard by one year.

In March 2016, the FASB issued ASU No. 2016-08, Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations (Reporting Revenue Gross versus Net), which amends ASU No. 2014-09, Revenue from Contracts with Customers (Topic 606), to clarify principal versus agent guidance in situations in which a revenue transaction involves a third party in providing goods or services to a customer. In such circumstances, an entity must determine whether the nature of its promise to the customer is to provide the underlying goods or services (i.e., the entity is the principal in the transaction) or to arrange for the third party to provide the underlying goods or services (i.e., the entity is the agent in the transaction). To determine the nature of its promise to the customer, the entity must first identify each specified good or service to be provided to the customer and then (before transferring it) assess whether it controls each specified good or service. The new guidance clarifies how an entity should identify the unit of accounting (the specified good or service) for the principal versus agent evaluation, and how it should apply the control principle to certain types of arrangements, such as service transactions, by explaining what a principal controls before the specified good or service is transferred to the customer.

In April 2016, the FASB issued ASU No. 2016-10, Revenue from Contracts with Customers (Topic 606): Identifying Performance Obligations and Licensing, to amend ASU No. 2014-09, Revenue from Contracts with Customers (Topic 606), on identifying performance obligations to allow entities to disregard items that are immaterial in the context of the contract, clarify when a promised good or service is separately identifiable from other promises in a contract and allow an entity to elect to account for the cost of shipping and handling performed after control of a good has been transferred to the customer as a fulfillment cost or an expense. The updated guidance also clarifies how an entity would evaluate the nature of its promise in granting a license of intellectual property, which determines whether the entity recognizes revenue over time or at a point in time, and other aspects relative to licensing.

In May 2016, the FASB issued ASU No. 2016-11, Revenue Recognition (Topic 605) and Derivatives and Hedging (Topic 815): Rescission of SEC Guidance Because of Accounting Standards Updates 2014-09 and 2014-16 Pursuant to Staff Announcements at the March 3, 2016 EITF Meeting (SEC Update), which rescinds previous guidance on revenue and expense recognition for freight services in process, accounting for shipping and handling fees and costs and accounting for consideration given by a vendor to a customer.

In May 2016, the FASB issued ASU No. 2016-12, Revenue from Contracts with Customers (Topic 606): Narrow-Scope Improvements and Practical Expedients, which amends ASU No. 2014-09, Revenue from Contracts with Customers (Topic 606), to clarify that, for a contract to be considered completed at transition, all (or substantially all) of the revenue must have been recognized under legacy U.S. GAAP. The amendment also added an expedient to ease transition for contracts that were modified prior to adoption of the new revenue standard, clarifies how an entity should evaluate the collectibility threshold and when an entity can recognize nonrefundable considerations received as revenue if the arrangement does not meet the standard's contract criteria. The amendment clarifies that fair value of noncash considerations should be measured at contract inception when determining the transaction price and allows an entity to make an accounting policy election to exclude from the transaction price certain types of taxes collected from

a customer if it discloses the policy.

In December 2016, the FASB issued ASU No. 2016-20, Technical Corrections and Improvements to Topic 606, Revenue from Contracts with Customers, which amends ASU 2014-09, Revenue from Contracts with Customers (Topic 606), providing thirteen corrections and improvements to the new revenue standard.

The aforementioned revenue standards and amendments are required to be adopted for annual periods beginning after December 15, 2017, including interim periods within that annual period, which is our fiscal year 2019. The new standards and amendments may be adopted retrospectively for all periods presented, or adopted using a modified retrospective approach. Early adoption is permitted for annual reporting periods beginning after December 15, 2016, and interim periods within that annual period, which is our fiscal year 2018. We intend to adopt the aforementioned revenue standards and amendments for our fiscal year 2019 and are modeling the transition alternatives, but have not finalized our decision regarding the method of implementation. We are currently reviewing our sales contracts, policies and practices as compared to the new guidance and are

F-14

Table of Contents

working through implementation steps. We continue to evaluate our procedural and related system requirements related to the provisions of this standard. In fiscal year 2017, we intend to further analyze our sales contracts and rewrite our revenue recognition accounting policy as needed to reflect the requirements of this standard. In fiscal year 2018, we expect to draft our new revenue disclosures. We are currently evaluating the impact that this guidance will have on our consolidated financial statements.

Other

In July 2015, the FASB issued ASU No. 2015-11, Inventory (Topic 330): Simplifying the Measurement of Inventory, which modifies existing requirements regarding measuring inventory at the lower of cost or market. Under current inventory standards, the market value requires consideration of replacement cost, net realizable value and net realizable value less an approximately normal profit margin. The new guidance replaces market with net realizable value defined as estimated selling prices in the ordinary course of business, less reasonably predictable costs of completion, disposal and transportation. This eliminates the need to determine and consider replacement cost or net realizable value less an approximately normal profit margin when measuring inventory. The standard is required to be adopted for annual periods beginning after December 15, 2016, including interim periods within that annual period, which is our fiscal year 2018. The amendment is to be applied prospectively with early adoption permitted. We have not yet evaluated the impact, if any, the adoption of this guidance may have on our financial condition, results of operations or disclosures.

In February 2016, the FASB issued ASU 2016-02, Leases (Topic 824), which requires lessees to recognize a right-of-use asset, representing the right to use the underlying asset for the lease term, and a lease liability on the balance sheet for all leases with terms greater than 12 months. Lessees can forgo recognizing a right-of-use asset and lease liability with lease terms of 12 months or less on the balance sheet through accounting policy elections as long as the lease does not include options to purchase the underlying assets that is reasonably certain to be exercised. The new guidance also requires certain qualitative and quantitative disclosures designed to assess the amount, timing and uncertainty of cash flows arising from leases, along with additional key information about leasing arrangements. The standard is required to be adopted for annual periods beginning after December 15, 2018, including interim periods within that annual period, which is our fiscal year 2020. The amendment is to be applied using a modified retrospective approach, which includes a number of optional practical expedients. Early adoption is permitted. We are currently evaluating the impact the adoption of this guidance will have on our financial condition, results of operations or disclosures.

In March 2016, the FASB issued ASU No. 2016-04, Liabilities—Extinguishments of Liabilities (Subtopic 405-20): Recognition of Breakage for Certain Prepaid Stored-Value Products, which amends existing guidance on extinguishing financial liabilities for certain prepaid stored-value products. The new standard requires recognition of the expected breakage amount or the value that is ultimately not redeemed either proportionally in earnings as redemption occurs or when redemption is remote, if issuers are not entitled to breakage. The standard is required to be adopted for annual periods beginning after December 15, 2017, including interim periods within that annual period, which is our fiscal year 2019. The amendment is to be applied either using a modified retrospective approach by recognizing a cumulative-effect adjustment to retained earnings as of the beginning of the year or retrospectively to each period presented. Early adoption is permitted. We are currently evaluating the impact, if any, the adoption of this guidance may have on our financial condition, results of operations or disclosures.

In March 2016, the FASB issued ASU No. 2016-09, Compensation - Stock Compensation (Topic 718): Improvements to Employee Share-Based Payment Accounting, which is intended to simplify certain aspects of accounting for share-based compensation arrangements, including modifications to the accounting for income taxes upon vesting or settlement of awards, employer tax withholding on share-based compensation, classification on the statement of cash flows and forfeitures. The standard is required to be adopted for annual periods beginning after December 15, 2016, including interim periods within that annual period, which is our fiscal year 2018. Certain aspects of the amendment

are to be applied using a retrospective transition method, while others are to be applied either prospectively or retrospectively. Early adoption is permitted, but all amendments must be adopted in the same period and must be reflected as of the beginning of the fiscal year that includes the interim period. We have not yet evaluated the impact the adoption of this guidance will have on our financial condition, results of operations or disclosures.

In June 2016, the FASB issued ASU No. 2016-13, Financial Instruments—Credit Losses (Topic 326): Measurement of Credit Losses on Financial Instruments, which changes the accounting for credit losses on instruments measured at amortized cost by adding an impairment model that is based on expected losses rather than incurred losses. An entity will recognize as an allowance its estimate of expected credit losses, which is believed to result in more timely recognition of such losses as the standard eliminates the probable initial recognition threshold. The standard is required to be adopted for annual periods beginning after December 15, 2019, including interim periods within that annual period, which is our fiscal year 2021. The amendment is to be applied using a modified-retrospective approach as a cumulative-effect adjustment to retained earnings as of the beginning of the first reporting period in which adopted. Early adoption is permitted for annual periods beginning after

F-15

Table of Contents

December 15, 2018, including interim periods within that annual period, which is our fiscal year 2020. We have not yet evaluated the impact the adoption of this guidance will have on our financial condition, results of operations or disclosures.

In August 2016, the FASB issued ASU No. 2016-15, Statement of Cash Flows (Topic 230): Classification of Certain Cash Receipts and Cash Payments, which provides guidance on the classification of certain cash receipts and cash payments with the objective of reducing diversity in practice. The standard is required to be adopted for annual periods beginning after December 15, 2017, including interim periods within that annual period, which is our fiscal year 2019. The amendment is to be applied retrospectively, but if impracticable to do so, the amendments related to that issue would be applied prospectively. Early adoption is permitted. We have not yet evaluated the impact the adoption of this guidance will have on our financial condition, results of operations or disclosures.

In October 2016, the FASB issued ASU No. 2016-16, Income Taxes (Topic 740), Intra-Entity Transfers of Assets Other Than Inventory, which requires companies to account for the income tax effects of intercompany sales and transfers of assets other than inventory when the transfer occurs. Current guidance requires companies to defer the income tax effects of intercompany transfers of assets until the asset has been sold to an outside party or otherwise recognized. The standard is required to be adopted for annual periods beginning after December 15, 2017, including interim periods within that annual period, which is our fiscal year 2019. The amendment is to be applied using a modified retrospective approach. Early adoption is permitted as of the beginning of an annual period. We have not yet evaluated the impact of adoption of this guidance will have on our financial condition, results of operations or disclosures.

In January 2017, the FASB issued ASU No. 2017-01, Business Combinations (Topic 805): Clarifying the Definition of a Business, which changes the definition of a business to assist entities with evaluating when a set of transferred assets and activities is a business. The new guidance clarifies that a business must also include at least one substantive process and narrows the definition of outputs by more closely aligning it with how outputs are described in ASC 606, Revenue from Contracts with Customers. The standard is required to be adopted for annual periods beginning after December 15, 2017, including interim periods within that annual period, which is our fiscal year 2019. The amendment is to be applied prospectively with early adoption permitted. We do not expect the adoption of this standard to have a material effect on our financial condition, results of operations or disclosures as the standard only applies to businesses acquired after the adoption date.

In March 2017, the FASB issued ASU No. 2017-07, Compensation - Retirement Benefits (Topic 715): Improving the Presentation of Net Periodic Pension Cost and Net Periodic Postretirement Benefit Cost, which changes how employers that sponsor defined benefit pension or other postretirement benefit plans present the net periodic benefit cost in the income statement. The new guidance requires the service cost component of net periodic benefit cost to be presented in the same income statement line item(s) as other employee compensation costs arising from services rendered during the period with only the service cost component eligible for capitalization in assets. Other components of the net periodic benefit cost are to be stated separately from the line item(s) that includes the service cost and outside of operating income. These components are not eligible for capitalization in assets. The standard is required to be adopted for annual periods beginning after December 15, 2017, including interim periods within that annual period, which is our fiscal year 2019. The amendment is to be applied retrospectively. Early adoption is permitted as of the beginning of an annual period. We have not yet evaluated the impact of adoption of this guidance will have on our financial condition, results of operations or disclosures.

Adopted for Fiscal Year Ended October 1, 2016

In April 2015, the FASB issued ASU No. 2015-03, Interest - Imputation of Interest (Subtopic 835-30): Simplifying the Presentation of Debt Issuance Costs, which modifies existing requirements regarding classification of debt issuance costs. The new guidance requires debt issuance costs related to a recognized liability to be presented in the

balance sheet as a direct deduction from the corresponding debt liability rather than as an asset. This change will make the presentation of debt issuance costs consistent with the presentation of debt discounts or premiums. The standard is required to be adopted for annual periods beginning after December 15, 2015, including interim periods within that annual period, which is our fiscal year 2017. The amendment is to be applied retrospectively with early adoption permitted.

