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

FORM 10-K

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

For the fiscal year ended **March 31, 2019**

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

For the transition period from _________ to__________

Commission File Number: 1-7201

AVX CORPORATION

(Exact name of registrant as specified in its charter)

Delaware	33-0379007
(State or other jurisdiction of incorporation or organization)	(I.R.S. employer identification number)
1 AVX Boulevard, Fountain Inn, South Carolina	29644
(Address of principal executive offices)	(Zip Code)

(864) 967-2150

(Registrant's telephone number, including area code)

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, $.01 par value per share	AVX	New York Stock Exchange

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

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

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

Note – Checking the box above will not relieve any registrant required to file reports under Section 13 or 15(d) of the Exchange Act from their obligations under those Sections.

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

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files). Yes ☒ No ☐

Indicate by check mark 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, a smaller reporting company, or an emerging growth company. See the definitions of “large accelerated filer,” “accelerated filer,” “smaller reporting company,” and “emerging growth company” in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☒	Accelerated filer	☐
Non-accelerated filer	☐	Smaller reporting company	☐
		Emerging growth company	☐

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act. ☐

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

Based on the closing sales price of $18.05 on September 30, 2018, the last business day of the registrant's most recently completed second fiscal quarter, the aggregate market value of the common stock held by non-affiliates of the registrant as of that date was $848,263,324.

As of May 14, 2019, there were 169,078,324 shares of the registrant’s common stock, par value $.01 per share, outstanding.

DOCUMENTS INCORPORATED BY REFERENCE

Portions of the registrant’s definitive proxy statement for the 2019 Annual Meeting of Stockholders, which will be filed within 120 days of March 31, 2019, are incorporated by reference into Part III.

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Cautionary Statement Regarding Forward-Looking Statements

The following discussion and analysis should be read in conjunction with the consolidated financial statements, including the notes thereto, appearing elsewhere herein. Statements in this Annual Report on Form 10-K that reflect projections or expectations of future financial or economic performance of AVX Corporation (together with its consolidated subsidiaries “AVX” or the “Company”), and statements of the Company's plans and objectives for future operations, including, but not limited to, those contained in “Business,” “Risk Factors,” “Management’s Discussion and Analysis of Financial Condition and Results of Operations,” and “Quantitative and Qualitative Disclosures about Market Risk,” or relating to the Company’s outlook for overall volume and pricing trends, end market demands, cost reduction strategies and their anticipated results, and expectations for research, development, and capital expenditures, are “forward-looking” statements within the meaning of Section 27A of the Securities Act of 1933, as amended, and Section 21E of the Securities Exchange Act of 1934, as amended. Words such as “expects,” “anticipates,” “plans,” “approximates,” “believes,” “estimates,” “intends,” ”could,” ”should,” ”continue,” and “hopes” and variations of such words and similar expressions are intended to identify such forward-looking statements, although not all forward-looking statements contain such language. No assurance can be given that actual results or events will not differ materially from those projected, estimated, assumed, or anticipated in any such forward-looking statements. Important factors that could result in such differences, in addition to the other factors noted in connection with such forward-looking statements and in “Risk Factors” in this Annual Report on Form 10-K, include: general economic conditions in the Company's market, including inflation, recession, interest rates, and other economic factors; casualty to or other disruption of the Company's facilities and equipment; changes in regulations related to our industry, trade regulations or environmental regulations; potential environmental liabilities; and other factors that generally affect the business of manufacturing and supplying electronic components and related products. Forward looking statements are intended to speak only as of the date they are made and AVX Corporation does not undertake to update or revise any forward-looking statement contained in this Annual Report on Form 10-K to reflect new events or circumstances unless and to the extent required by applicable law. Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified, you should not rely upon forward-looking statements as predictions of future events.

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PART I

Item 1. Business

General

AVX, a Delaware Corporation, was incorporated under the laws of the state of Delaware in 1989. AVX Corporation (together with its consolidated subsidiaries, "AVX" or the "Company") is a leading worldwide manufacturer, supplier, and reseller of a broad line of electronic components, interconnect, sensing and control devices, and related products. Electronic components and connector, sensing and control products manufactured or resold by AVX are used in many types of end use products, including those in telecommunications, automotive, transportation, energy harvesting, consumer electronics, military/aerospace, medical, computer, and industrial markets. Our fiscal year ends on March 31st of each year. Throughout this report, we refer to fiscal 2017, fiscal 2018 and fiscal 2019 to reference the years ended March 31, 2017, March 31, 2018 and March 31, 2019, respectively.

Our electronic component products include ceramic and tantalum capacitors, film capacitors, varistors, filters, passive and active electronic antennas, and other components manufactured in our facilities throughout the world, by other manufacturing suppliers and, through March 31, 2019, components manufactured by Kyocera Corporation of Japan ("Kyocera"), a public company and our majority stockholder which owns approximately 72% of our outstanding common stock. We also sell electronic interconnect, sensing and control devices manufactured in our facilities and by other manufacturing suppliers.

We are organized by product line with four main product groups: Ceramic Components; Tantalum Components; Advanced Components; and Interconnect, Sensing and Control Devices. Historically, KED Resale reported as its own product group, but it has now been combined with Advance Components. Our reportable segments are based on the types of products from which we generate revenues and how management assesses performance and makes operating decisions related to these products. We had two reportable segments as of March 31, 2019: Electronic Components; and Interconnect, Sensing and Control Devices. The product groups of Ceramic Components, Tantalum Components and Advanced Components have been aggregated into the Electronic Components reportable segment. The Electronic Components segment consists primarily of surface mount and leaded ceramic capacitors, RF thick and thin film components, surface mount and leaded tantalum capacitors, surface mount and leaded film capacitors, ceramic and film power capacitors, super capacitors, EMI filters (bolt in and surface mount), thick and thin film packages of multiple integrated components, varistors, thermistors, inductors, resistive products, and passive and active electronic antennas manufactured by us or purchased from other manufacturers for resale. On April 30, 2018, AVX, through its subsidiary, AVX Interconnect Europe GmbH, acquired KUMATEC Sondermaschinenbau & Kunstoffverarbeitung, GmbH ("Kumatec") for $12.9 million, net of cash acquired and debt assumed. The Kumatec business has been included in the Interconnect, Sensing and Control Devices segment. The reportable segments have been presented in accordance with the United States Securities and Exchange Commission's (the "SEC") aggregation criteria and quantitative thresholds. The aggregation criteria consist of similar economic characteristics, products and services, production processes, customer classes, and distribution channels. Sales and operating results from these reportable segments are shown in the tables below. Segment revenue and profit information is presented in Note 17 to the consolidated financial statements. In addition, we have a corporate administration group consisting of finance, legal, environmental, health & safety ("EH&S"), and administrative functions.

Our customers consist of multi-national original equipment manufacturers, or OEMs, independent electronic component distributors, and electronic manufacturing service providers, or EMSs. We market our products through our own direct sales force and independent manufacturers' representatives, based upon market characteristics and demands. We coordinate our sales, marketing, and manufacturing organizations by strategic customer account and globally by region.

We sell our products to customers in a broad array of industries, such as telecommunications, information technology hardware, automotive electronics, medical devices and instrumentation, industrial instrumentation, transportation, energy harvesting, defense and aerospace electronic systems, and consumer electronics.

Our principal strategic advantages include:

Creating Technology Leadership. We have research and development locations in Czechia, France, Germany, India, Israel, Japan, Malaysia, South Korea, the United Kingdom and the United States, although a certain level of innovation occurs at every one of our manufacturing sites. We developed numerous new products and product extensions during fiscal 2019 in addition to those added through our acquisition activity. These new products add to the broad product line we offer to our customers. Our research scientists and design engineers are working to develop product solutions to the challenges facing our customers as consumers and businesses demand more advanced electronic solutions to manage their everyday lives and businesses. Our engineers are continually working to enhance our manufacturing processes to improve capability, capacity, and yield, while reducing manufacturing costs.

Providing a Broad Product Line. We believe that the breadth and quality of our product line and our ability to respond quickly to our customers' design and delivery requirements make us a provider of choice for our multi-national customer base. We differentiate ourselves by providing our customers with a broad line of electronic component and interconnect, sensing and control solutions. This array of products allows our customers to streamline their purchasing and supply organization. Due to our broad product offering, none of our products individually represents a material portion of our revenues.

Maintaining the Lowest Cost, Highest Quality Manufacturing Organization. Excluding our acquisition activity, we have invested approximately $296 million over the past three fiscal years to upgrade and enhance our worldwide manufacturing facilities and capabilities with respect to the manufacture of ceramic, tantalum, and advanced components as well as interconnect, sensing and control devices. In order to reduce the cost of production, our strategy has included the transfer to, and expansion of, manufacturing operations in countries such as China, Czechia, El Salvador, India, Malaysia, Mexico, Romania, and Vietnam.

Globally Coordinating our Marketing, Distribution, and Manufacturing Facilities. We believe that our global presence is an important competitive advantage as it allows us to provide quality products on a timely basis to our global customers. We provide enhanced services and responsiveness to our customers by maintaining significant manufacturing and warehouse operations in regions where we market the majority of our products. As of March 31, 2019, we had 32 manufacturing facilities located in 16 different countries around the world. As our customers continue to expand their global production capabilities, we are ideally situated to meet their design and supply requirements.

Products

We offer an extensive line of electronic component products providing passive and active component solutions for our customers. Passive electronic components do not require power to operate. Such components adjust and regulate voltage and current, store energy, and filter frequencies. Active electronic components, which include amplifying components such as our active antenna components, require power in some way to make them function. In fiscal 2019, sales of Electronic Components represented approximately 72% of our net sales and Interconnect, Sensing and Control Devices represented approximately 28% of our net sales. Additional financial information concerning our Electronic Components and Interconnect, Sensing and Control Devices segments is set forth in Note 17 to the consolidated financial statements included elsewhere herein.

Electronic Components

Our strategic focus on the growing use of electronic components is reflected in our investment, excluding the cost of business acquired, of approximately $197 million in facilities and equipment used to manufacture electronic components during the past three fiscal years. Electronic Components accounted for approximately 72% of our net sales in fiscal 2019. We believe that sales of electronic components will continue to expand in the worldwide electronics market because technological advances in the markets that we serve have been constantly expanding the number and type of applications for these products.

We manufacture and resell a broad line of ceramic and tantalum electrolytic capacitors in many different sizes and configurations. Tantalum and ceramic components are commonly used in conjunction with integrated circuits and are best suited for applications requiring low to medium capacitance values. However, with current capacitance range extensions, we are seeing more demand for higher capacitance (“High CV”) products that increase the demand for certain products we sell. Capacitance is the measure of the capacitor's ability to store electric energy. Generally, ceramic capacitors are more cost-effective at lower capacitance values, and tantalum capacitors are more cost-effective at medium capacitance values. The net sales of tantalum and ceramic capacitors accounted for approximately 62% of our Electronic Component segment net sales in fiscal 2019.

We also manufacture and resell a broad line of advanced electronic components to fill the special needs of our customers. Our family of advanced components includes specialized ceramic, tantalum and film capacitors, polymer and EDLC capacitors, high energy/voltage power capacitors, passive and active antennas and varistors. Our advanced product engineers work with some customers’ in-house technical staffs to design and manufacture customized products to meet the specifications of particular applications. The manufacture of custom products permits us, through our research and development activities, to make technological advances, provide customers with design solutions to fit their needs, gain a marketing inroad with customers with respect to our complete product line, and, in some cases, develop products that can be sold to additional customers in the future. Sales of advanced electronic components accounted for approximately 38% of Electronic Component segment net sales in fiscal 2019.

Interconnect, Sensing and Control

We manufacture and resell high-quality electronic connectors, interconnect systems, and sensing and control devices for use in various industries. Our product lines include a variety of industry-standard connectors as well as products designed specifically for our customers' unique applications. An expanding portion of the electronics market for Interconnect, Sensing and Control products is the automotive market, with applications throughout a vehicle, including engine control, transmission control, audio, brakes, lighting, and stability and safety control systems. We produce fine pitch connectors used in portable devices such as notebook computers, tablets, GPS, and other hand held devices. In addition, we offer specialty connectors designed to address customer specific applications across a wide range of products and end markets, including the expanding LED, LCD, and medical devices and hardware markets. Excluding acquisition related spending, we have invested approximately $95 million in facilities and equipment over the past three years, as we continue to focus on new product development and enhancement of production capabilities for our Interconnect, Sensing and Control business. Sales of Interconnect, Sensing and Control products accounted for approximately 28% of net sales in fiscal 2019.

KED Resale

We had a non-exclusive license to distribute and sell select Kyocera-manufactured electronic component and connector products to our customers in certain geographical regions outside of Japan that terminated on January 1, 2018. The Kyocera KDP, KCP and KCD electronic components we marketed and sold included ceramic capacitors, RF modules, frequency control devices, SAW devices, sensor products, actuators, and acoustic devices. Sales of these products accounted for approximately 1% of net sales in fiscal 2019. For additional information regarding the Company’s relationship with Kyocera, see below “AVX and Kyocera – Resale Sales Channel Changes” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations – Relationship with Kyocera and Related Transactions.”

AVX and Kyocera – Resale Sales Channel Changes

In December 2016, Kyocera notified AVX pursuant to the Products Supply and Distribution Agreement of its intent, effective January 1, 2018, to market its manufactured electronic and interconnect products globally using Kyocera’s sales force rather than continuing to have AVX resell such products in the Americas, Europe and Asia. Kyocera will pay commissions to AVX on sales by Kyocera, in the applicable territories, of products designed into customer applications by AVX prior to January 1, 2018 of 2.0% in calendar year 2018, 1.5% in calendar year 2019, and 1.0% in calendar year 2020. Sales of Kyocera resale products by AVX were $19.0 million and related operating profit was $3.3 million for the fiscal year ended March 31, 2019.

Marketing, Sales, and Distribution

We place a high priority on solving customers' electronic component design challenges and responding to their needs. In order to better serve our customers, we frequently designate teams consisting of marketing, field application engineering, research and development, and manufacturing personnel to work with customers to design and manufacture products to suit their specific requirements. We expense costs related to these activities as incurred.

Approximately 27%, 42%, and 31% of our net sales for fiscal 2019 were to our customers in the Americas, Europe, and Asia, respectively. Financial information for these geographic regions is set forth in Note 17 to our consolidated financial statements included elsewhere herein. The section "Risk Factors," contained herein, provides a discussion of risks associated with our non-U.S. operations.

We market our products worldwide through our own dedicated direct sales personnel that serve our major OEM and EMS customers. We also have a large network of independent electronic component distributors and independent manufacturers' representatives who sell our products throughout the world. We have regional sales and design application personnel in strategic locations to provide technical and sales support for these independent manufacturers' representatives and independent electronic component distributors. We believe that this combination of sales channels provides a high level of market penetration and efficient coverage of our customers on a cost-effective basis.

Our customers use our products in a wide variety of applications. In order to maximize growth opportunities, our engineering and sales teams maintain close relationships with OEM, EMS, and electronic component distributor customers. Our largest customers may vary from year to year, and no customer has a long-term commitment to purchase our products. During the fiscal years ended March 31, 2017, March 31, 2018 and March 31, 2019, no single customer accounted for more than 10% of our sales. As of March 31, 2018 and 2019, no single customer accounted for greater than 10% of the Company's accounts receivable balance. Because we are a supplier to several significant manufacturers across a broad-base of electronic devices industries and because of the cyclical nature of these industries, the significance of any one customer can vary from one period to the next.

We also have qualified products under various specifications approved and monitored by the United States Defense Electronic Supply Center ("DSCC") and European Space Agency ("ESA"), and approved under certain U.S. and non-U.S., foreign military specifications.

Typically, independent electronic component and interconnect device distributors handle a wide variety of products and fill orders for many customers. The sales terms under non-exclusive agreements with independent electronic component and interconnect device distributors may vary by distributor and by geographic region. Such agreements may include stock rotation and ship-from-stock and debit ("ship and debit") programs. Stock rotation is a program whereby distributors are allowed to return qualified inventory semi-annually, for credit equal to a certain percentage, primarily limited to 5%, of the previous six months' net sales. In the United States, we may use a ship and debit program under which we may grant pricing adjustments to assist distributors in meeting competitive prices in the marketplace on sales to their end customers. Ship and debit programs require a request from the distributor for a pricing adjustment for a specific part of a sale to the distributor's end customer from the distributor's stock. In addition, certain agreements with distributors may include special incentive discounts based on the amount of product ordered or shipped. Our agreements with independent electronic component and interconnect device distributors generally also require that we repurchase qualified inventory from the distributor in the event that we terminate the distributor agreement or discontinue a particular product offering.

We had a backlog of orders of approximately $280 million at March 31, 2017, $535 million at March 31, 2018, and $550 million at March 31, 2019. Firm orders, primarily with delivery dates within six months of order placement, are included in backlog. Many of our customers encounter uncertain and changing demand for their products. Customer-provided forecasts of product usage and anticipated usage of inventory at consignment locations are not included in backlog. If demand falls below customers' forecasts, or if customers do not effectively control their inventory, they may cancel or reschedule their planned shipments that are included in our backlog, in many instances without any penalty. Backlog fluctuates from year to year due, in part, to changes in customer inventory levels, changes to consignment inventory arrangements, order patterns, product delivery lead times in the industry, and the completion of acquisitions. Accordingly, the backlog outstanding at any point in time is not necessarily indicative of the level of business expected in any ensuing period since many orders are placed and delivered within the same period. In addition, the increased use of vendor-managed inventory and similar consignment type arrangements tend to limit the significance of backlog as future use and sale of such inventory is not typically reflected in backlog.

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Research, Development, and Engineering

Our emphasis on research and development is evidenced by the fact that most of our manufactured products and manufacturing processes have been designed and developed by our own engineers and scientists. Our research and development activities are carried out at facilities located in Czechia, France, Germany, India, Israel, Japan, Malaysia, South Korea, the United Kingdom and the United States, although a certain level of innovation occurs at all of our manufacturing sites.

Our research and development effort and our operational-level engineering effort place a priority on the design and development of product extensions, innovative new products, and improved manufacturing processes as well as engineering advances in existing product lines and manufacturing operations. Other areas of emphasis include material synthesis and the integration of components for applications requiring reduced size and lower manufacturing costs associated with circuit board assembly. Research, development, and engineering expenditures were approximately $31 million, $42 million, and $60 million during fiscal 2017, 2018, and 2019, respectively. The 2018 and 2019 expenditures include the impact of the three businesses acquired during those years. The level of such spending can fluctuate as new products are transferred to full-scale production and process enhancements are implemented.

We own United States patents as well as corresponding patents in various other countries, and also have patent applications pending, although no individual patent or family of patents is material to the successful operation of our business. For discussion regarding our licensing arrangement with Kyocera, see "Management's Discussion and Analysis of Financial Condition and Results of Operations – Relationship with Kyocera and Related Transactions."

Raw Materials

The costs of our products are influenced by a wide variety of raw materials, including tantalum and other minerals such as platinum, palladium, silver, nickel, gold, and copper as well as other chemicals and chemical mixes used in our manufacturing processes. The costs of these materials are subject to significant price fluctuation as well as occasional shortages. In some cases, raw materials cost increases may be offset by selling price increases, productivity improvements, and cost savings programs.

We are a major consumer of the world's annual production of tantalum. Tantalum powder and wire are principal materials used in the manufacture of tantalum capacitor products. We purchase tantalum raw materials as well as processed powder and wire from suppliers in various parts of the world at prices that are subject to periodic adjustment and variations in the market.

As a key participant in Solutions for Hope, AVX was the first in its industry to validate a "closed tantalum pipe" process from the mine site to the customer. Furthermore, the "closed pipe" was validated under the Conflict-Free Smelter program in accordance with the principles of the Dodd-Frank Wall Street Reform and Consumer Protection Act (the "Dodd-Frank" Act) and the current Organization for Economic Cooperation and Development ("OECD") guidelines. During 2018 and 2019, and in the spirit of continuous improvement envisioned and enshrined by the OECD Due Diligence guidance, AVX continued to improve supply chain sustainability by using a geological science technique for mineral matching (Geological Passporting) in the Democratic Republic of Congo ("DRC") and surrounding regions. AVX has obtained the patent for this technology and invested in equipment at its facility, thus mitigating supply chain risk by reducing the cost and time required to validate the minerals and deliver them for manufacturing.

Since December 2011, AVX has only sourced tantalum powder and wire used in its tantalum capacitors from smelters that are compliant with the RBA/GeSI conflict-free smelter program. In 2012, AVX began using Validated Conflict-Free Tantalum, which comes from verified sources in the DRC and surrounding countries. AVX also observes the principles for other conflict minerals set forth in the Dodd-Frank Act (tin, tungsten, and gold) and the OECD guidelines for such minerals. AVX has implemented a Due Diligence Policy on Conflict Minerals, and actively engages in industry initiatives, including the Responsible Sourcing Initiative ("RMI"), the ITRI Tin Supply Chain Initiative ("iTSCi"), and the Better Sourcing Program ("BSP") Supply Chain Platform. Further details of this effort are available in AVX's annual Form SD filings under the Dodd-Frank Act at www.sec.gov.

Our continued efforts affirm our commitment to supply conflict-free minerals to our customers and to comply fully with the OECD guidelines and SEC regulations.

Competition

Markets for our products are highly competitive. We encounter aggressive and able competition in our various product lines from many domestic and non-U.S. manufacturers. Competitive factors in the markets include product quality and reliability, breadth of product line, customer service, technological innovation, global production presence, timely delivery, and price. We believe we are competitively positioned on each of these factors. The breadth of our product offering enables us to strengthen our market position by providing customers with one of the broadest selections of electronic components and interconnect, sensing and control devices available from any one source.

Employees

As of March 31, 2019, we employed approximately 15,100 full-time employees. This number is expected to fluctuate as some facilities are closed and additional facilities are brought online. At present, approximately 1,340 of these employees are employed in the United States, of which, approximately 140 are covered by collective-bargaining arrangements. In addition, some non-U.S. employees are members of trade and government-affiliated unions. Our relationship with our employee union groups is generally adequate to good. However, no assurance can be given that, in response to changing social and economic conditions and our actions, labor unrest or strikes will not occur.

Environmental Matters

We are subject to federal, state, and local laws and regulations concerning the environment in the United States and to the environmental laws and regulations of the other countries in which we operate. These regulations include limitations on discharges into air and water; remediation requirements; chemical use and handling restrictions; pollution control requirements; waste minimization considerations; and hazardous materials transportation, treatment, storage and disposal restrictions. If we fail to comply with any of the applicable environmental regulations, we may be subject to fines, suspension of production, alteration of our manufacturing processes, sales limitations, and criminal and civil liabilities. Existing or future regulations could require us to procure expensive pollution abatement or remediation equipment, to modify product designs, or to incur expenses to comply with environmental regulations. Any failure to control the use, disposal, or storage, or to adequately restrict the discharge of hazardous substances, could subject us to future liabilities and could have a material adverse effect on our business. Based on our periodic reviews of the operating policies and practices at all of our facilities, we believe that our operations are currently in compliance with applicable environmental laws and regulations.

We have been identified by the United States Environmental Protection Agency (“EPA”), state governmental agencies or other private parties as a potentially responsible party (“PRP”) under the Comprehensive Environmental Response, Compensation and Liability Act (“CERCLA”), or equivalent non-U.S., state or local laws, for clean-up and response costs associated with certain sites at which remediation is required with respect to prior contamination. Because CERCLA or such non-U.S. and state statutes authorize joint and several liability, the regulatory authorities could seek to recover all clean-up costs from any one of the PRPs at a site despite the involvement of other PRPs. At certain sites, financially responsible PRPs other than AVX also are, or have been, involved in site investigation and clean-up activities. We believe that liability resulting from these sites will be apportioned between AVX and other PRPs.

To resolve our liability at the sites at which we have been named a PRP, we have entered into various administrative orders and consent decrees with federal and state regulatory agencies governing the timing and nature of investigation and remediation. As is customary, the orders and decrees regarding sites where the PRPs are not themselves implementing the chosen remedy contain provisions allowing the EPA to reopen the agreement and seek additional amounts from settling PRPs in the event that certain contingencies occur, such as the discovery of significant new information about site conditions.

On June 3, 2010, AVX entered into an agreement with the EPA and the City of New Bedford, pursuant to which AVX is required to perform environmental remediation at a site referred to as the “Aerovox Site” (the “Site”), located in New Bedford, Massachusetts. AVX has substantially completed its obligations pursuant to such agreement with the EPA and the City of New Bedford with respect to the satisfaction of AVX’s federal law requirements. The Massachusetts Department of Environmental Protection has jurisdiction over the balance of the environmental remediation at the Site. AVX has submitted its proposed remedy, but until the state has approved such proposal, AVX cannot determine if additional groundwater and soil remediation will be required, if substantial material will have to be disposed of offsite, or if additional remediation techniques will be required, any of which could result in a more extensive and costly plan of remediation. Further, the Site and the remediation may be subject to additional scrutiny under other statutory procedures which could also add to the cost of remediation. We have a remaining accrual of $22.2 million at March 31, 2019, representing our current estimate of the potential liability related to the remaining performance of environmental remediation actions at the Site and neighboring properties using certain assumptions regarding the plan of remediation. Until all parties agree and remediation is complete, we cannot be certain there will be no additional cost relating to the Site.

We had total reserves of approximately $18.6 million and $26.4 million at March 31, 2018 and March 31, 2019, respectively, related to various environmental matters and sites, including those discussed above. These reserves are classified in the Consolidated Balance Sheets as $3.3 million and $5.8 million in accrued expenses at March 31, 2018 and March 31, 2019, respectively, and $15.3 and $20.6 million in other non-current liabilities at March 31, 2018 and March 31, 2019, respectively. The amounts recorded for identified environmental liabilities are based on estimates. Periodically, we review amounts recorded and adjust them based upon additional legal and technical information that becomes available. Uncertainties about the status of laws, regulations, regulatory actions, technology, and information related to individual sites make it difficult to develop an estimate of the reasonably possible aggregate environmental remediation exposure. Accordingly, these costs could differ from our current estimates.

On April 19, 2016, the Canadian Ministry of the Environment and Climate Change (the “MoE”) issued a Director’s Order naming AVX Corporation, and others, as responsible parties with respect to a location in Hamilton, Ontario that was at one time the site of operations of Aerovox Canada, a former subsidiary of Aerovox Corporation, a predecessor of AVX. AVX has taken the position that any liability of Aerovox Canada for such site under the laws of Canada cannot be imposed on AVX. At present, it is unclear whether the MoE will seek to enforce such Canadian order against AVX. AVX intends to contest any such course of action that may be taken by the MoE.

In connection with the same location, Union Gas Limited and Coca-Cola Refreshments Canada Company filed suits in the Superior Court of Justice for Ontario, Canada, against AVX Corporation, Aerovox Corp. and Cooper Industries, LLC seeking to recover the costs of remediation of the site and for damages associated with alleged contamination of the site. Those suits were filed on April 18, 2018, but not served on AVX until October 11, 2018, and are in their initial stages. AVX is considering its legal options but intends to vigorously defend these matters.

We also operate, or did at one time, on other sites that may have potential future environmental issues as a result of activities at sites during AVX’s long history of manufacturing operations or prior to the start of operations by AVX. Even though we may have rights of indemnity for such environmental matters at certain sites, regulatory agencies in those jurisdictions may require us to address such issues. Once it becomes probable that we will incur costs in connection with remediation of a site and such costs can be reasonably estimated, we establish reserves or adjust our reserves for our projected share of these costs. A separate account receivable is recorded for any indemnified costs. Our environmental reserves are not discounted and do not reflect any possible future insurance recoveries, which are not expected to be significant, but do reflect a reasonable estimate of cost sharing at multiple party sites or indemnification of our liability by a third party.

We are not involved in any pending or threatened environmental proceedings that would require curtailment of our operations. We continually expend funds to ensure that our facilities comply with applicable environmental regulations. While we believe that we are in compliance with applicable environmental laws, we cannot accurately predict future developments and do not necessarily have knowledge of all past occurrences on sites that we currently occupy. New environmental regulations may be enacted and we cannot determine the modifications, if any, in our operations that any such future regulations might require, or the cost of compliance with such regulations. Moreover, the risk of environmental liability and remediation costs is inherent in the nature of our business and, therefore, there can be no assurance that material environmental costs, including remediation costs, will not arise in the future.

Company Information and Website

We file annual, quarterly, and current reports, proxy statements, and other documents with the SEC under the Securities Exchange Act of 1934, as amended (the "Exchange Act"). The SEC maintains an Internet website that contains reports, proxy and information statements, and other information regarding issuers, including us, that file electronically with the SEC. The public can obtain any documents that we file with the SEC at www.sec.gov.

In addition, our Company website can be found on the Internet at www.avx.com. Copies of each of our filings with the SEC including, but not limited to Form 10-Ks, Form 10-Qs, and Form 8-Ks, and all amendments to those reports, can be viewed and downloaded free of charge as soon as reasonably practicable after the reports and amendments are electronically filed with or furnished to the SEC. To view the reports from our website, go to "Investors," then to "SEC Filings."

The following corporate governance related documents, as well as others, are also available free of charge on our website:

- Code of Business Conduct and Ethics
- Code of Business Conduct and Ethics Supplement Applicable to the Chief Executive Officer, Chief Financial Officer, Controllers and Financial Managers
- Corporate Governance Guidelines
- Audit Committee Charter
- Compensation Committee Charter
- Special Advisory Committee Charter
- Contact the Board – Whistleblower and Ethics Hotline Procedures

To review these documents, go to our website and select "About," followed by "Corporate Information," and then "Corporate Governance."