We early adopted ASU No. 2015-03 effective April 3, 2016, or beginning with our third quarter of fiscal year 2016, due to the issuance of our 8.75% tangible equity units (TEUs) in a registered public offering. The adoption was applied retrospectively, but did not have a material impact on the financial condition, results of operations and disclosures of our prior fiscal year or prior quarters as no debt issuance costs outside of those associated with our credit facility existed. The debt issuance costs associated with our credit facility remain classified as an asset and continue to be amortized straight-line over the term of the credit facility until it terminates on July 5, 2021. The debt issuance costs associated with the debt component of the TEUs issued in the third quarter of fiscal year 2016 and Tranche B debt entered into in the fourth quarter of fiscal year 2016 have

F-16

Table of Contents

been recognized as a direct deduction from the corresponding debt on the Consolidated Balance Sheets and Consolidated Statements of Cash Flows. See Note 5 for updated debt disclosures and Note 9 for more information on our TEUs.

In November 2015, the FASB issued ASU No. 2015-17, Income Taxes (Topic 740): Balance Sheet Classification of Deferred Taxes, which requires deferred tax liabilities and assets to be classified as non-current in the Consolidated Balance Sheet. The standard is required to be adopted for annual periods beginning after December 15, 2016, including interim periods within that annual period, which is our fiscal year 2018. The amendment may be applied either prospectively to all deferred tax liabilities and assets or retrospectively to all periods presented. Early adoption is permitted. We early adopted ASU No. 2015-17 on a prospective basis effective for the annual period ended October 1, 2016. The adoption resulted in all deferred tax assets and deferred tax liabilities being classified as non-current on the Consolidated Balance Sheet as of October 1, 2016. See Note 8 for further income tax disclosures.

Adopted for Fiscal Year Ending September 30, 2017

In July 2015, the FASB issued ASU No. 2015-12, Plan Accounting: Defined Benefit Pension Plans (Topic 960), Defined Contribution Pension Plans (Topic 962), Health and Welfare Benefit Plans (Topic 965): (Part I) Fully Benefit-Responsive Investment Contracts, (Part II) Plan Investment Disclosures, (Part III) Measurement Date Practical Expedient (consensus of the FASB Emerging Issues Task Force). The standard allows for a plan with a fiscal year end that does not coincide with the end of the calendar month to measure its investments and investment-related accounts using the month end closest to its fiscal year end. In previous guidance, the measurement date was required to coincide with the fiscal year end. The standard is required to be adopted for annual periods beginning after December 15, 2015, which is our fiscal year 2017. The amendment is to be applied prospectively with early adoption permitted. We adopted ASU No. 2015-12 on a prospective basis for the annual period ending September 30, 2017. The adoption of this standard had no effect on our financial condition, results of operations or disclosures for our first quarter of fiscal year 2017 as this standard only impacts the measurement of goodwill impairment charges on a prospective basis.

In September 2015, the FASB issued ASU No. 2015-16, Business Combinations (Topic 805): Simplifying the Accounting for Measurement-Period Adjustments, which eliminates the requirement for an acquirer in a business combination to account for measurement-period adjustments retrospectively. Under the existing business combination standard, an acquirer reports provisional amounts with respect to acquired assets and liabilities when their measurements are incomplete as of the end of the reporting period. The provisional amounts and the related impact on earnings are adjusted by restating prior period financial statements during the measurement period which cannot exceed one year from the date of acquisition. The new guidance requires that the cumulative impact of a measurement-period adjustment, including the impact on prior periods, be recognized in the reporting period in which the adjustment is identified, eliminating the requirement to restate prior period financial statements. The new standard requires disclosure of the nature and amount of measurement-period adjustments as well as information with respect to the portion of the adjustments recorded in current-period earnings that would have been recorded in previous reporting periods if the adjustments to provisional amounts had been recognized as of the acquisition date. The standard is required to be adopted for annual periods beginning after December 15, 2015, including interim periods within that annual period, which is our fiscal year 2017. The amendment is to be applied prospectively to measurement-period adjustments that occur after the effective date. Early adoption is permitted. We adopted ASU No. 2015-16 on a prospective basis for the annual period ending September 30, 2017, including interim periods within that annual period. The adoption of the standard had no effect on our financial condition, results of operations or disclosures for our first quarter of fiscal year 2017, as the standard only applies to businesses acquired after the adoption date.

In January 2017, the FASB issued ASU No. 2017-04, Intangibles - Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment, which eliminates the requirement to calculate the implied fair value of goodwill to measure a goodwill impairment charge or Step 2 of the goodwill impairment analysis. Instead, an impairment charge will be recorded based on the excess of a reporting unit's carrying amount over its fair value using Step 1 of the

goodwill impairment analysis. The standard is required to be adopted for annual and interim impairment tests performed after December 15, 2019, which is our fiscal year 2020. The amendment is to be applied prospectively. Early adoption is permitted for annual and interim goodwill impairment testing dates after January 1, 2017. We adopted ASU No. 2017-04 on a prospective basis for our annual and interim goodwill impairment testing performed subsequent to January 1, 2017. The adoption of this standard had no effect on our financial condition, results of operations or disclosures for our first quarter of fiscal year 2017 as this standard only impacts the measurement of goodwill impairment charges on a prospective basis.

F-17

Table of Contents

NOTE 2 CAPITAL ASSETS

Property and Equipment

Property and equipment at October 1, 2016 and October 3, 2015 are as follows:

(in thousands)	2016	2015
Land and improvements	\$2,865	\$1,705
Buildings and improvements	59,350	53,097
Machinery and equipment	189,406	162,472
Total property and equipment	251,621	217,274
Less accumulated depreciation	(150,832)	(136,820)
Total property and equipment, net	\$100,789	\$80,454

Goodwill

Changes to the carrying amount of goodwill are as follows:

(in thousands)	Test	Sensors	Total
Balance, September 27, 2014	\$24,584	\$1,539	\$26,123
Acquisitions ¹	533	—	533
Adjustment related to finalization of purchase accounting ¹	1,619	—	1,619
Currency translation gain (loss)	(493)	(105)	(598)
Balance, October 3, 2015	\$26,243	\$1,434	\$27,677
Acquisitions ¹	—	343,242	343,242
Adjustment related to finalization of purchase accounting ¹	(530)	—	(530)
Currency translation gain (loss)	(691)	2	(689)
Balance, October 1, 2016	\$25,022	\$344,678	\$369,700

¹ Refer to Note 13 for information related to acquisitions.

During the fourth quarter of fiscal years 2016 and 2015, we completed our annual goodwill impairment test with no impairments to the reporting unit carrying values identified.

Table of Contents

Other Intangible Assets

Other intangible assets are as follows:

October 1, 2016				
(in thousands)	Gross Carrying Amount	Accumulated Amortization	Net Carrying Value	Weighted Average Useful Life (in Years)
Software development costs	\$23,184	\$ (14,938)	\$ 8,246	6.0
Technology and patents	46,672	(6,360)	40,312	14.9
Trademarks and trade names	6,903	(1,911)	4,992	25.5
Customer lists	156,987	(3,372)	153,615	15.8
Land-use rights	2,369	(245)	2,124	26.3
Trademarks and trade names	57,500	—	57,500	Indefinite
Total intangible assets	\$293,615	\$ (26,826)	\$ 266,789	15.1
October 3, 2015				
(in thousands)	Gross Carrying Amount	Accumulated Amortization	Net Carrying Value	Weighted Average Useful Life (in Years)
Software development costs	\$ 19,546	\$ (14,046)	\$ 5,500	6.2
Patents	11,838	(5,141)	6,697	14.5
Trademarks and trade names	6,163	(1,659)	4,504	29.4
Customer lists	2,561	(610)	1,951	8.1
Land-use rights	1,227	(173)	1,054	47.8
Total intangible assets	\$41,335	\$ (21,629)	\$ 19,706	13.4

Amortization expense recognized during fiscal years 2016, 2015 and 2014 was \$5,517, \$4,058 and \$3,918, respectively.

The estimated future amortization expense related to other amortizable intangible assets for the next five fiscal years and thereafter are as follows:

Fiscal Year	Amortization Expense (in thousands)
2017	\$ 14,573
2018	13,712
2019	13,587
2020	13,306
2021	13,306
Thereafter	140,805

Future amortization amounts presented above are estimates. Actual future amortization expense may be different, due to fluctuations in foreign currency exchange rates, future acquisitions, impairments, changes in amortization periods or other factors.

NOTE 3 FAIR VALUE MEASUREMENTS

In determining the fair value of financial assets and liabilities, we currently utilize market data or other assumptions that we believe market participants would use in pricing the asset or liability in the principal or most advantageous

market and adjust for non-performance and/or other risk associated with the company as well as counterparties, as appropriate. When considering market participant assumptions in fair value measurements, the following fair value hierarchy distinguishes between observable and unobservable inputs, which are categorized in one of the following levels:

• Level 1: Unadjusted quoted prices which are available in active markets for identical assets or liabilities accessible to us at the measurement date.

F-19

Table of Contents

Level 2: Inputs other than quoted prices included in Level 1 inputs that are observable for the asset or liability, either directly or indirectly, for substantially the full term of the asset or liability.

Level 3: Unobservable inputs for the asset or liability used to measure fair value to the extent that observable inputs are not available, thereby allowing for situations in which there is little, if any, market activity for the asset or liability at the measurement date.

The hierarchy gives the highest priority to Level 1, as this level provides the most reliable measure of fair value, while giving the lowest priority to Level 3.

Assets and Liabilities Measured at Fair Value on a Recurring Basis

Financial assets and liabilities subject to fair value measurements on a recurring basis are as follows:

	October 1, 2016			
(in thousands)	Level 1	Level 2	Level 3	Total
	1	2	3	
Assets				
Currency contracts ¹	\$—	\$149	\$—	\$149
Total assets	\$—	\$149	\$—	\$149

Liabilities				
Currency contracts ¹	\$—	\$711	\$—	\$—
Total liabilities	\$—	\$711	\$—	\$—

	October 3, 2015			
(in thousands)	Level 1	Level 2	Level 3	Total
Assets				
Currency contracts ¹	\$—	\$841	\$—	\$841
Total assets	\$—	\$841	\$—	\$841

Liabilities				
Currency contracts ¹	\$—	\$639	\$—	\$—
Total liabilities	\$—	\$639	\$—	\$—

Based on observable market transactions of spot currency rates and forward currency rates on equivalently-termed instruments. Carrying amounts of the financial assets and liabilities are equal to the fair value. See Note 4 for additional information on derivative financial instruments.

Assets and Liabilities Measured at Fair Value on a Nonrecurring Basis

We measure certain financial instruments at fair value on a nonrecurring basis. These assets primarily include goodwill, intangible assets and other long-lived assets acquired either as part of a business acquisition, individually or with a group of other assets, as well as property and equipment. These assets were initially, and are currently, measured and recognized at amounts equal to the fair value determined as of the date of acquisition or purchase subject to changes in value only for foreign currency translation. Periodically, these assets are tested for impairment, by comparing their respective carrying values to the estimated fair value of the reporting unit or asset group in which they reside. In the event any of these assets were to become impaired, we would recognize an impairment loss equal to the amount by which the carrying value of the reporting unit, impaired asset or asset group exceeds its estimated fair value. Fair value measurements of reporting units are estimated using an income approach involving discounted or undiscounted cash flow models that contain certain Level 3 inputs requiring management judgment, including projections of economic conditions and customer demand, revenue and margins, changes in competition, operating

costs, working capital requirements and new product introductions. Fair value measurements of the reporting units associated with our goodwill balances are estimated at least annually in the fourth quarter of each fiscal year for purposes of impairment testing if Step 1 of the goodwill impairment analysis is performed. Fair value measurements associated with our intangible assets, other long-lived assets and property and equipment are estimated when events or changes in circumstances such as market value, asset utilization, physical change, legal factors or other matters indicate that the carrying value may not be recoverable. See Note 1 and Note 2 for additional information on goodwill, intangible assets, other long-lived assets, property and equipment and impairment testing.

F-20

Table of Contents

Assets and Liabilities Not Measured at Fair Value

Certain financial instruments are not measured at fair value but are recorded at carrying amounts approximating fair value based on their short-term nature or variable interest rate. These financial instruments include cash and cash equivalents, restricted cash, accounts receivable, accounts payable and short-term borrowings.