Executive Officers of the Registrant

Our executive officers are appointed annually by our Board of Directors or, in some cases, appointed in accordance with our bylaws. Each officer holds office until the next annual appointment of officers or until a successor has been duly appointed and qualified, or until the officer's death or resignation, or until the officer has otherwise been removed in accordance with our bylaws. The following table provides certain information regarding the current executive officers of the Company:

Name	Age	Position
John Sarvis	69	Chief Executive Officer and President
Jeffrey Schmersal	50	Chief Operating Officer
Michael Hufnagel	65	Senior Vice President and Chief Financial Officer
John Lawing	68	Senior Vice President and Chief Technology Officer
S. Willing King	56	Senior Vice President of Tantalum Products
Eric Pratt	59	Senior Vice President of Marketing
Evan Slavitt	61	Senior Vice President, General Counsel, and Corporate Secretary
Steven Sturgeon	50	Senior Vice President of Connector Products
Alexander Schenkel	44	Senior Vice President of Sales

John Sarvis

Chief Executive Officer and President since April 2015. Chairman of the Board since 2016. Vice President of Ceramic Products from 2005 to 2015. Divisional Vice President – Ceramics Division from 1998 to 2005. Prior to 1998, held various Marketing and Operational positions. Employed by the Company since 1973.

Jeffrey Schmersal

Chief Operating Officer since April 2018. Senior Vice President since 2017. Divisional Vice President of Specialty Products from 2014 to 2017. Global Business Manager of various product groups from 2006 to 2014. Prior to 2006, held various Quality and Supply Chain positions. Employed by the Company since 1994.

Michael Hufnagel

Chief Financial Officer since July 2018. Vice President of Corporate Finance since 2016. Director of Corporate Finance from 2015 to 2016. Director of Accounting and Reporting from 2002 to 2015. Employed by the Company since 2002.

John Lawing

Senior Vice President and Chief Technology Officer since 2015. Vice President and Chief Technology Officer from April 2014 to 2015. President and Chief Operating Officer from 2013 to March 2014. Vice President of Advanced Products from 2005 to April 2013. Divisional Vice President of Advanced Products from 2002 to 2005 and Divisional Vice President of Leaded Products from 1997 to 2002. Prior to 1997, held positions in Engineering, Technical, Operational, and Plant management. Employed by the Company since 1981.

S. Willing King

Senior Vice President of Tantalum Products since 2015. Vice President of Tantalum Products from 2013 to 2015. Deputy General Manager of Tantalum Products from 2012 to 2013. Vice President of Product Marketing from 2004 to 2012. Director of Product Marketing from 2000 to 2004. Prior to 2000, held positions in Technical Service, Sales, and Marketing. Employed by the Company since 1984.

Eric Pratt

Senior Vice President of Marketing since April 2017. Vice President of Kyocera Electronic Devices from 2015 to April 2017. Director of Marketing for Kyocera International Inc. from 2013 to 2015. Prior to 2013, held multiple positions in Sales and Marketing for the Company over 16 years.

Evan Slavitt

Senior Vice President, General Counsel and Secretary since 2016. Vice President of Business and Legal Affairs from 2007 to 2016. Trial lawyer in private practice in Massachusetts from 1987 to 2006. Assistant United States Attorney for the District of Massachusetts from 1983 to 1987. Trial Attorney with the Antitrust Division of the U.S. Department of Justice from 1981 to 1983.

Steven Sturgeon

Senior Vice President of Connector Products since April 2017. Divisional Vice President of Connector Products from 2015 to April 2017. Director of Corporate Strategic Planning from 2013 to 2015. Engineering Manager Corporate Strategic Planning from 2011 to 2013. Prior to 2011, held various Engineering and Operational positions. Employed by the Company since 1995.

Alexander Schenkel

Senior Vice President of Sales since April 2018. Director Europe, Middle East, Africa, and Japan Sales from 2013 to 2018. Director Distribution Europe and Middle East Sales from 2008 to 2013. Director North and East Europe Sales from 2006 to 2008. Employed by the Company since 2006.

Item 1A. Risk Factors

From time to time, information provided by us, including, but not limited to, statements in this report, or other statements made by us or on our behalf, may contain "forward-looking" information within the meaning of the Private Securities Litigation Reform Act of 1995. Such statements involve a number of risks, uncertainties, and contingencies, many of which are beyond our control, which may cause actual results, performance, or achievements to differ materially from those anticipated.

Our businesses routinely encounter and address risks, some of which will cause our future results to be different – sometimes materially different – than we presently anticipate. Discussion about the important operational risks that our businesses encounter can also be found in "Management's Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere in this Form 10-K. We wish to caution the reader that the following important risk factors and those factors described elsewhere in this report or other documents that we file or furnish to the SEC could cause our actual results to differ materially from those stated in forward-looking statements contained in this document and elsewhere. Below, we have described our current view of certain important risks. The risks described below are not the only risks we face. Additional risks and uncertainties not currently known to us or that we currently deem to be immaterial also may materially and adversely affect our business, financial condition and/or operating results. These risks are not presented in order of importance or probability of occurrence. Our reactions to material future developments as well as our competitors' reactions to those developments will affect our future results.

We operate in a cyclical business, which could result in significant fluctuations in demand for our products

Cyclical changes in our customers' businesses have, in the past, resulted in, and may in the future result in, significant fluctuations in demand for our products, selling prices, and our profitability. Most of our customers operate in cyclical industries. Their requirements for electronic components and interconnect, sensing and control devices fluctuate significantly as a result of changes in general economic conditions, technological changes, customer demand, and other factors. During periods of increasing demand, our customers typically seek to increase their inventory of our products to avoid production bottlenecks. When demand for their products peaks and begins to decline, as has happened in the past, they tend to reduce or cancel orders for our products while they use up accumulated inventory. Business cycles vary somewhat in different geographical regions and customer industries. Significant fluctuations in sales of our products affect our unit manufacturing costs and affect our profitability by making it more difficult for us to predict our production, raw materials, and shipping needs. Changes in demand mix, needed technologies, and end-use markets may adversely affect our ability to match our products, inventory, and capacity to meet customer demand and could adversely affect our operating results and financial condition. We are also vulnerable to general economic events or trends beyond our control, and our sales and profits may suffer in periods of weak demand.

We must consistently reduce costs to remain competitive and to address downward price trends

Our industry is intensely competitive, and prices for existing products tend to decrease over their life cycle. To remain competitive, we must achieve continuous cost reductions through process and material improvements. We must also be in a position to minimize our customers' inventory financing costs and to meet their other goals for supply chain management. In addition, as a result of our efforts to streamline manufacturing and logistics operations and to enhance operations in lower operating cost regions we have incurred restructuring costs in the past and are likely to incur restructuring costs in the future in response to competitive pressures. If we are unsuccessful in implementing restructuring or other cost reduction plans, we may experience disruptions in our operations and incur higher ongoing costs, which may adversely affect our sales levels, financial condition, and operating results.

We attempt to improve profitability by operating in countries in which operating costs are lower; but the shift of operations to these regions may entail considerable expense and risk

Our strategy is aimed at achieving significant production cost savings through the transfer to and expansion of manufacturing operations in countries with lower operating costs, such as China, Czechia, El Salvador, India, Malaysia, Mexico, Romania, and Vietnam. During this process, we may experience under-utilization of certain factories in higher-cost regions and capacity constraints in plants and factories located in lower-cost regions. This under-utilization may result initially in production inefficiencies and higher overall costs. These costs also include those associated with compensation in connection with work force reductions and plant closings in the higher-cost regions, and start-up expenses, equipment relocation costs, manufacturing and construction delays, and increased depreciation costs in connection with the initiation or expansion of production in lower-cost regions. In addition, as we implement transfers of certain of our operations, we may experience labor strikes or other types of disruption due to lay-offs or termination of our employees in higher-cost countries.

Our global operations subject us to many different and complex laws and rules

Due to our global operations, we are subject to many laws governing international relations (including but not limited to the Foreign Corrupt Practices Act, the U.S. Export Administration Act the EU General Data Protection Regulation, and the U.K. Modern Anti-Slavery Act); which prohibit improper payments to government officials and restrict where and how we can do business, what information or products we can supply to certain countries, what personal information we can transfer, and what information we can provide to a non-U.S. government. Although we have procedures and policies in place that should mitigate the risk of violations of these laws, there is no guarantee that they will be sufficiently effective. If, and when we acquire new businesses we may not be able to ensure that the pre-existing controls and procedures meant to prevent violations of the rules and laws were effective, and we may not be able to implement effective controls and procedures to prevent violations quickly enough when integrating newly acquired businesses. Acquisitions of new businesses in new non-U.S. jurisdictions may also subject us to new regulations and laws, and we may face difficulties ensuring compliance with these new requirements.

We encounter competition in substantially all areas of our business

We compete primarily on the basis of technology, product quality, price, sales terms, customer service, and delivery time. Competitors include large, diversified companies, some of which have substantial assets and financial resources, as well as medium to small companies. There can be no assurance that additional competitors will not enter into our existing markets, nor can there be any assurance that we will be able to compete successfully against existing or new competition.

We may not have adequate facilities to satisfy future increases in demand for our products

Our business is cyclical and in periods of a rising economy, we may experience intense demand for our products. During such periods, we may have difficulty expanding our manufacturing to satisfy demand. Factors that could limit such expansion include delays in procurement of manufacturing equipment, shortages of skilled personnel, physical constraints on expansion of our facilities, and shortages from our suppliers. If we are unable to meet our customers' requirements and our competitors sufficiently expand production, we could lose customers and/or market share. These losses could have an adverse effect on our financial condition and results of operations. Also, capacity that we add during upturns in the business cycle may result in excess capacity during periods when demand for our products recedes, resulting in inefficient use of capital which could also adversely affect our financial condition and results of operations.

If we are unable to attract and retain qualified personnel, especially our design and technical personnel, we may not be able to execute our business strategy effectively.

Our future success depends on our ability to retain, attract and motivate qualified personnel, including our management, sales and marketing, finance, and especially our design and technical personnel. As the source of our technological and product innovations, our design and technical personnel represent a significant asset. Any inability to retain, attract or motivate such personnel could have a material adverse effect on our business and results of operations.

We must continue to develop new products and technology to remain competitive

Many of the fundamental technologies used in the electronics industry have been available for a long time. The market is subject to rapid changes in product designs and technological advances allowing for better performance and/or lower cost. New applications are frequently found for existing technologies, and new technologies occasionally replace existing technologies for some applications or open up new business opportunities in other areas of application. Successful innovation is critical for maintaining profitability in the face of potential erosion of selling prices for existing products. To address downward selling price pressure for our products and to meet market requirements, we must continue to develop innovative products and production techniques. Sustaining and improving our profitability depends a great deal on our ability to develop new products quickly and successfully meet changing customer specifications. Non-customized commodity products are especially vulnerable to price pressure, but customized products have also experienced selling price pressure over time. We have traditionally addressed downward pricing trends in part by offering products with new technologies or applications that offer our customers advantages over older products. We also seek to maintain profitability by developing products to our customers' specifications that are not readily available from competitors. Developing and marketing these products requires start-up costs that may not be recouped if those new products or production techniques are not successful. There are numerous risks inherent in this process, including the risks that we will be unable to anticipate the direction of technological change or that we will be unable to develop and market new products and applications in a timely fashion to satisfy customer demands. If this occurs, we could lose customers and experience adverse effects on our results of operations.

In addition to our own research and development initiatives, we may invest in technology start-up enterprises, in which we may acquire a controlling or non-controlling interest but whose technology would be available to be commercialized by us. There are numerous risks in investments of this nature, including the limited operating history of such start-up entities, their need for capital, their limited or absence of production experience, as well as the risk that their technologies may prove ineffective or fail to gain acceptance in the marketplace. There can be no assurance that our current and future investments in start-up enterprises will prove successful.

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Our operating results are sensitive to raw material and resale product availability, quality, and cost

Many of our products require the use of raw materials that are available from only a limited number of regions around the world, are available from only a limited number of suppliers, or may be subject to significant fluctuations in market prices. Our results of operations may be adversely affected if we have difficulty obtaining these raw materials, our key suppliers experience financial difficulties, the quality of available raw materials deteriorates, or there are significant price increases for these raw materials. For example, the prices for tantalum, platinum, silver, nickel, gold, copper, palladium, and other raw materials that we use in the manufacture of our products are subject to fluctuation and have experienced significant variability in the past. Our inability to recover increased costs through increased sales prices could have an adverse impact on our results of operations. For periods in which the prices for these raw materials rise, we may be unable to pass on the increased cost to our customers, which would result in decreased sales margins for the products in which they are used. For periods in which prices for these raw materials decline, we may be required, as has occurred in the past, to write down our inventory carrying cost of these raw materials and products. Depending on the extent of the difference between market price and our carrying cost, the write-down could have a significant adverse effect on our results of operations.

We resell products manufactured by other component and interconnect product manufacturers. Should these manufacturers experience difficulties supplying the products that we resell, or such suppliers use other channels to market their products, we could experience lower sales, which could have an adverse effect on our results of operations.

Our sales to distribution sales channel customers may fluctuate

Selling products to our customers in the electronic component distribution sales channel has associated risks, including, without limitation, that sales can be negatively impacted on a short-term basis because of changes in distributor inventory levels; these changes may be unrelated to the purchasing trends by the end customer. In the past, we have gone through cycles of inventory correction as distributors increase or decrease their supply chain inventories based upon their anticipated market needs and economic conditions.

Our backlog is subject to customer cancellation

We generally do not obtain firm, long-term purchase commitments from our customers. Uncertain economic and geopolitical conditions have resulted in, and may continue to result in, some of our customers delaying the delivery of products that we manufacture or source for them and placing purchase orders for lower volumes of products than previously anticipated. Many of the orders that comprise our backlog may be canceled by our customers without penalty. Our customers may on occasion, order products from multiple sources to ensure timely delivery when delivery lead times are particularly long and product delivery is a concern. They may cancel orders when business is weak and inventories are excessive, a situation that we have experienced during periods of economic slowdown. Therefore, we cannot be certain that the amount of our backlog does not exceed the level of sales that will ultimately be made. Our results of operations could be adversely impacted if customers cancel a material portion of orders in our backlog.

Our growth strategy includes growth through acquisitions, which may involve significant risks

From time to time, we make strategic acquisitions of other companies or businesses as we believe such acquisitions can help to position us to take advantage of growth opportunities. Such acquisitions could introduce significant risks and uncertainties, including risks related to integrating the acquired businesses and achieving benefits from the acquisitions. More particularly, risks and uncertainties of an acquisition strategy could include: (1) difficulties in integrating newly-acquired businesses and operations in an efficient and effective manner; (2) challenges in achieving strategic objectives, cost savings, and other benefits from acquisitions; (3) risk that markets do not evolve as anticipated and that the technologies acquired do not prove to be those needed to be successful in those markets; (4) potential loss of key employees of the acquired businesses; (5) risk of diverting the attention of senior management from our operations; (6) risks of entering new markets in which we have limited experience; (7) risks associated with integrating financial reporting and internal control systems; (8) difficulties in expanding information technology systems and other business processes to accommodate the acquired businesses; (9) future impairments of goodwill and other intangible assets of an acquired business; (10) unanticipated legal and regulatory issues in the jurisdictions of the acquired business; (11) liabilities for activities of the acquired businesses, including environmental, tax, and other known and unknown liabilities; and (12) additional costs related to plant closures, employee terminations, etc. could be incurred to create operating inefficiencies for AVX and a newly acquired entity.

Changes in our environmental liability and compliance obligations may adversely affect our operations or financial condition

Our manufacturing operations, products, and/or product packaging are subject to environmental laws and regulations governing air emissions; wastewater discharges; the handling, disposal, and remediation of hazardous substances, wastes, and certain chemicals used or generated in our manufacturing process; employee health and safety; labeling or other notifications with respect to the content or other aspects of our processes, products, or packaging; restrictions on the use of certain materials in or on design aspects of our products or product packaging; and responsibility for disposal of products or product packaging. We also operate, or did at one time, at sites that may have potential future environmental issues as a result of activities at such sites during the long history of manufacturing operations of AVX or its corporate predecessor, or prior to the start of operations by AVX. Even though we may have rights of indemnity for such environmental matters at certain sites, regulatory agencies in those jurisdictions may require us to address such issues. We establish reserves for specifically identified potential environmental liabilities when the liabilities are probable and reasonably estimated. Nevertheless, there can be no assurance we will not be obligated to address environmental matters that could have a material adverse impact on our operations or financial condition. In addition, new environmental regulations may be enacted and we cannot presently determine the modifications, if any, in our operations that any such future regulations might require, or the cost of compliance with these regulations. In order to resolve liabilities at various sites, we have entered into various administrative orders and consent decrees, some of which may be, under certain conditions, reopened or subject to renegotiation. See “Environmental Matters” in Item 1 elsewhere in this Form 10-K for additional information.

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Changes in regulatory compliance obligations may adversely affect our operations

The Dodd-Frank Act, signed into law on July 21, 2010, includes Section 1502, which required the SEC to adopt additional disclosure requirements related to the source of certain "conflict minerals" for issuers for which such "conflict minerals" are necessary to the functionality or production of a product manufactured, or contracted to be manufactured, by that issuer. The SEC issued a final rule on August 22, 2012. The minerals covered by the rules are commonly referred to as "3TG" and include tin, tantalum, tungsten, and gold. We use many of these materials in our production processes. The rule requires companies to perform due diligence, disclose, and report whether or not such minerals originate from the DRC and adjoining countries. We have incurred and will continue to incur additional costs to comply with these disclosure requirements, including costs related to determining the source of any of the relevant minerals and metals used in our products. Global supply chains are complicated with multiple layers and suppliers between the mine and the final product.

Historically, and prior to our participation in "Solutions for Hope," we had a policy of not using tantalum sourced from the DRC or any other area in which insurgents or similar groups benefit from the sale of minerals. We continue to conduct extensive supply chain investigations to reduce risk and support supply chain sustainability in the region using the OECD guiding principles. AVX was the first in its industry to validate a "closed tantalum pipe" process, assuring all tantalum products contain only tantalum from smelters that have been independently verified under the Conflict Free Smelter program in accordance with the principles of the Dodd-Frank legislation and the current OECD guidelines.

Since December 2011, AVX has only sourced tantalum powder and wire used in its tantalum capacitors from smelters that are compliant with the RBC/GeSI conflict-free smelter program. In 2012, AVX began using Validated Conflict-Free Tantalum, which comes from verified sources in the DRC and surrounding countries. During 2016 and in the spirit of continuous improvement envisioned and enshrined by the OECD Due Diligence guidance, AVX continues to improve supply chain sustainability and reduce compliance cost by field-testing a new alternate traceability platform ("BSP") and proof of concept of a geological science technique for mineral matching (Geological Passporting) in the DRC region. The result of the BSP pilot demonstrated that a new compliance model is possible using technology for the reporting, analysis, chain of custody and Geo Passporting for validation. Please refer to the Solutions for Hope website for more information.

Our continued efforts affirm our commitment to supply products with conflict-free minerals to our customers and to comply fully with the OECD guidelines and SEC regulations. The implementation of Rule 1502 has not had a material adverse effect on our ability to source raw materials or manufacture products containing the "3TG" metals. We filed our most recent Form SD with the SEC on May 25, 2018.

We use significant amounts of electrical energy and processed ores in our production processes. Although its status is uncertain, the Kyoto Protocol is an international agreement that purports to set binding targets for signatory industrialized countries for reducing greenhouse gas emissions. Further, a number of governments or governmental bodies have introduced or are contemplating legislative and regulatory changes in response to the potential impacts of climate change that would limit and reduce greenhouse gas emissions. Any significant, sustained increase in energy costs could result in increases in our capital expenditures, operating expenses, and costs of important raw materials resulting in an adverse effect on our results of operations and financial condition.

The potential physical impacts of climate change on our operations are highly uncertain, and will be particular to the geographic circumstances. These effects may adversely influence the cost, production, and financial performance of our operations.

The European Union has adopted Regulation 2016/679 of the European Parliament and of the Council on the protection of natural persons with regard to the processing of personal data and on the free movement of such data (General Data Protection Regulation) ("GDPR"), which became effective on May 25, 2018. We expended substantial resources to conform our operations to comply with these laws. Although we believe we are in compliance with the current laws, other nations are similarly enacting new or updated privacy laws and regulations that could require significant additional costs to implement.

Brexit adds additional uncertainty in one of our key markets

On June 23, 2016, the United Kingdom (U.K.) held a referendum in which voters approved an exit from the E.U., commonly referred to as "Brexit" and the U.K. Prime Minister has delivered a notice of withdrawal to the E.U. As a result, the British government is negotiating the terms of the U.K.'s future relationship with the E.U. Although it is unknown what those terms will be, it is possible that there will be greater restrictions on imports and exports between the U.K. and E.U. countries and increased regulatory complexities. These changes may adversely affect our operations and financial results.

Our results may be negatively affected by foreign currency exchange rates

We conduct business in several international currencies through our worldwide operations and, as a result, are subject to foreign exchange exposure due to changes in exchange rates of the various currencies. Volatility in exchange rates can affect our sales, gross margins, and stockholders' equity both positively and negatively. In order to minimize the effects of movements in currency exchange rates, we enter into forward exchange contracts to hedge external and intercompany foreign currency transactions. In addition, we attempt to minimize currency exposure risk by producing our products in the same country or region in which the products are sold, thereby generating revenues and incurring expenses in the same currency. There can be no assurance that our approach will be successful, especially in the event of a significant and sudden decline in the value of any of the international currencies of our worldwide operations. We do not engage in purchasing forward exchange contracts for speculative purposes.

A significant portion of our cash, cash equivalents, and short-term investments are held by our non-U.S. subsidiaries

We generate a significant amount of cash and profits from our non-U.S. subsidiaries. As of March 31, 2019, approximately 87% of our cash and investment securities were held by our foreign subsidiaries.

The Tax Cuts and Jobs Act ("TCJA"), enacted on December 22, 2017, transitions the U.S. from a worldwide tax system to a territorial tax system. Under previous law, companies could indefinitely defer U.S. income taxation on unremitted foreign earnings. The TCJA imposed a one-time transition tax on deferred foreign earnings of 15.5% for liquid assets and 8% for illiquid assets, payable in defined increments over eight years. As a result of this requirement, we expect to pay approximately $70.3 million over an eight year period, net of estimated applicable foreign tax credits. This estimate is based on the filing of our most recent tax return and is down $5.4 million from our original estimate.

As a result, previously deferred foreign earnings may now be repatriated to the United States without additional U.S. federal taxation. However, any such repatriation could incur withholding and other foreign taxes in the source and intervening foreign jurisdiction.

Our operating results may be adversely affected by non-U.S. operations

We have significant international operations and our operating results and financial condition could be adversely affected by economic, political, health, regulatory, and other circumstances existing in foreign countries in which we operate. International manufacturing and sales are subject to inherent risks, including production disruption by employee union or works council actions, changes in local economic or political conditions, the imposition of currency exchange restrictions, unexpected changes in regulatory environments, potentially adverse tax law changes, changes in trade, import or export laws and regulations, and the exchange rate risk discussed above. Further, we have operations, suppliers, and customers in countries that are in the Pacific Basin which may be more susceptible to certain natural disasters, including earthquakes, tsunamis, and typhoons. Although we have operations around the world, a significant natural event could disrupt supply or production or significantly affect the market for some or all of our products. There can be no assurance that these factors will not have an adverse impact on our production capabilities or otherwise adversely affect our business and operating results.

In addition to specific country risks, our operations and sales are dependent on an integrated global operation. As a result, disruptions resulting from inter-governmental trade disputes, imposition of tariffs, imposition of trade sanctions, and direct conflict in locations such as the Korean peninsula could adversely affect our operations, growth, or profitability.

Our products are subject to stringent specifications and operating tolerances

All of our products are built to specifications and tested for adherence to such specifications before shipment to customers. We warrant that our products will meet such specifications. In the past, we have not incurred significant warranty claims. However, we have seen an increasing trend in the marketplace for claims related to end market product application failures or end-user recall or damage claims related to product defects, which could result in future claims that have an adverse impact on our results of operations.

Our ability to maintain our competitiveness depends, in part, on our maintaining the proprietorship of our technology

We will protect our proprietary rights as long as our proprietary technologies are maintained as trade secrets or are covered by recognized patents. We properly apply for, and will continue to apply for, patents covering our technologies. However, each patent application may not result in a successful patent issuance and competitors may develop similar, alternative, or new technologies, which reduce the positive impact of our patents. In addition, competitors may challenge our patents, as has happened in the past, or seek to invalidate them, or operate in certain countries who do not recognize our legal patent rights. The protection of intellectual property involves multiple legal and factual issues, which makes the process difficult and potentially expensive.

We will vigorously defend our patent and intellectual property rights and may be involved in future litigation alleging our infringement of such rights from others. We may seek various remedies to resolve these claims, including the offering or purchasing of licenses in an acceptable manner. An unfavorable outcome regarding these rights could have an adverse effect on our business and our results of operations.

Fluctuations in the market values of our investment portfolio could adversely affect our financial condition and operating results

Although we have not recognized any material losses related to our cash equivalents, short-term investments, or long-term investments, future declines in the market values of such investments could have an adverse effect on our financial condition and operating results. Given the global nature of our business, we have investments both domestically and internationally. Additionally, a portion of our overall investment portfolio includes investment securities in the financial sector. If the issuers of such investments default on their obligations or their credit ratings are negatively impacted by liquidity, credit deterioration or losses, poor financial results, or other factors, the value of our cash equivalents, short-term investments, and long-term investments could decline and have an adverse effect on our financial condition and operating results. In addition, our ability to find investments that are both safe and liquid and that provide a reasonable return may be impaired. This could result in lower interest income and/or higher other-than-temporary impairments.

Credit risk on our accounts receivable could adversely affect our financial condition and operating results

Our outstanding trade receivables are not covered by collateral or credit insurance. While we have procedures to monitor and limit exposure to credit risk on our trade receivables, there can be no assurance such procedures will effectively limit our credit risk and avoid losses, which could have an adverse effect on our financial condition and operating results.

Counterparty non-performance to derivative transactions could adversely affect our financial condition and operating results

We evaluate the credit quality of potential counterparties to derivative transactions and only enter into agreements with those deemed to have minimal credit risk at the time the agreements are executed. Our foreign exchange hedge portfolio is diversified across several credit line banks and we carefully monitor the amount of exposure we have with any given bank. We also periodically monitor changes to counterparty credit quality as well as our concentration of credit exposure to individual counterparties. In some cases, we have master netting agreements that help reduce the risk of counterparty exposures. We do not hold or issue derivative financial instruments for trading or speculative purposes. Nevertheless, a credit crisis could have an impact on our hedging contracts if our counterparties are forced to file for bankruptcy or are otherwise unable to perform their obligations. If we are required to terminate hedging contracts prior to their scheduled settlement dates, we may be required to recognize losses that could have an adverse effect on our financial condition and operating results.

Returns on pension and retirement plan assets and interest rate changes could affect our operating results

The funding position of our defined benefit pension plans is influenced by the performance of the financial markets, and the discount rate used to calculate our pension obligations for funding and expense purposes. In the past, declines in the financial markets have negatively affected the value of the assets in our defined benefit pension plans. In addition, lower discount rates for actuarial purposes may result in increased pension contributions and expense.

Funding obligations are generally determined under government regulations and measured periodically based on the value of the assets and liabilities determined on a specific date. If the financial markets do not provide the expected long-term returns, we could be required to make larger contributions. The financial markets can be, and in the recent past have been, very volatile, and therefore our estimate of future contribution requirements can change at any time. In a low interest rate environment, the likelihood of higher contributions in the future increases.

We may not generate sufficient future taxable income, which may require additional valuation allowances against our deferred tax assets

As part of the process of preparing our consolidated financial statements, we are required to estimate our tax assets and liabilities in each of the jurisdictions in which we operate. This process involves management estimating the actual current tax liabilities together with assessing temporary differences resulting from different treatment of items for tax and accounting purposes. These differences result in deferred tax assets and liabilities that are included within our consolidated balance sheet.

We assess the likelihood that our deferred tax assets will be recoverable as a result of future taxable income and, to the extent we believe that recovery is not more likely than not, we establish a valuation allowance.

We have recorded valuation allowances due to uncertainties related to our ability to realize some of our deferred tax assets, primarily consisting of certain net operating losses carried forward, before they expire. The valuation allowances are based on our estimates of future taxable income over the periods that our deferred tax assets will be recoverable.

We also record provisions for certain foreign and domestic federal and state tax contingencies based on the likelihood of obligation, when needed. In the normal course of business, we are subject to challenges from U.S. and foreign tax authorities regarding the amount of taxes due. These challenges may result in adjustments to the timing or amount of taxable income or deductions or the allocation of income among tax jurisdictions. Further, during the ordinary course of business, other changing facts and circumstances may influence our ability to utilize tax benefits as well as the estimated taxes to be paid in future periods. In the event that actual results differ from our estimates, we may need to adjust tax accounts and related payments, which could materially affect our financial condition and results of operations.

If we are unable to generate sufficient future taxable income in certain jurisdictions, or if there is a significant change in the actual tax rates or the time period within which the underlying temporary differences become taxable or deductible, we could be required to increase our valuation allowances resulting in an increase in our effective tax rate, which would have an adverse impact on future operating results.

We are increasingly dependent on information technology, and if we are unable to protect against service interruptions, data corruption, cyber-based attacks, or network security breaches our operations could be disrupted and we could incur significant costs and reputational harm as a result

We rely on information technology networks and systems, including the Internet, to process, transmit, and store electronic and financial information; to manage a variety of business processes and activities; and to comply with regulatory, legal, and tax requirements. We also depend on our information technology infrastructure for digital marketing and sales activities and for electronic communications among our locations, personnel, customers, and suppliers around the world. Many of the information technology systems used by us globally have been in place for many years and not all hardware and software is currently supported by vendors. These information technology systems are susceptible to damage, disruptions, or shutdowns due to failures during the process of upgrading or replacing software, databases or components thereof, power outages, hardware failures, computer viruses, cyber-attacks, telecommunication failures, user errors, or catastrophic events. If our information technology systems suffer severe damage, disruption, or shutdown and our business continuity plans do not effectively resolve the issues in a timely manner, our product sales, financial condition, and results of operations may be materially affected, and we could experience delays in reporting our financial results.