Other Financial Instruments

Other financial instruments subject to fair value measurements include debt, which is recorded at carrying value in the Consolidated Balance Sheets. The carrying amount and estimated fair values of our debt are as follows:

(in thousands)	October 1, 2016				
	Carrying Value	Fair Value	Level 1	Level 2	Level 3
Debt component of tangible equity units (TEUs) ²	\$24,985	\$28,080	\$ —	\$28,080	\$ —
Tranche B term loan ³	460,000	465,465	—	465,465	—
Total debt	\$484,985	\$493,545	\$ —	\$493,545	\$ —

The fair value of the TEUs is based on the most recently quoted price for the outstanding securities, adjusted for any known significant deviations in value. The estimated fair value of these long-term obligations is not necessarily indicative of the amount that would be realized in a current market exchange. See Note 9 for additional information on the TEUs.

The fair value of the Tranche B term loan is based on the most recently quoted market price for the outstanding debt instrument, adjusted for any known significant deviations in value. The estimated fair value of the debt obligation is not necessarily indicative of the amount that would be realized in a current market exchange. See Note 5 for additional information on debt instruments.

NOTE 4 DERIVATIVE INSTRUMENTS AND HEDGING ACTIVITIES

Our currency exchange and interest rate swaps are designated as cash flow hedges and qualify as hedging instruments. We also have derivatives which are not designated as cash flow hedges and, therefore, are accounted for and reported under foreign currency guidance. Regardless of designation for accounting purposes, we believe all of our derivative instruments are hedges of transactional risk exposures. The fair value of our outstanding designated and undesignated derivative assets and liabilities are reported in the Consolidated Balance Sheets as follows:

(in thousands)	October 1, 2016	
	Prepaid Expenses and Other Current Assets	Other Accrued Liabilities
Designated hedge derivatives		
Cash flow derivatives	\$149	\$ 633
Hedge derivatives not designated		
Balance sheet derivatives	—	78
Total hedge derivatives	\$149	\$ 711

(in thousands)	October 3, 2015	
	Prepaid Expenses and Other Current Assets	Other Accrued Liabilities

and
Other
Current
Assets

Designated hedge derivatives

Cash flow derivatives \$841 \$ 353

Hedge derivatives not designated

Balance sheet derivatives — 286

Total hedge derivatives \$841 \$ 639

F-21

Table of Contents

A reconciliation of the net fair value of foreign exchange cash flow hedge assets and liabilities subject to master netting arrangements that are recorded in the October 1, 2016 and October 3, 2015 Consolidated Balance Sheets to the net fair value that could have been reported in the respective Consolidated Balance Sheets are as follows:

(in thousands)	Gross Recognized Amount	Gross Offset Amount	Net Amount Presented	Derivatives Subject to Offset	Cash Collateral Received	Net Amount ¹
October 1, 2016						
Assets	\$ 149	\$	—\$ 149	\$ (147)	\$	—\$ 2
Liabilities	633	—	633	(147)	—	486
October 3, 2015						
Assets	\$ 841	\$	—\$ 841	\$ —	\$	—\$ 841
Liabilities	353	—	353	—	—	353

¹ Net fair value of foreign exchange cash flow hedge assets / liabilities that could have been reported in the Consolidated Balance Sheets.

Cash Flow Hedging – Currency Risks

Currency exchange contracts utilized to maintain the functional currency value of expected financial transactions denominated in foreign currencies are designated as cash flow hedges. Qualifying gains and losses related to changes in the market value of these contracts are reported as a component of accumulated other comprehensive income (loss) (AOCI) within shareholders' equity on the Consolidated Balance Sheets and reclassified into earnings in the same period during which the underlying hedged transaction affects earnings. The effective portion of the cash flow hedges represents the change in fair value of the hedge that offsets the change in the functional currency value of the hedged item. We periodically assess whether our currency exchange contracts are effective and, when a contract is determined to be no longer effective as a hedge, we discontinue hedge accounting prospectively. Subsequent changes in the market value of ineffective currency exchange contracts are recognized as an increase or decrease in revenue on the Consolidated Statements of Income as that is the same line item in which the underlying hedged transaction is reported.

As of October 1, 2016 and October 3, 2015, we had outstanding cash flow hedge currency exchange contracts with gross notional U.S. dollar equivalent amounts of \$29,092 and \$48,529, respectively. Upon netting offsetting contracts to sell foreign currencies against contracts to purchase foreign currencies, irrespective of contract maturity dates, the net notional U.S. dollar equivalent amount of contracts outstanding was \$24,884 and \$41,696 at October 1, 2016 and October 3, 2015, respectively. As of October 1, 2016, the net market value of the foreign currency exchange contracts was a net liability of \$484, consisting of \$149 in assets and \$633 in liabilities. As of October 3, 2015, the net market value of the foreign currency exchange contracts was a net asset of \$488, consisting of \$841 in assets and \$353 in liabilities.

The pretax amounts recognized in AOCI on currency exchange contracts for the fiscal years ended October 1, 2016 and October 3, 2015, including (gains) losses reclassified into earnings in the Consolidated Statements of Income and gains (losses) recognized in other comprehensive income (OCI), are as follows:

(in thousands)	2016	2015
Beginning unrealized net gain in AOCI	\$608	\$1,415
Net loss (gain) reclassified into revenue (effective portion)	334	(4,299)
Net (loss) gain recognized in OCI (effective portion)	(1,342)	3,492
Ending unrealized net (loss) gain in AOCI	\$(400)	\$608

The amount recognized in earnings as a result of the ineffectiveness of cash flow hedges was less than \$1 in each of the fiscal years ended October 1, 2016, October 3, 2015 and September 27, 2014. As of October 1, 2016, the amount projected to be reclassified from AOCI into earnings in the next 12 months was a net loss of \$416. The maximum remaining maturity of any forward or optional contracts at October 1, 2016 was 0.8 years.

F-22

Table of Contents

Foreign Currency Balance Sheet Derivatives

We also use foreign currency derivative contracts to maintain the functional currency value of monetary assets and liabilities denominated in non-functional foreign currencies. The gains and losses related to the changes in the market value of these derivative contracts are included in other income (expense), net on the Consolidated Statements of Income.

As of October 1, 2016 and October 3, 2015, we had outstanding foreign currency balance sheet derivative contracts with gross notional U.S. dollar equivalent amounts of \$13,187 and \$66,701, respectively. Upon netting offsetting contracts by counterparty banks to sell foreign currencies against contracts to purchase foreign currencies, irrespective of contract maturity dates, the net notional U.S. dollar equivalent amount of contracts outstanding at October 1, 2016 and October 3, 2015 was \$1,347 and \$17,122, respectively. As of October 1, 2016 and October 3, 2015, the net market value of the foreign exchange balance sheet derivative contracts was a net liability of \$78 and \$286, respectively.

The net (loss) gain recognized in the Consolidated Statements of Income on foreign exchange balance sheet derivative contracts for fiscal years 2016, 2015 and 2014 are as follows:

(in thousands)	2016	2015	2014
Net (loss) gain recognized in other income (expense), net	\$(950)	\$582	\$1,267

NOTE 5 FINANCING

On July 5, 2016, we entered into a credit agreement with U.S. Bank National Association and HSBC Bank USA, National Association as Co-Documentation Agents, Wells Fargo Bank, National Association as Syndication Agent, JPMorgan Chase Bank, N.A. as Administrative Agent and JP Morgan Chase Bank, N.A. and Wells Fargo Securities, LLC as Joint Bookrunners and Joint Lead Arrangers (the Credit Agreement). The Credit Agreement provides for senior secured credit facilities consisting of a \$100,000 revolving credit facility (the Revolving Credit Facility) which expires on July 5, 2021, and a \$460,000 tranche B term loan facility (the Term Facility) which expires on July 5, 2023. In connection with the Credit Agreement, we terminated our existing credit agreement dated September 27, 2014. On July 29, 2016, we amended the Credit Agreement to increase the size of the Revolving Credit Facility from \$100,000 to \$120,000 and Bank of America, N.A. was added as an additional lender. The proceeds of the Revolving Credit Facility can be drawn upon to refinance existing indebtedness and for working capital and other general corporate purposes up to a maximum of \$120,000. The proceeds of the Term Facility were used for financing the acquisition of PCB.

The primary categories of borrowing include Alternate Base Rate (ABR) Borrowing, Swingline Loans and Eurocurrency Borrowing (each as defined in the Credit Agreement). ABR Borrowings and Swingline Loans made in U.S. dollars under the Credit Agreement bear interest at a rate per annum equal to the Alternate Base Rate plus the Applicable Rate (as defined in the Credit Agreement). The Alternate Base Rate is defined as the greater of (a) the Prime Rate (as defined in the Credit Agreement) in effect on such day, (b) the New York Federal Reserve Bank Rate (NYFRB Rate) (as defined in the Credit Agreement) in effect on such day plus ½ of 1.00%, or (c) the Adjusted London Interbank Offered Rate (LIBO Rate) (as defined in the Credit Agreement) for a one month interest period in dollars on such day plus 1.00%. The Alternate Base Rate for ABR Term Loans shall not be less than 1.75% per annum. The Applicable Rate for any ABR Revolving Loans will be based upon the leverage ratio applicable on such date. The Applicable Rate for ABR Term Loans will be 3.25% per annum.

Eurocurrency Borrowings made under the Credit Agreement bear interest at a rate per annum equal to the Adjusted LIBO Rate plus the Applicable Rate. The Adjusted LIBO Rate is defined as an interest rate per annum equal to (a) the LIBO Rate for such interest period multiplied by (b) the Statutory Reserve Rate (as defined in the Credit Agreement). The Applicable Rate for any Eurocurrency Revolving Loan will be based upon the leverage ratio applicable on such date. Based on our current leverage ratio, the Applicable Rate for a Eurocurrency Borrowing is 4.00%. The Adjusted

LIBO Rate for Eurocurrency Term Loans will not be less than 0.75% per annum. The Applicable Rate for Eurocurrency Term Loans will be 4.25% per annum.

Short-term borrowings at October 1, 2016 and October 3, 2015 consisted of the following:

(in thousands)	2016	2015
Bank line of credit, monthly U.S. LIBOR plus 100 basis points, terminated July 5, 2016	\$ —	\$10,000
Bank line of credit, monthly Euro LIBOR plus 100 basis points, terminated July 5, 2016	—	11,183
Total short-term borrowings	\$ —	\$21,183

As of October 1, 2016, there were no borrowings against the credit facility and we had outstanding letters of credit drawn from the credit facility totaling \$25,341, leaving approximately \$94,659 of unused borrowing capacity. The weighted average

F-23

Table of Contents

interest rate on borrowings under the credit facility in place prior to the Credit Agreement (the Prior Credit Facility) during fiscal year 2016 was 1.43%. Under the current Credit Agreement, commitment fees are payable on the unused portion of the Revolving Credit Facility at rates between 0.25% and 0.50% based on the leverage ratio. Under the Prior Credit Facility, commitment fees were payable on the unused portion of the facility at rates between 0.15% and 0.30%, based on the leverage ratio. During the fiscal year ended October 1, 2016, commitment fees incurred totaled \$271.

The Prior Credit Facility we had in place at October 3, 2015 provided up to \$200,000 for working capital financing, permitted acquisitions, share purchase and other general corporate purposes. As of October 3, 2015, the interest rate applicable to outstanding variable rate credit facility borrowings was 1.20%, the monthly U.S. LIBOR plus 100 basis points. The weighted average interest rate on outstanding borrowings under the Prior Credit Facility during fiscal year 2015 was 1.09%. As of October 3, 2015, in addition to the \$21,183 in borrowings from the credit facility, we had outstanding letters of credit drawn from the Prior Credit Facility totaling \$12,008, leaving approximately \$166,809 of unused borrowing capacity. Commitment fees were payable on the unused portion of the Prior Credit Facility at rates between 0.15% and 0.30%, based on the Leverage Ratio. During the fiscal year ended October 3, 2015, commitment fees incurred on the Prior Credit Facility were \$209.

Long-term debt at October 1, 2016 and October 3, 2015 consist of the following:

(in thousands)	2016	2015
Long-term debt		
Tranche B term loan, 1.00% amortizing per year, maturing July 5, 2023	\$460,000	\$ —
Tangible equity units, 8.75% coupon, maturing July 1, 2019 ¹	24,985	—
Total long-term debt	\$484,985	\$ —
Less: Unamortized underwriting discounts, commissions and other expenses	(16,843)	—
Less: Current maturities of long-term Tranche B term loan debt ²	(4,600)	—
Less: Current maturities of long-term TEU debt ²	(8,541)	—
Total long-term debt, less current maturities, net	\$455,001	\$ —

¹ See Note 9 for more information on our TEUs issued in the third quarter of fiscal year 2016.