We have been, and likely will continue to be, subject to various cyber-attacks. To date, we have seen no material impact on our business or operations from these attacks or events. Any future significant compromise, breach, or misuse of our data security could result in significant costs and damage to our reputation. The ever-evolving threats mean us and our third-party service providers must continually evaluate and adapt our respective systems and processes and overall security environment, as well as those of any companies we acquire. There is no guarantee that these measures will be adequate to safeguard against all data security compromises, breaches, or misuses. In addition, as the regulatory environment related to information security, data collection and use, and privacy becomes increasingly rigorous, compliance with those requirements could also result in additional costs.

Third-party service providers, such as distributors, subcontractors, vendors, and data processors have access to certain portions of our sensitive data. In the event that these service providers do not appropriately protect our data, the result could be a security breach or loss of our data. Any such loss of data by our third-party service providers could have a material adverse impact on our business and results of operations.

In addition, if we are unable to prevent security breaches, we may suffer financial and reputational damage or penalties because of the unauthorized disclosure of confidential information belonging to us or to our customers or suppliers. Furthermore, the disclosure of non-public sensitive information through external media channels could lead to the loss of intellectual property or damage our reputation and brand image.

We are also in the process of converting certain information technology networks and systems and consolidating certain global systems. If such projects fail, or if unexpected technical difficulties arise, our operations and financial systems could be adversely affected. Further, we could incur additional costs or require additional technical support to resolve such difficulties.

Changes in global geopolitical and general economic conditions and other factors beyond our control may adversely affect our business

The following factors beyond our control could adversely affect our business:

- A global economic slowdown affecting any one, or all, of our markets.
- Rapid escalation of the cost of regulatory compliance and litigation.
- Unexpected government policies and regulations affecting us or our significant customers' sales or production facilities.
- Regional conflicts or actions, including, but not limited to, armed conflict and trade wars that could affect our, or our customer's or vendor's, production and delivery capabilities.
- Unforeseen interruptions to our business with our significant customers and suppliers resulting from labor strikes, financial instabilities, computer malfunctions, environmental disruptions, natural disasters, inventory excesses or other unforeseen events or circumstances.

We operate in a continually changing business environment and new factors emerge from time to time. Other unknown and unpredictable factors also could have either adverse or positive effects on our future results of operations or financial condition.

Item 1B. Unresolved Staff Comments

None.

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Item 2. Properties

Our fixed assets include manufacturing plants, warehouses, and machinery and equipment. In many instances, the machinery and equipment have been manufactured to our specifications and/or have special adaptations. Our plants, warehouses, machinery, and equipment are in good operating condition and are well maintained. Substantially all of our facilities are in regular use. We consider the present level of fixed assets, along with planned capital expenditures, as suitable and adequate for our operations in the current business environment. Excluding acquisition related spending, our capital expenditures for plant and equipment were $66.3 million in fiscal 2017, $100.5 million in fiscal 2018 and $129.7 million in fiscal 2019.

We believe that our facilities are suitable and adequate for the business conducted therein and are being utilized appropriately for their intended purposes. Utilization of the facilities varies based on demand for the products. We continuously review our anticipated requirements for facilities and, based on that review, may from time to time construct, acquire, or lease additional facilities and/or dispose of existing facilities.

AVX manufactures products worldwide to support the commercial, automotive, aerospace, medical, and other markets. The appropriate ISO standard based on market requirements are in place and include but are not limited to ISO9001, AS9100 and ISO13485.

Virtually all of our manufacturing, research and development, and warehousing facilities could at any time be involved in the manufacturing, sale, or distribution of electronic components, interconnect, sensing and control device products or resale products. The following is a list of our significant facilities and related information.

Location	Approximate Square Footage	Type of Interest	Description of Use
UNITED STATES			
Fountain Inn, SC	420,000	Owned	Headquarters/Manufacturing/Warehouse/Research
Jacksonville, FL	100,000	Owned	Manufacturing
Myrtle Beach, SC	105,000	Owned	Manufacturing
NON U.S.			
Tianjin, China	513,000	Owned	Manufacturing
Bzenec, Czechia	265,000	Owned	Manufacturing
Lanskroun, Czechia	561,000	Owned	Manufacturing/Research
Uherske Hradiste, Czechia	336,000	Owned	Manufacturing
San Salvador, El Salvador	420,000	Owned	Manufacturing
Saint-Apollinaire, France	322,000	Leased	Manufacturing/Research
Betzdorf, Germany	111,000	Owned	Manufacturing
Werne, Germany	192,000	Owned	Manufacturing/Research/Development
Adogawa, Japan	211,000	Owned	Manufacturing/Research/Warehouse
Penang, Malaysia	450,000	Owned	Manufacturing/Research
Juarez, Mexico	190,000	Owned	Manufacturing
Coleraine, N. Ireland	185,000	Owned	Manufacturing/Research
Timisoara, Romania	172,000	Leased	Manufacturing/Research/Warehouse
Bac Ninh, Vietnam	109,000	Leased	Manufacturing/Administration

In addition to the foregoing, we have many other less significant manufacturing, research, warehouse, sales office, and administrative office locations throughout the world. We do not anticipate difficulty in renewing existing leases as they expire or in finding alternative facilities, if necessary.

Item 3. Legal Proceedings

See “Environmental Matters” in "Item 1. Business" elsewhere in this Form 10-K for a discussion of our involvement as a PRP at certain environmental clean-up sites, including two lawsuits filed in April 2018 in the Superior Court of Justice in Ontario, Canada.

On April 25, 2013, AVX was named as a defendant in a patent infringement case filed in the United States District Court for the District of Delaware captioned *Greatbatch, Inc. v. AVX Corporation*. This case alleged that certain AVX products infringe on one or more of six Greatbatch patents. On January 26, 2016, the jury returned a verdict in favor of the plaintiff in the first phase of a segmented trial and a mixed verdict in the second phase of a segmented trial, and found damages to Greatbatch in the amount of $37.5 million, which was recorded in fiscal 2016. That award was later vacated by the court on March 30, 2018, which resulted in a favorable accrual adjustment of $1.5 million. In a new trial, the amount of damages (excluding interest) was determined by a jury to be $22.1 million on January 15, 2019 resulting in a favorable accrual adjustment of $13.9 million during fiscal 2019. During fiscal 2019, the company made a payment of $22.1 million to an escrow account, which is classified within “Other assets” in the consolidated balance sheet. However, the matter is still subject to various post-trial proceedings and possible appeal which could result in a material impact to the accrual for this case in the future.

On September 2, 2014, a subsidiary of AVX, American Technical Ceramics (“ATC”), was named as a defendant in a patent infringement case filed in the United States District Court of the Southern District of California captioned *Presidio Components, Inc. v. American Technical Ceramics Corp.* This case alleged that certain ATC products infringe on a Presidio patent. On April 18, 2016, the jury returned a verdict in favor of the plaintiff and found damages to Presidio. On August 17, 2016, the court issued a permanent injunction prohibiting ATC from manufacturing or selling the related products after November 16, 2016. Subsequently, on October 21, 2016, the Federal Circuit Court granted AVX’s request for a stay of the permanent injunction whereby ATC was allowed to continue to sell the disputed product until March 17, 2017 to anyone who was a customer prior to June 17, 2016. Any sales subsequent to November 16, 2016 pursuant to the stay of the permanent injunction were subject to court mandated intellectual property damages for each product sold. In December 2017, a panel of the Federal Circuit vacated the damage award to Presidio, vacated the injunction, and remanded the case for further proceedings to determine damages limited to “reasonable royalties” and to reconsider the requested injunction in light of its opinion and any additional facts. In June 2018, the District Court set the amount of royalties and re-issued the injunction. An appeal has been filed from both decisions.

As of March 31, 2019, we had total reserves of $59.8 million plus accrued interest in accrued expenses with respect to the two intellectual property cases discussed above. The amounts recorded are based on estimated outcomes. Amounts recorded are reviewed periodically and adjusted to reflect additional information that becomes available. Accordingly, the actual costs related to these cases could differ from our current estimates.

During calendar year 2014, AVX was named as a co-defendant in a series of cases filed in the United States and in the Canadian provinces of Quebec, Ontario, British Columbia, Saskatchewan and Manitoba alleging violations of United States, state and Canadian antitrust laws asserting that AVX and numerous other companies were participants in alleged price-fixing in the capacitor market. The cases in the United States were consolidated into the Northern District of California on October 2, 2014. Some plaintiffs have broken off from the United States class action and filed actions on their own, although AVX is not named in all of these independent actions. The cases in Canada have not been consolidated. All of these cases are still in progress. AVX believes it has meritorious defenses and intends to vigorously defend the cases.

We are involved in other disputes, warranty claims, and legal proceedings arising in the normal course of business. While we cannot predict the outcome of these other disputes and proceedings, we believe, based upon a review with legal counsel, that none of these other disputes or proceedings will have a material impact on our financial position, results of operations, comprehensive income (loss), or cash flows. However, we cannot be certain of the eventual outcome in these or other matters that may arise and their potential impact on our financial position, results of operations, comprehensive income (loss), or cash flows.

Item 4. Mine Safety Disclosures

Not applicable.

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PART II

Item 5. Market for the Registrant's Common Equity, Related Stockholder Matters and Issuer Purchases of Equity Securities

Market for Common Stock

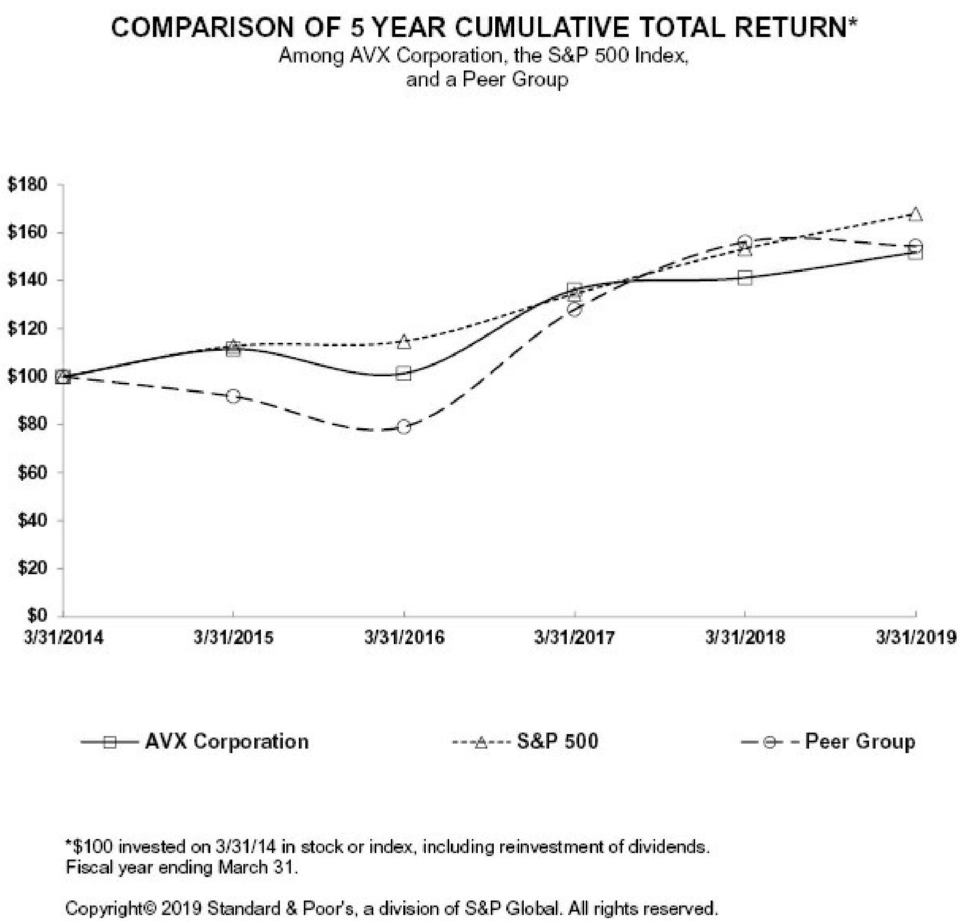
Our common stock is listed on the New York Stock Exchange and trades under the symbol "AVX." At May 14, 2019, there were 282 holders of record of the Company's common stock. In addition, there were numerous beneficial holders of the common stock, representing persons whose stock is held in nominee or "street name" accounts through brokers. We have historically paid quarterly cash dividends, including quarterly dividends of $0.115 per share in 2019. Future dividends, if any, will be determined by the Company's Board of Directors and may depend on the Company's future profitability and anticipated operating cash requirements.

The name, address, and phone number of our stock transfer agent and registrar is:

The American Stock Transfer and Trust Company, LLC
6201 15th Avenue
Brooklyn, NY 11219
1-718-921-8300

Stock Performance Graph

The following chart shows, from the end of fiscal year 2014 to the end of fiscal year 2019, changes in the value of $100 invested in each of the Company's common stock, Standard & Poor's 500 Composite Index, and a peer group consisting of two companies whose businesses are representative of our business segments. The companies in the peer group are Kemet Corporation and Vishay Intertechnology, Inc.



Cumulative Total Return

	3/31/14	3/31/15	3/31/16	3/31/17	3/31/18	3/31/19
AVX - NYSE	$ 100	$ 111	$ 101	$ 136	$ 141	$ 152
S & P 500	$ 100	$ 113	$ 115	$ 134	$ 153	$ 168
Peer Group	$ 100	$ 92	$ 79	$ 128	$ 156	$ 154

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Purchases of Equity Securities by the Issuer

On October 17, 2007, the Board of Directors of the Company authorized the repurchase of up to 5,000,000 shares of our common stock from time to time on the open market. The repurchased shares are held as treasury stock and are available for general corporate purposes. The Company repurchased 55,000 shares during fiscal 2019. As of March 31, 2019, there were 3,012,074 shares that may be repurchased under this program. The Company did not repurchase any shares in the fourth quarter of fiscal 2019.

Item 6. Selected Financial Data

The following table sets forth selected consolidated financial data for AVX for the five preceding fiscal years ended March 31. The selected consolidated financial data for the five fiscal years ended March 31 are derived from AVX's audited consolidated financial statements. The consolidated financial data set forth below should be read in conjunction with AVX's consolidated financial statements and the notes thereto and "Management's Discussion and Analysis of Financial Condition and Results of Operations" included elsewhere in this Form 10-K.

Selected Financial Data

(in thousands, except per share data)

	2015	2016	2017	2018	2019
OPERATING RESULTS DATA:					
Net sales	$ 1,353,228	$ 1,195,529	$ 1,312,661	$ 1,562,474	1,791,790
Cost of sales	1,024,659	906,460	1,027,906	1,243,612	1,308,907
Gross profit	328,569	289,069	284,755	318,862	482,883
Selling, general and administrative expenses	115,820	119,767	117,598	140,528	168,804
Legal and environmental charges	-	45,318	3,600	(1,500)	(5,589)
Profit from operations	212,749	123,984	163,557	179,834	319,668
Interest income	4,554	5,003	7,381	12,778	17,001
Other, net	1,296	3,165	4,011	(299)	(3,426)
Income before income taxes	218,599	132,152	174,949	192,313	333,243
Provision for (benefit from) income taxes	(7,272)	30,617	49,164	187,403	61,430
Net income	$ 225,871	$ 101,535	$ 125,785	$ 4,910	271,813
Income per share:					
Basic	$ 1.34	$ 0.61	$ 0.75	$ 0.03	$ 1.61
Diluted	$ 1.34	$ 0.60	$ 0.75	$ 0.03	$ 1.61
Weighted average common shares outstanding:					
Basic	168,148	167,797	167,506	168,262	168,713
Diluted	168,402	167,961	167,837	168,925	169,322
Cash dividends declared per common share	$ 0.41	$ 0.42	$ 0.43	$ 0.45	$ 0.46

	2015	2016	2017	2018	2019
BALANCE SHEET DATA:					
Working capital	$ 1,478,243	$ 1,506,589	$ 1,620,337	$ 1,407,161	1,470,542
Total assets	2,459,015	2,409,819	2,477,413	2,672,766	2,813,278
Stockholders' equity	2,131,963	2,177,106	2,216,479	2,243,443	2,384,180

	2015	2016	2017	2018	2019
OTHER DATA:					
Capital expenditures	$ 26,599	$ 48,103	$ 66,288	$ 100,537	129,655
Research, development and engineering expenses	25,390	28,300	30,946	41,778	59,915

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

Overview

AVX Corporation is a leading worldwide manufacturer, supplier, and reseller of a broad line of electronic components and interconnect, sensing and control devices, and related products. These products manufactured or resold by AVX are used in virtually all types of end use products, including those in telecommunications, automotive, transportation, energy harvesting, consumer electronics, military/aerospace, medical, computer, and industrial markets. We have four main product groups: Ceramic Components; Tantalum Components; Advanced Components; and Interconnect, Sensing and Control Devices (formerly AVX Interconnect). Historically, KED Resale reported as its own product group, but it has now been combined with Advanced Components. These product lines are organized into two reportable segments: Electronic Components and Interconnect, Sensing and Control Devices.

Consolidated revenues for the fiscal year ended March 31, 2019 were $1,791.8 million compared to consolidated revenues of $1,562.5 million for the fiscal year ended March 31, 2018. During fiscal 2019, we saw an increase in sales due to a number of factors, including the effect of acquisitions, higher volumes, and a favorable pricing environment across almost all of our product groups resulting from improved global market conditions reflective of higher overall demand, primarily in the automotive, defense, industrial, and networking markets. The increase in revenue includes sales of $354.7 million in our Interconnect, Sensing and Control Devices segment and $113.3 million in our Electronic Components segment that are attributable to our acquisition of the AB Electronic sensing and control business ("S&C") and Ethertronics, Inc. ("Ethertronics"), respectively. The increase in revenue was partially offset by a decrease of approximately $33.3 million as a result of the currency movement due to the strength of the U.S. Dollar when compared to the Japanese Yen and Euro in the same period last year.

Profit from operations for the year ended March 31, 2019 reflects a favorable accrual adjustment of $13.9 million related to an ongoing patent infringement case, partially offset by a charge of $8.3 million related to estimated remediation costs for a legacy environmental issue at an inactive site.

Profit from operations for the year ended March 31, 2018 reflects a favorable accrual adjustment of $1.5 million related to an ongoing patent infringement case.

In fiscal 2019, we generated $233.0 million of cash from operating activities. We used cash generated from operations to fund $132.5 million of general working capital requirements and $129.7 million of property and equipment purchases. We continued to use our resources to provide value to our stockholders by paying $12.3 million, net of cash acquired and debt assumed, in connection with the one business acquisition and dividends of $77.7 million during fiscal year 2019. Our financial position remains strong with approximately $813.2 million of cash, cash equivalents, and securities investments and no borrowings as of March 31, 2019.

We remain committed to investing in new products and improvements to our production facilities, manufacturing capacity and processes as well as continued investment in research, development, and engineering in order to provide our customers with new generations of electronic component and interconnect, sensing and control solutions. We are currently producing sophisticated electronic components and other devices necessitated by the breadth and increase in functionality of the electronics included in products such as wearable electronic devices, tablets, ultrabooks, netbooks, automobiles, planes, industrial equipment, medical devices, and renewable energy products that are manufactured by our customers. We have continued to focus on the sale of value-added electronic components and interconnect, sensing and control solutions to serve these expanding markets and enhance our operating margins. We are also focused on controlling and reducing costs to accommodate market sales price forces and offset rising operating costs. We do this by investing in automated manufacturing technologies, enhancing manufacturing materials and efficiencies, and rationalizing our production capabilities around the world. We believe that these strategies enable us to adapt quickly and benefit as market conditions change in order to provide stockholder value.

During the fiscal year ended March 31, 2019 we completed one acquisition. We may consider additional strategic acquisitions of other companies or businesses in the future in order to expand our product offerings or otherwise improve our market position and cost structure. We evaluate potential acquisitions in order to position ourselves to take advantage of profitable growth opportunities.

Outlook

Near-Term:

With ever changing global geopolitical and economic conditions, it is difficult to quantify expectations for fiscal 2020. Near-term results for us will depend on the impact of the overall global geopolitical and economic conditions and their impact on automotive, telecommunications, information technology hardware, consumer electronics, and other electronic markets as well as our effectiveness in integrating our acquisitions. Looking ahead, visibility is low and forecasting is a challenge in this uncertain and volatile market. We expect to see typical sales price pressure in the markets we serve due to competitive activity. In response to anticipated market conditions, we expect to continue to focus on cost management, improved operating efficiencies and product line rationalization to maximize earnings potential. We also continue to focus on process improvements and enhanced production capabilities in conjunction with our focus on the sales of value-added electronic components to support today's advanced electronic use products. If current global geopolitical and economic conditions worsen, the overall impact on our customers as well as end-user demand for electronic products could have a significant adverse impact on our near-term results.

In December 2016, Kyocera notified AVX pursuant to the Products Supply and Distribution Agreement of its intent, effective January 1, 2018, to market its manufactured electronic and interconnect products globally using Kyocera's sales force rather than continuing to have AVX resell such products in the Americas, Europe and Asia. Kyocera will pay commissions to AVX on sales by Kyocera, in the applicable territories, of products designed into customer applications by AVX prior to January 1, 2018 of 2.0% in calendar year 2018, 1.5% in calendar year 2019, and 1.0% in calendar year 2020. Sales of Kyocera resale products were $19.0 million and related operating profit was $3.3 million for the fiscal year ended March 31, 2019.

Long-Term:

Although there is uncertainty in the near-term market as a result of the current global geopolitical and economic conditions, we continue to see opportunities for long-term growth and profitability improvement due to: (a) a projected increase in the long-term worldwide demand for more sophisticated electronic end use products, which require electronic components and interconnect, sensing and control devices such as the ones we sell, (b) cost reductions and improvements in our production processes, and (c) opportunities for growth in our Electronic Components and Interconnect, Sensing and Control Devices product lines due to advances in component design and our production capabilities and capacity. We have fostered our financial health and the strength of our balance sheet putting us in a good position to react to changes in the marketplace as they occur. We remain confident that our strategies will enable our continued long-term success.

Results of Operations

Year Ended March 31, 2019 compared to Year Ended March 31, 2018

Net sales for the fiscal year ended March 31, 2019 were $1,791.8 million compared to $1,562.5 million for the fiscal year ended March 31, 2018.

The table below represents product group revenues for the fiscal years ended March 31, 2018 and 2019.

Net sales (in thousands)	2018	2019
Ceramic Components	$ 226,204	$ 421,849
Tantalum Components	366,194	382,905
Advanced Components	642,775	485,208
Total Electronic Components	1,235,173	1,289,962
Interconnect, Sensing and Control Devices	327,301	501,828
Total Net Sales	$ 1,562,474	$ 1,791,790

Electronic Component sales were $1,290.0 million for the fiscal year ended March 31, 2019 compared to $1,235.2 million during the fiscal year ended March 31, 2018. The sales increase in Electronic Components product sales was driven by increased volume and a favorable pricing environment in our Ceramic and Tantalum Components across most markets resulting from favorable global market conditions and increased demand for our electronic component products resulting from technological advances across a broad range of industries driven by IoT and an increasingly connected world led by the automotive, industrial, telecommunications, networking, and computer markets. Fiscal year 2019 Advanced Components group sales include $113.3 million of Ethertronics product as compared to $12.7 million for fiscal year 2018. These increases were partially offset by the loss of Kyocera resale product sales which were $19.0 million for fiscal year 2019 as compared to $296.3 million for fiscal year 2018.

Total Interconnect, Sensing and Control Devices product sales were $501.8 million in the fiscal year 2019 as compared to $327.3 million during the fiscal year 2018. This increase is attributable to sales growth in the automotive industry in addition to sales resulting from our S&C acquisition which accounted for $354.7 million for fiscal year 2019 as compared to $193.3 million for fiscal year 2018.

Our sales to independent electronic distributors represented 42.3% of total net sales for the fiscal year ended March 31, 2019, compared to 42.7% for fiscal year ended March 31, 2018. Overall, distributor sales activity increased in dollars when compared to the same period last year due to a more favorable pricing environment and increased order activity throughout the year in response to extended product delivery lead times. This increase in distributor activity is reflective of the increased customer demand and steadily improving market conditions. Our sales to distributor customers involve specific ship and debit and stock rotation programs for which sales allowances are recorded as reductions in sales. As a result of the favorable pricing environment and high demand, such allowance charges decreased to $28.9 million, or 3.9% of gross sales to distributor customers, for the fiscal year ended March 31, 2019 compared to $30.5 million, or 4.6% of gross sales to distributor customers, for the fiscal year ended March 31, 2018. Applications under such programs for fiscal years ended March 31, 2019 and 2018 were approximately $24.4 million and $29.4 million, respectively.

The regional sales percentages of our total sales in the fiscal year ended March 31, 2019 decreased in the Asian region while increasing in the European and American regions compared to the fiscal year ended March 31, 2018 reflective of the increased European sales activity resulting from our acquisitions. Sales in the Asian, American, and European regions represented 31.4%, 27.1% and 41.5% of total sales, respectively, for the fiscal year ended March 31, 2019. This compares to 37.2%, 25.6% and 37.2% of total sales for the Asian, American, and European regions in the prior year, respectively. As a result of the movement of the U.S. dollar against certain foreign currencies, reported sales for the fiscal year ended March 31, 2019 were unfavorably impacted by approximately $33.3 million when compared to the prior year.

Gross profit in the fiscal year ended March 31, 2019 was $482.9 million, compared to gross profit of $318.9 million in the fiscal year ended March 31, 2018. Gross profit as a percentage of sales for the fiscal year ended March 31, 2019 was 27.0% compared to 20.4% for the fiscal year ended March 31, 2018. The increase in gross profit as a percentage of sales reflects a better margin product mix, improved operating efficiencies, cost control, and a more favorable pricing environment in the market. We incurred costs of $9.2 million for the fiscal year ended March 31, 2019, as compared to $4.2 million for the fiscal year ended March 31, 2018, due to incremental depreciation and amortization as a result of purchase accounting adjustments to inventory and fixed assets related to the S&C, Ethertronics and Kumatec acquisitions. For the fiscal year ended March 31, 2019, gross profit due to currency movement were unfavorably impacted by approximately $7.2 million when compared to the previous fiscal year.

Selling, general, and administrative expenses for the fiscal year ended March 31, 2019 were $168.8 million, or 9.4% of net sales, compared to $140.5 million, or 9.0% of net sales, for the fiscal year ended March 31, 2018. The overall increase in these expenses is primarily due to higher selling expenses resulting from the increase in sales and $8.9 million of amortization of intangible assets for fiscal year 2019 as compared to $3.6 million for fiscal year 2018 related to the S&C, Ethertronics and Kumatec acquisitions.

On April 25, 2013, AVX was named as a defendant in a patent infringement case filed in the United States District Court for the District of Delaware captioned *Greatbatch, Inc. v. AVX Corporation*. This case alleged that certain AVX products infringe on one or more of six Greatbatch patents. On January 26, 2016, the jury returned a verdict in favor of the plaintiff in the first phase of a segmented trial and a mixed verdict in the second phase of a segmented trial, and found damages to Greatbatch in the amount of $37.5 million, which was recorded in fiscal 2016. That award was later vacated by the court on March 30, 2018, which resulted in a favorable accrual adjustment of $1.5 million. In a new trial, the amount of damages (excluding interest) was determined by a jury to be $22.1 million on January 15, 2019 resulting in a favorable accrual adjustment of $13.9 million during the year ended March 31, 2019. However, the matter is still subject to various post-trial proceedings and possible appeal which could result in a material impact to the accrual for this case in the future.

In addition, during the fiscal year ended March 31, 2019, we accrued an $8.3 million estimated charge related to new environmental remediation activities related to a legacy environmental issue at a site referred to as the “Aerovox Site,” located in New Bedford, Massachusetts.

Profit from operations for the fiscal year ended March 31, 2019 increased $139.9 million to $319.7 million compared to $179.8 million for the fiscal year ended March 31, 2018. This increase is a result of the factors above.

Other income, net was $13.6 million in fiscal year 2019 compared to $12.5 million in fiscal year 2018. This increase is primarily attributable to foreign exchange gains resulting from currency fluctuations during the period and increased rates earned on investments.

The tax rate for the fiscal year ended March 31, 2019 was 18.4% compared to 97.4% for the fiscal year ended March 31, 2018. For the fiscal year ended March 31, 2019, compared to the fiscal year ended March 31, 2018, the decrease in the tax rate is primarily a result of the Tax Cuts and Jobs Act (“TCJA”) enacted in the U.S. on December 22, 2017. Excluding discrete items, the tax rate for the fiscal year ended March 31, 2019 was 19.6% compared to 28.0% for the fiscal year ended March 31, 2018.

The provision for income tax expense for the fiscal year ended March 31, 2019 was $61.4 million compared to $187.4 million for the fiscal year ended March 31, 2018. On December 22, 2017, TCJA was enacted in the U.S. Among numerous other provisions, the TCJA reduced the statutory U.S. corporation income tax rate from 35% to 21%, effective January 1, 2018. The TCJA also reduced or eliminated certain corporate tax deductions and provided for a transition from a worldwide to a modified territorial tax system for resident corporations and related corporate group members. Under previous law, companies could indefinitely defer U.S. income taxation on unremitted foreign earnings. The transition is accompanied by a one-time tax, effective December 31, 2017, on all U.S.-based corporate groups’ accumulated foreign earnings as yet untaxed by the U.S., assessed at a 15.5% rate on all such earnings held in cash or liquid asset positions and at an 8% rate on all other non-liquid asset positions. This estimated one-time tax was recorded as $75.7 million in the results for the quarter ended December 31, 2017. As a result of the filing of our U.S. federal tax return, this amount was finally calculated at approximately $70.3 million, which is payable in eight annual installments over an eight-year period, beginning in 2018. Also, in consideration of TCJA, we have determined that it is no longer necessary to assert that cash and profits generated by our foreign subsidiaries will continue to be reinvested locally indefinitely. Accordingly, in addition to the one-time tax noted above, we also provided for estimated foreign withholding taxes of approximately $13.1 million related to the potential distribution of such foreign earnings.