Current maturities of long-term debt, net of \$9,850 presented in our Consolidated Balance Sheet as of October 1, 2016, includes \$4,600 of current maturities of long-term Tranche B term loan debt and \$8,541 of current maturities of long-term TEU debt less \$3,291 of unamortized underwriting discounts, commissions and issuance costs.

The Term Facility was made available to us on July 5, 2016 to finance the acquisition of PCB Group, Inc. (PCB). The loans under the Term Facility will amortize in equal quarterly installments in an aggregate annual amount equal to 1.00% of the original principal amount of the Term Facility. At October 1, 2016, the applicable Adjusted LIBO Rate on the Eurocurrency Term Loan Borrowing was 0.75%, plus the Applicable Rate of 4.25%. The weighted average interest rate on Term Facility debt during fiscal year 2016 was 5.00%.

The Credit Agreement governing the Term Facility requires us to prepay outstanding term loans, subject to certain exceptions, depending on the leverage ratio with (a) up to 50% of the company's annual Excess Cash Flow (as defined in the Credit Agreement) and (b) 100% of the net cash proceeds of (i) certain asset sales and casualty and condemnation events, subject to reinvestment rights and certain other exceptions; and (ii) any incurrence or issuance of certain debt, other than debt permitted under the Credit Agreement. We may voluntarily prepay outstanding loans under the Term Facility at any time without premium or penalty. All obligations under the Term Facility are unconditionally guaranteed by certain of the company's existing wholly owned domestic subsidiaries, and are secured, subject to certain exceptions, by substantially all of the company's assets and the assets of the company's subsidiary guarantors.

Under the current and prior credit agreements, we are subject to customary affirmative and negative covenants, including, among others, restrictions on our ability to incur debt, create liens, dispose of assets, make investments, loans, advances, guarantees and acquisitions, enter into transactions with affiliates and enter into any restrictive agreements and customary events of default (including payment defaults, covenant defaults, change of control defaults and bankruptcy defaults). The Credit Agreement also contains financial covenants, including the ratio of consolidated total indebtedness to consolidated earnings before income, taxes, depreciation and amortization (EBITDA), as well as the ratio of consolidated EBITDA to consolidated interest expense. These covenants restrict our ability to pay dividends and purchase outstanding shares of common stock. At October 1, 2016 and October 3, 2015, we were in compliance with these financial covenants.

F-24

Table of Contents

The TEUs had an estimated fair value of \$28,080 as of October 1, 2016. The fair value of the TEUs is based on the most recently quoted price for the outstanding securities, adjusted for any known significant deviations in value. The estimated fair value of these long-term obligations is not necessarily indicative of the amount that would be realized in a current market exchange. Tranche B Term debt had an estimated fair value of \$465,465 as of October 1, 2016. The fair value of long-term debt is based on the most recently quoted price for the outstanding debt instrument, adjusted for any known significant deviations in value. The estimated fair value of these long-term obligations is not necessarily indicative of the amount that would be realized in a current market exchange.

Maturities of long-term debt based on the contractual obligation, excluding unamortized underwriting discounts, commissions and issuance costs, for the next five fiscal years are as follows:

Fiscal Year	Maturities of Long-Term Debt (in thousands)
2017	\$ 13,141
2018	13,752
2019	11,891
2020	4,600
2021	4,600
Thereafter	437,001

At October 1, 2016 we had outstanding letters of credit and guarantees totaling \$46,765 and \$26,536, respectively, primarily to bond advance payments and performance guarantees related to customer contracts in the Test segment.

NOTE 6 STOCK-BASED COMPENSATION

We compensate our officers, directors and employees with stock-based compensation under the 2011 Stock Incentive Plan (the 2011 Plan) approved by our shareholders and administered under the supervision of our Board of Directors. During fiscal year 2016, our shareholders approved a 1,500 share increase in the number of shares that may be issued under the 2011 Plan, bringing the aggregate total to 3,800 shares. During fiscal years 2016, 2015 and 2014, we awarded stock options and restricted stock units under the 2011 Plan. During fiscal year 2014, we awarded restricted stock under the 2011 Plan. At October 1, 2016, a total of 2,074 shares were available for future grant under the 2011 Plan. These shares will be available for issuance under the 2011 Plan until January 31, 2018.

In fiscal year 2011, our shareholders approved a 2012 Employee Stock Purchase Plan (the 2012 ESPP) that was effective on January 1, 2012. During fiscal years 2016, 2015 and 2014, we issued shares of our common stock to participants under the 2012 ESPP. At October 1, 2016, a total of 665 shares were available for issuance under the 2012 ESPP. Shares will be available for issuance under the 2012 ESPP until December 31, 2021.

Stock-Based Compensation Expense

Stock-based compensation expense for fiscal years 2016, 2015 and 2014 was as follows:

(in thousands)	2016	2015	2014
Stock-based compensation expense by type of award			
Employee stock options	\$2,436	\$2,683	\$2,769
Employee stock purchase plan (ESPP)	519	239	212
Restricted stock and restricted stock units	4,203	4,536	3,073
Amounts capitalized as inventory	(2,354)	(1,985)	(1,608)

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Amounts recognized in income for amounts previously capitalized as inventory	2,420	1,878	1,315
Total stock-based compensation included in income from operations	7,224	7,351	5,761
Income tax benefit on stock-based compensation	(2,421)	(2,564)	(1,999)
Net compensation expense included in net income	\$4,803	\$4,787	\$3,762

At October 1, 2016, there was \$2,502 of total unrecognized stock option expense related to non-vested awards, which is expected to be recognized over a weighted average period of approximately 0.9 years. At October 1, 2016, there was \$4,691 of

F-25

Table of Contents

total unrecognized restricted stock expense related to non-vested awards of restricted stock units, which is expected to be recognized over a weighted average period of approximately 1.1 years.

Stock options are granted at an exercise price equal to the closing market price of our stock on the date of grant. The fair value of stock options granted under stock-based compensation programs has been estimated as of the date of each grant using the multiple option form of the Black-Scholes valuation model, based on the grant price and assumptions regarding the expected grant life, stock price volatility, dividends and risk-free interest rates. Each vesting period of an option award is valued separately, with this value being recognized evenly over the vesting period. The weighted average per share fair value of stock options granted during fiscal years 2016, 2015 and 2014 was \$11.71, \$12.16 and \$14.32, respectively. The weighted average assumptions used to determine fair value of stock options granted during those fiscal years were as follows:

	2016	2015	2014
Expected life (in years)	4.1	3.5	4.1
Risk-free interest rate	1.5 %	1.1 %	1.1 %
Expected volatility	26.7 %	27.4 %	31.3 %
Dividend yield	2.0 %	1.8 %	1.8 %

The expected life represents the period that the stock option awards are expected to be outstanding and was determined based on historical and anticipated future exercise and expiration patterns. The risk-free interest rate used is based on the yield of constant maturity U.S. Treasury bonds on the grant date with a remaining term equal to the expected life of the grant. We estimate stock price volatility based on a historical weekly price observation. The dividend yield assumption is based on the annualized current dividend divided by the share price on the grant date.

Awards of both restricted stock and restricted stock units are valued based on the market value of our shares at the date of grant. The value is allocated to expense evenly over the restricted period. Awards of performance restricted stock units are valued based on the market value of our shares at the date of grant with the value recognized as expense once the performance criteria has been met. Employee stock purchase plan share awards are valued based on the value of the discount feature plus the fair value of the optional features, which is determined as of the date of grant using the Black-Scholes valuation model. The value of these share awards is allocated to expense evenly over each purchase period.

Stock Options

Stock options are granted at exercise prices equal to the closing market price of our stock on the date of grant. Generally, stock options vest proportionally on the first three anniversaries of the grant date and expire, depending on the date of grant, five or seven years from the grant date.

Stock option activity for fiscal years 2016, 2015 and 2014 was as follows:

	2016		2015		2014	
(in thousands, except per share data)	Shares	WAEP ¹	Shares	WAEP ¹	Shares	WAEP ¹
Options outstanding at beginning of year	687	\$ 58.17	634	\$ 53.72	518	\$ 39.52
Granted	316	\$ 61.57	172	\$ 67.28	355	\$ 65.34
Exercised	(68)	\$ 41.10	(92)	\$ 42.88	(182)	\$ 37.01
Forfeited or expired	(151)	\$ 61.74	(27)	\$ 63.39	(57)	\$ 51.45
Options outstanding at end of year	784	\$ 60.34	687	\$ 58.17	634	\$ 53.72
Options eligible for exercise at year-end	331	\$ 56.23	304	\$ 48.56	194	\$ 40.36

¹ Weighted Average Exercise Price

Our annual stock option grant is typically made in December. Options outstanding at October 1, 2016 had a weighted average remaining contractual term of 4.5 years and an aggregate intrinsic value of \$719. Options eligible for exercise

at October 1, 2016 had a weighted average remaining contractual term of 2.9 years, and an aggregate intrinsic value of \$712.

The total intrinsic value of stock options exercised during the fiscal years ended October 1, 2016, October 3, 2015 and September 27, 2014 was \$1,082, \$2,484 and \$5,838, respectively.

F-26

Table of Contents**Restricted Stock and Restricted Stock Units**

Our annual restricted stock unit grant is typically made in December. We award restricted stock units to directors. The restricted stock units vest on the date of the next annual meeting after grant. The directors are entitled to cash dividend equivalents on unvested shares, but they do not have voting rights on the unvested shares. The sale and transfer of these units is restricted during the vesting period. Additionally, in fiscal year 2013, we awarded restricted stock to our directors that vest proportionately on the first three anniversaries of the grant date. For restricted stock awarded to directors, participants are entitled to cash dividends and voting rights on unvested shares, but the sale and transfer of these shares is restricted during the vesting period. Restricted stock and restricted stock units are valued based on the market value of the shares at the date of grant with the value allocated to expense evenly over the restricted period.

We award restricted stock units and performance restricted stock units to key employees. Restricted stock units vest proportionally on the first three anniversaries of the grant date, and performance restricted stock units vest based on attainment of return on invested capital performance targets at the end of one, two and three year performance periods. Participants awarded restricted stock units and performance restricted stock units are not entitled to cash dividends or voting rights on unvested units. Performance restricted stock units are valued based on the market value of the shares at the date of grant with the value recognized as an expense over the life of the performance period. Once the performance criteria has been met, the value of the performance restricted stock units is finalized.

Restricted stock activity for fiscal years 2016, 2015 and 2014 was as follows:

	2016		2015		2014	
(in thousands, except per share data)	Shares	WAGDFV ²	Shares	WAGDFV ²	Shares	WAGDFV ²
Unvested shares at beginning of year	3	\$ 57.01	9	\$ 54.16	24	\$ 51.68
Granted	—	\$ —	—	\$ —	—	\$ —
Vested	(3)	\$ 57.01	(6)	\$ 53.03	(14)	\$ 49.71
Forfeited	—	\$ —	—	\$ —	(1)	\$ 53.99
Unvested shares at end of year	—	\$ —	3	\$ 57.01	9	\$ 54.16

² Weighted Average Grant Date Fair Value per Share

Restricted stock unit activity for fiscal years 2016, 2015 and 2014 was as follows:

	2016		2015		2014	
(in thousands, except per share data)	Shares	WAGDFV ³	Shares	WAGDFV ³	Shares	WAGDFV ³
Outstanding at beginning of year	119	\$ 64.77	98	\$ 60.51	38	\$ 40.91
Granted	114	\$ 55.84	74	\$ 65.93	88	\$ 63.86
Vested	(47)	\$ 64.69	(47)	\$ 57.68	(17)	\$ 41.01
Forfeited	(21)	\$ 62.15	(6)	\$ 67.96	(11)	\$ 50.10
Outstanding at end of year	165	\$ 58.98	119	\$ 64.77	98	\$ 60.51

³ Weighted Average Grant Date Fair Value per Share

Employee Stock Purchase Plan

Our U.S. employees are eligible to participate in our Employee Stock Purchase Plan (ESPP). Employee purchases of our stock are funded by payroll deductions over calendar six-month periods. The purchase price is 85% of the lower of the market price at either the beginning or end of the six-month period. The shares are required to be held by the employee for at least eighteen months subsequent to the purchase. Two purchase periods closed in fiscal year 2016 with the combined issuance of 24 shares at a weighted average price of \$44.20. In fiscal years 2015 and 2014, purchases were 16 shares and 16 shares, respectively, with weighted average share prices of \$58.96 and \$53.01, respectively.