As a result of the factors discussed above, net income for the fiscal year ended March 31, 2019 was $271.8 million compared to $4.9 million for the fiscal year ended March 31, 2018.

Year Ended March 31, 2018 compared to Year Ended March 31, 2017

The Company previously provided a comparison of the Company’s financial condition and results of operations for the year ended March 31, 2018 compared to the year ended March 31, 2017 in Item 7, “Management’s Discussion and Analysis of Financial Condition and Results of Operations” in its annual report on Form 10-K filed with the Securities and Exchange Commission on May 18, 2018.

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Financial Condition

Liquidity and Capital Resources

Our liquidity needs arise primarily from working capital requirements, dividends, capital expenditures and acquisitions. Historically, we have satisfied our operating liquidity requirements through funds from operations, investment income from cash and investments in securities, and cash on hand. As of March 31, 2019, we had a current ratio of 5.7 to 1, $813.2 million of cash, cash equivalents, and investments in securities, $2,384.1 million of stockholders' equity and no borrowings.

As of March 31, 2019, we had cash, cash equivalents, and short-term investments in securities of $813.2 million, of which $710.8 million was held outside the U.S. Liquidity is subject to many factors, such as normal business operations as well as general economic, financial, competitive, legislative, and regulatory factors that are beyond our control. Cash balances generated and held outside the U.S. are generally used for local on-going working capital, capital expenditures and to support regional acquisitions. We have provided for estimated foreign withholding taxes of approximately $13.1 million related to the potential distribution of foreign earnings. As a result of the TCJA we will have greater flexibility to redirect our global cash resources where they are needed.

Net cash provided by operating activities was $233.0 million for the fiscal year ended March 31, 2019, compared to cash provided by operations of $195.5 million for the fiscal year ended March 31, 2018.

Purchases of property and equipment totaled $129.7 million in fiscal 2019 and $100.5 million in fiscal 2018. The increase in expenditures during fiscal 2019 was primarily made in connection with strategic building expansion and equipment purchase activities to support future business growth in our Fountain Inn, South Carolina facility and our locations in El Salvador, Germany, and Malaysia. We expect to continue to make strategic capital investments in our Electronic Component and Interconnect, Sensing and Control Devices product lines and estimate that we will incur capital expenditures of approximately $125 million in fiscal 2020. The actual amount of capital expenditures will depend upon the outlook for end market demand and timing of capital projects.

On April 30, 2018 AVX, through its subsidiary, AVX Interconnect Europe GmbH, acquired KUMATEC Sondermaschinenbau & Kunstoffverarbeitung GmbH (“Kumatec”) for $12.3 million, net of cash acquired and debt assumed.

Historically, our operating funding has been internally generated through operations, investment income from cash, cash equivalents, and investments in securities and cash on hand. We have assessed the condition of our financial resources and our current business and believe that, based on our financial condition as of March 31, 2019, cash on hand and cash expected to be generated from operating activities and investment income from cash, cash equivalents, and investments in securities will be sufficient to satisfy our anticipated financing needs for working capital, capital expenditures, environmental clean-up costs, expenses related to ongoing litigation, pension plan funding, research, development, and engineering expenses, dividend payments and any stock repurchases to be made during the next twelve months. While changes in customer demand have an impact on our future cash requirements, changes in those requirements are mitigated by our ability to adjust manufacturing capabilities to meet increases or decreases in customer demand. In addition, potential acquisitions, depending upon their size, could require us to utilize our current cash resources, or use external borrowings. We do not anticipate any significant changes in our ability to generate cash flows or meet our liquidity needs in the foreseeable future.

In fiscal 2019 and 2018, dividends of $77.7 million and $75.7 million, respectively, were paid to stockholders.

On October 17, 2007, the Board of Directors of the Company authorized the repurchase of up to 5,000,000 shares of our common stock. We purchased 55,000 shares at a cost of $0.8 million during fiscal 2019. We did not purchase any shares during fiscal 2018. The repurchased shares are held as treasury stock and are available for general corporate purposes. As of March 31, 2019, there were 3,012,074 shares that may yet be repurchased under this program.

At March 31, 2019, we had contractual obligations for the construction of plants and acquisition of equipment aggregating approximately $47.1 million.

We make contributions to our U.S. and foreign defined benefit plans as required under various pension funding regulations. Contributions are based on a percentage of pensionable wages or requirements necessary to satisfy long-term funding obligations. We made contributions of $2.3 million to our U.S. and $6.7 million to our foreign defined benefit plans during the fiscal year ended March 31, 2019. We expect to make contributions of approximately $1.4 million for our foreign defined benefits plans for the fiscal year ending March 31, 2020. We do not anticipate making contributions to the U.S. plans in fiscal 2020. We have funded actuarially computed pension assets of approximately $22.3 million related to these defined benefit pension plans as of March 31, 2019.

During the fiscal year ended March 31, 2019, we made contributions of $4.9 million to Company sponsored retirement savings plans. Our contributions are partially based on employee contributions as a percentage of their salaries. Certain of our contributions to these savings plans are discretionary and are determined by the Board of Directors each year. We expect that our contributions for the fiscal year ending March 31, 2020 will be approximately $7.4 million.

We are a lessee under long-term operating leases primarily for office space, plant, and equipment. Future minimum lease commitments under non-cancelable operating leases as of March 31, 2019, were approximately $19.3 million.

Occasionally we enter into delivery contracts with selected suppliers for certain metals used in our production processes. The delivery contracts represent routine purchase orders for delivery within three months and payment is due upon receipt.

We have been identified by the United States Environmental Protection Agency (“EPA”), state governmental agencies or other private parties as a potentially responsible party (“PRP”) under the Comprehensive Environmental Response, Compensation and Liability Act (“CERCLA”), or equivalent non-U.S., state or local laws, for clean-up and response costs associated with certain sites at which remediation is or may be required with respect to prior contamination. Because CERCLA or such state statutes authorize joint and several liability, the EPA or non-U.S., state or local regulatory authorities could seek to recover all clean-up costs from any one of the PRPs at a site despite the involvement of other PRPs. At certain sites, financially responsible PRPs other than AVX also are, or have been, involved in site investigation and clean-up activities. We believe that liability resulting from these sites will be apportioned between AVX and other PRPs.

To resolve our liability at the sites at which we have been named a PRP, we have entered into various administrative orders and consent decrees with federal and state regulatory agencies governing the timing and nature of investigation and remediation. As is customary, the orders and decrees regarding sites where the PRPs are not themselves implementing the chosen remedy contain provisions allowing the EPA to reopen the agreement and seek additional amounts from settling PRPs in the event that certain contingencies occur, such as the discovery of significant new information about site conditions.

On June 3, 2010, AVX entered into an agreement with the EPA and the City of New Bedford, pursuant to which AVX is required to perform environmental remediation at a site referred to as the “Aerovox Site” (the “Site”), located in New Bedford, Massachusetts. AVX has substantially completed its obligations pursuant to such agreement with the EPA and the City of New Bedford with respect to the satisfaction of AVX’s federal law requirements. The Massachusetts Department of Environmental Protection has jurisdiction over the balance of the environmental remediation at the Site. AVX has submitted its proposed remedy, but until the state has approved such proposal, AVX cannot determine if additional groundwater and soil remediation will be required, if substantial material will have to be disposed of offsite, or if additional remediation techniques will be required, any of which could result in a more extensive and costly plan of remediation. Further, the Site and the remediation may be subject to additional scrutiny under other statutory procedures which could also add to the cost of remediation. We have a remaining accrual of $22.2 million at March 31, 2019, representing our current estimate of the potential liability related to the remaining performance of environmental remediation actions at the Site and neighboring properties using certain assumptions regarding the plan of remediation. Until all parties agree and remediation is complete, we cannot be certain there will be no additional cost relating to the Site.

We had total reserves of approximately $18.6 million and $26.4 million at March 31, 2018 and March 31, 2019, respectively, related to various environmental matters and sites, including those discussed above. These reserves are classified in the Consolidated Balance Sheets as $3.3 million and $5.8 million in accrued expenses at March 31, 2018 and March 31, 2019, respectively, and $15.3 and $20.6 million in other non-current liabilities at March 31, 2018 and March 31, 2019, respectively. The amounts recorded for identified environmental liabilities are based on estimates. Periodically, we review amounts recorded and adjust them to reflect additional legal and technical information that becomes available. Uncertainties about the status of laws, regulations, regulatory actions, technology, and information related to individual sites make it difficult to develop an estimate of the reasonably possible aggregate environmental remediation exposure. Accordingly, these costs could differ from our current estimates.

On April 19, 2016, the Canadian Ministry of the Environment and Climate Change (the “MoE”) issued a Director’s Order naming AVX Corporation, and others, as responsible parties with respect to a location in Hamilton, Ontario that was at one time the site of operations of Aerovox Canada, a former subsidiary of Aerovox Corporation, a predecessor of AVX. AVX has taken the position that any liability of Aerovox Canada for such site under the laws of Canada cannot be imposed on AVX. At present, it is unclear whether the MoE will seek to enforce such Canadian order against AVX, and whether, in the event it does so, AVX will have any liability under applicable law. AVX intends to contest any such course of action that may be taken by the MoE.

In connection with the same location, Union Gas Limited and Coca-Cola Refreshments Canada Company filed suites in the Superior Court of Justice for Ontario, Canada, against AVX Corporation, Aerovox Corp. and Cooper Industries, LLC seeking to recover the costs of remediation of the site and for damages associated with alleged contamination of the site. Those suits were filed on April 18, 2018, but not served on AVX until October 11, 2018, and are in their initial stages. AVX is considering its legal options but intends to vigorously defend these matters.

We also operate, or did at one time, on other sites that may have potential future environmental issues as a result of activities at sites during AVX's long history of manufacturing operations or prior to the start of operations by AVX. Even though we may have rights of indemnity for such environmental matters at certain sites, regulatory agencies in those jurisdictions may require us to address such issues. Once it becomes probable that we will incur costs in connection with remediation of a site and such costs can be reasonably estimated, we establish reserves or adjust our reserves for our projected share of these costs. A separate account receivable is recorded for any indemnified costs. Our environmental reserves are not discounted and do not reflect any possible future insurance recoveries, which are not expected to be significant, but do reflect a reasonable estimate of cost sharing at multiple party sites or indemnification of our liability by a third party.

We are not involved in any pending or threatened environmental proceedings that would require curtailment of our operations. We continually expend funds to ensure that our facilities comply with applicable environmental regulations. While we believe that we are in compliance with applicable environmental laws, we cannot accurately predict future developments and do not necessarily have knowledge of all past occurrences on sites that we currently occupy. New environmental regulations may be enacted and we cannot determine the modifications, if any, in our operations that any such future regulations might require, or the cost of compliance with such regulations. Moreover, the risk of environmental liability and remediation costs is inherent in the nature of our business and, therefore, there can be no assurance that material environmental costs, including remediation costs, will not arise in the future.

On April 25, 2013, AVX was named as a defendant in a patent infringement case filed in the United States District Court for the District of Delaware captioned *Greatbatch, Inc. v. AVX Corporation*. This case alleged that certain AVX products infringe on one or more of six Greatbatch patents. On January 26, 2016, the jury returned a verdict in favor of the plaintiff in the first phase of a segmented trial and a mixed verdict in the second phase of a segmented trial, and found damages to Greatbatch in the amount of $37.5 million, which was recorded in fiscal 2016. The verdict was later vacated by the court on March 30, 2018. Profit from operations for the year ended March 31, 2018 reflects a favorable accrual adjustment of $1.5 million related to this patent infringement case. In a new trial, the amount of damages (excluding interest) was determined by a jury to be $22.1 million on January 15, 2019 resulting in a favorable accrual adjustment of $13.9 million. During the year ended March 31, 2019 the company made a payment of $22.1 million to an escrow account which is classified within "Other assets". However, the matter is still subject to various post-trial proceedings and possible appeal, which could result in a material impact to the accrual for this case in the future.

On September 2, 2014, a subsidiary of AVX, American Technical Ceramics ("ATC"), was named as a defendant in a patent infringement case filed in the United States District Court of the Southern District of California captioned *Presidio Components, Inc. v. American Technical Ceramics Corp.* This case alleged that certain ATC products infringe on a Presidio patent. On April 18, 2016, the jury returned a verdict in favor of the plaintiff and found damages to Presidio. On August 17, 2016, the court issued a permanent injunction prohibiting ATC from manufacturing or selling the related products after November 16, 2016. Subsequently, on October 21, 2016, the Federal Circuit Court granted AVX's request for a stay of the permanent injunction whereby ATC was allowed to continue to sell the disputed product until March 17, 2017 to anyone who was a customer prior to June 17, 2016. Any sales subsequent to November 16, 2016 pursuant to the stay of the permanent injunction were subject to court mandated intellectual property damages for each product sold. In December 2017, a panel of the Federal Circuit vacated the damage award to Presidio, vacated the injunction, and remanded the case for further proceedings to determine damages limited to "reasonable royalties" and to reconsider the requested injunction in light of its opinion and any additional facts. In June 2018, the District Court set the amount of royalties, found damages to Presidio and reissued the injunction. An appeal has been filed from both decisions.

As of March 31, 2019, we had total reserves of $59.8 million plus accrued interest in accrued expenses with respect to the two intellectual property cases discussed above. The amounts recorded are based on estimated outcomes. Amounts recorded are reviewed periodically and adjusted to reflect additional information that becomes available. Accordingly, these costs could differ from our current estimates.

During calendar year 2014, AVX was named as a co-defendant in a series of cases filed in the United States and in the Canadian provinces of Quebec, Ontario, British Columbia, Saskatchewan and Manitoba alleging violations of United States, state and Canadian antitrust laws asserting that AVX and numerous other companies were participants in alleged price-fixing in the capacitor market. The cases in the United States were consolidated into the Northern District of California on October 2, 2014. Some plaintiffs have broken off from the United States class action and filed actions on their own, although AVX is not named in all of these independent actions. The cases in Canada have not been consolidated. These cases are still in progress. AVX believes it has meritorious defenses and intends to vigorously defend the cases.

We are involved in other disputes, warranty, and legal proceedings arising in the normal course of business. While we cannot predict the outcome of these other disputes and proceedings, we believe, based upon a review with legal counsel, that none of these other disputes or proceedings will have a material impact on our financial position, results of operations, comprehensive income (loss), or cash flows. However, we cannot be certain of the eventual outcome in these or other matters that may arise and their potential impact on our financial position, results of operations, comprehensive income (loss), or cash flows.

Disclosures about Contractual Obligations and Commitments

The Company has the following contractual obligations and commitments as of March 31, 2019 as noted below.

Contractual Obligations (in thousands)	Total	FY 2020	FY 2021 - FY 2022	FY 2023 - FY 2024	Thereafter
Operating Leases	$ 19,275	$ 6,642	$ 7,960	$ 2,817	$ 1,856
Plant and Equipment	$ 47,099	$ 45,089	$ 2,010	$ -	$ -

During the fiscal year ended March 31, 2019, we made contributions of $4.9 million to our Company sponsored retirement savings plans. Our contributions are partially based on employee contributions as a percentage of their salaries. Certain contributions by us are discretionary and are determined by the Board of Directors each year. We expect that our contributions for the fiscal year ending March 31, 2020 will be approximately $7.4 million.

During the fiscal year ended March 31, 2019, we made contributions of $2.3 million and $6.7 million to our U.S. and international defined benefit plans, respectively. Contributions are based on a percentage of pensionable wages or requirements necessary to satisfy funding obligations. We expect to make contributions of approximately $1.4 million for our international defined benefit plans for the fiscal year ending March 31, 2020. We do not anticipate making contributions to the U.S. plans in fiscal 2020.

Occasionally we enter into delivery contracts with selected suppliers for certain metals used in our production processes. The delivery contracts represent routine purchase orders for delivery within three months and payment is due upon receipt. As of March 31, 2019, we had no material outstanding purchase commitments.

We have a $1.9 million liability recorded at March 31, 2019 related to our uncertain tax positions. Due to the nature of the underlying liabilities and the extended time often needed to resolve income tax uncertainties, we cannot reasonably estimate the amount or timing of cash payments that may be required to settle these liabilities beyond 2019. For additional information, refer to Note 10.

Critical Accounting Policies and Estimates

"Management's Discussion and Analysis of Financial Condition and Results of Operations" is based upon our consolidated financial statements and the notes thereto, which have been prepared in accordance with generally accepted accounting principles in the United States. The preparation of these financial statements requires management to make estimates, judgments, and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reported periods.

On an ongoing basis, management evaluates its estimates and judgments, including those related to revenue recognition, warranties, inventories, pensions, income taxes, and contingencies. Management bases its estimates, judgments, and assumptions 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. While we base our estimates and assumptions on our knowledge of current events and actions that we may undertake in the future, there can be no assurance that actual results will not differ from these estimates and assumptions. On an ongoing basis, we evaluate our accounting policies and disclosure practices. In management's opinion, the critical accounting policies and estimates, as defined below, are more complex in nature and require a higher degree of judgment than the remainder of our accounting policies described in Note 1 to our consolidated financial statements elsewhere herein.

Revenue Recognition

All products are built to specification and tested by AVX or our suppliers for adherence to such specification before shipment to customers. We ship products to customers based upon firm orders. Shipping and handling costs are treated as fulfillment costs and as such are included in cost of sales. The Company applies this accounting policy election consistently to its sales. We recognize revenue as performance obligations are satisfied, which is when the customer takes control of the products as they are shipped to or received by the customer in accordance with the terms of the agreement of sale.

There are general product warranties within our contracts, as the Company warrants that products will function as expected in accordance with the specifications per the contract. These warranties cannot be purchased by the customer separately and accordingly these warranties are not considered to be separate performance obligations.

Payment terms for the Company's sales are generally less than 90 days. Substantially all of the Company's receivables are collected within twelve months of the transfer of products to the customer and the Company expects this to continue going forward. The Company applies the practical expedient within Accounting Standards Codification 606 - Revenue ("ASC 606") to all of its contracts with payment terms less than or equal to twelve months and does not recognize a financing component in the determination of the transaction price.

We evaluate gross versus net presentation on revenues from products purchased and resold in accordance with the revenue recognition criteria outlined in ASC 606. Based on the evaluation of our resale arrangements with Kyocera, including consideration of the primary indicators set forth in ASC 606, we record revenue related to products purchased and resold on a gross basis.

The Company pays commissions to sales representatives on a per-sale basis and applies the practical expedient available within Accounting Standards Codification 340 – Other Assets and Deferred Costs ("ASC 340"). Accordingly, commissions are expensed as incurred.

The Company recognizes the estimated variable consideration to be received as revenue and records a related reduction to accounts receivable or as an accrued expense for the consideration not expected to be received, based upon its estimate of credits issued or products returned under the sales allowance programs described below. Marketplace volatilities which impact the estimates of variable consideration include, but are not limited to, changes in economic conditions, pricing changes, product demand, inventory levels in the supply chain, the effects of technological change, and other variables that might result in changes to our estimates. Accordingly, there can be no assurance that actual results will not differ from those estimates. We utilize the "portfolio approach" practical expedient in ASC 606, which allows entities to apply the guidance to a portfolio of contracts with similar characteristics because the effects on the financial statements of this approach would not differ materially from applying the guidance to individual contracts. Using the "portfolio approach," we believe we have an adequate basis to assess the reasonableness and reliability of our estimates for each program.

Returns

Sales revenue and cost of sales reported in the statement of operations are reduced to reflect estimated returns. We record an estimated right of return liability for returns at the time of sale based on historical trends, current pricing and volume information, other market specific information, and input from sales, marketing, and other key management personnel. The liability accrued reflects the variable consideration not expected to be received. The estimated value of the return to customer's inventory is recorded as an asset. These procedures require the exercise of significant judgments. We believe that these procedures enable us to make reliable estimates of future returns. Our actual results have historically approximated our estimates. When the product is returned and verified, the customer is given credit against their accounts receivable.

Distribution Programs

A portion of our sales to independent electronic component distributor customers are subject to various distributor sales programs. We report provisions for distributor allowances in connection with such sales programs as a reduction in revenue and report distributor allowances on the balance sheet as either a reduction in accounts receivable or right-of-return liabilities. For the distribution programs described below, we do not track the individual units that are recorded against specific products sold from distributor inventories, which would allow us to directly compare revenue reduction for credits recorded during any period with credits ultimately awarded in respect of products sold during that period. Rather, we believe our use of the "portfolio approach" provides an adequate basis to assess the reasonableness and reliability of our estimates for each program.

Distributor Stock Rotation Program

Stock rotation is a program whereby distributor customers are allowed to return, for credit, qualified inventory, semi-annually, equal to a certain percentage, primarily limited to 5% of the previous six months net sales. We record an estimated right of return liability for stock rotation at the time of sale based on a percentage of distributor sales using historical trends, current pricing and volume information, other market specific information, and input from sales, marketing, and other key management personnel. An asset is recorded for the estimated value of returned product. These procedures require the exercise of significant judgments. We believe that these procedures enable us to make reliable estimates of future returns under the stock rotation program. Our actual results have historically approximated our estimates. When the product is returned and verified, the distributor is given credit against their accounts receivable.

Distributor Ship-from-Stock and Debit Program

Ship-from-Stock and Debit ("ship and debit") is a program designed to assist distributor customers in meeting competitive prices in the marketplace on sales to their end customers. Ship and debit programs require a request from the distributor for a pricing adjustment for a specific part for a sale to the distributor's end customer from the distributor's stock. The pricing adjustment is deemed variable consideration. Ship and debit authorizations may cover current and future distributor activity for a specific part for sale to their customer. At the time we record sales to the distributors, we provide an allowance for the variable consideration of the estimated future distributor activity related to such sales since it is probable that such sales to distributors will result in ship and debit activity. We record an estimated sales allowance based on sales during the period, credits issued to distributors, distributor inventory levels, historical trends, market conditions, pricing trends we see in our direct sales activity with original equipment manufacturers and other customers, and input from sales, marketing, and other key management personnel. These procedures require the exercise of significant judgments. We believe that these procedures enable us to make reliable estimates of future credits under the ship and debit program. Our actual results have historically approximated our estimates. At the time the distributor ships the part from stock, the distributor debits us for the authorized pricing adjustment.

Special Incentive Programs

We may offer special incentive discounts based on amount of product ordered or shipped. At the time we record sales under these agreements, we provide an allowance for the discounts on the sales for which the customer is eligible to take. The customer then debits us for the authorized discount amount.

Goodwill

We evaluate goodwill on a reporting unit basis for impairment annually during the fourth quarter, or more frequently when an event occurs or circumstances change that indicate that carrying value may not be recoverable. In testing goodwill for impairment, we compare the book value of net assets to the fair value of the reporting units. If the fair value is determined to be less than the book value or qualitative factors indicate that it is more likely than not that goodwill is impaired, the amount of impairment loss is calculated as the difference between the estimated fair value of the reporting unit and the carrying value.

Determining the fair value of goodwill is judgmental in nature and involves the use of significant estimates and assumptions. The estimate of cash flow is based upon, among other things, certain assumptions about expected future operating performance, including assumptions in gross profit and the determination of the discount rate to be utilized. Our annual goodwill impairment analysis indicated that there was no related impairment for the fiscal years ended March 31, 2017, 2018, or 2019.

Inventories

We determine the cost of raw materials, work in process, and finished goods inventories by the first-in, first-out ("FIFO") method. Manufactured inventory costs include material, labor, and manufacturing overhead. Inventories are valued at the lower of cost or market (net realizable value). We value inventory at its market value where there is evidence that the utility of goods will be less than cost and that such write-down should occur in the current period. Accordingly, at the end of each period, we evaluate our inventory and adjust to net realizable value the carrying value and excess quantities. We review and adjust the carrying value of our inventories based on historical usage, customer forecasts received from marketing and sales personnel, customer backlog, certain date code restrictions, technology changes, demand increases and decreases, market directional shifts, and obsolescence and aging.

Income Taxes

As part of the process of preparing our consolidated financial statements, we are required to estimate our tax assets and liabilities in each of the jurisdictions in which we operate. This process involves management estimating the actual current tax exposure together with assessing temporary differences resulting from different treatment of items for tax and accounting purposes. These differences result in deferred tax assets and liabilities that are included within our consolidated balance sheets. We assess the likelihood that our deferred tax assets will be recoverable based on all available evidence, both positive and negative. To the extent we believe that recovery is not more likely than not, we establish a valuation allowance.

We have recorded valuation allowances due to uncertainties related to our ability to realize some of our deferred tax assets, primarily consisting of certain net operating losses carried forward before they expire. The valuation allowance is based on our estimates of future taxable income over the periods that our deferred tax assets will be recoverable. We continue to evaluate countries where we have a valuation allowance on our deferred tax assets due to historical operating losses and when such positive evidence outweighs negative evidence, we will release such valuation allowance as appropriate.

We also record a provision for certain foreign, federal, and state tax contingencies based on the likelihood of obligation, when needed. In the normal course of business, we are subject to challenges from U.S. and foreign tax authorities regarding the amount of taxes due. These challenges may result in adjustments of the timing or amount of taxable income or deductions or the allocation of income among tax jurisdictions. Further, during the ordinary course of business, other changing facts and circumstances may affect our ability to utilize tax benefits as well as the estimated taxes to be paid in future periods. We believe that any potential tax exposures have been sufficiently provided for in the consolidated financial statements. In the event that actual results differ from these estimates, we may need to adjust tax accounts and related payments, which could materially affect our financial condition and results of operations.

We account for uncertainty in income taxes recognized in our financial statements. We recognize in our financial statements the impact of a tax position, if that position would “more likely than not” be sustained on audit, based on the technical merits of the position. Accruals for estimated interest and penalties are recorded as a component of interest expense.

We record deferred tax liabilities for temporary differences associated with deductions for foreign branch losses claimed by us in our U.S. income tax returns, as these deductions are subject to recapture provisions in the U.S. income tax code. When the recapture period expires for these deductions, the liabilities are removed and the tax benefit is recognized in the income tax provision.

In relation to critical estimates for income taxes, the Tax Cuts and Jobs Act (“TCJA") was enacted into law in the U.S. on December 22, 2017. Among numerous other provisions, the TCJA reduced the statutory U.S. corporation income tax rate from 35% to 21%, effective January 1, 2018.

TCJA also puts in place several new tax principles that are generally effective prospectively from January 1, 2018, including, but not limited to: a base erosion and anti-abuse tax; elimination of U.S. federal taxes on substantially all dividends from foreign subsidiaries; a lower U.S. tax rate on certain revenues from sources outside the U.S.; and, implementation of a new provision to tax certain global intangible low-taxed income of foreign subsidiaries.

We will continue to assess all relevant aspects of TCJA, including additional guidance promulgated related to TCJA that might impact our income tax provision.

In consideration of TCJA, the Company has determined that it is no longer necessary to assert that cash and profits generated by our foreign subsidiaries will continue to be reinvested locally indefinitely. Accordingly, we provided for estimated foreign withholding taxes and associated foreign tax credits related to the potential distribution of such earnings. Therefore, in addition to the one-time tax noted above, we also provided for estimated foreign withholding taxes of approximately $13.1 million related to the potential distribution of such foreign earnings.

Pension Assumptions

Pension benefit obligations and the related effects on operations are calculated using actuarial models. Two critical assumptions, discount rate and expected rate of return on plan assets, are important elements of plan expense and/or liability measurement. We evaluate these assumptions at least annually. The discount rate enables us to state expected future cash flows at a present value on the measurement date. To determine the discount rate, we apply the expected cash flows from each individual pension plan to specific yield curves at the plan’s measurement date and determine a level equivalent yield that may be unique to each plan. A lower discount rate increases the present value of benefit obligations and increases pension expense. To determine the expected long-term rate of return on pension plan assets, we consider the current and expected asset allocations, as well as historical and expected returns on various categories of plan assets. Other assumptions involve demographic factors such as retirement, mortality, and turnover. These assumptions are evaluated periodically and are updated to reflect our experience. Actual results in any given year will often differ from actuarial assumptions because of economic and other factors. In such cases, the differences between actual results and actuarial assumptions are amortized over future periods.

Environmental Compliance

We are subject to federal, state, and local laws and regulations concerning the environment in the United States and to the environmental laws and regulations of the other countries in which we operate. Based on our periodic review of the operating policies and practices at all of our facilities, we believe that our operations are currently in compliance with applicable environmental laws and regulations. Regarding sites identified by the EPA at which remediation is required, our ultimate liability in connection with environmental claims will depend on many factors, including our volumetric share of non-environmentally safe waste, the total cost of remediation, and the financial viability of other companies having liability. Additionally, we operate on sites that may have potential future environmental issues as a result of activities at sites during the long history of manufacturing operations by AVX or its corporate predecessor or prior to the start of operations by AVX. Even though we may have rights of indemnity for such environmental matters at certain sites, regulatory agencies in those jurisdictions may require us to address such issues. We recognize liabilities for environmental exposures when analysis indicates that it is both probable that a liability has been incurred and the amount of loss can be reasonably estimated. When a range of loss can be estimated, we accrue the most likely amount. In the event that no amount in the range of probable loss is considered most likely, the minimum loss in the range is accrued. Amounts recorded are reviewed periodically and adjusted to reflect additional legal and technical information that becomes available. The uncertainties about the status of laws, regulations, regulatory actions, technology, and information related to individual sites make it difficult to develop an estimate of the reasonably possible aggregate environmental remediation exposure; therefore, these costs could differ from our current estimates. Our environmental reserves are not discounted and do not reflect any possible future insurance recoveries, which are not expected to be significant, but do reflect a reasonable estimate of cost sharing at multiple party sites or indemnification of our liability by a third party.