Table of Contents

NOTE 7 EMPLOYEE BENEFIT PLANS

Retirement Savings Plan

We offer a contributory retirement savings plan that has two components: (1) A 401(k) component with a Company match and (2) A discretionary fiscal year Company contribution.

The 401(k) component of the retirement savings plan allows eligible U.S. employees to contribute a portion of their pre-tax income to the plan each pay period. Prior to October 1, 2015, we matched 50% of employees' pre-tax and Roth 401(k) contributions (excluding "catch-up" contributions that employees age 50 or older may make to the plan), up to 6% of compensation, subject to limitations imposed by federal law. Effective October 1, 2015, we increased the match from 50% to 75% of employees' pre-tax and Roth 401(k) contributions, up to 6% of compensation, subject to limitations imposed by federal law. Our matching contributions were \$4,628, \$2,732 and \$2,559 in fiscal years 2016, 2015 and 2014, respectively. Employees may also contribute a percentage of their salary to the plan on an after-tax basis.

We also provide, on an annual fiscal year basis, a discretionary contribution to the retirement plan for eligible U.S. employees. U.S. employees who are active as of the end of the fiscal year and whom have been paid for 1000 hours or more of service during a plan year are eligible for a fiscal year contribution. After three years as a participant, employees have a vested interest equal to 100% of the total Company's discretionary fiscal year contributions. The plan provides for a discretionary fiscal year contribution based on company financial performance up to the maximum contribution allowed by federal law. We will fund the discretionary contribution if we exceed our Earnings Before Interest and Taxes (EBIT) target. Our Board of Directors approves any changes to the contribution levels under the plan. We did not make any contributions under the plan in fiscal years 2016, 2015 and 2014.

Defined Benefit Pension Plan

One of our German subsidiaries has a non-contributory, defined benefit retirement plan for eligible employees. This plan provides benefits based on the employee's years of service and compensation during the years immediately preceding retirement, termination, disability or death, as defined in the plan. We use a September 30 measurement date for this defined benefit retirement plan.

We recognize the funded status of the defined benefit pension in our Consolidated Balance Sheet Statements, recognize changes in that funded status in the year in which the changes occur through comprehensive income and measure the plan's assets and obligations that determine the plan's funded status as of the end of our fiscal year.

The pretax amount recognized in Accumulated Other Comprehensive Income (AOCI) as of October 1, 2016 and October 3, 2015 consists of the following:

(in thousands)	2016	2015
Actuarial net loss	\$ 15,476	\$ 9,999

The portion of the pretax amount in AOCI at October 3, 2015 that was recognized in earnings during the fiscal year ended October 1, 2016 was \$584. The portion of the pretax amount in AOCI at October 1, 2016 that is expected to be recognized as a component of net periodic retirement cost during the next fiscal year is \$1,006. The actuarial loss in fiscal year 2016 of \$6,123 was primarily a result of the change in the discount rate from 2.27% in fiscal year 2015 to 1.28% in fiscal year 2016.

Table of Contents

The following is a summary of the changes in benefit obligations and plan assets during fiscal years 2016 and 2015.

(in thousands)	2016	2015
Change in benefit obligation		
Projected benefit obligation, beginning of year	\$27,272	\$28,618
Service cost	971	860
Interest cost	608	634
Actuarial loss	6,123	1,256
Exchange rate change	93	(3,491)
Benefits paid	(633)	(605)
Projected benefit obligation, end of year	\$34,434	\$27,272

Change in plan assets		
Fair value of plan assets, beginning of year	\$18,767	\$20,269
Actual return on plan assets	1,119	1,040
Employer contributions	633	605
Exchange rate change	64	(2,542)
Benefits paid	(633)	(605)
Fair value of plan assets, end of year	\$19,950	\$18,767

The following is a summary of the funded status of the defined benefit retirement plan and amounts recognized in our Consolidated Balance Sheets at October 1, 2016 and October 3, 2015.

(in thousands)	2016	2015
Funded status		
Funded status, end of year	\$(14,484)	\$(8,505)
Accumulated other comprehensive loss	15,476	9,999
Net amount recognized	\$992	\$1,494

Amounts recognized in consolidated balance sheets		
Accrued payroll and related costs	\$(740)	\$(721)
Pension benefit plan obligation	(13,744)	(7,784)
Deferred income taxes	4,685	3,031
Accumulated other comprehensive income, net of tax	10,791	6,968
Net amount recognized	\$992	\$1,494

The weighted average assumptions used to determine the defined benefit retirement plan obligation at October 1, 2016 and October 3, 2015, and also the net periodic benefit cost for the following fiscal year, were as follows:

	2016	2015
Discount rate	1.28 %	2.27 %
Expected rate of return on plan assets	5.50 %	5.50 %
Expected rate of increase in future compensation levels	3.00 %	3.00 %

The discount rate is calculated based on zero-coupon bond yields published by the Deutsche Bundesbank for maturities that match the weighted average duration of the pension liability, adjusted for the average credit spread of corporate bond rates above the government bond yields.

The expected rate of return on plan assets represents the weighted average of the expected returns on individual asset categories in the portfolio. We use investment services to assist with determining the overall expected rate of return on pension plan assets. Factors considered in our determination include historical long-term investment performance and estimates of future long-term returns by asset class.

F-29

Table of Contents

The overall objective of our investment policy and strategy for the defined benefit retirement plan is to maintain sufficient liquidity to pay benefits and minimize the volatility of returns while earning the highest possible rate of return over time to satisfy the benefit obligations. The plan fiduciaries assist us with setting our long-term strategic investment objectives for the defined benefit retirement plan assets. The objectives include preserving the funded status of the trust and balancing risk and return. Investment performance and plan asset mix are reviewed periodically.

At both October 1, 2016 and October 3, 2015, plan assets were invested in a single mutual fund, the underlying assets of which are allocated to fixed income and cash and cash equivalents categories as shown in the table below. Any decisions to change the asset allocation are made by the plan fiduciaries. The investment in equity and fixed income securities has a long-term targeted allocation of assets of 50% equity and 50% fixed income.

The actual defined benefit retirement plan asset allocations within the balanced mutual fund at October 1, 2016 and October 3, 2015 are as follows:

	Percentage of Plan Assets			
	2016		2015	
Fixed income securities ¹	75.5	%	83.0	%
Cash and cash equivalents ²	24.5	%	13.0	%
Other	—	%	4.0	%
Total	100.0	%	100.0	%

¹ Fixed income securities are comprised primarily of international government agency and international corporate bonds with investment grade ratings.

Cash and cash equivalents include deposit accounts holding cash in Euros and other currencies and term deposits primarily held as collateral for equity futures. The market values of the equity and futures are linked to the values of equity indexes of developed country markets, including the U.S., Great Britain, Europe, Canada, Switzerland and Japan.

As of October 1, 2016 and October 3, 2015, the fair value of the defined benefit retirement plan assets, which are subject to fair value measurements as described in Note 3 are as follows:

October 1, 2016				
(in thousands)	Level 1	Level 2	Level 3	Total
Mutual fund ¹	\$—	\$19,950	\$—	\$19,950

October 3, 2015				
(in thousands)	Level 1	Level 2	Level 3	Total
Mutual fund ¹	\$—	\$18,767	\$—	\$18,767

The fair value of the mutual fund is generally valued based on closing prices from national exchanges, if the underlying securities are traded on an active market, or fixed income pricing models that use observable market inputs.

Net periodic benefit cost for our defined benefit retirement plan for fiscal years 2016, 2015 and 2014 included the following components:

(in thousands)	2016	2015	2014
Service cost	\$971	\$860	\$800

Interest cost	608	634	833
Expected return on plan assets	(1,027)	(1,009)	(1,024)
Net amortization and deferral	584	501	464
Special termination benefits	—	—	25
Net periodic benefit cost	\$1,136	\$986	\$1,098

The accumulated benefit obligation of our defined benefit retirement plan as of October 1, 2016 and October 3, 2015 was \$30,716 and \$24,657, respectively.

F-30

Table of Contents

The future pension benefit payments, which reflect expected future service, for the next five fiscal years, and the combined five fiscal years thereafter, are as follows:

Fiscal Year	Pension Benefits (in thousands)
2017	\$ 740
2018	775
2019	841
2020	886
2021	994
2022 through 2026	5,659
Total	\$ 9,895

Other Retirement Plans

Certain of our international subsidiaries have non-contributory, unfunded post-retirement benefit plans that provide retirement benefits for eligible employees and managing directors. Generally, these post-retirement plans provide benefits that accumulate based on years of service and compensation levels. At October 1, 2016 and October 3, 2015, the aggregate liabilities associated with these post-retirement benefit plans was \$4,508 and \$3,247, respectively.

NOTE 8 INCOME TAXES

The components of income before income taxes for fiscal years 2016, 2015 and 2014 were as follows:

(in thousands)	2016	2015	2014
Domestic	\$5,345	\$31,827	\$32,867
Foreign	28,167	27,345	25,576
Total income before income taxes	\$33,512	\$59,172	\$58,443

The provision for income taxes for fiscal years 2016, 2015 and 2014 were as follows:

(in thousands)	2016	2015	2014
Current			
Federal	\$3,169	\$4,588	\$7,503
State	138	527	842
Foreign	6,712	8,025	13,056
Deferred	(4,001)	570	(4,967)
Total provision for income taxes	\$6,018	\$13,710	\$16,434

A reconciliation from the federal statutory income tax rate to our effective income tax rate for fiscal years 2016, 2015 and 2014 is as follows:

(in thousands)	2016	2015	2014
United States federal statutory income tax rate	35 %	35 %	35 %
Impact from foreign operations	(5)	(4)	(1)
State income taxes, net of federal benefit	—	1	1
Research and development tax credits	(16)	(8)	(5)
Domestic production activities deduction	(2)	(2)	(2)
Foreign tax credits	—	—	(2)
Nondeductible acquisition costs	5	—	—
Nondeductible stock option expense and other permanent items	1	1	2
Effective income tax rate	18 %	23 %	28 %

F-31

Table of Contents

A summary of the deferred tax assets and liabilities for fiscal years 2016 and 2015 are as follows:

(in thousands)	2016	2015
Deferred tax assets		
Accrued compensation and benefits	\$ 15,888	\$ 11,723
Inventory reserves	6,128	5,198
Other assets	4,685	4,389
Allowance for doubtful accounts	1,488	866
Net operating loss carryovers	140	84
State and foreign tax credit carryovers	1,249	—
Research and development tax credit carryovers	1,540	993
Unrealized derivative instrument gains	185	—
Total deferred tax asset before valuation allowance	31,303	23,253
Less valuation allowance	(3,009)	(921)
Total deferred tax assets	\$28,294	\$22,332
Deferred tax liabilities		
Property and equipment	\$ 15,128	\$ 9,775
Foreign deferred revenue and other	3,320	1,738
Intangible assets	90,450	1,303
Unrealized derivative instrument gains	—	1,199
Total deferred tax liabilities	\$ 108,898	\$ 14,015
Net deferred tax assets (liabilities)	\$(80,604)	\$ 8,317

As of October 1, 2016, one of our German subsidiaries had an interest deduction carryover of \$613. Due to projected income limitations in the future years, we believe the benefit of this interest deduction is not likely to be realized. Accordingly, as of October 1, 2016, we have recorded a full valuation allowance against the carryover in the amount of \$197.

As of October 1, 2016, we had a Minnesota Research and Development (R&D) tax credit carryover of \$1,539, which may be carried forward fifteen years. We have determined that the benefit of this tax credit is not likely to be realized before it expires and have recorded a full valuation allowance against this deferred tax asset. As of October 1, 2016, we had New York and North Carolina investment tax credit carryovers of \$1,224, which we acquired as part of the PCB acquisition. We have determined that the benefit of these state tax credit carryovers is not likely to be recognized. Accordingly, we have recorded a full valuation allowance against this deferred tax asset.

During fiscal year 2016, we repatriated \$10,324 of current earnings from our German and Japanese subsidiaries. We recorded a \$112 tax benefit during fiscal year 2016 related to these repatriations. Also, during fiscal year 2016, we recognized additional federal research and development tax credit benefits of \$2,283 due to the enactment of tax legislation in the first quarter of fiscal year 2016 that made the United States R&D tax credit permanent as of January 1, 2015.