Recent Accounting Pronouncements

In May 2014, the FASB issued ASU 2014-09, “Revenue from Contracts with Customers.” This guidance modifies how an entity will determine the measurement of revenue and timing of when it is recognized. Revenue is recognized when control of the promised goods is transferred to the customer, in an amount that reflects the consideration expected from the goods. The Company adopted this guidance effective April 1, 2018, using the modified retrospective method, with no material impact on our results of operations. Please refer to Note 6 for additional information.

In February 2016, FASB issued ASU 2016-02, “Leases.” This guidance changes the requirements for inclusion of certain right-of-use assets and the associated lease liabilities to be included in a statement of financial position. The classification criteria maintains the distinction between finance leases and operating leases. Regarding finance leases, lessees are required to 1) recognize a right-of-use asset and a lease liability, initially measured at the present value of the lease payments, in the statement of financial position, 2) recognize interest on the lease liability separate from the amortization of the right-of-use asset in the statement of comprehensive income, and 3) classify repayments of the principal portion of the lease liability within financing activities and payments of interest on the lease liability and variable lease payments within operating activities in the statement of cash flows. Regarding operating leases, lessees are required to 1) recognize a right-of-use asset and a lease liability, initially measured at the present value of the lease payments, in the statement of financial position, 2) recognize a single lease cost, calculated so that the cost of the lease is allocated over the lease term on a generally straight-line basis, and 3) classify all cash payments within operating activities in the statement of cash flows. This guidance is effective for public companies for interim and annual reporting periods beginning after December 15, 2018. Early adoption is permitted. Based on work performed to date to analyze ASU 2016-02, including a review of the language and structure in our (including recent acquisitions) current lease and rental contracts, management does not anticipate the adoption of ASU 2016-02 to have a material impact on our consolidated financial statements.

In June 2016, FASB issued ASU 2016-13, “Financial Instruments – Credit Losses: Measurement of Credit Losses on Financial Instruments.” This standard requires the measurement and recognition of expected credit losses held at amortized cost. This new standard replaces the use of forward-looking information to estimate credit losses and requires credit losses for available for sale debt securities to be recorded through an allowance for credit losses rather than a reduction in the amortized cost basis. This update is effective for public companies for annual reporting periods beginning after December 15, 2019. Management is currently evaluating the impact of ASU 2016-13 on our consolidated financial statements.

In November 2016, FASB issued ASU 2016-18, “Statement of Cash Flows – Restricted Cash.” The standard provides additional guidance related to transfers between cash and restricted cash and how cash receipts and cash payments in the statement of cash flows directly affects the restricted cash accounts. The Company adopted ASU 2016-18 effective April 1, 2018. The adoption of this standard has not had a material impact on our consolidated financial statements.

In August 2017, FASB issued ASU 2017-12, “Derivatives and Hedging.” The standard aims to align the designation and measurement guidance for qualifying hedging relationships and the presentation of hedge results for cash flow and fair value hedge accounting with risk management activities. The guidance is effective for public companies for annual reporting periods beginning after December 15, 2018, and interim periods within those annual periods. Early adoption is permitted in any interim period after issuance. Additionally, in October 2018, the FASB issued ASU 2018-16, “Derivatives and Hedging (Topic 815): Inclusion of the Secured Overnight Financing Rate (SOFR) Overnight Index Swap (OIS) Rate as a Benchmark Interest Rate for Hedge Accounting Purposes”, which permits use of the OIS rate based on SOFR as a U.S. benchmark interest rate for hedge accounting purposes under Topic 815. This update is effective for public companies for annual reporting periods beginning after December 15, 2018, and interim periods within those annual periods. For entities that have not yet adopted ASU 2017-12, the concurrent adoption of ASU 2018-16 is required. The Company intends to adopt this update concurrently with ASU 2017-12. Management does not anticipate the adoption of ASU 2017-12 and ASU 2018-16 to have a material impact on our consolidated financial statements.

In February 2018, the FASB issued ASU 2018-02, "Income Statement - Reporting Comprehensive Income." This standard allows a reclassification from accumulated other comprehensive income to retained earnings for stranded tax effects resulting from the Tax Act. The standard is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Early adoption is permitted for any interim and annual financial statements that have not yet been issued. We are currently evaluating the potential impact on our consolidated financial statements and disclosures.

In August 2018, the FASB issued ASU 2018-13, “Fair Value Measurement – Disclosure Framework – Changes to the Disclosure Requirements for Fair Value Measurement”. This standard removes, adds and modifies certain disclosure requirements in the existing framework. ASU 2018-13 removes the following disclosure requirements: (i) the amount of and reasons for transfers between Level 1 and Level 2 of the fair value hierarchy and (ii) the entity’s valuation processes for Level 3 fair value measurements. ASU 2018-13 adds the following disclosure requirements: (i) provide information about the measurement uncertainty of Level 3 fair value measurements as of the reporting date rather than a point in the future, (ii) disclose changes in unrealized gains and losses related to Level 3 measurements for the period included in other comprehensive income, and (iii) disclose for Level 3 measurements the range and weighted average of the significant unobservable inputs and the way it is calculated. ASU 2018-13 is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. Early adoption is permitted. We are currently evaluating the potential impact on our consolidated financial statements and disclosures.

In August 2018, the FASB issued ASU 2018-14, “Compensation – Retirement Benefits – Defined Benefit Plans – General.” This standard removes certain disclosures that are not considered cost beneficial, clarifies certain required disclosures and added additional disclosures. The standard is effective for fiscal years beginning after December 15, 2020, and early adoption is permitted. The amendments in ASU 2018-14 would need to be applied on a retrospective basis. We are currently assessing the impact the new guidance will have on our disclosures.

We have reviewed other newly issued accounting pronouncements and concluded that they are either not applicable to our business or that no material effect is expected on our consolidated financial statements as a result of future adoption.

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Relationship with Kyocera and Related Transactions

Kyocera is the majority stockholder of AVX. As of May 17, 2019, Kyocera owned beneficially and of record 121,800,000 shares of AVX common stock, representing approximately 72% of our outstanding shares.

From January 1990 through August 15, 1995, AVX was wholly owned by Kyocera. On August 15, 1995, Kyocera sold 22.9%, or 39,300,000 shares of AVX's common stock, and AVX sold an additional 4,400,000 shares of common stock, in a public offering. In February 2000, Kyocera sold an additional 10,500,000 shares of its AVX common stock.

Our business includes transactions with Kyocera. Such transactions involve the purchase of resale inventories, raw materials, supplies and equipment, the sale of products for resale, raw materials, supplies and equipment, the payment of dividends, subcontracting activities, and commissions. See Note 16 to our consolidated financial statements elsewhere herein for more information on the related party transactions.

In December 2016, Kyocera notified AVX pursuant to the Products Supply and Distribution Agreement of its intent, effective January 1, 2018, to market its manufactured electronic and interconnect products globally using Kyocera's sales force rather than continuing to have AVX resell such products in the Americas, Europe and Asia. Kyocera will pay commissions to AVX on sales by Kyocera, in the applicable territories, of products designed into customer applications by AVX prior to January 1, 2018 of 2.0% in calendar year 2018, 1.5% in calendar year 2019, and 1.0% in calendar year 2020. Sales of Kyocera resale products by AVX were $19.0 and related operating profit was $3.3 million for the fiscal year ended March 31, 2019.

In February 2017, AVX notified Kyocera pursuant to the Products Supply and Distribution Agreement of its intent, effective April 1, 2018, to market its manufactured products in Japan using AVX's sales force rather than continuing to have Kyocera resell such products in this territory. AVX will pay commissions to Kyocera on sales by AVX, in the applicable territory, of products designed into customer applications by Kyocera prior to April 1, 2018 of 2.0% in fiscal year 2019, 1.5% in fiscal year 2020, and 1.0% in fiscal year 2021.

The exchange of information with Kyocera relating to the development and manufacture of multi-layer ceramic capacitors and various other ceramic products benefits AVX. AVX and Kyocera have executed several agreements that govern the foregoing transactions and which are described below.

The Special Advisory Committee of our Board, comprised of our independent directors (currently Messrs. Christiansen, DeCenzo, and Ballato), reviews and approves any significant agreements between AVX and Kyocera and any significant transactions between AVX and Kyocera not covered by such agreements. The committee is also responsible for reviewing and approving any agreements and transactions between AVX and any other related party that are or may be within the scope of applicable rules, regulations and guidance of the New York Stock Exchange and Item 404 of Regulation S-K, if they arise. The Special Advisory Committee operates under a written charter that sets forth the policies and procedures for such approvals. In approving any such agreement or transaction pursuant to those procedures, the Special Advisory Committee must determine that, in its judgment, the terms thereof are equivalent to those to which an independent unrelated party would agree at arm's-length or are otherwise in the best interests of the Company and its stockholders generally. Each of the agreements described below contains provisions requiring that the terms of any transaction under such agreement be equivalent to those to which an independent unrelated party would agree at arm's-length.

Disclosure and Option to License Agreement. Pursuant to the Disclosure and Option to License Agreement (the "License Agreement"), AVX and Kyocera exchange confidential information relating to the development and manufacture of multi-layered ceramic capacitors and various other ceramic products, as well as the license of technologies in certain circumstances. The License Agreement has a term of one year with automatic one-year renewals, subject to the right of termination by either party at the end of the then current term upon at least six months prior written notice.

Materials Supply Agreement. Pursuant to the Materials Supply Agreement (the "Supply Agreement"), AVX and Kyocera will, from time to time, supply the other party with certain raw and semi-processed materials used in the manufacture of capacitors and other electronic components. The Supply Agreement has a term of one year, with automatic one-year renewals, subject to the right of termination by either party at the end of the then current term upon at least six months prior written notice.

Machinery and Equipment Purchase Agreement. Pursuant to the Machinery and Equipment Purchase Agreement (the "Machinery Purchase Agreement"), AVX and Kyocera will, from time to time, design and manufacture for the other party certain equipment and machinery of a proprietary and confidential nature used in the manufacture of capacitors and other electronic components. The Machinery Purchase Agreement has a term of one year, with automatic one-year renewals, subject to the right of termination by either party at the end of the then current term upon at least six months prior written notice.

Products Supply and Distribution Agreement. Pursuant to the Products Supply and Distribution Agreement (the "Distribution Agreement") (i) AVX will act as the non-exclusive distributor of certain Kyocera-manufactured products to certain customers in certain territories outside of Japan and (ii) Kyocera will act as the non-exclusive distributor of certain AVX-manufactured products within Japan. Each party has the ability to appoint a replacement distributor of its products with a minimum one year's notice period. The Distribution Agreement has a term of one year, with automatic one-year renewals, subject to the right of termination by either party at the end of the then current term upon at least three months prior written notice. As a result of the December 2016 and January 2017 notices referred to above, this agreement effectively terminated effective April 1, 2018.

Technology Disclosure Agreement. Pursuant to the Technology Disclosure Agreement (the "Technology Agreement"), AVX and Kyocera have determined that it is in the best interest of each company to explore the possibility of (i) distribution, (ii) joint production, (iii) technology licensing, or (iv) joint development efforts of its passive electronic components and other related devices and technology. The Technology Agreement is subject to the right of termination by either party upon at least six months prior written notice.

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Item 7A. Quantitative and Qualitative Disclosures About Market Risk

Foreign Currency

We are exposed to foreign currency exchange risk with respect to our sales, profits, and assets and liabilities denominated in currencies other than the U.S. dollar. Although we use financial instruments to hedge certain foreign currency risks, we are not fully protected against foreign currency fluctuations and our reported results of operations could be affected by changes in foreign currency exchange rates. International revenues and expenses transacted by our foreign subsidiaries may be denominated in local currency. See Note 15 to the consolidated financial statements elsewhere herein for further discussion of derivative financial instruments.

For fiscal 2019, our exposure to foreign currency exchange risk was estimated using a sensitivity analysis, which illustrates a hypothetical change in the average foreign currency exchange rates used during the year. Actual changes in foreign currency exchange rates may differ from this hypothetical change. Based on a hypothetical increase or decrease of 10% in the exchange rates, assuming no hedging against foreign currency rate changes, we would have incurred an additional foreign currency gain or loss of approximately $7.9 million.

Materials

We are at risk to fluctuations in prices for commodities used to manufacture our products, primarily tantalum, palladium, platinum, silver, nickel, gold, and copper.

Tantalum powder and wire are principal materials used in the manufacture of tantalum capacitor products. The tantalum required to manufacture our products has generally been available in sufficient quantity. The limited number of tantalum material suppliers has led to higher prices during periods of increased demand.

Item 8. Financial Statements and Supplementary Data

The following consolidated financial statements of the Company and its subsidiaries, together with the Report of Independent Registered Public Accounting Firm thereon, are presented beginning on page 46 of this report:

All financial statement schedules are omitted because of the absence of the conditions under which they are required or because the information required is shown in the consolidated financial statements or notes thereto.

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

None.

Item 9A. Controls and Procedures

Disclosure Controls and Procedures

The Company maintains disclosure controls and procedures (as defined in Rule 13a-15(e) and 15d-15(e) under the Exchange Act), that are designed to ensure that information required to be disclosed in the Company's reports under the Exchange Act is recorded, processed, summarized, and reported within the time periods specified in the SEC's rules and forms, and that such information is accumulated and communicated to management, including the Company's Chief Executive Officer ("CEO") and Chief Financial Officer ("CFO"), as appropriate, to allow timely decisions regarding required disclosure.

In connection with the preparation of this Annual Report on Form 10-K, as of March 31, 2019, an evaluation was performed under the supervision and with the participation of the Company's management, including the CEO and CFO, of the effectiveness of the Company's disclosure controls and procedures. Based on the evaluation, the Company's CEO and CFO concluded that the Company's disclosure controls and procedures were effective as of March 31, 2019 to ensure that information required to be disclosed by the Company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized, and reported, within the time periods specified in the SEC's rules and forms and is accumulated and communicated to the Company's management, including the CEO and CFO, or persons performing similar functions, as appropriate, to allow timely decisions regarding required disclosures.

Management's Report on Internal Control over Financial Reporting

The management of the Company is responsible for establishing and maintaining adequate internal control over financial reporting. Internal control over financial reporting is defined in Rules 13a-15(f) and 15d-15(f) promulgated under the Exchange Act as a process designed by, or under the supervision of, the Company's principal executive and principal financial officers and effected by the Company's Board of Directors, management, and other personnel, 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 and includes those policies and procedures that: (i) pertain to the maintenance of records that in reasonable detail accurately and fairly reflect the transactions and dispositions of the assets of the Company; (ii) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the Company are being made only in accordance with authorizations of management and directors of the Company; and (iii) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the Company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect all misstatements. 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.

The Company's management assessed the effectiveness of the Company's internal control over financial reporting as of March 31, 2019. In making its assessment, the Company's management used the criteria set forth by the Committee of Sponsoring Organizations of the Treadway Commission in *Internal Control-Integrated Framework (2013)*. Based on the results of this assessment, management, including the CEO and CFO, has concluded that the Company's internal control over financial reporting was effective as of the end of its fiscal year ended March 31, 2019.

PricewaterhouseCoopers LLP, our independent registered public accounting firm, has issued an attestation report on the Company's internal control over financial reporting as of March 31, 2019, as stated in their report, which appears in this Form 10-K.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting that occurred during our most recently completed fiscal quarter that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 9B. Other Information

None.

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PART III

Item 10. Directors, Executive Officers, and Corporate Governance

Information required by this item with respect to our directors, the committees of the Board of Directors, corporate governance and compliance by our directors, executive officers, and certain beneficial owners of our common stock with Section 16(a) of the Exchange Act is provided by incorporation by reference to information under the captions entitled "Proposal I Election of Directors," "Board of Directors – Governance," "Board of Directors – Meetings Held and Committees," and "Delinquent Section 16(a) Reports" in the Company's definitive proxy statement for the 2019 Annual Meeting of Stockholders (the "Proxy Statement") and perhaps elsewhere therein. Information required by this item relating to our executive officers also appears in Item 1 of Part I of this Form 10-K under the caption "Executive Officers of the Registrant."

Code of Business Conduct and Ethics

As discussed above in "Company Information and Website" in Item 1 of Part I of this Annual Report on Form 10-K, our Code of Business Conduct and Ethics and the Code of Business Conduct and Ethics Supplement Applicable to the Chief Executive Officer, Chief Financial Officer, Controllers and Financial Managers have been posted on our website. We will post on our website any amendments to, or waivers from, a provision of the Code of Business Conduct and Ethics or the Supplement Applicable to the Chief Executive Officer, Chief Financial Officer, Controllers and Financial Managers that applies to our principal executive officer, principal financial officer, principal accounting officer, or controller, or persons performing similar functions, and that relates to any of the following: (i) honest and ethical conduct, including the ethical handling of actual or apparent conflicts of interest between personal and professional relationships; (ii) full, fair, accurate, timely, and understandable disclosure in reports and documents that we file with, or submit to, the SEC and in other public communications made by us; (iii) compliance with applicable governmental laws, rules, and regulations; (iv) the prompt internal reporting of violations of the code to an appropriate person or persons identified in the code; or (v) accountability for adherence to the code.

Item 11. Executive Compensation

The information required by this item is provided by incorporation by reference to information under the captions entitled "Director Compensation," "Compensation Committee Interlocks and Insider Participation," "Compensation Committee Report," "Compensation Discussion and Analysis," and "Executive Compensation" in the Proxy Statement and perhaps elsewhere therein.

Item 12. Security Ownership of Certain Beneficial Owners and Management and Related Stockholder Matters

The information required by this item is provided by incorporation by reference to information under the captions entitled "Ownership of Securities by Directors, Director Nominees and Executive Officers," "Security Ownership of Certain Beneficial Owners," and "Equity Compensation Plan Information" in the Proxy Statement and perhaps elsewhere therein.

Item 13. Certain Relationships and Related Transactions, and Director Independence

The information required by this item is provided by incorporation by reference to information under the caption "Relationship with Kyocera and Related Transactions" and "Board of Directors – Governance" in the Proxy Statement and perhaps elsewhere therein.

Item 14. Principal Accounting Fees and Services

The information required by this item is provided by incorporation by reference to information under the caption entitled "Report of the Audit Committee – Principal Independent Registered Public Accounting Firm Fees" in the Proxy Statement and perhaps elsewhere therein.

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PART IV

Item 15. Exhibits and Financial Statement Schedules

(a) Financial Statements and Financial Statement Schedules - See Index to Consolidated Financial Statements at Item 8 of this report.

(b) Exhibits:

As indicated below, certain of the exhibits to this report are hereby incorporated by reference from other documents on file with the Securities and Exchange Commission.

3.1 Restated Certificate of Incorporation (incorporated by reference to Exhibit 3.1 to Registration Statement on Form S-1 (File No. 33-94310) of the Company (the "Form S-1")).

3.2 By-laws of AVX Corporation as Amended and Restated October 17, 2018 (incorporated by reference to Exhibit 3.1 of the Current Report on Form 8-K filed with the Securities and Exchange Commission on October 24, 2018).

4.1 Description of rights of securities holders (incorporated by reference to Registration Statement on Form S-3 filed with the Securities and Exchange Commission on January 1, 2000).

10.1 Products Supply and Distribution Agreement by and between Kyocera Corporation and AVX Corporation (incorporated by reference to Exhibit 10.4 to the Annual Report on Form 10-K of the Company for the year ended March 31, 2000).

*10.2 AVX Nonqualified Supplemental Retirement Plan Amended and Restated effective January 1, 2008 (the AVX Corporation SERP was merged into this plan effective January 1, 2005) (incorporated by reference to Exhibit 10.4 to the Annual Report on Form10-K of the Company for the year ended March 31, 2009).

*10.3 Amendment to AVX Nonqualified Supplemental Retirement Plan, effective December 15, 2014. (incorporated by reference to Exhibit 10.4 to the Annual Report on Form10-K of the Company for the year ended March 31, 2015).

*10.4 AVX Corporation 2004 Stock Option Plan as amended through July 23, 2008 (incorporated by reference to Exhibit 10.1 to the Quarterly Report on Form 10-Q of the Company for the quarter ended June 30, 2008).

*10.5 AVX Corporation 2004 Non-Employee Directors' Stock Option Plan as amended through July 28, 2008 (incorporated by reference to Exhibit 10.2 to the Quarterly Report on Form 10-Q of the Company for the quarter ended June 30, 2008).

*10.6 Form of Notice of Grant of Stock Options and Option Agreement for awards pursuant to AVX Corporation 2004 Stock Option Plan and AVX Corporation 2004 Non-Employee Directors' Stock Option Plan (incorporated by reference to Exhibit 10.8 to the Annual Report on Form 10-K of the Company for the year ended March 31, 2013).

10.7 Machinery and Equipment Purchase Agreement by and between Kyocera Corporation and AVX Corporation (incorporated by reference to Exhibit 10.14 to the Annual Report on Form 10-K of the Company for the year ended March 31, 2005).

10.8 Materials Supply Agreement by and between Kyocera Corporation and AVX Corporation (incorporated by reference to Exhibit 10.15 to the Annual Report on Form 10-K of the Company for the year ended March 31, 2005).

10.9 Disclosure and Option to License Agreement effective as of April 1, 2008 by and between Kyocera Corporation and AVX Corporation (incorporated by reference to Exhibit 10.1 to the Current Report on Form 8-K of the Company filed with the Securities and Exchange Commission on March 25, 2008).

10.10 Form of Director and Officer Indemnification Agreement (incorporated by reference to Exhibit 10.16 to the Annual Report on Form 10-K of the Company for year ended March 31, 2010).

10.11 Supplemental Consent Decree with Defendant AVX Corporation containing agreement among the Company, the United States Environmental Protection Agency and the Commonwealth of Massachusetts, dated October 10, 2012 (incorporated by reference to Exhibit 99.2 to Current Report on Form 8-K of the Company filed with the Securities and Exchange Commission on October 11, 2012).

*10.12 AVX Corporation 2014 Stock Option Plan (incorporated by reference to Exhibit 10.17 of the Annual Report on Form 10K/A of the Company for the year ended March 31, 2013).

*10.13 AVX Corporation 2014 Non-Employee Directors' Stock Option Plan as amended May 12, 2016 (incorporated by reference to Exhibit 10.13 of the Annual Report on Form 10-K of the Company for the year ended March 31, 2016).

*10.14 Form of Notice of Grant of Stock Options and Option Agreement for awards pursuant to AVX Corporation 2014 Stock Option Plan and AVX Corporation 2014 Non-Employee Directors' Stock Option Plan (incorporated by reference to Exhibit 10.19 of the Annual Report on Form 10-K of the Company for the year ended March 31, 2014).

*10.15	AVX Corporation 2014 Restricted Stock Unit Plan (incorporated by reference to Exhibit 99.1 of Form S-8 filed with the Securities and Exchange Commission on August 6, 2014.)
*10.16	AVX Corporation 2014 Management Incentive Plan, as amended August 2, 2017, and effective April 1, 2017 (incorporated by reference to Exhibit 10.1 of the Quarterly Report on Form 10-Q of the Company for the period ended June 30, 2017).
*10.17	Form of Notice of Grant of Restricted Stock Units for awards pursuant to AVX Corporation 2014 Restricted Stock Unit Plan (incorporated by reference to Exhibit 10.2 of the Quarterly Report on Form 10-Q of the Company for the period ended June 30, 2016).
10.18	Technology Disclosure Agreement, effective as of October 7, 2016, between the Company and Kyocera Corporation (incorporated by reference to Exhibit 10.1 of the Quarterly Report on Form 10-Q of the Company for the period ended December 31, 2016).
10.19	Share Purchase and Transfer Agreement, dated March 27, 2018 by and among AVX Corporation, AVX INTERCONNECT Europe GmbH, and the Shareholders of KUMATEC (incorporated by reference to Exhibit 10.21 of the Annual Report on Form 10-K of the Company for the year ended March 31, 2018).
21.1	Subsidiaries of the Registrant.
23.1	Consent of PricewaterhouseCoopers LLP.
24.1	Power of Attorney
31.1	Rule 13a-14(a)/15d-14(a) Certification of Chief Executive Officer – John Sarvis
31.2	Rule 13a-14(a)/15d-14(a) Certification of Chief Financial Officer – Michael E. Hufnagel
32.1	Certification Pursuant to 18 U.S.C. Section 1350 as Adopted Pursuant to Section 906 of the Sarbanes-Oxley Act of 2002 - John Sarvis and Michael E. Hufnagel
101.INS**	XBRL Instance
101.SCH**	XBRL Taxonomy Extension Schema
101.CAL**	XBRL Taxonomy Extension Calculation
101.DEF**	XBRL Taxonomy Extension Definition
101.LAB**	XBRL Taxonomy Extension Labels
101.PRE**	XBRL Taxonomy Extension Presentation

* Agreement relates to executive compensation.
**XBRL 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.

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.

AVX Corporation

by: /s/ Michael E. Hufnagel
MICHAEL E. HUFNAGEL
Senior Vice President, Chief Financial Officer, Treasurer

Dated: May 17, 2019

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.

Signature	Title	Date
/s/ John Sarvis John Sarvis	Chairman of the Board, Chief Executive Officer and President (Principal Executive Officer)	May 17, 2019
/s/ Michael E. Hufnagel Michael E. Hufnagel	Senior Vice President, Chief Financial Officer, Treasurer (Principal Financial Officer)	May 17, 2019
* Goro Yamaguchi	Director	May 17, 2019
* Hideo Tanimoto	Director	May 17, 2019
* Shoichi Aoki	Director	May 17, 2019
* Koichi Kano	Director	May 17, 2019
* Hiroshi Fure	Director	May 17, 2019
* Donald B. Christiansen	Director	May 17, 2019
* David DeCenzo	Director	May 17, 2019
* Dr. John Ballato	Director	May 17, 2019

*
* by: /s/ Michael E. Hufnagel
MICHAEL E. HUFNAGEL, Attorney-in-Fact for each of the persons indicated.

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AVX Corporation and Subsidiaries
Consolidated Balance Sheets
(in thousands, except per share data)

	As of March 31,	
	2018	2019
Assets		
Current assets:		
Cash and cash equivalents	$ 547,415	$ 378,456
Short-term investments in securities	279,787	434,754
Accounts receivable - trade, net	275,259	256,991
Accounts receivable - affiliates	9,255	500
Inventories, net	516,777	631,688
Income taxes receivable	2,566	4,788
Prepaid and other	70,665	76,550
Total current assets	1,701,724	1,783,727
Property and equipment, net	418,286	455,757
Goodwill	316,298	316,675
Intangible assets, net	128,612	118,944
Deferred income taxes	75,720	75,938
Other assets	32,126	62,237
Total Assets	$ 2,672,766	$ 2,813,278
Liabilities and Stockholders' Equity		
Current liabilities:		
Accounts payable - trade	$ 89,726	$ 95,498
Accounts payable - affiliates	26,320	1,133
Income taxes payable	8,290	24,993
Accrued payroll and benefits	52,044	55,068
Accrued expenses	118,183	136,493
Total current liabilities	294,563	313,185
Income taxes payable	69,645	47,588
Pensions	10,605	9,543
Deferred income taxes	12,895	14,235
Other liabilities	41,615	44,547
Total non-current liabilities	134,760	115,913
Total Liabilities	429,323	429,098
Commitments and contingencies (Note 14)		
Stockholders' Equity:		
Preferred stock, par value $.01 per share: Authorized, 20,000 shares; None issued and outstanding	-	-
Common stock, par value $.01 per share: Authorized, 300,000 shares; issued, 176,369 shares; outstanding, 168,434 and 168,826 shares for 2018 and 2019, respectively	1,764	1,764
Additional paid-in capital	360,077	362,498
Retained earnings	1,962,467	2,156,584
Accumulated other comprehensive (loss)	21,257	(39,494)
Treasury stock, at cost, 7,935 and 7,543 shares for 2018 and 2019, respectively	(102,122)	(97,172)
Total Stockholders' Equity	2,243,443	2,384,180
Total Liabilities and Stockholders' Equity	$ 2,672,766	$ 2,813,278

See accompanying notes to consolidated financial statements.

AVX Corporation and Subsidiaries
Consolidated Statements of Operations
(in thousands, except per share data)

	Fiscal Year Ended March 31,		
	2017	2018	2019
Net sales	$ 1,312,661	$ 1,562,474	$ 1,791,790
Cost of sales	1,027,906	1,243,612	1,308,907
Gross profit	284,755	318,862	482,883
Selling, general and administrative expenses	117,598	140,528	168,804
Legal and environmental (benefit) charges	3,600	(1,500)	(5,589)
Profit from operations	163,557	179,834	319,668
Other income (loss):			
Interest income	7,381	12,778	17,001
Other, net	4,011	(299)	(3,426)
Income before income taxes	174,949	192,313	333,243
Provision for income taxes	49,164	187,403	61,430
Net income	$ 125,785	$ 4,910	$ 271,813
Income per share:			
Basic	$ 0.75	$ 0.03	$ 1.61
Diluted	$ 0.75	$ 0.03	$ 1.61
Dividends declared (per share)	$ 0.43	$ 0.45	$ 0.46
Weighted average common shares outstanding:			
Basic	167,506	168,262	168,713
Diluted	167,837	168,925	169,322

See accompanying notes to consolidated financial statements.

AVX Corporation and Subsidiaries
Consolidated Statements of Comprehensive Income (Loss)
(in thousands)

	Fiscal Year Ended March 31, 2017	2018	2019
Net income	$ 125,785	$ 4,910	$ 271,813
Other comprehensive income (loss), net of income taxes:			
Foreign currency translation adjustment	(14,674)	76,711	(61,570)
Foreign currency cash flow hedges adjustment	183	(490)	333
Pension liabilities adjustment	(7,527)	12,199	1,945
Other post-employment obligations	(777)	-	(1,459)
Other comprehensive income (loss), net of income taxes	(22,795)	88,420	(60,751)
Comprehensive income	$ 102,990	$ 93,330	$ 211,062

See accompanying notes to consolidated financial statements.