During fiscal year 2015, we repatriated \$9,194 of current earnings from our German and Japanese subsidiaries. We recorded a \$1,057 tax benefit during fiscal year 2015 related to these repatriations. Also, during fiscal year 2015, we recognized additional federal R&D tax credit benefits of \$2,098 due to the enactment of tax legislation in the first quarter of fiscal year 2015 that retroactively extended the U.S. R&D tax credit from January 1, 2014 through December 31, 2014. In addition, we recognized a tax benefit of \$1,836 associated with the favorable resolution of audit matters in connection with the IRS examination of tax years ending October 1, 2011 and September 29, 2012.

During fiscal year 2014, we repatriated \$9,587 of current earnings from our German, Japanese and Korean subsidiaries. We recorded a \$98 tax expense during fiscal year 2014 related to these repatriations. Also, during fiscal

year 2014, we recognized additional federal and state R&D tax credit benefits of \$2,563 related to prior fiscal years due to favorable guidance related to the U.S. R&D tax credit that was issued during the fourth quarter of fiscal year 2013. We were only allowed to recognize federal R&D credits on applicable spending during the first fiscal quarter of 2014, as the provision in the U.S. tax law allowing for these credits expired on December 31, 2013.

We have not recognized a deferred tax liability for the undistributed earnings of certain foreign operations because those subsidiaries have invested or will invest the undistributed earnings indefinitely. At October 1, 2016 and October 3, 2015,

F-32

Table of Contents

undistributed earnings were approximately \$93,510 and \$78,957, respectively. Because of the availability of U.S. foreign tax credits, it is impractical for us to determine the amount of U.S. federal tax liability that would be payable if these earnings were not indefinitely reinvested. Deferred taxes are recorded for earnings of foreign operations when we determine that such earnings are no longer indefinitely reinvested.

A summary of changes to our liability for unrecognized tax benefits for the fiscal years ended October 1, 2016 and October 3, 2015 is as follows:

(in thousands)	2016	2015
Beginning balance	\$5,649	\$5,990
Increase due to tax positions related to the current year	269	1,631
Increase (decrease) due to tax positions related to prior years	500	(1,596)
Decrease due to settlements with tax authorities	—	(332)
Decrease due to lapse of statute of limitations	(186)	(43)
Exchange rate change	—	(1)
Ending balance	\$6,232	\$5,649

Included in the balance of unrecognized tax benefits at October 1, 2016 and October 3, 2015 are potential benefits of \$3,429 and \$2,265, respectively, that, if recognized, would affect the effective tax rate.

As of October 1, 2016 and October 3, 2015, we have accrued interest related to uncertain income tax positions of approximately \$519 and \$274, respectively. At October 1, 2016 and October 3, 2015, no accrual for penalties related to uncertain tax positions existed. Interest and penalties related to uncertain tax positions are included in interest expense, net and general and administrative expense, respectively, on the Consolidated Statements of Income.

We are subject to U.S. federal income tax as well as income tax of numerous state and foreign jurisdictions. We are no longer subject to U.S. federal tax examinations for fiscal years before 2013 and with limited exceptions, state and foreign income tax examinations for fiscal years before 2011. During 2015, the Internal Revenue Service (IRS) completed the audit of our consolidated income tax returns for fiscal years 2011 and 2012. During 2016, the German tax authorities began an audit of our German subsidiaries' fiscal years 2012, 2013 and 2014 income tax returns. As of October 1, 2016, we do not expect significant changes in the amount of unrecognized tax benefits for our U.S. or foreign subsidiaries during the next twelve months.

At October 1, 2016 and October 3, 2015, we and certain foreign subsidiaries were expected to receive income tax refunds within the next fiscal year. As a result, we recognized a current income tax receivable of \$3,238 and \$876 at October 1, 2016 and October 3, 2015, respectively, which is included in prepaid expenses and other current assets on the Consolidated Balance Sheets.

NOTE 9 SHAREHOLDERS' EQUITY

(Dollars and shares in thousands, except per share and per TEU data)

Share Issuance

During the third quarter of fiscal year 2016, we issued 1,897 shares of our common stock at \$42.00 per share in a registered public offering primarily to finance the acquisition of PCB Group, Inc. (PCB), to repay amounts outstanding under our existing revolving credit facility and to pay related costs, fees and expenses. Total net proceeds for fiscal year 2016 were as follows:

(in thousands)	Common Stock	Additional Paid-in Capital	Total
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Public offering	\$ 474	\$ 79,221	\$ 79,695
Less: Underwriting discounts and commissions	—	(4,782)	(4,782)
Less: Other expenses ¹	—	(612)	(612)
Issuance of common stock, net	\$ 474	\$ 73,827	\$ 74,301

¹ Other expenses include direct and incremental costs related to the issuance of the common stock.

F-33

Table of Contents**Tangible Equity Units**

During the third quarter of fiscal year 2016, we issued 1,150 8.75% TEUs in a registered public offering primarily to finance the acquisition of PCB, to repay amounts outstanding under our existing revolving credit facility and to pay related costs, fees and expenses. Total proceeds, net of underwriting discounts, commissions and other expenses were \$110,926. Each TEU has a stated amount of \$100 per TEU and is comprised of a prepaid stock purchase contract and a senior amortizing note having a final installment payment date of July 1, 2019. We allocated the proceeds from the issuance of the TEUs between equity and debt, based on the relative fair values of the respective components of each TEU. The fair value of the prepaid stock purchase contracts, net of underwriting discounts, commissions and other expenses, was recorded in additional paid-in capital in the Consolidated Balance Sheets. The fair value of the senior amortizing note, net of underwriting discounts, commissions and other expenses, was split between current maturities of long-term debt, net and long-term debt, less current maturities, net in the Consolidated Balance Sheets. Underwriting discounts, commissions and other costs directly associated with the TEU-related debt will be amortized using the effective interest rate method over the three year term of the instrument.

The aggregate values assigned upon issuance to each component of the TEUs, based on the relative fair value of the respective components, were as follows:

(in thousands, except fair value price per TEU)	Equity Component	Debt Component	Total
Fair value price per TEU ²	\$ 76.19	\$ 23.81	\$ 100.00
Gross proceeds	\$ 87,614	\$ 27,386	\$ 115,000
Less: Underwriting discounts and commissions	(2,628)	(822)	(3,450)
Less: Other expenses ³	(475)	(149)	(624)
Issuance of TEUs, net	\$ 84,511	\$ 26,415	\$ 110,926

² The fair value price allocation between equity and debt for each TEU was determined using a discounted cash flow model.

³ Other expenses include direct and incremental costs related to the issuance of the TEUs.

Equity Component

Unless settled earlier at the option of the holder, each purchase contract will automatically settle on July 1, 2019. A minimum of 1.9841 shares and a maximum of 2.3810 shares of our common stock, subject to adjustment based upon the applicable market value discussed below, will be delivered to the holder of each prepaid stock purchase contract at the settlement date.

The number of shares of our common stock issuable upon settlement of each purchase contract will be determined as follows:

if the applicable market value is equal to or greater than the threshold appreciation price of \$50.40 per share, holders will receive 1.9841 shares of common stock per purchase contract, or the minimum settlement rate, resulting in the issuance of 2,282 shares of our common stock;

if the applicable market value is greater than the reference price of \$42.00 per share, but less than the threshold appreciation price of \$50.40 per share, holders will receive a number of shares of common stock equal to \$100 per TEU divided by the applicable market value; or

if the applicable market value is less than or equal to the reference price of \$42.00 per share, holders will receive 2.3810 shares of common stock per purchase contract, or the maximum settlement rate, resulting in the issuance of

2,738 shares of our common stock.

The "applicable market value" is defined as the average of the daily volume-weighted average price of the common stock on each of the 20 consecutive trading days beginning on, and including, the 23rd scheduled trading day immediately preceding July 1, 2019.

Debt Component

The amortizing senior note was issued with an initial principal amount of \$27,386 or \$23.8136 per TEU. Equal quarterly cash installments of \$2.1875 per amortizing note (except for the October 1, 2016 installment payment, which was \$2.5764 per amortizing note) will be paid, which in the aggregate will be equivalent to a 8.75% cash distribution per year with respect to each \$100 stated amount per TEU. Each installment will constitute a payment of interest and partial repayment of principal.

F-34

Table of Contents

Earnings Per Common Share

The TEUs have a dilutive effect on our earnings per share. The 1.9841 minimum shares to be issued are included in the calculation of basic weighted average shares outstanding. The 0.3969 difference between the minimum shares and the 2.3810 maximum shares are potentially dilutive, and accordingly, are included in our diluted earnings per share on a pro rata basis to the extent the applicable market value is higher than the reference price but less than the threshold appreciation price. See Note 1 for additional information regarding the calculation of earnings per share.

Capped Call Transactions

In connection with the pricing of the TEUs during the third quarter of fiscal year 2016, we entered into capped call transactions with third parties. The capped calls are expected to reduce the potential dilution to our common stock upon settlement of the TEUs to the extent the market price per share of our common stock exceeds the applicable strike price of the capped calls. The capped calls have a strike price of \$50.40 per share, a cap price of \$58.80 per share and are exercisable when the TEUs are converted. If, upon conversion of the TEUs, the price of our common stock is above the strike price of the capped calls, the third parties will deliver shares of common stock to us with an aggregate value approximately equal to the difference between the price of the common stock at the conversion date (with a maximum price for purposes of this calculation equal to the cap price) and the strike price, multiplied by the number of shares of common stock related to the portion of the capped calls being exercised. The capped calls allow for net share settlement when the TEUs are exercised and expire on July 1, 2019. We paid \$7,935 for the capped calls in the third quarter of fiscal year 2016 and recorded the payment as a reduction of additional paid-in capital in the Consolidated Balance Sheets.

NOTE 10 OTHER COMPREHENSIVE INCOME (LOSS)

Other comprehensive income (loss), a component of shareholders' equity, consists of foreign currency translation adjustments, gains or losses on derivative instruments and defined benefit pension plan adjustments.

Income tax expense or benefit allocated to each component of other comprehensive income (loss) for fiscal years 2016, 2015 and 2014 was as follows:

	2016			2015			2014		
(in thousands)	Pretax	Tax	Net	Pretax	Tax	Net	Pretax	Tax	Net
Foreign currency translation gain (loss) adjustments	\$(332)	\$—	\$(332)	\$(11,215)	\$—	\$(11,215)	\$(5,099)	\$—	\$(5,099)
Derivative instruments									
Unrealized net gain (loss)	(1,342)	487	(855)	3,492	(1,266)	2,226	1,749	(637)	1,112
Net (gain) loss reclassified to earnings	334	(120)	214	(4,299)	1,561	(2,738)	(1,088)	397	(691)
Defined benefit pension plan									
Unrealized net gain (loss)	(6,034)	1,821	(4,213)	(1,252)	378	(874)	(3,656)	1,103	(2,553)
Net (gain) loss reclassified to earnings	584	(176)	408	501	(151)	350	464	(140)	324
Currency exchange rate gain (loss)	(18)	—	(18)	850	—	850	394	—	394
Other comprehensive income (loss)	\$(6,808)	\$2,012	\$(4,796)	\$(11,923)	\$522	\$(11,401)	\$(7,236)	\$723	\$(6,513)

Table of Contents

The changes in the net-of-tax balances of each component of accumulated other comprehensive income (loss) during fiscal years 2016, 2015 and 2014 were as follows:

(in thousands)	Foreign Currency Translation Adjustments	Unrealized Derivative Instrument Adjustments	Defined Benefit Pension Plan Adjustments	Total
Balance, September 28, 2013	\$ 17,319	\$ 477	\$ (5,459)	\$ 12,337
Other comprehensive income (loss) reclassifications	(5,099)	1,112	(2,159)	(6,146)
Amounts reclassified to earnings	—	(691)	324	(367)
Other comprehensive income (loss)	(5,099)	421	(1,835)	(6,513)
Balance, September 27, 2014	\$ 12,220	\$ 898	\$ (7,294)	\$ 5,824
Other comprehensive income (loss) reclassifications	(11,215)	2,226	(24)	(9,013)
Amounts reclassified to earnings	—	(2,738)	350	(2,388)
Other comprehensive income (loss)	(11,215)	(512)	326	(11,401)
Balance, October 3, 2015	\$ 1,005	\$ 386	\$ (6,968)	\$ (5,577)
Other comprehensive income (loss) reclassifications	(332)	(855)	(4,231)	(5,418)
Amounts reclassified to earnings	—	214	408	622
Other comprehensive income (loss)	(332)	(641)	(3,823)	(4,796)
Balance, October 1, 2016	\$ 673	\$ (255)	\$ (10,791)	(10,373)

The effect on certain line items in the Consolidated Statements of Income of amounts reclassified out of AOCI for fiscal years 2016, 2015 and 2014 were as follows:

(in thousands)	2016	2015	2014	Affected Line Item in the Consolidated Statements of Income
Derivative instruments				
Currency exchange contracts gain (loss)	\$(334)	\$4,299	\$1,088	Revenue
Income tax benefit (expense)	120	(1,561)	(397)	Provision for income taxes
Total net gain (loss) on derivative instruments	(214)	2,738	691	Net income
Defined benefit pension plan				
Actuarial loss	(319)	(273)	(253)	Cost of sales
Actuarial loss	(165)	(143)	(131)	Selling and marketing
Actuarial loss	(100)	(85)	(80)	General and administrative
Total actuarial gain (loss)	(584)	(501)	(464)	Income before income taxes
Income tax benefit (expense)	176	151	140	Provision for income taxes
Total net gain (loss) on pension plan	(408)	(350)	(324)	Net income
Total net-of-tax reclassifications out of AOCI included in net income	\$(622)	\$2,388	\$367	

NOTE 11 BUSINESS SEGMENT INFORMATION

Our Chief Executive Officer (the Chief Operating Decision Maker) regularly reviews financial information for our two operating segments, Test and Sensors. Test provides testing equipment, systems and services to the ground vehicles, materials and structures markets. Sensors provides high-performance sensors for acceleration, position, vibration, motion, pressure and force measurement.