AVX Corporation and Subsidiaries
Consolidated Statements of Stockholders' Equity
(in thousands, except per share data)

	Common Stock						
	Number Of Shares	Amount	Treasury Stock	Additional Paid-In Capital	Retained Earnings	Accumulated Other Comprehensive Income (Loss)	Total
Balance at March 31, 2016	167,492	$ 1,764	$ (113,988)	$ 354,186	$ 1,979,512	$ (44,368)	$ 2,177,106
Net income	-	-	-	-	125,785	-	125,785
Other comprehensive loss, net of income taxes	-	-	-	-	-	(22,795)	(22,795)
Dividends of $0.42 per share	-	-	-	-	(72,012)	-	(72,012)
Stock-based compensation expense	-	-	-	2,327	-	-	2,327
Stock option activity	794	-	10,211	(93)	-	-	10,118
Tax benefit of stock option exercises	-	-	-	782	-	-	782
Treasury stock purchased	(356)	-	(4,833)	-	-	-	(4,833)
Balance at March 31, 2017	167,930	$ 1,764	$ (108,610)	$ 357,203	$ 2,033,285	$ (67,163)	$ 2,216,478
Net income	-	-	-	-	4,910	-	4,910
Other comprehensive Other comprehensive income, net of income taxes	-	-	-	-	-	88,420	88,420
Dividends of $0.43 per share	-	-	-	-	(75,728)	-	(75,728)
Stock-based Stock-based compensation expense	-	-	-	3,407	-	-	3,407
Stock option activity	504	-	6,488	(10)	-	-	6,478
Payments of tax withholding for vested restricted stock units	-	-	-	(523)	-	-	(523)
Balance at March 31, 2018	168,434	$ 1,764	$ (102,122)	$ 360,077	$ 1,962,467	$ 21,257	$ 2,243,443
Net income	-	-	-	-	271,813	-	271,813
Other comprehensive Other comprehensive loss, net of income taxes	-	-	-	-	-	(60,751)	(60,751)
Dividends of $0.46 per share	-	-	-	-	(77,696)	-	(77,696)
Stock-based Stock-based compensation expense	-	-	-	4,251	-	-	4,251
Stock option activity	447	-	5,761	(1,031)	-	-	4,730
Payments of tax withholding for vested restricted stock units	-	-	-	(799)	-	-	(799)
Treasury stock purchased	(55)	-	(811)	-	-	-	(811)
Balance at March 31, 2019	168,826	$ 1,764	$ (97,172)	$ 362,498	$ 2,156,584	$ (39,494)	$ 2,384,180

See accompanying notes to consolidated financial statements.

AVX Corporation and Subsidiaries
Consolidated Statements of Cash Flows
(in thousands)

	Fiscal Year Ended March 31,		
	2017	**2018**	**2019**
OPERATING ACTIVITIES:			
Net income	$ 125,785	$ 4,910	$ 271,813
Adjustment to reconcile net income to net cash from operating activities:			
Depreciation and amortization	42,687	59,788	90,031
Stock-based compensation expense	2,327	3,407	4,251
Deferred income taxes	(2,175)	43,993	(1,373)
Loss from equity-method investments	-	-	327
(Gain) loss on disposal of property and equipment	(1,894)	267	414
Changes in operating assets and liabilities, excluding acquisition:			
Accounts receivable	(18,116)	(26,075)	22,225
Inventories	6,798	20,850	(128,556)
Accounts payable and accrued expenses	33,447	(32,981)	5,469
Income taxes payable	(39,272)	72,112	(14,234)
Other assets	13,219	50,037	(29,241)
Other liabilities	32,205	(811)	11,840
Net cash provided by operating activities	195,011	195,497	232,966
INVESTING ACTIVITIES:			
Purchases of property and equipment	(66,288)	(100,537)	(129,655)
Purchase of business, net of cash and debt acquired	-	(290,280)	(12,317)
Purchases of investment securities	(1,449,298)	(1,724,921)	(1,504,698)
Redemptions of investment securities	1,500,586	1,978,157	1,347,942
Proceeds from property, plant & equipment dispositions	11,266	36	8
Other investing activities	-	(969)	(957)
Net cash used in investing activities	(3,734)	(138,514)	(299,677)
FINANCING ACTIVITIES:			
Dividends paid	(72,012)	(75,728)	(77,696)
Purchase of treasury stock	(4,833)	-	(811)
Proceeds from exercise of stock options	10,118	5,955	3,934
Principal payments of debt	-	(21,106)	(1,893)
Payments of tax withholdings for vested restricted stock units	-	(523)	(799)
Excess tax benefit from stock-based payment arrangements	782	-	-
Net cash used in financing activities	(65,945)	(91,402)	(77,265)
Effect of exchange rate on cash	(906)	3,200	(2,814)
Increase (decrease) in cash and cash equivalents	124,426	(31,219)	(146,790)
Cash, cash equivalents and restricted cash at beginning of period	454,208	578,634	547,415
Cash, cash equivalents and restricted cash at end of period	$ 578,634	$ 547,415	$ 400,625
Reconciliation of cash, cash equivalents and restricted cash to the Balance Sheet			
Cash and cash equivalents	578,634	547,415	378,456
Restricted cash	-	-	22,169
Total cash, cash equivalents and restricted cash to the Balance Sheet	$ 578,634	$ 547,415	$ 400,625

See accompanying notes to consolidated financial statements.

AVX Corporation and Subsidiaries
Notes to Consolidated Financial Statements
(in thousands, except per share data)

1. Summary of Significant Accounting Policies:

General:

AVX Corporation is a leading worldwide manufacturer, supplier and reseller of a broad line of electronic components and interconnect, sensing and control devices, and related products. The consolidated financial statements of AVX Corporation ("AVX" or "the Company") include all accounts of the Company and its subsidiaries. All significant intercompany transactions and accounts have been eliminated.

From January 1990 through August 15, 1995, we were wholly owned by Kyocera Corporation ("Kyocera"). As of March 31, 2019, Kyocera owned approximately 72% of our outstanding shares of common stock.

Use of Estimates:

The consolidated financial statements are prepared in accordance with generally accepted accounting principles. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reported periods. We base our estimates and judgments on historical experience and on various other factors that we believe are 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. There can be no assurance that actual results will not differ from those estimates. On an ongoing basis, we evaluate our accounting policies and disclosure practices.

Cash Equivalents and Investments in Securities:

We consider all highly liquid investments purchased with an original maturity of three months (90 days) or less to be cash equivalents.

Our short-term and long-term investment securities are accounted for as held-to-maturity securities and are carried at amortized cost. We have the ability and intent to hold these investments until maturity. All income generated from the held-to-maturity securities investments are recorded as interest income.

Inventories:

We determine the cost of raw materials, work in process, and finished goods inventories by the first-in, first-out ("FIFO") method. Manufactured inventory costs include material, labor, and manufacturing overhead. Inventories are valued at the lower of cost or market (realizable value) and are valued at market value where there is evidence that the utility of goods will be less than cost and that such write-down should occur in the current period. Accordingly, at the end of each period, we evaluate our inventory and adjust to net realizable value. We review and adjust the carrying value of our inventories based on historical usage, customer forecasts received from marketing and sales personnel, customer backlog, certain date code restrictions, technology changes, demand increases and decreases, market directional shifts, and obsolescence and aging.

Property and Equipment:

Property and equipment are recorded at cost. Machinery and equipment are depreciated on the double-declining balance and straight-line methods. Buildings are depreciated on the straight-line method. The estimated useful lives used for computing depreciation are as follows: buildings and improvements – 10 to 31.5 years, machinery and equipment – 3 to 10 years. Depreciation expense was $37,493, $50,813 and $75,830 for the fiscal years ended March 31, 2017, 2018 and 2019, respectively.

We review long-lived assets for impairment whenever events or changes in circumstances indicate that the carrying amount of any such assets may not be recoverable. If the sum of the undiscounted cash flows is less than the carrying value of the related assets, we recognize an impairment loss, measured as the amount by which the carrying value exceeds the fair value of the assets.

The cost of maintenance and repairs is charged to expense as incurred. Upon disposal or retirement, the cost and accumulated depreciation of assets are eliminated from the respective accounts. Any gain or loss is reflected in our results of operations.

Goodwill and Acquired Intangible Assets:

We test goodwill for impairment annually, or whenever conditions indicate that such impairment could exist. The carrying value of the reporting unit is evaluated in relation to the operating performance and estimated future discounted cash flows of the related reporting unit. If the sum of the discounted cash flows is less than the carrying value of the related assets, we recognize an impairment loss, measured as the amount by which the carrying value exceeds the fair value of the assets. The estimate of cash flow is based upon, among other things, certain assumptions about expected future operating performance, including assumptions in gross profit and the determination of the discount rate to be utilized. Our annual goodwill impairment analysis indicated that there was no related impairment for the fiscal years ended March 31, 2017, 2018, or 2019. The following table reflects a rollforward of our goodwill activity during the years ended March 31, 2018 and 2019 by reporting unit:

	March 31, 2018		March 31, 2019	
	Electronic Components	Interconnect, Sensing & Control Devices	Electronic Components	Interconnect, Sensing & Control Devices
Beginning balance	$ 202,774	$ 10,277	$ 278,247	$ 38,051
Acquired goodwill	75,473	26,049	-	8,998
Foreign currency translation	-	1,725	-	(1,558)
Purchase price adjustments	-	-	(6,873)	(190)
Ending balance	$ 278,247	$ 38,051	$ 271,374	$ 45,301

We have determined that our intangible assets have finite useful lives. Intangible assets are amortized on a straight-line basis over their estimated useful lives. Amortization expense was $5,194, $9,006, and $14,201 for the fiscal years ended March 31, 2017, 2018, and 2019, respectively.

	March 31, 2018		March 31, 2019	
	Gross Carrying Amount	Accumulated Amortization	Gross Carrying Amount	Accumulated Amortization
Amortized intangible assets:				
Customer relationships	$ 96,388	$ (30,819)	$ 98,320	$ (37,970)
Developed technology and other	43,689	(13,816)	45,565	(18,241)
Trade name and trademarks	43,380	(10,210)	44,105	(12,835)
Total	$ 183,457	$ (54,845)	$ 187,990	$ (69,046)

The estimated future annual amortization expense for intangible assets is as follows:

Fiscal Year ended March 31,	Estimated Amortization Expense
2020	$ 14,174
2021	13,828
2022	12,940
2023	12,940
2024	11,884
Thereafter	53,178

Pension Assumptions:

Pension benefit obligations and the related effects on our results of operations are calculated using actuarial models. Two critical assumptions, discount rate and expected rate of return on plan assets, are important elements of plan expense and/or liability measurement. We evaluate these assumptions annually. The discount rate enables us to state expected future cash flows at a present value on the measurement date. To determine the discount rate, we apply the expected cash flows from each individual pension plan to specific yield curves at the plan's measurement date and determine a level equivalent yield unique to each plan. A lower discount rate increases the present value of benefit obligations and increases pension expense. To determine the expected long-term rate of return on pension plan assets, we consider the current and expected asset allocations, as well as historical and expected returns on various categories of plan assets. Other assumptions involve demographic factors such as retirement, mortality, and turnover. These assumptions are evaluated annually and are updated to reflect our experience. Actual results in any given year will often differ from actuarial assumptions because of economic and other factors. In such cases, the differences between actual results and actuarial assumptions are amortized over future periods.

Income Taxes:

As part of the process of preparing our consolidated financial statements, we are required to estimate our tax assets and liabilities in each of the jurisdictions in which we operate. This process involves management estimating the actual current tax exposure together with assessing temporary differences resulting from different treatment of items for tax and accounting purposes. These differences result in deferred tax assets and liabilities that are included within our consolidated balance sheets. We assess the likelihood that our deferred tax assets will be recoverable based on all available evidence, both positive and negative. To the extent we believe that recovery is not more likely than not, we establish a valuation allowance.

We have recorded valuation allowances due to uncertainties related to our ability to realize some of our deferred tax assets, primarily consisting of certain net operating losses carried forward before they expire. The valuation allowance is based on our estimates of future taxable income over the periods that our deferred tax assets will be recoverable. We continue to evaluate countries where we have a valuation allowance on our deferred tax assets due to historical operating losses and when such positive evidence outweighs negative evidence we will release such valuation allowance as appropriate.

We also record a provision for certain international, federal, and state tax contingencies based on the likelihood of obligation, when needed. In the normal course of business, we are subject to challenges from U.S. and non-U.S. tax authorities regarding the amount of taxes due. These challenges may result in adjustments of the timing or amount of taxable income or deductions or the allocation of income among tax jurisdictions. Further, during the ordinary course of business, other changing facts and circumstances may affect our ability to utilize tax benefits as well as the estimated taxes to be paid in future periods. We believe that any potential tax exposures have been sufficiently provided for in the consolidated financial statements. In the event that actual results differ from these estimates, we may need to adjust tax accounts and related payments, which could materially impact our financial condition and results of operations.

We account for uncertainty in income taxes recognized in our financial statements. We recognize in our financial statements the impact of a tax position, if that position would “more likely than not” be sustained on audit, based on the technical merits of the position. Accruals for estimated interest and penalties are recorded as a component of interest expense.

The provision for income tax expense for the fiscal year ended March 31, 2019 was $61.4 million compared to $187.4 million for the fiscal year ended March 31, 2018. On December 22, 2017, The Tax Cuts and Job Act (“TCJA”) was enacted in the U.S. Among numerous other provisions, the TCJA reduced the statutory U.S. corporation income tax rate from 35% to 21%, effective January 1, 2018. TCJA also reduced or eliminated certain corporate tax deductions and provided for a transition from a worldwide to a modified territorial tax system for resident corporations and related corporate group members. Under previous law, companies could indefinitely defer U.S. income taxation on unremitted foreign earnings. The transition is accompanied by a one-time tax, effective December 31, 2017, on all U.S.-based corporate groups’ accumulated foreign earnings as yet untaxed by the U.S., assessed at a 15.5% rate on all such earnings held in cash or liquid asset positions and at an 8% rate on all other non-liquid asset positions. This estimated one-time tax was recorded as $75.7 million in the results for the quarter ended December 31, 2017. As a result of the filing of our U.S. federal tax return, this amount was finally calculated at approximately $70.3 million, which is payable in eight annual installments over an eight-year period, beginning in 2018. Also, in consideration of TCJA, we have determined that it is no longer necessary to assert that cash and profits generated by our foreign subsidiaries will continue to be reinvested locally indefinitely. Accordingly, in addition to the one-time tax noted above, we also provided for estimated foreign withholding taxes of approximately $13.1 million related to the potential distribution of such foreign earnings.

Foreign Currency Activity:

Assets and liabilities of foreign subsidiaries, where functional currencies are their local currencies, are translated into U.S. dollars at the exchange rate in effect at the balance sheet date. Operating accounts are translated at an average rate of exchange for the respective accounting periods. Translation adjustments result from the process of translating foreign currency financial statements into U.S. dollars and are reported separately as a component of accumulated other comprehensive income (loss). Transaction gains and losses reflected in the functional currencies are reported in our results of operations at the time of the transaction.

Derivative Financial Instruments:

Derivative instruments are reported on the consolidated balance sheets at their fair values. The accounting for changes in fair value depends upon the purpose of the derivative instrument and whether it is designated and qualifies for hedge accounting. For instruments designated as accounting hedges, the effective portion of gains or losses is reported in other comprehensive income (loss) and is reclassified into the statement of operations in the same period during which the hedged transaction affects our results of operations. Any contracts that do not qualify as hedges, for accounting purposes, are marked to market with the resulting gains and losses recognized in other income or expense.

We use financial instruments such as forward exchange contracts to hedge a portion, but not all, of our firm commitments denominated in foreign currencies. The purpose of our foreign currency management is to minimize the effect of exchange rate changes on actual cash flows from foreign currency denominated transactions. See Note 15 for further discussion of derivative financial instruments.

Revenue Recognition and Accounts Receivable:

All products are built to specification and tested by AVX or our suppliers for adherence to such specification before shipment to customers. We ship products to customers based upon firm orders. Shipping and handling costs are treated as fulfillment costs and as such are included in cost of sales. The Company applies this accounting policy election consistently to its sales. We recognize revenue as performance obligations are satisfied, which is when the customer takes control of the products as they are shipped to or received by the customer in accordance with the terms of the agreement of sale.

There are general product warranties within our contracts, as the Company warrants that products will function as expected in accordance with the specifications per the contract. These warranties cannot be purchased by the customer separately and accordingly these warranties are not considered to be separate performance obligations.

Payment terms for the Company's sales are generally less than 90 days. Substantially all of the Company's receivables are collected within twelve months of the transfer of products to the customer and the Company expects this to continue going forward. The Company applies the practical expedient within Accounting Standards Codification 606 - Revenue ("ASC 606") to all of its contracts with payment terms less than or equal to twelve months and does not recognize a financing component in the determination of the transaction price.

We evaluate gross versus net presentation on revenues from products purchased and resold in accordance with the revenue recognition criteria outlined in ASC 606. Based on the evaluation of our resale arrangements with Kyocera, including consideration of the primary indicators set forth in ASC 606, we record revenue related to products purchased and resold on a gross basis.

The Company pays commissions to sales representatives on a per-sale basis and applies the practical expedient available within Accounting Standards Codification 340 – Other Assets and Deferred Costs ("ASC 340"). Accordingly, commissions are expensed as incurred.

The Company recognizes the estimated variable consideration to be received as revenue and records a related reduction to accounts receivable or as an accrued expense for the consideration not expected to be received, based upon its estimate of credits issued or products returned under the sales allowance programs described below. Marketplace volatilities which impact the estimates of variable consideration include, but are not limited to, changes in economic conditions, pricing changes, product demand, inventory levels in the supply chain, the effects of technological change, and other variables that might result in changes to our estimates. Accordingly, there can be no assurance that actual results will not differ from those estimates. We utilize the "portfolio approach" practical expedient in ASC 606, which allows entities to apply the guidance to a portfolio of contracts with similar characteristics because the effects on the financial statements of this approach would not differ materially from applying the guidance to individual contracts. Using the "portfolio approach," we believe we have an adequate basis to assess the reasonableness and reliability of our estimates for each program.

Accounts Receivable

We maintain an allowance for doubtful accounts for estimated losses resulting from the inability of our customers to make required payments. The allowance is determined through an analysis of the aging of accounts receivable and assessments of risk that are based on historical trends and an evaluation of the impact of current and projected economic conditions. We evaluate the past-due status of trade receivables based on contractual terms of sale. If the financial condition of our customers were to deteriorate, resulting in an impairment of their ability to make payments, additional allowances may be required.

Returns

Sales revenue and cost of sales reported in the statement of operations are reduced to reflect estimated returns. We record an estimated right of return liability for returns at the time of sale based on historical trends, current pricing and volume information, other market specific information, and input from sales, marketing, and other key management personnel. The liability accrued reflects the variable consideration not expected to be received. The estimated value of the return to customer's inventory is recorded as an asset. These procedures require the exercise of significant judgments. We believe that these procedures enable us to make reliable estimates of future returns. Our actual results have historically approximated our estimates. When the product is returned and verified, the customer is given credit against their accounts receivable.

Distribution Programs

A portion of our sales to independent electronic component distributor customers are subject to various distributor sales programs. We report provisions for distributor allowances in connection with such sales programs as a reduction in revenue and report distributor allowances on the balance sheet as either a reduction in accounts receivable or right-of-return liabilities. For the distribution programs described below, we do not track the individual units that are recorded against specific products sold from distributor inventories, which would allow us to directly compare revenue reduction for credits recorded during any period with credits ultimately awarded in respect of products sold during that period. Rather, we believe our use of the "portfolio approach" provides an adequate basis to assess the reasonableness and reliability of our estimates for each program.

Distributor Stock Rotation Program

Stock rotation is a program whereby distributor customers are allowed to return for credit qualified inventory, semi-annually, equal to a certain percentage, primarily limited to 5% of the previous six months net sales. We record an estimated sales allowance for stock rotation at the time of sale based on a percentage of distributor sales using historical trends, current pricing and volume information, other market specific information, and input from sales, marketing, and other key management personnel. These procedures require the exercise of significant judgments. We believe that these procedures enable us to make reliable estimates of future returns under the stock rotation program. Our actual results have historically approximated our estimates. When the product is returned and verified, the distributor is given credit against their accounts receivable.

Distributor Ship-from-Stock and Debit Program

Ship-from-Stock and Debit ("ship and debit") is a program designed to assist distributor customers in meeting competitive prices in the marketplace on sales to their end customers. Ship and debit programs require a request from the distributor for a pricing adjustment for a specific part for a sale to the distributor's end customer from the distributor's stock. The pricing adjustment is deemed variable consideration. Ship and debit authorizations may cover current and future distributor activity for a specific part for sale to their customer. At the time we record sales to the distributors, we provide an allowance for the variable consideration of the estimated future distributor activity related to such sales since it is probable that such sales to distributors will result in ship and debit activity. We record an estimated sales allowance based on sales during the period, credits issued to distributors, distributor inventory levels, historical trends, market conditions, pricing trends we see in our direct sales activity with original equipment manufacturers and other customers, and input from sales, marketing, and other key management personnel. These procedures require the exercise of significant judgments. We believe that these procedures enable us to make reliable estimates of future credits under the ship and debit program. Our actual results have historically approximated our estimates. At the time the distributor ships the part from stock, the distributor debits us for the authorized pricing adjustment.

Special Incentive Programs

We may offer special incentive discounts based on amount of product ordered or shipped. At the time we record sales under these agreements, we provide an allowance for the discounts on the sales for which the customer is eligible. The customer then debits us for the authorized discount amount.

Research, Development, and Engineering:

Research, development, and engineering expenditures are expensed when incurred. Research and development expenses are included in selling, general, and administrative expenses and were $16,493, $17,886, and $30,599 for the fiscal years ended March 31, 2017, 2018, and 2019, respectively. Engineering expenses are included in cost of sales and were $14,453, $23,892, and $29,316 for the fiscal years ended March 31, 2017, 2018, and 2019, respectively.

Stock-Based Compensation:

We recognize compensation cost resulting from all share-based payment transactions in the financial statements. The amount of compensation cost is measured based on the grant-date fair value for the share-based payment issued. Our policy is to grant stock options with an exercise price equal to our stock price on the date of grant. Compensation cost is recognized over the vesting period of the award.

We use the Black-Scholes-Merton option-pricing model to determine the fair value of stock options at the grant date. We use the closing fair market value of the Company's common stock on the grant date to determine the fair value of restricted stock units ("RSU") at the grant date. See Note 13 for assumptions used.

Treasury Stock:

Our Board of Directors has approved stock repurchase authorizations in 2005 and 2007 whereby up to 10,000 shares of common stock can be purchased from time to time at the discretion of management. Accordingly, 356 shares were purchased during the fiscal year ended March 31, 2017, 0 shares were purchased during the fiscal year ended March 31, 2018, and 55 shares were purchased during the fiscal year ended March 31, 2019. As of March 31, 2019, we had in treasury 7,543 common shares at a cost of $97,172. There are 3,012 shares that may yet be purchased under the 2007 authorization.

Commitments and Contingencies:

Liabilities for loss contingencies are recorded when analysis indicates that it is both probable that a liability has been incurred and the amount of loss can be reasonably estimated. When a range of loss can be estimated, we accrue the most likely amount. In the event that no amount in the range of probable loss is considered most likely, the minimum loss in the range is accrued. Amounts recorded are reviewed periodically and adjusted to reflect additional legal and technical information that becomes available. Legal advisory costs are expensed as incurred.

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New Accounting Standards:

In May 2014, the FASB issued ASU 2014-09, "Revenue from Contracts with Customers." This guidance modifies how an entity will determine the measurement of revenue and timing of when it is recognized. Revenue is recognized when control of the promised goods is transferred to the customer, in an amount that reflects the consideration expected from the goods. The Company adopted this guidance effective April 1, 2018, using the modified retrospective method, with no material impact on our results of operations. Please refer to Note 6 for additional information.

In February 2016, FASB issued ASU 2016-02, "Leases." This guidance changes the requirements for inclusion of certain right-of-use assets and the associated lease liabilities to be included in a statement of financial position. The classification criteria maintains the distinction between finance leases and operating leases. Regarding finance leases, lessees are required to 1) recognize a right-of-use asset and a lease liability, initially measured at the present value of the lease payments, in the statement of financial position, 2) recognize interest on the lease liability separate from the amortization of the right-of-use asset in the statement of comprehensive income, and 3) classify repayments of the principal portion of the lease liability within financing activities and payments of interest on the lease liability and variable lease payments within operating activities in the statement of cash flows. Regarding operating leases, lessees are required to 1) recognize a right-of-use asset and a lease liability, initially measured at the present value of the lease payments, in the statement of financial position, 2) recognize a single lease cost, calculated so that the cost of the lease is allocated over the lease term on a generally straight-line basis, and 3) classify all cash payments within operating activities in the statement of cash flows. This guidance is effective for public companies for interim and annual reporting periods beginning after December 15, 2018. Early adoption is permitted. Based on work performed to date to analyze ASU 2016-02, including a review of the language and structure in our (including recent acquisitions) current lease and rental contracts, management does not anticipate the adoption of ASU 2016-02 to have a material impact on our consolidated financial statements.

In June 2016, FASB issued ASU 2016-13, "Financial Instruments – Credit Losses: Measurement of Credit Losses on Financial Instruments." This standard requires the measurement and recognition of expected credit losses held at amortized cost. This new standard replaces the use of forward-looking information to estimate credit losses and requires credit losses for available for sale debt securities to be recorded through an allowance for credit losses rather than a reduction in the amortized cost basis. This update is effective for public companies for annual reporting periods beginning after December 15, 2019. Management is currently evaluating the impact of ASU 2016-13 on our consolidated financial statements.

In November 2016, FASB issued ASU 2016-18, "Statement of Cash Flows – Restricted Cash." The standard provides additional guidance related to transfers between cash and restricted cash and how cash receipts and cash payments in the statement of cash flows directly affects the restricted cash accounts. The Company adopted ASU 2016-18 effective April 1, 2018. The adoption of this standard has not had a material impact on our consolidated financial statements.

In August 2017, FASB issued ASU 2017-12, "Derivatives and Hedging." The standard aims to align the designation and measurement guidance for qualifying hedging relationships and the presentation of hedge results for cash flow and fair value hedge accounting with risk management activities. The guidance is effective for public companies for annual reporting periods beginning after December 15, 2018, and interim periods within those annual periods. Early adoption is permitted in any interim period after issuance. Additionally, in October 2018, the FASB issued ASU 2018-16, "Derivatives and Hedging (Topic 815): Inclusion of the Secured Overnight Financing Rate (SOFR) Overnight Index Swap (OIS) Rate as a Benchmark Interest Rate for Hedge Accounting Purposes", which permits use of the OIS rate based on SOFR as a U.S. benchmark interest rate for hedge accounting purposes under Topic 815. This update is effective for public companies for annual reporting periods beginning after December 15, 2018, and interim periods within those annual periods. For entities that have not yet adopted ASU 2017-12, the concurrent adoption of ASU 2018-16 is required. The Company intends to adopt this update concurrently with ASU 2017-12. Management does not anticipate the adoption of ASU 2017-12 and ASU 2018-16 to have a material impact on our consolidated financial statements.

In February 2018, the FASB issued ASU 2018-02, "Income Statement - Reporting Comprehensive Income." This standard allows a reclassification from accumulated other comprehensive income to retained earnings for stranded tax effects resulting from the Tax Act. The standard is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. Early adoption is permitted for any interim and annual financial statements that have not yet been issued. We are currently evaluating the potential impact on our consolidated financial statements and disclosures.

In August 2018, the FASB issued ASU 2018-13, "Fair Value Measurement – Disclosure Framework – Changes to the Disclosure Requirements for Fair Value Measurement". This standard removes, adds and modifies certain disclosure requirements in the existing framework. ASU 2018-13 removes the following disclosure requirements: (i) the amount of and reasons for transfers between Level 1 and Level 2 of the fair value hierarchy and (ii) the entity's valuation processes for Level 3 fair value measurements. ASU 2018-13 adds the following disclosure requirements: (i) provide information about the measurement uncertainty of Level 3 fair value measurements as of the reporting date rather than a point in the future, (ii) disclose changes in unrealized gains and losses related to Level 3 measurements for the period included in other comprehensive income, and (iii) disclose for Level 3 measurements the range and weighted average of the significant unobservable inputs and the way it is calculated. ASU 2018-13 is effective for fiscal years, and interim periods within those fiscal years, beginning after December 15, 2019. Early adoption is permitted. We are currently evaluating the potential impact on our consolidated financial statements and disclosures.

In August 2018, the FASB issued ASU 2018-14, "Compensation – Retirement Benefits – Defined Benefit Plans – General." This standard removes certain disclosures that are not considered cost beneficial, clarifies certain required disclosures and added additional disclosures. The standard is effective for fiscal years beginning after December 15, 2020, and early adoption is permitted. The amendments in ASU 2018-14 would need to be applied on a retrospective basis. We are currently assessing the impact the new guidance will have on our disclosures.

We have reviewed other newly issued accounting pronouncements and concluded that they are either not applicable to our business or that no material effect is expected on our consolidated financial statements as a result of future adoption.

2. Earnings Per Share:

Basic earnings per share are computed by dividing net earnings by the weighted average number of shares of common stock outstanding for the period. Diluted earnings per share are computed by dividing net earnings by the sum of (a) the weighted average number of shares of common stock outstanding during the period and (b) the dilutive effect of potential common stock equivalents during the period. Stock options and unvested service-based RSU awards make up the common stock equivalents and are computed using the treasury stock method.

The table below represents the basic and diluted earnings per share, calculated using the weighted average number of shares of common stock and potential common stock equivalents outstanding for the years ended March 31, 2017, 2018, and 2019:

	Fiscal Year Ended March 31,		
	2017	2018	2019
Net income	$ 125,785	$ 4,910	$ 271,813
Computation of Basic EPS:			
Weighted Average Shares Outstanding used in Computing Basic EPS	167,506	168,262	168,713
Basic earnings per share	$ 0.75	$ 0.03	$ 1.61
Computation of Diluted EPS:			
Weighted Average Shares Outstanding used in Computing Basic EPS	167,506	168,262	168,713
Effect of stock options	331	663	609
Weighted Average Shares Outstanding used in Computing Diluted EPS (1)	167,837	168,925	169,322
Diluted earnings per share	$ 0.75	$ 0.03	$ 1.61

(1) Common stock equivalents not included in the computation of diluted earnings per share because the impact would have been anti-dilutive were 1,381 shares, 1,733 shares, and 4,375 shares for the fiscal years ended March 31, 2017, 2018, and 2019, respectively.

3. Comprehensive Income:

Comprehensive income (loss) includes the following components:

	Fiscal Year Ended March 31,					
	2017		2018		2019	
	Pre-tax	Net of Tax	Pre-tax	Net of Tax	Pre-tax	Net of Tax
Foreign currency translation adjustment	$ (14,674)	$ (14,674)	$ 76,711	$ 76,711	$ (61,570)	$ (61,570)
Foreign currency cash flow hedges adjustment	205	183	(626)	(490)	412	333
Pension liability adjustment	(10,155)	(7,527)	16,063	12,199	2,454	1,945
Other post-employment obligations	(777)	(777)	-	-	(1,459)	(1,459)
Other comprehensive income (loss)	$ (25,401)	$ (22,795)	$ 92,148	$ 88,420	$ (60,163)	$ (60,751)

The accumulated balance of comprehensive income (loss) is as follows:

	As of March 31,	
	2018	2019
Foreign currency translation adjustment	$ 62,381	$ 811
Foreign currency cash flow hedges adjustment	(123)	210
Pension liability adjustment	(37,419)	(35,474)
Other post-employment obligations	(3,582)	(5,041)
Accumulated other comprehensive income (loss)	$ 21,257	$ (39,494)

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4. Fair Value:

Fair Value Hierarchy:

The fair value framework requires the categorization of assets and liabilities into three levels based upon the assumptions (inputs) used to value the assets or liabilities. Level 1 provides the most reliable measure of fair value, whereas Level 3 generally requires significant management judgment. The three levels are defined as follows:

- *Level 1*: Unadjusted quoted prices in active markets for identical assets and liabilities.
- *Level 2*: Observable inputs other than those included in Level 1. For example, quoted prices for similar assets or liabilities in active markets or quoted prices for identical assets or liabilities in inactive markets.
- *Level 3*: Unobservable inputs reflecting management's own assumptions about the inputs used in pricing the asset or liability.

During the fiscal years ended March 31, 2017, 2018, and 2019, there have been no transfers of assets between the levels within the fair value hierarchy.

	Fair Value at March 31, 2018	Quoted prices in active markets (Level 1)	Based on Other observable inputs (Level 2)	Unobservable inputs (Level 3)
Assets measured at fair value on a recurring basis:				
Assets held in the non-qualified deferred compensation program[1]	$ 6,649	$ 5,959	$ 690	$ -
Foreign currency derivatives[2]	257	-	257	-
Total	$ 6,906	$ 5,959	$ 947	$ -

	Fair Value at March 31, 2018	Quoted prices in active markets (Level 1)	Based on Other observable inputs (Level 2)	Unobservable inputs (Level 3)
Liabilities measured at fair value on a recurring basis:				
Obligation related to assets held in the non-qualified deferred compensation program[1]	$ 6,649	$ 5,959	$ 690	$ -
Foreign currency derivatives[2]	514	-	514	-
Total	$ 7,163	$ 5,959	$ 1,204	$ -

	Fair Value at March 31, 2019	Quoted prices in active markets (Level 1)	Based on Other observable inputs (Level 2)	Unobservable inputs (Level 3)
Assets measured at fair value on a recurring basis:				
Assets held in the non-qualified deferred compensation program[1]	$ 4,693	$ 3,265	$ 1,428	$ -
Foreign currency derivatives[2]	853	-	853	-
Total	$ 5,546	$ 3,265	$ 2,281	$ -

	Fair Value at March 31, 2019	Quoted prices in active markets (Level 1)	Based on Other observable inputs (Level 2)	Unobservable inputs (Level 3)
Liabilities measured at fair value on a recurring basis:				
Obligation related to assets held in the non-qualified deferred compensation program[1]	$ 4,693	$ 3,265	$ 1,428	$ -
Foreign currency derivatives[2]	588	-	588	-
Total	$ 5,281	$ 3,265	$ 2,016	$ -

(1) The market value of the assets held in the trust for the non-qualified deferred compensation program is included as an asset and as a liability as the trust's assets are both assets of the Company and also a liability as they are available to general creditors in certain circumstances.

(2) Foreign currency derivatives in the form of forward contracts are included in prepaid and other assets and liabilities in the March 31, 2018 and 2019 consolidated balance sheets. Unrealized gains and losses on derivatives classified as cash flow hedges are recorded in other comprehensive income (loss). Realized gains and losses on derivatives classified as cash flow hedges and gains and losses on derivatives not designated as hedges are recorded in other income.

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Valuation Techniques:

The following describes valuation techniques used to value our assets held in the non-qualified deferred compensation plan and derivatives.

Assets held in the non-qualified deferred compensation plan

Assets valued using Level 1 inputs in the table above represent assets from our non-qualified deferred compensation program. The funds in the non-qualified deferred compensation program are valued based on the number of shares in the funds using a price per share traded in an active market.

Investments are considered impaired when a decline in fair value is judged to be other-than-temporary. If the cost of an investment exceeds its fair value, among other factors, we evaluate general market conditions, the duration and extent to which the fair value is less than cost, our intent and ability to hold the investment, and whether or not we expect to recover the security's entire amortized cost. Once a decline in fair value is determined to be other-than-temporary, an impairment charge is recorded and a new cost basis in the investment is established.

Derivatives

We primarily use forward contracts, with maturities generally less than four months, designated as cash flow hedges to protect against the foreign currency exchange rate risks inherent in forecasted transactions related to purchase commitments and sales, denominated in various currencies. We also use derivatives not designated as hedging instruments to hedge foreign currency balance sheet exposures. These derivatives are used to offset currency changes in the fair value of the hedged assets and liabilities. Fair values for all of our derivative financial instruments are valued by adjusting the market spot rate by forward points, based on the date of the contract. The spot rates and forward points used are an average rate from an actively traded market. At March 31, 2018 and 2019, all of our forward contracts have been designated as Level 2 measurements.

5. Trade Accounts Receivable and Contract Liabilities:

	Fiscal Year Ended March 31,	
	2018	2019
Gross Accounts Receivable - Trade	$ 300,016	$ 273,053
Less:		
Allowances for doubtful accounts	1,893	1,276
Stock rotation and ship from stock and debit	15,989	14,140
Sales returns and discounts	6,875	646
Total allowances	24,757	16,062
Accounts Receivable - Trade, net	$ 275,259	$ 256,991

Charges related to allowances for doubtful accounts are charged to selling, general, and administrative expenses. Charges related to stock rotation, ship from stock and debit, sales returns, and sales discounts are reported as deductions from revenue. Please refer to Note 6, "Revenue Recognition," for additional information.

	Fiscal Year Ended March 31,		
	2017	2018	2019
Allowances for doubtful accounts:			
Beginning Balance	$ 423	$ 1,285	$ 1,893
Charges	785	209	276
Applications	77	(1,524)	(897)
Translation, Acquisition and other	-	1,923	4
Ending Balance	$ 1,285	$ 1,893	$ 1,276

	Fiscal Year Ended March 31,		
	2017	2018	2019
Stock rotation and ship from stock debit:			
Beginning Balance	$ 14,314	$ 14,853	$ 15,989
Charges	25,470	30,523	28,855
Applications	(24,931)	(29,387)	(24,378)
Stock rotation reclassified to liability	-	-	(6,326)
Ending Balance	$ 14,853	$ 15,989	$ 14,140

	Fiscal Year Ended March 31,		
	2017	2018	2019
Sales returns and discounts:			
Beginning Balance	$ 6,681	$ 5,623	$ 6,875
Charges	13,831	24,150	2,482
Applications	(14,841)	(23,399)	(2,548)
Sales returns reclassified to liabilities	-	-	(6,157)
Translation, Acquisition and other	(48)	501	(6)
Ending Balance	$ 5,623	$ 6,875	$ 646

	Fiscal Year Ended March 31,		
	2017	2018	2019
Contract liabilities:			
Beginning Balance	$ -	$ -	$ -
Increase due to adoption of ASC 606	-	-	12,483
Charges	-	-	17,559
Applications	-	-	(14,268)
Translation, Acquisition and other	-	-	(21)
Ending Balance	$ -	$ -	$ 15,753

6. Revenue Recognition:

We adopted ASC 606 effective April 1, 2018 using the modified retrospective approach. We elected the practical expedient to only apply the standard to contracts that were not completed at the effective date. Implementing this standard had no impact on our revenue recognition for the uncompleted contracts and accordingly no cumulative adjustment was made to the opening balance of retained earnings as of April 1, 2018.

We identified a change in how we record right-of-return liabilities which impacts Current Assets and Current Liabilities. The change is primarily due to how ASC 606 defines a right-of-return contract liability. The following table for the period ended March 31, 2019 compares the amounts reported in the Consolidated Balance Sheet had the previous revenue recognition guidance been in effect:

	Fiscal Year Ended March 31, 2019		
	As reported	Balances without ASC 606 Adoption	Increase Due to Adoption
Accounts Receivable - trade, net	$ 256,991	$ 241,238	$ 15,753
Accrued Expenses	$ 55,068	$ 39,315	$ 15,753

Reference Note 5, "Trade Accounts Receivable and Contract Liabilities," for information on variable consideration and right-of-return liability details.

Reference Note 17, "Segment and Geographic Information," for disaggregated revenue information.

7. Inventories:

	Fiscal Year Ended March 31,	
	2018	2019
Finished goods	$ 93,467	$ 102,373
Work in process	133,556	142,475
Raw materials	289,754	386,840
Total inventories, net	$ 516,777	$ 631,688

8. Property and Equipment:

	Fiscal Year Ended March 31,	
	2018	2019
Land	$ 43,209	$ 43,155
Buildings and improvements	393,247	397,682
Machinery and equipment	1,470,460	1,447,325
Construction in progress	73,572	93,362
	1,980,488	1,981,524
Accumulated depreciation	(1,562,202)	(1,525,767)
	$ 418,286	$ 455,757

9. Financial Instruments and Investments in Securities:

Our financial instruments that are exposed to concentrations of credit risk consist primarily of cash and cash equivalents, securities investments, and trade accounts receivable. We place our cash and cash equivalents with high credit quality institutions. At times, such investments may be in excess of the Federal Deposit Insurance Corporation insurance limit. Concentrations of credit risk with respect to trade accounts receivable are limited due to the large number of entities comprising our customer base and their dispersion across many different industries and countries. As of March 31, 2019, we believe that our credit risk exposure is not significant.

At March 31, 2018 and 2019 we classified investments in debt securities and time deposits as held-to-maturity securities.

Our long-term and short-term investment securities are accounted for as held-to-maturity securities and are carried at amortized cost. We have the ability and intent to hold these investments until maturity. All income generated from the held-to-maturity securities investments is recorded as interest income.

Investments in held-to-maturity securities, recorded at amortized cost, were as follows:

	As of March 31, 2018			
	Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Short-term investments:				
Corporate bonds	$ 10,597	$ -	$ 1	$ 10,596
Time deposits	269,190	203	-	269,393
	$ 279,787	$ 203	$ 1	$ 279,989

	As of March 31, 2019			
	Cost	Gross Unrealized Gains	Gross Unrealized Losses	Estimated Fair Value
Short-term investments:				
Time deposits	434,754	184	-	434,938

The amortized cost and estimated fair value of held-to-maturity investments at March 31, 2019, by contractual maturity, are shown below. The estimated fair value of these investments are based on valuation inputs that include benchmark yields, reported trades, broker and dealer quotes, issuer spreads, two-sided markets, benchmark securities, bids, offers, and reference data, which are Level 2 inputs in the fair value hierarchy. Actual maturities may differ from contractual maturities because issuers may have the right to call or prepay obligations without call or prepayment penalties.

	Held-to-Maturity	
	Amortized Cost	Estimated Fair Value
Due in one year or less	$ 434,754	$ 434,938

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10. Income Taxes:

For financial reporting purposes, income before income taxes included the following components:

	Fiscal Year Ended March 31,		
	2017	2018	2019
Domestic	$ 75,659	$ 85,263	$ 215,573
Foreign	99,290	107,050	117,670
Total	$ 174,949	$ 192,313	$ 333,243

The provision for income taxes consisted of:

	Fiscal Year Ended March 31,		
	2017	2018	2019
Current:			
Federal	$ 32,846	$ 122,710	$ 34,836
State	374	817	1,620
Foreign	18,494	19,883	26,347
	51,714	143,410	62,803
Deferred:			
Federal	1,130	25,334	1,551
State	595	488	(315)
Foreign	(4,275)	18,171	(2,609)
	(2,550)	43,993	(1,373)
	$ 49,164	$ 187,403	$ 61,430

Deferred taxes reflect the net tax effects of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes.

	As of March 31,			
	2018		2019	
Non-current:	Assets	Liabilities	Assets	Liabilities
Sales and receivable allowances	$ 5,711	$ -	$ 5,393	$ -
Inventory reserves	7,645	-	8,484	-
Depreciation and amortization	-	(22,336)	-	(20,603)
Pension obligations	550	-	-	(774)
Foreign withholding	-	-	-	(32,825)
Accrued expenses	30,089	-	31,058	-
Other, net	-	(21,692)	2,886	-
Net operating loss and tax credit carry forwards	77,108	-	89,146	-
Sub total	121,103	(44,028)	136,967	(54,202)
Less: valuation allowances	(14,250)	-	(21,062)	-
Total Non-current	$ 106,853	$ (44,028)	$ 115,905	$ (54,202)

	As of March 31,		
	2017	2018	2019
Valuation allowance beginning balance	$ 26,034	$ 13,933	$ 14,250
Charged to income tax provision	(1,128)	(2,879)	3,874
Additions	-	2,975	3,124
Releases	(7,413)	-	-
Translation and other	(3,560)	221	(186)
Valuation allowance ending balance	$ 13,933	$ 14,250	$ 21,062

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Reconciliation between the U.S. Federal statutory income tax rate and our effective rate for income tax is as follows:

	Fiscal Year Ended March 31,		
	2017	2018	2019
U.S. Federal statutory rate	35.0%	31.5%	21.0%
Increase (decrease) in tax rate resulting from:			
State income taxes, net of federal benefit	0.5	0.8	0.5
Effect of foreign operations	(8.3)	(7.1)	(1.1)
Change in valuation allowance	(5.0)	0.0	0.3
FDII Provision	0.0	0.0	(1.4)
Deemed dividends from subsidiaries	6.3	7.3	2.9
Deduction for domestic production activities	(1.7)	(1.2)	0.0
Utilization of foreign tax credits	(3.9)	(4.0)	(3.3)
US and Foreign Tax Reform	0.0	66.7	(1.6)
Change in uncertain tax positions	(0.8)	0.2	(0.2)
Adjustment made by taxing authorities	3.3	0.0	0.1
Adjustment of prior year balances	1.7	1.4	0.6
Other, net	1.0	1.8	0.6
Effective tax rate	28.1%	97.4%	18.4%

The following table presents the approximate amount of federal, foreign and state operating loss carryforwards and federal tax credit carryforwards available to reduce future taxable income, along with the respective range of years that the operating loss and tax credit carryforwards would expired if not utilized:

	March 31, 2019	Beginning expiration year	Ending expiration year
Federal operating loss carryforwards	$ 14,440	2026	2036
Federal operating loss carryforwards	11,895	No Exp	No Exp
Foreign operating loss carryforwards	178,784	No Exp	No Exp
Foreign operating loss carryforwards	25,792	2020	2039
State operating loss carryforwards	3,279	2022	2039
Federal tax credit carryforwards	17,373	2039	2039
Foreign tax credit carryforward	4,187	2023	2029
State tax credit carryforward	8,086	2020	2029

At March 31, 2019, certain of our U.S. and foreign subsidiaries in Brazil, France, Germany, Israel, Japan, Mexico and Korea had tax operating loss and tax credit carry forwards totaling approximately $263,836. There is a greater likelihood of not realizing the future tax benefits of these net operating losses and other deductible temporary differences in Brazil, Israel, China, and Korea since these losses and other deductible temporary differences must be used to offset future taxable income of those subsidiaries, which cannot be assured, and are not available to offset taxable income of other subsidiaries located in those countries. Accordingly, we have recorded valuation allowances related to the net deferred tax assets in these jurisdictions. Valuation allowances decreased $(12,101), and increased $317 and $6,812 during the years ended March 31, 2017, 2018, and 2019, respectively, as a result of changes in the net operating losses of the subsidiaries or as a result of changes in foreign currency exchange rates in the countries mentioned above.

The decrease in valuation allowance during the year ended March 31, 2017 was also due to the reversal of valuation allowances of $5,530 related to the future utilization of NOLs totaling $15,878 at a Japanese subsidiary. The related tax benefits upon utilization of the Japanese NOLs expire eight years after they are generated, and they are not subject to annual utilization limitations. The realization of tax benefits due to the utilization of these NOLs could take an extended period of time to realize and are dependent upon the Japanese subsidiary's continuing profitability, and some could expire prior to utilization. The increase in valuation allowance during the year ended March 31, 2019, was due to the addition of valuation allowances of $3,124 related to the Ethertronics acquisition and $1,763 related to capital and section 1231 losses at AVX Corporation.

Income taxes paid totaled $55,642, $66,354 and $75,640 during the years ended March 31, 2017, 2018 and 2019, respectively.

We do not expect that the balances with respect to our uncertain tax positions will significantly increase or decrease within the next 12 months. For our more significant locations, we are subject to income tax examinations for the tax years 2014 and forward in the United States, 2014 and forward in Germany, 2013 and forward in Hong Kong, and 2013 and forward in the United Kingdom.

A reconciliation of the beginning and ending balance for liabilities associated with uncertain tax positions is as follows:

Balance at March 31, 2016	$ 3,399
Reductions for tax positions of prior years	(89)
Reductions due to expiration of statutory periods	(895)
Reductions due to settlements with taxing authorities	(478)
Balance at March 31, 2017	$ 1,937
Additions for tax positions of prior years	948
Additions for tax positions in current period	642
Reductions due to settlements with taxing authorities	(317)
Balance at March 31, 2018	$ 3,210
Additions for tax positions in current period	155
Reductions due to expiration of statutory periods	(870)
Reductions for tax positions of prior years	(539)
Balance at March 31, 2019	$ 1,956

We recognize interest and penalties related to uncertain tax positions in interest expense. As of March 31, 2018 and 2019, we had accrued interest related to uncertain tax positions of $470 and $340, respectively. During the years ended March 31, 2018 and 2019, we recognized a $71 increase in interest expense mainly due to the Ethertronics acquisition and a $(130) reduction in interest expense mainly due to the expirations of statutory periods, respectively.

The amount of unrecognized tax benefits recorded on our balance sheet that, if recognized, would affect the effective tax rate is approximately $3,210 and $1,956 at March 31, 2018 and 2019, respectively. This amount excludes the accrual for estimated interest discussed above.

11. Acquisitions:

On October 2, 2017, AVX acquired the AB Electronics sensing and control business from TT Electronics, PLC, for $162,038, net of cash acquired. Now named Sensing and Control ("S&C") and consolidated within our Interconnect, Sensing and Control Devices segment (formerly AVX Interconnect) for financial reporting purposes, the acquisition enhances AVX's position in the automotive business and provides further opportunities for expansion and growth. Goodwill associated with the acquisition has been allocated to the Interconnect, Sensing and Control Devices reporting unit.

We have used the acquisition method of accounting to record the transaction in accordance with FASB Accounting Standards Codification Topic 805, "Business Combinations." In accordance with the acquisition method, the purchase price is allocated to the assets acquired and liabilities assumed based on their estimated fair values with the excess being allocated to goodwill. Factors that contributed to the recognition of goodwill include expected synergies and the trained workforce. The goodwill is not deductible for tax purposes.

As of March 31, 2019, the allocation of the purchase price was prepared based on estimates of fair values, as shown in the table below. The results of operations for S&C since the acquisition date are included in the accompanying consolidated statement of operations.

Assets Acquired and Liabilities Assumed	**Allocation of Purchase Price**
Accounts receivable	$ 61,483
Inventory	42,443
Accounts payable and accrued liabilities	(67,930)
Other current assets and liabilities, net	8,566
Working capital	44,562
Property and equipment	85,794
Intangible assets	18,168
Other non-current assets and liabilities, net	(13,806)
Total identified assets and liabilities	134,718
Purchase price	162,038
Goodwill	$ 27,320

We recorded approximately $18,168 of identifiable intangible assets and $27,320 of Goodwill as indicated above. The acquired intangible assets relate to the S&C trade name, existing technology and customer relationships which are being amortized over one, eleven, and six years respectively.

The unaudited pro forma combined financial information is provided for the twelve month periods ended 2018 as though S&C had been acquired as of April 1, 2017. These unaudited pro forma combined results have been prepared by adjusting our historical results to include the historical results of S&C based on information available. Unaudited pro forma net sales for the twelve month periods ended March 31, 2018 would be $1,736,425. We recognized revenue of $354,669 from S&C in fiscal 2019.

On January 31, 2018, AVX acquired Ethertronics, Inc. for $127,677 net of cash and debt acquired. The Ethertronics business is now named "AVX Antenna" and is consolidated with our Electronic Components segment. The purchase of AVX Antenna expands AVX's extensive electronic product offering into the antenna technology market and provides new and exciting growth opportunities for AVX going forward.

The Company has used the acquisition method of accounting to record the transaction in accordance with FASB Accounting Standards Codification Topic 805, "Business Combinations." In accordance with the acquisition method, the purchase price is allocated to the assets acquired and liabilities assumed based on their estimated fair values with the excess being allocated to goodwill. Factors that contributed to the recognition of goodwill include expected synergies and the trained workforce. The goodwill is not deductible for tax purposes.

As of March 31, 2019, the allocation of the purchase price was prepared based on estimates of fair values, as shown in the table below. The results of operations for AVX Antenna since the acquisition date are included in the accompanying consolidated statement of operations.

Assets Acquired and Liabilities Assumed	**Allocation of Purchase Price**
Accounts receivable	$ 14,419
Accounts payable	(10,140)
Other current assets and liabilities, net	3,508
Working capital	7,787
Debt	(21,105)
Property and equipment	14,072
Intangible assets	64,800
Other non-current assets and liabilities, net	(6,477)
Total identified assets and liabilities	59,077
Purchase price	127,677
Goodwill	$ 68,600

We recorded approximately $64,800 of identifiable intangible assets and $68,600 of Goodwill as indicated above. The acquired intangible assets relate to the acquired trade name, existing technology and customer relationships which are being amortized over ten, ten, and thirteen years, respectively. We recognized revenue of $113,264 from AVX Antenna in fiscal 2019.

On April 30, 2018, AVX, through its subsidiary AVX Interconnect Europe GmbH, acquired KUMATEC Sondermaschinenbau & Kunststoffverarbeitung GmbH ("Kumatec") for consideration of approximately $12,882, net of cash acquired and debt assumed. Now named Kumatec and consolidated within our Interconnect, Sensing and Control segment, the purchase of Kumatec provides AVX with additional manufacturing capabilities and new business opportunities. We recorded approximately $3,575 of identifiable intangible assets and $8,998 of goodwill. The acquired intangible assets relate to the Kumatec trade name, existing technology and customer relationships which are being amortized over six years. We recognized revenue of $5,670 from Kumatec in the fiscal year ended March 31, 2019.

12. Employee Retirement Plans:

Pension Plans:

We sponsor various defined benefit pension plans covering certain employees. Pension benefits provided to certain U.S. employees covered under collective bargaining agreements are based on a flat benefit formula. Effective December 31, 1995, we froze benefit accruals under our domestic non-contributory defined benefit pension plan for a significant portion of the employees covered under collective bargaining agreements. Effective December 1, 2018, the plan was amended to freeze benefit accruals for the remainder of employees covered under collective bargaining agreements. Our pension plans for certain international employees provide for benefits based on a percentage of final pay. Our funding policy is to contribute amounts sufficient to meet minimum funding requirements as set forth in employee benefit and tax laws.

We recognize the overfunded or underfunded status of our defined benefit post-retirement plans as an asset or liability in our statement of financial position and recognize changes in that funded status in the year in which the changes occur through comprehensive income. The adjustment to our pension liability due to the change in the funded status of our plans resulted in an increase in recorded net pension assets by $21,016 during the fiscal year ended March 31, 2018, and an increase in recorded net pension assets by $9,402 during the fiscal year ended March 31, 2019.

The change in the benefit obligation and plan assets of the U.S. and international defined benefit plans for 2018 and 2019 were as follows:

	Fiscal Year Ended March 31,			
	U.S. Plans		International Plans	
	2018	2019	2018	2019
Change in benefit obligation:				
Benefit obligation at beginning of year	$ 38,625	$ 36,234	$ 169,921	$ 178,498
Service cost	131	-	959	823
Interest cost	1,408	1,309	4,383	4,076
Actuarial loss (gain)	(633)	621	(11,077)	500
Benefits paid	(3,297)	(2,207)	(8,420)	(7,169)
Foreign currency exchange rate changes	-	-	22,732	(12,149)
Benefit obligation at end of year	$ 36,234	$ 35,957	$ 178,498	$ 164,579
Change in plan assets:				
Fair value of plan assets at beginning of year	$ 36,689	$ 36,007	$ 161,726	$ 191,662
Actual return (loss) on assets	2,355	453	8,121	7,502
Employer contributions	261	2,289	7,761	7,222
Benefits paid	(3,298)	(2,207)	(7,702)	(7,137)
Foreign currency exchange rate changes	-	-	21,756	(12,916)
Fair value of plan assets at end of year	36,007	36,542	191,662	186,333
Funded status	$ (227)	$ 585	$ 13,164	$ 21,754

The combined accumulated benefit obligation at March 31, 2018 and 2019 was $214,732 and $200,536 respectively.

Our assumptions used in determining the pension assets and liabilities were as follows:

	As of March 31,	
	2018	2019
Assumptions:		
Discount rates	0.3-3.8%	0.2-3.5%

The following table shows changes in accumulated comprehensive income, excluding the effect of income taxes, related to amounts recognized in other comprehensive income during fiscal 2018 and 2019 and amounts reclassified to the statement of operations as a component of net periodic pension cost during fiscal 2018 and 2019.

	Fiscal Year Ended March 31,			
	U.S. Plans		International Plans	
	2018	2019	2018	2019
Beginning balance	$ 12,323	$ 9,993	$ 46,201	$ 36,881
Net loss (gain) incurred during the year	(1,187)	1,740	(13,766)	(1,211)
Amortization of net actuarial gain (loss)	(1,143)	(884)	(1,974)	(901)
Foreign currency exchange rate changes	-	-	6,420	(2,638)
	$ 9,993	$ 10,849	$ 36,881	$ 32,131

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Amounts that have not yet been recognized as components of net periodic pension cost as a component of accumulated comprehensive income (loss) at March 31, 2018 and 2019 are as follows:

	Fiscal Year Ended March 31,			
	U.S. Plans		International Plans	
	2018 (1)	2019 (2)	2018 (1)	2019 (2)
Unrecognized net actuarial loss	$ 7,792	$ 8,483	$ 29,487	$ 25,625

(1) Amounts in the above table as of March 31, 2018 are net of $2,201 and $7,394 tax benefit for the U.S. and International Plans, respectively.

(2) Amounts in the above table as of March 31, 2019 are net of $2,366 and $6,506 tax benefit for the U.S. and International Plans, respectively.

The March 31, 2019 balance of unrecognized net actuarial losses expected to be amortized in fiscal 2019 is $1,103 for the U.S. Plans and $2,057 for the International Plans, respectively.

Net pension cost related to these pension plans includes the following components:

	Fiscal Year Ended March 31,		
	2017	2018	2019
Service cost	$ 1,102	$ 1,038	$ 820
Interest cost	5,997	5,516	5,371
Expected return on plan assets	(7,579)	(7,231)	(7,363)
Recognized actuarial loss	3,142	3,130	1,897
Net periodic pension cost	$ 2,662	$ 2,453	$ 725

Our assumptions used in determining the net periodic pension expense were as follows:

	As of March 31,		
	2017	2018	2019
Assumptions:			
Discount rates	0.1-3.6%	0.3-3.8%	0.2-3.5%
Increase in compensation	3.4%	0.0%	0.0%
Expected long-term rate of return on plan assets	1.4-4.2%	1.4-3.3%	1.4-5.3%

The pension expense is calculated based upon a number of actuarial assumptions established annually for each plan year, detailed in the table above, including discount rate, rate of increase in future compensation levels, and expected long-term rate of return on plan assets. To determine the discount rate, we apply the expected cash flows from each individual pension plan to specific yield curves at the plan's measurement date and determine a level equivalent yield that may be unique to each plan. On that basis, the range of discount rates remained constant from March 31, 2018 to March 31, 2019.