In evaluating each segment's performance, our Chief Executive Officer focuses on income from operations. This measure excludes interest income and expense, income taxes and other non-operating items. Corporate expenses, including costs

F-36

Table of Contents

associated with various support functions such as human resources, information technology, legal, finance and accounting and general and administrative costs are allocated to the reportable segments on the basis of revenue.

Financial information by reportable segment for fiscal years 2016, 2015 and 2014 were as follows:

(in thousands)	2016	2015	2014
Revenue			
Test	\$512,265	\$462,880	\$458,153
Sensors	137,882	101,054	106,175
Total revenue	\$650,147	\$563,934	\$564,328
Income from Operations			
Test	\$40,660	\$42,285	\$39,848
Sensors	1,103	19,211	20,408
Total income from operations	\$41,763	\$61,496	\$60,256
Identifiable Assets			
Test	\$395,067	\$369,515	\$392,825
Sensors	792,953	91,316	94,583
Total identifiable assets	\$1,188,020	\$460,831	\$487,408
Goodwill			
Test	\$25,022	\$26,243	\$24,584
Sensors	344,678	1,434	1,539
Total goodwill	\$369,700	\$27,677	\$26,123
Capital Expenditures			
Test	\$17,570	\$14,652	\$16,553
Sensors	3,236	3,793	3,485
Total capital expenditures	\$20,806	\$18,445	\$20,038
Depreciation and Amortization			
Test	\$17,279	\$18,342	\$16,560
Sensors	6,798	2,764	2,719
Total depreciation and amortization	\$24,077	\$21,106	\$19,279

See Note 15 for additional information regarding changes to our Test business.

Table of Contents

Geographic information for fiscal years 2016, 2015 and 2014 were as follows:

(in thousands)	2016	2015	2014
Revenue			
United States	\$ 154,707	\$ 151,288	\$ 144,239
Europe	163,944	149,308	179,043
China	152,264	131,727	117,952
Asia, excluding China	148,056	109,376	90,242
Other Americas	31,176	22,235	32,852
Total revenue	\$650,147	\$563,934	\$564,328

Property and Equipment, Net			
United States	\$ 79,794	\$ 59,312	\$ 58,911
Europe	13,695	13,071	13,573
China	5,630	6,260	7,034
Asia, excluding China	1,670	1,811	2,057
Total property and equipment, net	\$ 100,789	\$ 80,454	\$ 81,575

Revenue by geographic area is presented based on customer location. No countries other than the United States and China had revenue in excess of 10% of the total revenue during any of the periods presented. No single customer accounted for 10% or more of consolidated revenue for any of the periods presented. Revenue is not reported for each of our products and services because it is impracticable to do so.

NOTE 12 RESTRUCTURING AND RELATED COSTS

During the third quarter of fiscal year 2016, we initiated restructuring actions to further reduce our cost structure by eliminating 61 positions, primarily in our Corporate area and Test segment, through terminations, elimination of certain open positions as a result of employees leaving voluntarily throughout fiscal year 2016 and reductions in contractors. The restructuring activities resulted in severance and related pre-tax expense of \$1,237 in fiscal year 2016. The remaining severance and related costs are expected to be paid by the first quarter of fiscal year 2018.

During the fourth quarter of fiscal year 2016, we initiated plans to close our Machida, Japan facility and eliminate 35 positions in our Sensors segment by the third quarter of fiscal year 2017. We incurred severance and related pre-tax expense of \$408 in fiscal year 2016. We also incurred \$520 of pre-tax expense related to facility closure costs. We expect to incur approximately \$1,200 of additional expenses through the third quarter of fiscal year 2017 related to the Machida facility closing. The severance and facility closing costs are expected to be paid during the third quarter of fiscal year 2017.

During fiscal year 2014, we initiated workforce and other cost reduction actions at certain of our locations in the U.S. and Europe. As a result of these cost reduction actions, we incurred severance and related costs of \$6,336 in fiscal year 2014.

Table of Contents

The following table summarizes the restructuring expenses included in our Consolidated Statements of Income for fiscal years 2016 and 2014. There was no restructuring expense in fiscal year 2015.

(in thousands)	Test	Sensors	Total
Fiscal year 2016			
Cost of sales	\$299	\$762	\$1,061
Selling and marketing	129	155	284
General and administrative	414	401	815
Research and development	5	—	5
Total restructuring expense for fiscal year 2016	\$847	\$1,318	\$2,165

Fiscal year 2014			
Cost of sales	\$3,507	\$—	\$3,507
Selling and marketing	1,805	—	1,805
General and administrative	1,024	—	1,024
Total restructuring expense for fiscal year 2014	\$6,336	\$—	\$6,336

The following table summarizes the change in our restructuring expense accruals included in our Consolidated Balance Sheet for the fiscal years ended October 1, 2016 and October 3, 2015.

	2016		2014	
(in thousands)	Q3	Q4	Restructuring	Total
	Restructuring	Restructuring		
Balance at September 27, 2014	\$—	\$ —	\$ 2,573	\$2,573
Payments	—	—	(726)	(726)
Other adjustments	—	—	(16)	(16)
Currency translation	—	—	(283)	(283)
Balance at October 3, 2015	\$—	\$ —	\$ 1,548	\$1,548
Restructuring expense	1,237	928	—	2,165
Payments	(1,238)	—	(498)	(1,736)
Other adjustments	336	—	—	336
Currency translation	(27)	7	3	(17)
Balance at October 1, 2016	\$ 308	\$ 935	\$ 1,053	\$2,296

The following table summarizes the severance and related costs included in our Consolidated Balance Sheet as of October 1, 2016 and October 3, 2015.

(in thousands)	2016	2015
Accrued payroll and related costs	\$1,066	\$497
Other accrued liabilities	520	—
Other long-term liabilities	710	1,051
Total severance and related costs	\$2,296	\$1,548

Table of Contents

NOTE 13 BUSINESS ACQUISITIONS

PCB Group, Inc. Acquisition

On July 5, 2016, we acquired 100% of the outstanding capital stock of PCB for an estimated purchase price of \$581,407 subject to certain adjustments for cash, indebtedness, transaction costs and the level of net working capital that were made at closing. The transaction was accounted for under the acquisition method of accounting. PCB is a manufacturer of piezoelectric sensors and components used for pressure, force and vibration measurement and is headquartered in Depew, New York. We funded the acquisition of PCB with existing cash on hand as well as funds raised through borrowings under the Term Facility in an aggregate principal amount of \$460,000, proceeds from registered public offerings of our TEUs and common stock and the \$43,500 of restricted cash that was placed in escrow during the third quarter of fiscal year 2016 to secure termination fees that would have become payable to PCB had the acquisition not occurred under the definitive purchase agreement. The restricted cash was paid to the shareholders of PCB as part of the estimated purchase price. See Note 5 and Note 9 for additional financing information. The acquired assets, liabilities and operating results have been included in our financial statements within Sensors from the date of acquisition. During fiscal year 2016, we included \$44,503 of revenue and an operating loss of \$2,143 from PCB in our Consolidated Statements of Income. The operating loss includes a \$7,916 fair value adjustment to the acquired PCB inventory. Costs of \$10,170 associated with the acquisition of PCB were expensed as incurred in the Consolidated Statements of Income within the Sensors segment.

The estimated purchase price of PCB consisted of the following:
(in thousands)

Consideration paid to PCB shareholders and employees ¹	\$580,000
Consideration for PCB closing cash	11,612
Deferred endowment consideration	1,000
Net pre-acquisition earn-out	(141)
Net working capital adjustment	(513)
Cash acquired	(10,551)
Total estimated purchase price, net of cash acquired	\$581,407

Of the \$580,000 consideration paid to PCB, we paid \$10,000 directly to employees of PCB on behalf of the PCB¹ shareholders during the fourth quarter of fiscal year 2016. The payment was made pursuant to the definitive purchase agreement entered into with PCB in connection with the acquisition.

PCB's products include accelerometers, microphones, calibration systems, pressure sensors, load and torque sensors, force sensors, single- and multi-channel telemetry, ground fault detection and smart sensing solutions. PCB serves end markets including test and measurement, power and energy, aerospace and defense, industrial measurement and instrumentation, automotive and rail and acoustics and environmental noise monitoring. The acquisition strengthens our current Sensors' business with complementary sensor products and expands channels to market, balancing the revenue mix between our Test and Sensors segments, while enhancing our margin profile and creating significant cross-selling opportunities across the combined portfolio.

Table of Contents

The following table summarizes the preliminary fair value measurement of the assets acquired and liabilities assumed net of cash acquired as of the date of acquisition:

(in thousands)

Assets	
Accounts receivable	\$20,885
Inventories	57,730
Prepaid expenses and other current assets	2,298
Property and equipment	19,649
Intangible assets	
Customer lists	153,900
Trademarks and trade names	58,500
Technology	35,300
Land-use rights	1,200
Other long-term assets	1,796
Total identifiable assets acquired	351,258
Liabilities	
Accounts payable	(6,786)
Accrued payroll and related costs	(7,137)
Non-current deferred tax liability	(94,308)
Other accrued and long-term liabilities	(4,862)
Total identifiable liabilities acquired	(113,093)

Net identifiable assets acquired	238,165
Goodwill	343,242
Total estimated purchase price consideration, net of cash acquired	\$581,407

The fair value measurement was preliminary at October 1, 2016, pending resolution of any purchase price adjustments. We expect the fair value measurement process to be completed as soon as possible, but no later than one year from the acquisition date. Given the size and complexity of the acquisition, the valuation of certain assets and liabilities is still being completed and is subject to final review. Specifically, PCB's tax accounts are provisional pending the completion and review of such assets and liabilities. To the extent that our estimates require adjustment, we will modify the values accordingly. The gross amount of the accounts receivable acquired is \$21,726, of which \$841 is expected to be uncollectible.

Goodwill was calculated as the difference between the acquisition date fair value of the total purchase price consideration and the fair value of the net assets acquired, and represents the future economic benefits that we expect to achieve as a result of the acquisition. This resulted in an estimated purchase price in excess of the fair value of identifiable net assets acquired. The estimated purchase price also included the fair value of other assets that were not identifiable, not separately recognizable under accounting rules (e.g., assembled workforce) of immaterial value in addition to a going-concern element that represents our ability to earn a higher rate of return on the group of assets than would be expected on the separate assets as determined during the valuation process. Based on preliminary fair value measurement of the assets acquired and liabilities assumed, we allocated \$343,242 to goodwill for the expected synergies from combining PCB with our existing business. All of the goodwill was assigned to Sensors. None of the goodwill is expected to be deductible for income tax purposes.

The fair value of acquired identifiable assets was determined using the income approach on an individual project basis. In performing these valuations, the key underlying probability-adjusted assumptions of the discounted cash flows were projected revenues, gross margin expectations and operating cost estimates. The valuations were based on the information that was available as of the acquisition date and the expectations and assumptions that have been deemed reasonable by us. There are inherent uncertainties and management judgment required in these determinations. The fair value measurements of the assets acquired and liabilities assumed were based on valuations

involving significant unobservable inputs, or Level 3 in the fair value hierarchy.

F-41

Table of Contents

The fair value of the acquired intangible assets is \$248,900. The expected lives of the acquired intangible assets are approximately 15 years for developed technology, 16 years for customer lists, 5.4 years for leasehold interest and 3 years for finite-lived trademarks and trade names and are being amortized on a straight-line basis. Trade names having a value of \$57,500 are considered to have indefinite lives.

Pro Forma Financial Information (Unaudited)

The following unaudited pro forma financial information presents the combined results of operations of MTS Systems Corporation as if the acquisition of PCB had occurred as of the beginning of the fiscal years ended October 1, 2016 and October 3, 2015. The unaudited pro forma information is not necessarily indicative of what our consolidated results of operations actually would have been had the acquisition occurred at the beginning of each fiscal year. In addition, the unaudited pro forma financial information does not attempt to project the future results of operations of the combined company.

(in thousands except per share data)	2016	2015
Revenue	\$782,379	\$743,595
Net income	18,779	39,324

Earnings per share

Basic	\$0.93	\$2.05
Diluted	0.92	2.04

The unaudited pro forma financial information is based on certain assumptions which we believe are reasonable, directly attributable to the transactions, factually supportable and do not reflect the cost of any integration activities or the benefits from the acquisition of PCB and synergies that may be derived from any integration activities.

The unaudited pro forma financial information above gives effect to the following:

• Incremental amortization and depreciation expense related to the estimated fair value of identifiable intangible assets and property, plant and equipment from the purchase price allocation.

• Exclusion of the purchase accounting impact of the incremental charge reported in cost of sales for the sale of acquired inventory that was written-up to fair value of \$7,916.

• Includes \$22,968 of interest expense on outstanding debt entered into as part of funding the acquisition.

• Pro forma adjustments tax affected by 20% tax rate.

Weighted average shares outstanding was adjusted to increase the amount by 4,179 shares for both basic and diluted shares in the earnings per share calculation due to the fact that we issued equity in the form of shares of our common stock to acquire PCB.

Our pro forma 2016 and 2015 fiscal years ended on October 1, 2016 and October 3, 2015, respectively, while PCB's 2015 fiscal year ended on December 31, 2015 and 2016 would have ended on December 31, 2016. The full-year unaudited pro forma financial information for fiscal year 2016 combines our audited financial information for the fiscal year ended October 1, 2016 and the unaudited financial information of PCB for the twelve months ended October 1, 2016. The unaudited financial information of PCB for the twelve months ended October 1, 2016 was determined by adding PCB's unaudited financial information for the three months ended December 31, 2015 (PCB's fourth quarter of 2015), the unaudited financial information for the six months ended June 30, 2016 (PCB's first six months of 2016) and the audited financial information of PCB for the period from acquisition (July 5, 2016) to October 1, 2016. The full-year unaudited pro forma financial information for fiscal year 2015 combines our audited financial information for the fiscal year ended October 3, 2015 and the audited financial information of PCB for the year ended December 31, 2015. Due to the different fiscal year ends, the pro forma statement of income for both fiscal

year 2016 and 2015 included PCB's unaudited financial information for the three months ended December 31, 2015 (PCB's fourth quarter of 2015). Summarized operating information about the duplicated quarter is as follows:
(in thousands)

Revenue	\$45,140
Net income	\$3,582

F-42

Table of Contents

Instrument and Calibration Sweden AB Acquisition

On June 29, 2015, we acquired Instrument and Calibration Sweden AB (ICS), a supplier of testing equipment and calibration services located in Sweden, for a purchase price of \$667. During fiscal year 2016, goodwill of \$530 was determined to be attributable to customer lists and reclassified to intangible assets. The assets, liabilities and operating results have been included in our financial statements within Test from the date of acquisition.

Roehrig Engineering, Inc. Acquisition

On June 17, 2014, we acquired Roehrig Engineering, Inc. (REI), a leader in testing systems utilizing electric and electromagnetic actuation technology, located in Lexington, North Carolina, for a purchase price of \$14,842. The assets, liabilities and operating results have been included in our financial statements within Test from the date of acquisition.

In addition to the purchase price of REI, an earn-out contingent consideration of up to a maximum of \$2,000 based on customer orders obtained by REI during the calendar years of 2015 and 2016. The \$2,000 contingent consideration is held in escrow until certain conditions of the escrow agreement are fulfilled. The escrow is expected to be settled no later than June 30, 2017.

NOTE 14 COMMITMENTS AND CONTINGENCIES

Internal Investigation Related to China Operations

As previously reported by us, in November 2016, after the end of fiscal year 2016, we initiated an internal investigation into apparent violations of our Code of Conduct involving certain employees in our China operations, including association by those employees with an independent business that may compete with us in certain markets. As the apparent violations implicated members of leadership in our China operations, the Audit Committee engaged independent external counsel to conduct an investigation of our China operations in order to assess the impact of these apparent violations on the Company's financial input from China and to review for potential violations of the Company's Code of Conduct, anticorruption compliance policies and procedures and related U.S. law. Independent forensic accountants, acting at the direction of external counsel, performed testing of certain transactions related to our China operations as part of this investigation.

As of March 2017, substantial investigative work was completed. The investigation through March 2017 confirmed that the former China Test leader and several other former senior managers associated with our China Test operations violated the conflict of interest provisions of the MTS Code of Conduct in connection with their involvement with an independent business that competed with the Company's low-end products in the China market. This inconsistent adherence to the Company's Code of Conduct could have resulted in management override of internal control over financial reporting.

In light of, and to address the findings of the investigation, and to remediate the material weakness in our internal control over financial reporting resulting from the conclusion described in the prior paragraph, we will conduct more robust monitoring to ensure adherence to our Code of Conduct. Additionally, we have identified opportunities to meaningfully enhance our processes and controls related to the adherence with our compliance policies and procedures, and we will be particularly focused on enhancing our third-party intermediary diligence, engagement and monitoring processes, with the support of and guidance from external resources, and continued clear and consistent messaging on compliance expectations at all levels of the organization.

To address the challenges presented by the findings of the investigation of our China operations, we are exploring multiple business alternatives to address the low-end materials market. The consideration of these alternatives could result in a future expectation of sale or disposal of certain assets that could cause an impairment charge to be recognized in a subsequent period. The assets subject to this potential future impairment assessment include tangible assets of approximately \$5,000 and intangible assets up to approximately \$22,000. We are prepared to assess the mix

of products, markets in which we compete and manner by which we select and utilize resellers, agents, consultants and vendors to support these commitments. We have begun implementing measures to strengthen our compliance program and monitoring to ensure adherence to our Code of Conduct.

Government Investigation

As previously reported by us with disclosures starting in March 2012, we investigated certain gift, travel, entertainment and other expenses incurred in connection with some of our operations in the Asia Pacific region. This investigation focused on possible violations of Company policy, corresponding internal control issues and possible violations of applicable law, including the Foreign Corrupt Practices Act. Substantial investigative work was completed on this matter and we implemented remedial measures, including changes to internal control procedures and removing certain persons formerly employed in our Korea office. We voluntarily disclosed this matter to the Department of Justice and the SEC (the Agencies). We also investigated certain business practices in China, starting in 2014 and that investigation had a similar focus to the 2012 investigation described above. We have also updated the Agencies regarding the China investigation described in the Internal Investigation Related to China Operations above and intend to continue cooperating with the Agencies. We cannot predict the

F-43

Table of Contents

outcome of the Agencies' review of the matters described in this paragraph at this time or whether these matters will have a material adverse impact on our business prospects, financial condition, operating results or cash flows.

Litigation

We are subject to various claims, legal actions and complaints arising in the ordinary course of business. We believe the final resolution of legal matters outstanding as of October 1, 2016 will not have a material adverse effect on our consolidated financial position or results of operations. We expense legal costs as incurred.

Leases

Total lease expense was \$7,053, \$5,787 and \$5,687 for fiscal years 2016, 2015 and 2014, respectively. We have operating lease commitments for equipment, automobiles, land and facilities that expire on various dates through 2056. Minimum annual rental commitments for the next five fiscal years and thereafter are as follows:

	Payments
Fiscal Year (in thousands)	
2017	\$ 5,542
2018	3,315
2019	1,465
2020	634
2021	427
Thereafter	1,836
Total	\$ 13,219

NOTE 15 SUBSEQUENT EVENTS**Interest Rate Swaps**

On October 20, 2016, to mitigate our exposure to interest rate volatility on our tranche B term loan facility debt, we entered into a variable to fixed amortizing interest rate swap with an initial value of \$275,000. The effective date of the swap was November 3, 2016. The interest rate swap fixed the variable portion of the interest rate at 1.256%. We will pay an effective interest rate on the swapped portion of the outstanding debt of 5.51%.

The interest rate swap will be reduced to the following values over the next five years:

(in thousands)	Swapped Value
November 3, 2016	\$275,000
October 3, 2017	255,000
October 3, 2018	225,000
October 3, 2019	180,000
October 3, 2020	125,000
April 3, 2021	—

Test Segment Reorganization

On January 5, 2017, we announced the division of our Test segment into two separate business units, "Materials Test Systems" and "Vehicles and Structure Test Systems." The division of Test will result in us having three operating segments once discrete financial information is made available to the Chief Operating Decision Maker (CODM), and we will continue to report only the Test and Sensors segments until such time. We are currently evaluating the timing of such implementation.

Credit Agreement Consent and Waiver

As previously announced on November 29, 2016, due to an internal investigation of apparent violations by certain employees in our China operations of our Code of Conduct, the filing of our Annual Report on Form 10-K for the fiscal year ended October 1, 2016 and our Quarterly Report on Form 10-Q for the period ended December 31, 2016 were delayed beyond the extended filing due dates, respectively. As a result of the delayed filings, on January 24, 2017, we received a consent and waiver from each of the lenders under our Credit Agreement. Each of the lenders thereto have consented to allow us to deliver our audited financial statements for fiscal year 2016, and our unaudited financial statements for the first quarter of fiscal year 2017, no later than April 24, 2017. We expect to deliver the financial statements prior to this deadline.

Table of Contents

Nasdaq Non-Compliance

On December 6, 2016, we received a deficiency letter from Nasdaq indicating that we, as a result of not filing our Annual Report on Form 10-K for fiscal year 2016 (the Late Annual Report) in a timely manner and disclosing that we would not be able to file the Late Annual Report within the 15-day extension period provided in Rule 12b-25(b) under the Securities Exchange Act of 1934, as amended (the Exchange Act), were not in compliance with Nasdaq Listing Rule 5250(c)(1) for continued listing. In addition, on February 15, 2017, we received a second deficiency letter from Nasdaq indicating that we, as a result of not filing our Quarterly Report on Form 10-Q for the period ended December 31, 2016 (the Late Quarterly Report and together with the Late Annual Report, the Late Reports) in a timely manner and disclosing that we would not be able to file the Late Quarterly Report within the five-day extension period provided in Rule 12b-25(b) under the Exchange Act, together with our prior and ongoing failure to timely file the Late Annual Report, were not in compliance with Listing Rule 5250(c)(1) for continued listing. As requested by Nasdaq, we were required to submit a plan to regain compliance with Nasdaq's filing requirements for continued listing within 60 calendar days of the date of the initial letter.

On January 27, 2017, we submitted our plan to regain compliance with Nasdaq's filing requirements for continued listing and subsequently provided Nasdaq with updates and additional information on February 23, 2017 and March 23, 2017. On April 7, 2017, Nasdaq granted us an extension to regain compliance with Nasdaq's filing requirements for continued listing so long as the Late Reports are filed by May 30, 2017.

MTS Systems Corporation

Schedule II – Summary of Consolidated Allowances for Doubtful Accounts

Changes to the allowance for doubtful accounts were as follows:

(in thousands)	2016	2015	2014
Beginning balance	\$3,411	\$2,609	\$1,998
Provisions / (recoveries)	957	1,210	810
Amounts written-off / payments	(330)	(267)	(159)
Currency	(115)	(141)	(40)
Ending balance	\$3,923	\$3,411	\$2,609