The fair value of pension assets at March 31, 2018 and 2019 was determined using:

	Fair Value at March 31, 2018	Quoted prices in active markets (Level 1)	Based on Other observable inputs (Level 2)	Unobservable inputs (Level 3)
Assets measured at fair value on a recurring basis:				
U.S. Defined Benefit Plan Assets:				
Cash	$ 170	$ 170	$ -	$ -
Pooled Separate Accounts	28,071	-	28,071	-
Guaranteed Interest Account	7,766	-	7,766	-
International Defined Benefit Plan Assets:				
Cash	480	480	-	-
Depository Account	8,664	8,664	-	-
Pooled Separate Accounts	182,518	-	182,518	-
Total	$ 227,669	$ 9,314	$ 218,355	$ -

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	Fair Value at March 31, 2019	Quoted prices in active markets (Level 1)	Based on Other observable inputs (Level 2)	Unobservable inputs (Level 3)
Assets measured at fair value on a recurring basis:				
U.S. Defined Benefit Plan Assets:				
Cash	$ 180	$ 180	$ -	$ -
Pooled Separate Accounts	28,408	-	28,408	-
Guaranteed Interest Account	7,954	-	7,954	-
International Defined Benefit Plan Assets:				
Cash	891	891	-	-
Depository Account	8,659	8,659		-
Pooled Separate Accounts	176,783	-	176,783	-
Total	$ 222,875	$ 9,730	$ 213,145	$ -

Assets valued using Level 1 inputs in the table above are cash and an interest-bearing depository account.

Assets valued using Level 2 inputs in the table above are investments held in pooled separate accounts and a guaranteed deposit account. See discussion in the "Valuation of Investments" section below.

Valuation of Investments

Our investments are held in a Depository Account, Pooled Separate Accounts, and a Guaranteed Deposit Account. Assets held in the Depository Account are cash and cash equivalents. Investments held in the Pooled Separate Accounts are based on the fair value of the underlying securities within the fund, which represent the net asset value, a practical expedient to fair value, of the units held by the pension plan at year-end. Those assets held in the Guaranteed Deposit Account are valued at the contract value of the account, which approximates fair value. The contract value represents contributions plus accumulated interest at the contract rate, less benefits paid to participants, contract administration fees, and other direct expenses.

The expected long-term rate of return on plan assets assumption is based upon actual historical returns and future expectations for returns for each asset class. These expected results were adjusted for payment of reasonable expenses from plan assets. Our long-term strategy is for target allocation of 50% equity and 50% fixed income for our U.S. defined benefit plans and 45% equity and 55% fixed income for our international defined benefit plans.

Our pension plans' weighted average asset allocations at March 31, 2018 and 2019, by asset category are as follows:

	As of March 31, 2018		As of March 31, 2019	
Asset Category	**U.S. Plans**	**International Plans**	**U.S. Plans**	**International Plans**
Equity securities	57%	33%	58%	31%
Debt securities	22%	62%	20%	64%
Other	21%	5%	22%	5%
Total	100%	100%	100%	100%

We make contributions to our defined benefit plans as required under various pension funding regulations. We expect to make contributions of approximately $1,420 to the international plans in fiscal 2020 based on current actuarial computations.

Estimated future benefit payments are as follows:

Fiscal Year ended March 31,	U.S. Plans	International Plans
2020	$ 2,295	$ 7,055
2021	2,333	7,197
2022	2,353	7,337
2023	2,371	7,478
2024	2,388	7,624
2025-2029	11,880	40,364

Savings Plans:

We sponsor retirement savings plans, which allow eligible employees to defer part of their annual compensation. Certain contributions by us are discretionary and are determined by our Board of Directors each year. Our contributions to the savings plans in the United States for the fiscal years ended March 31, 2017, 2018 and 2019 were approximately $4,367, $4,421, and $4,913, respectively.

We also sponsor a nonqualified deferred compensation program, which permits certain employees to annually elect to defer a portion of their compensation until retirement. A portion of the deferral is subject to a matching contribution by us. The employees select among various investment alternatives, which are the same as are available under the retirement savings plans, with the investments held in a separate trust. The value of the participants' balances fluctuate based on the performance of the investments. The market value of the trust at March 31, 2018 and 2019 of $6,649 and $4,693, respectively, is included as an asset and a liability in our accompanying balance sheet because the trust's assets are both assets of the Company and a liability as they are available to general creditors in certain circumstances.

13. Stock-Based Compensation:

Under the 2014 RSU Plan, we may grant restricted stock units of up to an aggregate of 3,000 units. Each unit converts to one share of the Company's stock at the time of vesting. The fair value of RSU awards is determined at the closing market price of the Company's common stock at the date of grant. For the years ended March 31, 2018 and 2019, there were 292 and 315 awards, respectively, granted from this plan. Restricted stock activity during the year ended 2019 is as follows:

	March 31, 2019	
	Number of Shares	Weighted-Average Grant Date Fair Value per Share
Non-vested at March 31, 2018	358	$ 16.27
Granted	315	15.28
Vested	(172)	16.27
Cancelled and forfeited	(68)	16.27
Non-vested at March 31, 2019	433	$ 15.55

Performance-based awards vest one year after the grant date. Service-based awards vest as to one-third annually with the requisite service periods beginning on the grant date. Awards are amortized over their respective grade-vesting periods. The total unrecognized compensation costs related to unvested stock awards expected to be recognized over the vesting period, approximately three years, was $1,476 at March 31, 2019.

We have four fixed stock option plans. Under the 2004 Stock Option Plan, as amended, we may grant options to employees for the purchase of up to an aggregate of 10,000 shares of common stock. Under the 2004 Non-Employee Directors' Stock Option Plan, as amended, we may grant options for the purchase of up to an aggregate of 1,000 shares of common stock. No awards were made under these two plans after August 1, 2013. Under the 2014 Stock Option Plan, we can grant options to employees for the purchase of up to an aggregate of 10,000 shares of common stock. Under the 2014 Non-Employee Directors' Stock Option Plan, as amended, we can grant options to our directors for the purchase of up to an aggregate of 1,000 shares of common stock. Under all plans, the exercise price of each option shall not be less than the market price of our stock on the date of grant and an option's maximum term is 10 years. Options granted under the 2004 Stock Option Plan and the 2014 Stock Option Plan vest as to 25% annually and options granted under the 2004 Non-Employee Directors' Stock Option Plan and the 2014 Non-Employee Director's Stock Option Plan vest as to one-third annually. Requisite service periods related to all plans begin on the grant date. As of March 31, 2019, there were 12,447 shares of common stock available for future issuance under all of the plans, consisting of options available to be granted and options currently outstanding.

Activity under our stock option plans is summarized as follows:

	Number of Shares	Average Price (a)	Average Life (years) (b)	Aggregate Intrinsic Value
Outstanding at March 31, 2018	1,894	$ 12.90	-	-
Options granted	-	-	-	-
Options exercised	(326)	13.11	-	$ 1,944
Options cancelled/forfeited	(122)	13.22	-	295
Outstanding at March 31, 2019	1,446	$ 12.82	3.29	$ 6,528
Exercisable at March 31, 2019	1,347	$ 12.70	3.08	$ 6,253

(a) Weighted-average exercise price
(b) Weighted-average contractual life remaining

The total aggregate intrinsic value of options exercised is $2,149, $1,724, and $1,944 for fiscal years ended March 31, 2017, 2018, and 2019, respectively.

Unvested share activity under our stock option plans for the year ended March 31, 2019 is summarized as follows:

	Number of Shares	Weighted Average Grant-Date Fair Value
Unvested balance at March 31, 2018	293	$ 2.57
Options granted	-	-
Options cancelled/forfeited	(6)	2.51
Options vested	(188)	2.60
Unvested balance at March 31, 2019	99	$ 2.51

The total unrecognized compensation costs related to unvested option awards expected to be recognized over the vesting period, approximately four years, was $59 and $2 as of March 31, 2018 and 2019, respectively. The total aggregate fair value of options vested is $994, $747, and $489 for fiscal years ended March 31, 2017, 2018, and 2019, respectively.

The weighted average estimated fair value of our stock options granted at grant date market prices was $2.52, $2.57, and $2.51 per option during fiscal years ended March 31, 2017, 2018, and 2019, respectively. The consolidated statement of operations includes $3,420, net of $964 of tax benefit, in stock-based compensation expense for fiscal 2019.

Our weighted average fair value is estimated at the date of grant using a Black-Scholes-Merton option-pricing model. We estimated volatility by considering our historical stock volatility. We calculated the dividend yield based on historical dividends paid. We have estimated forfeitures in determining the weighted average fair value calculation. The forfeiture rate used for the fiscal year ended March 31, 2019 was 0%. No stock options were granted during fiscal 2019.

14. Commitments and Contingencies:

We are a lessee under long-term operating leases primarily for office space, warehouse, plant and equipment. Future minimum lease commitments under non-cancelable operating leases as of March 31, 2019, were as follows:

Fiscal Year ended March 31, 2019	
2020	$ 6,642
2021	4,742
2022	3,218
2023	2,372
2024	445
Thereafter	1,856

Rental expense for operating leases was $5,919, $7,374, and $9,847 for the fiscal years ended March 31, 2017, 2018, and 2019, respectively.

Occasionally we enter into delivery contracts with selected suppliers for certain metals used in our production processes. The delivery contracts represent routine purchase orders for delivery within three months and payment is due upon receipt. As of March 31, 2019, we had no significant outstanding purchase commitments.

We have been identified by the United States Environmental Protection Agency (“EPA”), state governmental agencies or other private parties as a potentially responsible party (“PRP”) under the Comprehensive Environmental Response, Compensation and Liability Act (“CERCLA”), or equivalent state or local laws, for clean-up and response costs associated with certain sites at which remediation is required with respect to prior contamination. Because CERCLA or such state statutes authorize joint and several liability, the EPA or state regulatory authorities could seek to recover all clean-up costs from any one of the PRPs at a site despite the involvement of other PRPs. At certain sites, financially responsible PRPs other than AVX also are, or have been, involved in site investigation and clean-up activities. We believe that liability resulting from these sites will be apportioned between AVX and other PRPs.

To resolve our liability at the sites at which we have been named a PRP, we have entered into various administrative orders and consent decrees with federal and state regulatory agencies governing the timing and nature of investigation and remediation. As is customary, the orders and decrees regarding sites where the PRPs are not themselves implementing the chosen remedy contain provisions allowing the EPA to reopen the agreement and seek additional amounts from settling PRPs in the event that certain contingencies occur, such as the discovery of significant new information about site conditions.

On June 3, 2010, AVX entered into an agreement with the EPA and the City of New Bedford, pursuant to which AVX is required to perform environmental remediation at a site referred to as the “Aerovox Site” (the “Site”), located in New Bedford, Massachusetts. AVX has substantially completed its obligations pursuant to such agreement with the EPA and the City of New Bedford with respect to the satisfaction of AVX’s federal law requirements. The Massachusetts Department of Environmental Protection has jurisdiction over the balance of the environmental remediation at the Site. AVX has submitted its proposed remedy, but until the state has approved such proposal, AVX cannot determine if additional groundwater and soil remediation will be required, if substantial material will have to be disposed of offsite, or if additional remediation techniques will be required, any of which could result in a more extensive and costly plan of remediation. Further, the Site and the remediation may be subject to additional scrutiny under other statutory procedures which could also add to the cost of remediation. During the year ended March 31, 2019 we increased our estimated accrual for work to be done at the Site by $8,312 pursuant to discussions with the Massachusetts Department of Environmental Protection and our environmental engineers. We have a remaining accrual of $22,203 at March 31, 2019, representing our current estimate of the potential liability related to the remaining performance of environmental remediation actions at the Site and neighboring properties using certain assumptions regarding the plan of remediation. Until all parties agree and remediation is complete, we cannot be certain there will be no additional cost relating to the Site.

We had total reserves of approximately $18,618 and $26,371 at March 31, 2018 and March 31, 2019, respectively, related to various environmental matters and sites, including those discussed above. These reserves are classified in the Consolidated Balance Sheets as $3,329 and $5,749 in accrued expenses at March 31, 2018 and March 31, 2019, respectively, and $15,289 and $20,622 in other non-current liabilities at March 31, 2018 and March 31, 2019, respectively. The amounts recorded for identified environmental liabilities are based on estimates. Periodically, we review amounts recorded and adjust them to reflect additional legal and technical information that becomes available. Uncertainties about the status of laws, regulations, regulatory actions, technology, and information related to individual sites make it difficult to develop an estimate of the reasonably possible aggregate environmental remediation exposure. Accordingly, these costs could differ from our current estimates.

On April 19, 2016, the Canadian Ministry of the Environment and Climate Change (the "MoE") issued a Director's Order naming AVX Corporation, and others, as responsible parties with respect to a location in Hamilton, Ontario that was at one time the site of operations of Aerovox Canada, a former subsidiary of Aerovox Corporation, a predecessor of AVX. AVX has taken the position that any liability of Aerovox Canada for such site under the laws of Canada cannot be imposed on AVX. At present, it is unclear whether the MoE will seek to enforce such Canadian order against AVX, and whether, in the event it does so, AVX will have any liability under applicable law. AVX intends to contest any such course of action that may be taken by the MoE.

In connection with the same location, Union Gas Limited and Coca-Cola Refreshments Canada Company filed suits in the Superior Court of Justice for Ontario, Canada, against AVX Corporation, Aerovox Corp. and Cooper Industries, LLC seeking to recover the costs of remediation of the site and for damages associated with alleged contamination of the site. Those suits were filed on April 18, 2018, but not served on AVX until October 11, 2018, and are in their initial stages. AVX is considering its legal options but intends to vigorously defend these matters.

We also operate, or did at one time, on other sites that may have potential future environmental issues as a result of activities at sites during AVX's long history of manufacturing operations or prior to the start of operations by AVX. Even though we may have rights of indemnity for such environmental matters at certain sites, regulatory agencies in those jurisdictions may require us to address such issues. Once it becomes probable that we will incur costs in connection with remediation of a site and such costs can be reasonably estimated, we establish reserves or adjust our reserves for our projected share of these costs. A separate account receivable is recorded for any indemnified costs. Our environmental reserves are not discounted and do not reflect any possible future insurance recoveries, which are not expected to be significant, but do reflect a reasonable estimate of cost sharing at multiple party sites or indemnification of our liability by a third party.

We are not involved in any pending or threatened environmental proceedings that would require curtailment of our operations. We continually expend funds to ensure that our facilities comply with applicable environmental regulations. While we believe that we are in compliance with applicable environmental laws, we cannot accurately predict future developments and do not necessarily have knowledge of all past occurrences on sites that we currently occupy. New environmental regulations may be enacted and we cannot determine the modifications, if any, in our operations that any such future regulations might require, or the cost of compliance with such regulations. Moreover, the risk of environmental liability and remediation costs is inherent in the nature of our business and, therefore, there can be no assurance that material environmental costs, including remediation costs, will not arise in the future.

On April 25, 2013, AVX was named as a defendant in a patent infringement case filed in the United States District Court for the District of Delaware captioned *Greatbatch, Inc. v. AVX Corporation*. This case alleged that certain AVX products infringe on one or more of six Greatbatch patents. On January 26, 2016, the jury returned a verdict in favor of the plaintiff in the first phase of a segmented trial and a mixed verdict in the second phase of a segmented trial, and found damages to Greatbatch in the amount of $37,500, which was recorded in fiscal 2016. That verdict was later vacated by the court on March 30, 2018. Profit from operations for the year ended March 31, 2018 reflects a favorable accrual adjustment of $1,500 related to this patent infringement case. In a new trial, the amount of damages (excluding interest) was determined by a jury to be $22,100 on January 15, 2019 resulting in a favorable accrual adjustment of $13,900 for the year ended in March 31, 2019. During the year ended March 31, 2019 the company made a payment of $22,100 to an escrow account which is classified within "Other assets". However, the matter is still subject to various post-trial proceedings and possible appeal which could result in a material impact to the accrual for this case in the future.

On September 2, 2014, a subsidiary of AVX, American Technical Ceramics ("ATC"), was named as a defendant in a patent infringement case filed in the United States District Court of the Southern District of California captioned *Presidio Components, Inc. v. American Technical Ceramics Corp.* This case alleged that certain ATC products infringe on a Presidio patent. On April 18, 2016, the jury returned a verdict in favor of the plaintiff and found damages to Presidio. On August 17, 2016, the court issued a permanent injunction prohibiting ATC from manufacturing or selling the related products after November 16, 2016. Subsequently, on October 21, 2016, the Federal Circuit Court granted AVX's request for a stay of the permanent injunction whereby ATC was allowed to continue to sell the disputed product until March 17, 2017 to anyone who was a customer prior to June 17, 2016. Any sales subsequent to November 16, 2016 pursuant to the stay of the permanent injunction were subject to court mandated intellectual property damages for each product sold. In December 2017, a panel of the Federal Circuit vacated the damage award to Presidio, vacated the injunction, and remanded the case for further proceedings to determine damages limited to "reasonable royalties" and to reconsider the requested injunction in light of its opinion and any additional facts. In June 2018, the District Court set the amount of royalties and re-issued the injunction. An appeal has been filed from both decisions.

As of March 31, 2019, we had total reserves of $59,752 plus accrued interest in accrued expenses with respect to the two intellectual property cases discussed above. The amounts recorded are based on estimated outcomes. Amounts recorded are reviewed periodically and adjusted to reflect additional information that becomes available. Accordingly, these costs could differ from our current estimates.

During calendar year 2014, AVX was named as a co-defendant in a series of cases filed in the United States and in the Canadian provinces of Quebec, Ontario, British Columbia, Saskatchewan and Manitoba alleging violations of United States, state and Canadian antitrust laws asserting that AVX and numerous other companies were participants in alleged price-fixing in the capacitor market. The cases in the United States were consolidated into the Northern District of California on October 2, 2014. Some plaintiffs have broken off from the United States class action and filed actions on their own, although AVX is not named in all of these independent actions. The cases in Canada have not been consolidated. These cases are still in progress. AVX believes it has meritorious defenses and intends to vigorously defend the cases.

We are involved in other disputes, warranty, and legal proceedings arising in the normal course of business. While we cannot predict the outcome of these other disputes and proceedings, we believe, based upon a review with legal counsel, that none of these other disputes or proceedings will have a material impact on our financial position, results of operations, comprehensive income (loss), or cash flows. However, we cannot be certain of the eventual outcome in these or other matters that may arise and their potential impact on our financial position, results of operations, comprehensive income (loss), or cash flows.

15. Derivative Financial Instruments:

We are exposed to foreign currency exchange rate fluctuations in the normal course of business. We use derivative instruments (forward contracts) to hedge certain foreign currency exposures as part of our risk management strategy. The objective is to offset gains and losses resulting from these exposures with gains and losses on the forward contracts used to hedge them, thereby reducing volatility of earnings or protecting fair values of assets and liabilities. We do not enter into any trading or speculative positions with regard to derivative instruments.

We primarily use forward contracts, with maturities less than four months, to protect against the foreign currency exchange rate risks inherent in our forecasted transactions related to purchase commitments and sales, denominated in various currencies. These derivative instruments are designated and qualify as cash flow hedges.

The effectiveness of the cash flow hedges is determined by comparing the cumulative change in the fair value of the hedge contract with the cumulative change in the fair value of the hedged transaction, both of which are based on forward rates. The effective portion of the gain or loss on these cash flow hedges is initially recorded in accumulated other comprehensive income (loss) as a separate component of stockholders' equity. Once the hedged transaction is recognized, the gain or loss is recognized in our statement of operations. At March 31, 2018 and 2019, respectively, we had the following forward contracts that were entered into to hedge against the volatility of foreign currency exchange rates for certain forecasted sales and purchases.

March 31, 2018	**Fair Value of Derivative Instruments**			
	Asset Derivatives		**Liability Derivatives**	
	Balance Sheet Caption	**Fair Value**	**Balance Sheet Caption**	**Fair Value**
Foreign exchange contracts	Prepaid and other	$ 212	Accrued expenses	$ 377

March 31, 2019	**Fair Value of Derivative Instruments**			
	Asset Derivatives		**Liability Derivatives**	
	Balance Sheet Caption	**Fair Value**	**Balance Sheet Caption**	**Fair Value**
Foreign exchange contracts	Prepaid and other	$ 570	Accrued expenses	$ 318

For these derivatives designated as cash flow hedging instruments, during fiscal 2017, 2018, and 2019, net pre-tax gains (losses) of $1,095, $(5), and $(199), respectively, were recognized in other comprehensive income (loss). In addition, during fiscal 2017, 2018, and 2019, net pretax gains (losses) of $3,355, $1,807, and $(3,993), respectively, were reclassified from accumulated other comprehensive income (loss) into cost of sales (for hedging purchases), and net pre-tax gains of $1,710, $(2,264) and $1,782, respectively, were reclassified from accumulated other comprehensive income (loss) into sales (for hedging sales) in the accompanying statement of operations.

Derivatives not designated as cash flow hedging instruments consist primarily of forwards used to hedge foreign currency balance sheet exposures. These hedging instruments are used to offset foreign currency changes in the fair values of the underlying assets and liabilities. The gains and losses on these foreign currency forward contracts are recognized in other income and expense in the same period as the remeasurement gains and losses of the related foreign currency denominated assets and liabilities and thus naturally offset these gains and losses. At March 31, 2018 and 2019, we had the following forward contracts that were entered into to hedge against these exposures.

March 31, 2018	**Fair Value of Derivative Instruments**			
	Asset Derivatives		**Liability Derivatives**	
	Balance Sheet Caption	**Fair Value**	**Balance Sheet Caption**	**Fair Value**
Foreign exchange contracts	Prepaid and other	$ 45	Accrued expenses	$ 137

March 31, 2019	**Fair Value of Derivative Instruments**			
	Asset Derivatives		**Liability Derivatives**	
	Balance Sheet Caption	**Fair Value**	**Balance Sheet Caption**	**Fair Value**
Foreign exchange contracts	Prepaid and other	$ 283	Accrued expenses	$ 270

For these derivatives not designated as cash flow hedging instruments during fiscal 2017, 2018, and 2019, gains/(losses) of $460, $(791), and $305, respectively, were recognized in other expense, which partially offset the $(2,059), $(2,289) and $2,588 in exchange gains/(losses), respectively, that were recognized in other income in the accompanying statement of operations.

At March 31, 2018 and 2019, we had outstanding foreign exchange contracts with notional amounts totaling $156,238 and $216,555, respectively, denominated primarily in Euros, Czech Korunas, British Pounds, and Japanese Yen.

16. Transactions With Affiliate:

Our business includes certain transactions with our majority shareholder, Kyocera, that are governed by agreements between the parties that define the sales terms, including pricing for the products. The nature and amounts of transactions with Kyocera are included in the table below.

	Fiscal Year Ended March 31,		
	2017	2018	2019
Sales:			
Product and equipment sales to affiliates	$ 30,303	$ 26,069	$ 10,436
Purchases:			
Purchases of resale inventories, raw materials, supplies, equipment, and services	303,793	256,660	9,399
Other:			
Dividends paid	52,983	54,810	56,028

Kyocera notified AVX pursuant to the Products Supply and Distribution Agreement in December 2016 of its intent, effective January 1, 2018, to market its manufactured electronic and interconnect products globally using Kyocera's sales force rather than continuing to have AVX resell such products in the Americas, Europe and Asia. During fiscal 2017, 2018 and 2019 sales of Kyocera resale products by AVX were $318,928, $296,316 and $18,951, respectively, and related operating profit was $17,076, $18,177 and $3,300, respectively.

17. Segment and Geographic Information:

Our operating segments are based on the types of products from which we generate revenues. We are organized by product lines with four main product groups and two reportable segments: Electronic Components and Interconnect Sensing and Control Devices. The product groups of Ceramic, Advanced, and Tantalum have been aggregated into the Electronic Components reportable segment in accordance with the aggregation criteria and quantitative thresholds. The aggregation criteria consist of similar economic characteristics, products and services, production processes, customer classes, and distribution channels. The Electronic Components segment consists primarily of surface mount and leaded ceramic capacitors, RF thick and thin film components, surface mount and leaded tantalum capacitors, surface mount and leaded film capacitors, ceramic and film power capacitors, super capacitors, EMI filters (bolt in and surface mount), thick and thin film packages of multiple electronic integrated components, varistors, thermistors, inductors, and resistive products manufactured by us or purchased from other manufacturers for resale. The Interconnect, Sensing and Control Devices segment consists primarily of automotive sensing and control devices and automotive, telecom, and memory connectors manufactured by or for AVX. Historically, KED Resale reported as its own product group, but it has now been combined with Advanced Components. Sales and operating results from these reportable segments are shown in the tables below. In addition, we have a corporate administration group consisting of finance, legal, environmental, health & safety ("EH&S"), and administrative activities.

We evaluate performance of our segments based upon sales and operating profit. There are no intersegment revenues. We allocate the costs of shared resources between segments based on each segment's usage of the shared resources. Cash, accounts receivable, investments in securities, and certain other assets, which are centrally managed, are not readily allocable to operating segments.

The tables below present information about reported segments:

	Fiscal Year Ended March 31,		
Sales revenue (in thousands)	2017	2018	2019
Ceramic Components	$ 188,568	$ 226,204	$ 421,849
Tantalum Components	314,723	366,194	382,905
Advanced Components	691,207	642,775	485,208
Total Electronic Components	1,194,498	1,235,173	1,289,962
Interconnect, Sensing and Control Devices	118,163	327,301	501,828
Total Revenue	$ 1,312,661	$ 1,562,474	$ 1,791,790

	Fiscal Year Ended March 31,		
	2017	2018	2019
Operating profit (loss):			
Electronic Components	$ 207,083	$ 222,801	$ 399,280
Interconnect, Sensing and Control Devices	16,437	17,802	2,680
Corporate activities	(59,963)	(60,769)	(82,292)
Total	$ 163,557	$ 179,834	$ 319,668

	Fiscal Year Ended March 31,		
	2017	2018	2019
Depreciation and amortization:			
Electronic Components	$ 27,559	$ 32,046	$ 44,854
Interconnect, Sensing and Control Devices	5,093	17,088	28,112
Corporate activities	10,035	10,654	17,065
Total	$ 42,687	$ 59,788	$ 90,031

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	As of March 31,	
	2018	2019
Assets:		
Electronic Components	$ 632,014	$ 659,933
Interconnect, Sensing and Control Devices	241,959	265,682
Cash, A/R, and investments in securities	1,111,716	1,070,701
Goodwill - Electronic Components	278,247	271,374
Goodwill - Interconnect, Sensing and Control Devices	38,051	45,301
Corporate activities	370,779	500,287
Total	$ 2,672,766	$ 2,813,278

	Fiscal Year Ended March 31,		
	2017	2018	2019
Capital expenditures:			
Electronic Components	$ 50,983	$ 61,581	$ 84,329
Interconnect, Sensing and Control Devices	14,054	38,040	42,505
Corporate activities	1,251	916	2,821
Total	$ 66,288	$ 100,537	$ 129,655

During the fiscal years ended March 31, 2019 and March 31, 2018, no customers accounted for more than 10% of our sales. As of March 31, 2019 and 2018, no customer represented more than 10% of our accounts receivable balance.

The following geographic data is based upon net sales generated by operations located within that geographic area and the physical location of long-lived assets. Substantially all of the sales in the Americas region were generated in the United States.

	Fiscal Year Ended March 31,		
	2017	2018	2019
Net sales:			
Americas	$ 381,695	$ 399,963	$ 484,936
Europe	352,064	581,255	743,822
Asia	578,902	581,256	563,032
Total	$ 1,312,661	$ 1,562,474	$ 1,791,790
Property, plant and equipment, net:			
Americas	$ 110,235	$ 134,656	$ 142,736
Europe	77,981	191,727	191,981
Asia	51,735	91,903	121,040
Total	$ 239,951	$ 418,286	$ 455,757

18. Summary of Quarterly Financial Information (Unaudited):

Quarterly financial information for the fiscal years ended March 31, 2018 and 2019 is as follows:

	First Quarter		Second Quarter	
	2018	2019	2018	2019
Net sales	$ 331,354	$ 454,116	$ 352,693	$ 456,328
Gross profit	73,846	108,333	77,273	126,476
Net income	31,484	55,963	34,818	72,069
Basic earnings per share	0.19	0.33	0.21	0.43
Diluted earnings per share	0.19	0.33	0.21	0.43

`	Third Quarter		Fourth Quarter	
	2018	2019	2018	2019
Net sales	$ 431,795	$ 442,395	$ 446,632	$ 438,951
Gross profit	82,103	126,154	85,640	121,920
Net income (loss)	(93,212)	74,297	31,820	69,484
Basic earnings (loss) per share	(0.55)	0.44	0.19	0.41
Diluted earnings (loss) per share	(0.55)	0.44	0.19	0.41

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Report of Independent Registered Public Accounting Firm

To the Board of Directors and Stockholders of AVX Corporation

Opinions on the Financial Statements and Internal Control over Financial Reporting

We have audited the accompanying consolidated balance sheets of AVX Corporation and its subsidiaries (the "Company") as of March 31, 2019 and 2018, and the related consolidated statements of operations, comprehensive income (loss), stockholders' equity and cash flows for each of the three years in the period ended March 31, 2019, including the related notes (collectively referred to as the "consolidated financial statements"). We also have audited the Company's internal control over financial reporting as of March 31, 2019, based on criteria established in Internal Control - Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of March 31, 2019 and 2018, and the results of its operations and its cash flows for each of the three years in the period ended March 31, 2019 in conformity with accounting principles generally accepted in the United States of America. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of March 31, 2019, based on criteria established in Internal Control - Integrated Framework (2013) issued by the COSO.

Basis for Opinions

The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in Management's Report on Internal Control over Financial Reporting appearing under Item 9A. Our responsibility is to express opinions on the Company's consolidated financial statements and on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control over Financial Reporting

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

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

/s/ PricewaterhouseCoopers LLP

Atlanta, Georgia
May 17, 2019

We have served as the Company's auditor since 1972.